



DEPARTMENT OF CITY PLANNING RECOMMENDATION REPORT

Central Area Planning Commission

Date: October 26, 2021
Time: After 4:30 p.m.*
Place: Due to concerns over COVID-19, the Central APC meeting will be conducted entirely telephonically by Zoom [<https://zoom.us/>].

The meeting's telephone number and access code access number will be provided no later than 72 hours before the meeting on the meeting agenda published at <https://planning.lacity.org/about/commissions-boards-hearings> and/or by contacting cpc@lacity.org.

Case No.: APCC-2020-1764-SPE-SPP
SPR
CEQA No.: ENV-2015-310-MND-
REC1
Council No.: 13 – O'Farrell
Plan Area: Hollywood
Specific Plan: Vermont/Western Station
Neighborhood Area Plan
(SNAP) Specific Plan –
Subarea C (Community
Center)
Certified NC: East Hollywood
GPLU: Neighborhood Office
Commercial
Zone: C4-1D, [T][Q]C2-1, R4-1D
Applicant: CHA Health Systems, Inc.
Representative: Francis Park, Park and
Velayos LLP

Public Hearing: September 24, 2021
Appeal Status: Further appealable to City Council
Expiration Date: *In conformity with the Mayor's
Tolling of Deadlines Prescribe in
the Municipal Code on March 21,
2020, the expiration date is tolled
until the end of the Emergency
Order*
Multiple Approvals: Yes

PROJECT LOCATION: 1318 North Lyman Place, 4470-4494 West De Longpre Avenue, and 1321-1323 North Virgil Avenue

PROPOSED PROJECT: The addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the Hollywood Presbyterian Medical Center (HPMC). The existing parking structure contains 562 parking spaces with a height of 43 feet, including five-stories above-grade and two (2) subterranean levels for a total height of 96 feet and 4 inches. The additional medical office space would serve the HPMC.

REQUESTED ACTION:

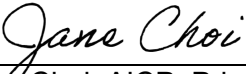
1. Based on the independent judgment of the decision-maker, after consideration of the whole of the administrative record, the project was assessed in Mitigated Negative Declaration, No. ENV-2015-310-MND adopted on January 11, 2016; and pursuant to CEQA Guidelines 15162 and 15164, as supported by the addendum dated July 27, 2021, no major revisions are required to the Mitigated Declaration; and no subsequent EIR or negative declaration is required for approval of the project.
2. Pursuant to LAMC Section 11.5.7 C, a Project Permit Compliance for the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure within Subarea C of the Vermont/Western SNAP.
3. Pursuant to LAMC Section 11.5.7 F, a Specific Plan Exception for relief from the following Vermont/Western Station Neighborhood Plan ("SNAP") requirements:
 - (a). SNAP Section 9.E.3: Project Parking Requirements - Commercial. To allow zero vehicle parking spaces for the Revised Project, in lieu of the 192 spaces which are required by the Specific Plan;
 - (b). SNAP Section 9.G: Pedestrian Throughways. To allow for the existing Pedestrian Throughway to satisfy the SNAP's requirement in lieu of an additional Pedestrian Throughway; and
4. Pursuant to LAMC Section 16.05, a Site Plan Review for a hospital medical use development project that creates 95,995 square feet of non-residential floor area.

RECOMMENDED ACTIONS:

1. **FIND**, based on the independent judgment of the decision-maker, after consideration of the whole of the administrative record, the project was assessed in Mitigated Negative Declaration, No. ENV-2015-310-MND adopted on January 11, 2016; and pursuant to CEQA Guidelines 15162 and 15164, as supported by the Addendum dated July 27, 2021, no major revisions are required to the Mitigated Declaration; and no subsequent EIR or negative declaration is required for approval of the project.
2. **Approve a Project Permit Compliance** to allow the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the existing parking structure.
3. **Approve a Specific Plan Exception** from Section 9.E.3 of the Vermont/Western SNAP to allow zero additional parking space requirements; and from Section 9.G of the Vermont/Western SNAP to allow for the existing Pedestrian Throughway to satisfy the SNAP's requirement in lieu of an additional Pedestrian Throughway.
4. **Approve a Site Plan Review** for a hospital medical use development project that creates 95,995 square feet of non-residential floor area.

VINCENT P. BERTONI, AICP
Director of Planning

Approved by:




Jane Choi, AICP, Principal City Planner

Reviewed by:




Deborah Kahen, AICP, Senior City Planner

Prepared by:

 For Valentina Knox-Jones

Valentina Knox-Jones, City Planner

Prepared by:



Jason Hernandez, City Planning Associate
jason.hernandez@lacity.org

ADVICE TO PUBLIC: * The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Requirements for submission of materials can be found on the Department of City Planning website at <https://planning.lacity.org/about/virtual-commission-instructions>. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to these programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than 72 working hours prior to the meeting by calling the Commission Secretariat at (213) 978-1295.

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PROJECT ANALYSIS

Project Summary

The applicant proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the Hollywood Presbyterian Medical Center (HPMC). The existing parking structure contains 562 parking spaces with a height of 43 feet, including five-stories above-grade and two (2) subterranean levels. The additional medical office space would serve the HPMC. The new addition would give the structure a new maximum height of 96 feet, 4 inches with a total of eight-stories above-grade and two (2) subterranean levels.

The first and second new floors of the addition would consist of 10 and 11 variably sized medical office/clinic suites along with the previously listed shared spaces. Each suite will have its own access from the central corridor and will provide private waiting and restroom areas. The northern area of the third new floor would be occupied by an executive check-up and diagnostics program combined with consultation and health coaching areas, an imaging center, and GI labs. The southern side of the third level would be occupied by a series of specialty clinics, such as dermatology, alternative medicine, and a physical rehabilitation center. The third level would also include a multipurpose lounge area for outdoor activities connected to a balcony facing southwest.

Background

The subject property consists of 13 contiguous lots. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue. The subject lot has a total lot size of approximately 43,972 square feet. The project site is located within the Hollywood Community Plan and Subarea C of the Vermont/Western SNAP Specific Plan. The site is zoned C4-1D, [T][Q]C2-1, R4-1D, and designated for Neighborhood Office Commercial land uses. The project site is currently improved with an existing parking structure containing 562 parking spaces with a height of 43 feet, including five-stories above-grade and two (2) subterranean levels, which was approved under Case No. DIR-2015-309-SPPA-SPP on January 11, 2016.

Surrounding Properties

The surrounding area is characterized by level sloped topography and improved streets. Properties surrounding the property are located within the SNAP Subarea B (Mixed Use Boulevards) and Subarea C (Community Center) of the SNAP. The property to the north, across De Longpre Avenue, is developed with a grocery store. The property to the west, across Lyman Place, is developed with the Hollywood Presbyterian Medical Center. Properties to the east, across Virgil Avenue, are developed with a medical office building and residential buildings. Properties to the south are developed with commercial and residential properties.

Streets and Circulation

Lyman Place, adjoining the property to the west, is a Local Street – Standard, dedicated to a width of 60 feet, roadway width of 36 feet, and improved with an asphalt roadway, concrete curb, gutter, and sidewalk.

De Longpre Avenue, adjoining the property to the north, is a Local Street – Standard, dedicated to a width of 60 feet, roadway width of 36 feet, and improved with an asphalt roadway, concrete curb, gutter, and sidewalk.

Virgil Avenue, adjoining the property to the east, is a Modified Avenue II, dedicated to a width of 80 feet, roadway width of 56 feet, and improved with an asphalt roadway, concrete curb, gutter, and sidewalk.

Relevant Cases

Subject Property

Ordinance No. 173,749 – On November 29, 2000, Ordinance No. 173,749 became effective and established the Vermont/Western SNAP Specific Plan.

Case No. DIR-2015-309-SPPA-SPP – On September 30, 2015, the Director of Planning approved a parking structure containing 654 parking spaces with a height of 56 feet, including four-stories above-grade and three subterranean levels. The project was subsequently appealed and the Central Area Planning Commission denied the appeal on January 11, 2016.

Surrounding Properties (within a 500-foot radius):

Case No. DIR-2017-5247-SPP – On April 16, 2018, the Director of Planning approved the demolition of two (2) existing duplexes; and a change of use from residential to an ancillary surface parking lot for use by the HPMC. The project was subsequently appealed and the Central Area Planning Commission denied the appeal on July 16, 2018.

Case No. DIR-2016-3207-SPP-SPR – On December 15, 2016, the Director of Planning approved the demolition of an existing 1,150-square-foot building, portion of an on-site parking structure, outdoor courtyard, and canopy of an existing Patient Tower; and the construction, use and maintenance of a five-story, 134,750 square-foot hospital building with one subterranean level and a maximum height of 85 feet, 2 inches located in the center of the HPMC hospital campus.

Case No. DIR-2014-4067-SPP – On December 22, 2014, the Director of Planning Terminated a proposed project for the construction of a new emergency room for the HPMC, located at 1300 - 1322 North Vermont Avenue.

Issues

Parking

The addition of 95,995 square feet of floor area to the existing site would result in the requirement to add 192 new vehicle spaces on-site. However, there are already 562 parking spaces available within the existing parking structure to accommodate the addition of medical office space. The addition of 192 new vehicle spaces would require the applicant team to add additional floors on top of the existing five floors above grade and two floors below grade of parking. As such, the

project team has requested a Specific Plan Exception (SPE) to require zero new parking spaces and maintain the existing 562 parking spaces.

Pedestrian Throughway

Under Section 9.G of the Vermont/Western SNAP, Subarea C all new construction projects that have 250 feet of street frontage or more, are required to provide a Pedestrian Throughway that is accessible to the general public. This Pedestrian Throughway is meant to give pedestrians an alternative route to cross the project site, without the need to walk around a long distance created by the building's footprint. Under the original approval of Case No. DIR-2015-309-SPPA-SPP, the applicant team provided this Pedestrian Throughway requirement, which currently exists on-site. The applicant team has requested a SPE from Section 9.G of the SNAP to allow for the existing Pedestrian Throughway to satisfy the requirement for an additional Pedestrian Throughway since the lower levels of the building are already existing.

Urban Design Studio (UDS)

On December 2, 2020, the proposed project was taken to UDS Office Hours for review. UDS' Office Hours function is to provide input directly to the project planner at meetings. The Studio's feedback focuses on ways a project can be improved to comply more fully with the Studio's three (3) design approaches which are: 1) Pedestrian First Design, 2) 360 Degree Design, and 3) Climate Adaptive Design. There were no comments that required a revision of the plans at the meeting.

Conclusion

As proposed, this project will add medical uses that continue to be needed. Additionally, with the exception of the requests herein, the proposed project is entirely consistent with the underlying zoning and land use designation. Furthermore, the new addition will be designed in a way to complement the other buildings within the HPMC. Based on the information submitted, public input, and mandatory findings for the requested entitlements, the Department of City Planning recommends that the Central Area Planning Commission approve the project, subject to the Conditions of Approval.

CONDITIONS OF APPROVAL

1. **Site Development.** Except as modified herein, the project shall be in substantial conformance with the plans and materials submitted by the applicant, stamped Exhibit "A," and attached to the subject case file. No change to the plans will be made without prior review by the Department of City Planning, Central Project Planning Division, and written approval by the Director of Planning. Each change shall be identified and justified in writing. Minor deviations may be allowed in order to comply with the provisions of the Municipal Code, the project conditions, or the project permit authorization.
2. **Use.** The proposed medical office use shall be permitted on the subject property, above the existing parking structure. The project is an allowed C4 use on the subject property. Any change of use within the project site is required to obtain a Project Permit Compliance Review approval before any permit clearance is given.
3. **Height.** The project shall be limited to a maximum building height of 96 feet, 4 inches, as measured from grade and defined in LAMC Section 12.03, to the highest point of the parapet or structure. Architectural rooftop features as identified in LAMC Section 12.21.1 B.3 may be erected up above the height limit, if the structures and features are set back a minimum of 10 feet from the roof perimeter and screened from view at street level.
4. **Floor Area Ratio (FAR).** The maximum FAR shall be limited to 2.8:1, or 95,995 square feet.
5. **Automobile Parking.** The project shall maintain the existing 562 vehicle parking spaces on-site. There shall be no increase or decrease in parking spaces located within the parking structure. No new parking is required for the proposed new floor area.
6. **Bicycle Parking.** The project shall provide a minimum of 19 bicycle parking spaces on site, as shown in Exhibit "A." These 19 bicycle parking spaces shall be in addition to any currently existing bicycle parking spaces on-site.
7. **Setback.** No front, side or rear yard setbacks shall be required.
8. **Pedestrian Throughway.** The project site shall maintain the existing Pedestrian Throughway as approved under Case No. DIR-2015-309-SPPA-SPP. No additional pedestrian throughway shall required. The existing Pedestrian Throughway shall abide by the following provisions:
 - a. The entrances shall have signs identifying the passageway as a pedestrian throughway, or paseo, which is publicly accessible.
 - b. The publicly accessible pedestrian throughway shall, at a minimum have hours of operation from sunrise to sunset.
 - c. The pedestrian throughway shall not be permanently closed to the public at any time.
9. **Streetscape Elements.**
 - a. **Street Trees.** Street trees must be installed and maintained prior to issuance of the building permit or suitably guaranteed through a bond and all improvements must be completed prior to the issuance of a Certificate of Occupancy.

- i. Eighteen (18), 36-inch box shade trees shall be provided in the public right-of-way along the project site, subject to the Bureau of Street Services, Urban Forestry Division requirements.
- ii. There are currently 11 street trees existing along the public right-of-way of the project site. Whether those trees remain or be replaced, shall be determined by the Bureau of Street Services, Urban Forestry Division.
- iii. A tree well cover shall be provided for each new and existing tree in the public right-of-way adjacent to the subject property to the satisfaction of the Bureau of Street Services.
- iv. The applicant shall be responsible for new street tree planting and pay fees for clerical, inspection, and maintenance per the Los Angeles Municipal Code Section 62.176 for each tree.
- v. An automatic irrigation system shall be provided.

Note: Contact the Urban Forestry Division, Subdivision staff, at (213) 847-3088 for site inspection prior to any street tree work.

- b. **Bike Racks.** Five (5) simple black painted bike racks shall be provided in the public right-of-way along the project site. Bike racks shall be installed three feet from the curb edge or per the City of Los Angeles Department of Transportation requirements.
 - c. **Public Bench.** One (1) public bench, painted black with a backrest, three armrests, and intermediate frame shall be provided and maintained in the public right-of-way along Vermont Avenue subject to the requirements of the Department of Public Works.
10. **Utilities.** All new utility lines which directly service the lot or lots shall be installed underground. If underground service is not currently available, then provisions shall be made by the applicant for future underground service.
 11. **Roof Lines.** There shall be no building roofline that exceeds 40 feet in horizontal length without a break in-line. Roof lines should be broken up through the use of architecturally appropriate means.
 12. **Facade Relief and Elevations.** The southern and eastern elevations shall be revised to provide a break in plane for every 20 feet horizontally and every 30 feet vertically created by an articulation or architecture detail.
 13. **Surface Mechanical Equipment.** All surface or ground-mounted mechanical equipment, including transformers, terminal boxes, pull boxes, air conditioner condensers, gas meters and electric meter cabinets, shall be screened from public view and treated to match the materials and colors of the building which they serve.
 14. **Rooftop Appurtenances.** All rooftop equipment and building appurtenances shall be screened from any street, public right-of-way, or adjacent property with enclosures or parapet walls constructed of materials complimentary to the materials and design of the main structure.
 15. **Trash, Service Equipment and Satellite Dishes.** Trash, service equipment and satellite dishes, including transformer areas, shall be located away from streets and enclosed or

screened by landscaping, fencing or other architectural means. The trash area shall be enclosed by a minimum six-foot high decorative masonry wall. Each trash enclosure shall have a separate area for recyclables. Any transformer area within the front yard shall be enclosed or screened.

16. **Landscape Plan.** The applicant shall submit a final landscape plan prepared by a licensed landscape architect showing enhanced paving such as stamped concrete, permeable paved surfaces, tile and/or brick within paved areas in front, side and rear yards.
17. **Irrigation Plan.** A final irrigation plan shall be prepared and included.
18. **On-Site Lighting.** The applicant shall install on-site lighting along all vehicular and pedestrian access ways. Installed lighting shall provide $\frac{3}{4}$ -foot-candle of flood lighting intensity as measured from the ground. Lighting must also be shielded from projecting light higher than 15 feet above ground level and away from adjacent property windows. The maximum height of any installed lighting fixture shall not exceed 14 feet in height.
19. **Security Devices.** If at any time during the life of the project the property owner wishes to install security devices such as window grilles and/or gates, such security devices shall be designed so as to be fully concealed from public view. The applicant shall be required to acquire approval from the Department of City Planning, Central Project Planning Division for the installation of any security devices on the exterior or the structure through a building permit clearance sign off.
20. **Future Signage.** All future signs shall be reviewed by Project Planning staff for compliance with the Vermont/Western SNAP Specific Plan and Design Guidelines. Filing for a Project Permit shall not be necessary unless a Project Permit Adjustment, Exception, or Amendment is required. Any pole, roof or off-site sign, any sign containing flashing, mechanical or strobe lights (Digital Signs) are prohibited. Canned/Cabinet signs should not be used.

Site Plan Review Conditions

21. **No Blank Walls.** The project shall incorporate to the satisfaction of the Department of City Planning, Central Project Planning Division a decorative wall along all façades abutting that includes uniform color, material, and texture that complement the other facades of the structure.
22. **Building Materials.** The project shall provide aesthetic and building materials/elements as depicted in Exhibit A that includes but is not limited to the following: window walls, composite metal panels, accent plaster materials, punched windows, tile, and decorative paving.
23. **Ground Floor Façade.** All portions of the ground floor façade shall be landscaped and screened with trees and shrubs.

Environmental Conditions

24. **Implementation.** The Mitigation Monitoring Program (MMP), attached as Exhibit E and part of the case file, shall be enforced throughout all phases of the Project. The Applicant shall be responsible for implementing each Project Design Features (PDF) and Mitigation Measure (MM) and shall be obligated to provide certification, as identified below, to the appropriate monitoring and enforcement agencies that each PDF and MM has been implemented. The Applicant shall maintain records demonstrating compliance with each PDF and MM. Such records shall be made available to the City upon request.

25. **Construction Monitor.** During the construction phase and prior to the issuance of building permits, the applicant shall retain an independent Construction Monitor (either via the City or through a third-party consultant), approved by the Department of City Planning, who shall be responsible for monitoring implementation of project design features and mitigation measures during construction activities consistent with the monitoring phase and frequency set forth in this MMP.

The Construction Monitor shall also prepare documentation of the applicant's compliance with the project design features and mitigation measures during construction every 90 days in a form satisfactory to the Department of City Planning. The documentation must be signed by the applicant and Construction Monitor and be included as part of the applicant's Compliance Report. The Construction Monitor shall be obligated to immediately report to the Enforcement Agency any non-compliance with the mitigation measures and project design features within two businesses days if the applicant does not correct the non-compliance within a reasonable time of notification to the applicant by the monitor or if the non-compliance is repeated. Such non-compliance shall be appropriately addressed by the Enforcement Agency.

26. **Substantial Conformance and Modification.** After review and approval of the final MMP by the Lead Agency, minor changes and modifications to the MMP are permitted, but can only be made subject to City approval. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. This flexibility is necessary in light of the nature of the MMP and the need to protect the environment. No changes will be permitted unless the MMP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

The project shall be in substantial conformance with the project design features and mitigation measures in the MMP stamped Exhibit E attached to the subject case file. The implementing and enforcing agencies may determine substantial conformance with the project design features and mitigation measures in the MMP. If substantial conformance results in effectively deleting or modifying the project design features and/or the mitigation measures, the Director of Planning shall provide a written justification supported by substantial evidence as to why the project design feature and/or the mitigation measure, in whole or in part, is no longer needed and its effective deletion or modification will not result in a new significant impact or a more severe impact to a previously identified significant impact.

If the project is not in substantial conformance to the adopted project design features, mitigation measures or MMP, a modification or deletion shall be treated as a new discretionary action under CEQA Guidelines, Section 15162(c) and will require preparation of an addendum or subsequent CEQA clearance. Under this process, the modification or deletion of a mitigation measure shall not require a Zone Change unless the Director of Planning also finds that the change to the mitigation measures results in a substantial change to the project or the non-environmental conditions of approval.

Administrative Conditions of Approval

27. **Final Plans.** Prior to the issuance of any building permits for the project by the Department of Building and Safety, the applicant shall submit all final construction plans that are awaiting issuance of a building permit by the Department of Building and Safety for final review and approval by the Department of City Planning. All plans that are awaiting issuance of a building permit by the Department of Building and Safety shall be stamped by Department

of City Planning. A copy of the Plans Approved, supplied by the applicant, shall be retained in the subject case file.

28. **Notations on Plans.** Plans submitted to the Department of Building and Safety, for the purpose of processing a building permit application shall include all of the Conditions of Approval herein attached as a cover sheet, and shall include any modifications or notations required herein.
29. **Approval, Verification and Submittals.** Copies of any approvals, guarantees or verification of consultations, review of approval, plans, etc., as may be required by the subject conditions, shall be provided to the Department of City Planning prior to clearance of any building permits, for placement in the subject file.
30. **Code Compliance.** Use, area, height, and yard regulations of the zone classification of the Subject Property shall be complied with, except where granted conditions differ herein.
31. **Department of Building and Safety.** The granting of this determination by the Director of Planning does not in any way indicate full compliance with applicable provisions of the Los Angeles Municipal Code Chapter IX (Building Code). Any corrections and/or modifications to plans made subsequent to this determination by a Department of Building and Safety Plan Check Engineer that affect any part of the exterior design or appearance of the project as approved by the Director, and which are deemed necessary by the Department of Building and Safety for Building Code compliance, shall require a referral of the revised plans back to the Department of City Planning for additional review and sign-off prior to the issuance of any permit in connection with those plans.
32. **Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning.
33. **Expiration.** In the event that this grant is not utilized within three years of its effective date (the day following the last day that an appeal may be filed), the grant shall be considered null and void. Issuance of a building permit, and the initiation of, and diligent continuation of, construction activity shall constitute utilization for the purposes of this grant.
34. Prior to the issuance of any permits relative to this matter, a covenant acknowledging and agreeing to comply with all the terms and conditions established herein shall be recorded in the County Recorder's Office. The agreement (standard master covenant and agreement form CP-6770) shall run with the land and shall be binding on any subsequent owners, heirs or assigns. The agreement with the conditions attached must be submitted to the Development Services Center for approval before being recorded. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Development Services Center at the time of Condition Clearance for attachment to the subject case file.
35. **Indemnification and Reimbursement of Litigation Costs.**

Applicant shall do all of the following:

 - (i) Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of, in whole or in part, the City's processing and approval of this entitlement, including but not limited to, an action to attack, challenge, set aside, void, or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.

- (ii) Reimburse the City for any and all costs incurred in defense of an action related to or arising out of, in whole or in part, the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs
- (iii) Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than \$50,000. The City's failure to notice or collect the deposit does not relieve the applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).
- (iii) Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).
- (v) If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

The City shall notify the applicant within a reasonable period of time of its receipt of any action and the City shall cooperate in the defense. If the City fails to notify the applicant of any claim, action, or proceeding in a reasonable time, or if the City fails to reasonably cooperate in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City.

The City shall have the sole right to choose its counsel, including the City Attorney's office or outside counsel. At its sole discretion, the City may participate at its own expense in the defense of any action, but such participation shall not relieve the applicant of any obligation imposed by this condition. In the event the applicant fails to comply with this condition, in whole or in part, the City may withdraw its defense of the action, void its approval of the entitlement, or take any other action. The City retains the right to make all decisions with respect to its representations in any legal proceeding, including its inherent right to abandon or settle litigation.

For purposes of this condition, the following definitions apply:

"City" shall be defined to include the City, its agents, officers, boards, commissions, committees, employees, and volunteers.

"Action" shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims, or lawsuits. Actions includes actions, as defined herein, alleging failure to comply with any federal, state or local law.

Nothing in the definitions included in this paragraph are intended to limit the rights of the City or the obligations of the applicant otherwise created by this condition.

FINDINGS

Entitlement Findings

1. Findings for Specific Plan Exception per LAMC Section 11.5.7 F.

- a. **The strict application of the policies, standards and regulations of the specific plan to the subject property will result in practical difficulties or unnecessary hardships inconsistent with the general purpose and intent of the Plan.**

Parking

The proposed project includes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the Hollywood Presbyterian Medical Center (HPMC). The existing parking structure contains 562 parking spaces with a height of 43 feet, including five-stories above-grade and two (2) subterranean levels. The additional medical office space would serve the HPMC. The new addition would give the structure a new maximum height of 96 feet, 4 inches with a total of eight-stories above-grade and two (2) subterranean levels. Section 9.E.4 of the SNAP requires that existing buildings maintain the parking that has been provided. Section 9.E.3 would require the parking requirement for Medical Office uses to be provided consistent with LAMC Section 12.21 A.4(d)(3). As such, 192 additional vehicle spaces would be required of the proposed project based on the addition of 95,995 square feet of floor area.

Case No. DIR-2015-309-SPPA-SPP, which approved the existing parking structure, allowed a total of 654 vehicle parking spaces to be built. The HPMC is subject to a minimum parking count of 1,156 vehicle spaces and a maximum of 1,591 parking spaces. However, the addition of 654 parking spaces would have surpassed the 1,591 parking spaces allowed per the maximum. As such, the parking structure decreased the number of parking spaces to 562 vehicle spaces. The total number of parking spaces across the HPMC is 1,496 spaces, according to Case No. DIR-2017-5247-SPP. The addition of 192 vehicle parking spaces would surpass the maximum allowable spaces of 1,591 across all HPMC.

As previously mentioned, the existing parking structure contains 562 vehicle parking spaces, which is more than enough to satisfy any future patient needs. The City does not want an excess in vehicle parking, which is also reflected by the SNAP maximum parking regulations. The HPMC as a whole has enough spaces for visitors with a total of 1,496 spaces. Furthermore, the nearby Sunset/Vermont Metro Station and additional bus routes will help alleviate the loss in parking spaces as visitors use public transit. Therefore, it is reasonable to allow for the addition of zero vehicle parking spaces as long as the existing 562 parking spaces are not decreased. As mentioned above, the SNAP has a minimum and maximum allowed parking count for the HPMC. The maximum number is 1,591 parking spaces which would be surpassed by the addition of 192 parking spaces. Surpassing the maximum number of spaces allowed would require the HPMC to request an additional exception request in order to place the 192 spaces. Therefore, the strict application of the parking requirements to the subject property will result in practical difficulties inconsistent with the general purpose and intent of the SNAP Subarea C.

Pedestrian Throughway

Under Section 9.G of the Vermont/Western SNAP, Subarea C projects that have 250 feet of street frontage or more, are required to provide a Pedestrian Throughway that is accessible to the general public. This Pedestrian Throughway is meant to give pedestrians an alternative route to cross the project site, without the need to walk around a long distance created by the building's footprint. Under the original approval of Case No. DIR-2015-309-SPPA-SPP, the applicant team provided this Pedestrian Throughway requirement, which currently exists on-site. Since the ground floor to the existing parking structure is already built, redesigning and changing the existing layout would result in practical difficulties. A second Pedestrian Throughway is not required to satisfy purpose and intent of the SNAP. Moreover, the addition of a second Pedestrian Throughway would possibly lead to a reduction in parking spaces, since parking stalls would need to be shifted or removed to adjust for a new paseo. Therefore, it can be found that the strict application of the regulations of the Specific Plan creates an unnecessary hardship and would be in conflict with the purpose and intent of the Specific Plan.

- b. **There are exceptional circumstances or conditions that are applicable to the subject property or to the intended use or development of the subject property that do not generally apply to other properties within the specific plan area.**

Parking

As previously mentioned, the proposed project includes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the HPMC. The total number of parking spaces across the HPMC is 1,496 spaces, according to Case No. DIR-2017-5247-SPP. The addition of 192 vehicle parking spaces would surpass the maximum allowable spaces of 1,591 across all HPMC. The existing parking structure contains 562 vehicle parking spaces and the total number of parking spaces for HPMC is 1,496 spaces, which is more than enough to satisfy any future patient needs. Furthermore, the nearby Sunset/Vermont Metro Station and additional bus routes will help alleviate the loss in parking spaces. The policy direction of the City is to discourage excess parking, especially on sites near transit. This is also reflected by the SNAP maximum parking regulations. Therefore, it is reasonable to allow for the addition of zero vehicle parking spaces as long as the existing 562 parking spaces are maintained. These circumstances are not seen within the specific plan area since there are no existing parking structures that have added additional uses above it, resulting in additional parking. Furthermore, the SNAP has a minimum and maximum allowed parking count for the HPMC. The maximum number is 1,591 parking spaces which would be surpassed by the addition of 192 parking spaces. Surpassing the maximum number of spaces allowed would require the HPMC to request an additional exception request in order to place the 192 spaces. Therefore, there is an exceptional circumstance to the intended use that does not apply to other properties within the SNAP.

Pedestrian Throughway

Under the original approval of the parking structure, Case No. DIR-2015-309-SPPA-SPP, the applicant team provided the Pedestrian Throughway for having more than 250 feet of street frontage on the property. Since the ground floor to the existing parking structure is already built, redesigning and changing the existing layout to accommodate a second Pedestrian Throughway would result in practical difficulties. Additionally, the project does not increase building street frontage, thus the existing throughway satisfied the intent of the SNAP to provide a Pedestrian Throughway for buildings with more than 250 feet of

street frontage. A second Pedestrian Throughway is not required to satisfy the purpose and intent of the SNAP. Moreover, the addition of a second Pedestrian Throughway would possibly lead to a reduction in parking spaces, since parking stalls would need to be shifted or removed to adjust for a new paseo. Therefore, it can be found that there are special circumstances applicable to the site which do not generally apply to other properties within Subarea C of the Specific Plan.

- c. **The requested exception is necessary for the preservation and enjoyment of a substantial property right or use generally possessed by other property within the geographically specific plan in the same zone and vicinity but which, because of such special circumstances and practical difficulties or unnecessary hardships is denied to the property in question.**

The project site is located within Subarea C of the Vermont/Western SNAP. The applicant proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the HPMC. The existing parking structure contains 562 parking spaces with a height of 43 feet, including five-stories above-grade and two (2) subterranean levels. The additional medical office space would serve the HPMC. The new addition would give the structure a new maximum height of 96 feet, 4 inches with a total of eight-stories above-grade and two (2) subterranean levels. The applicant requests a Specific Plan Exception to allow for zero additional parking, as well as, to allow the existing Pedestrian Throughway to satisfy the SNAP's requirement in lieu of an additional Pedestrian Throughway.

Parking

The SNAP has specific language pertaining to vehicle parking that is meant to keep proposed projects from being overparking while maintaining existing parking spaces. The existing parking structure has 562 parking spaces available and the addition of 192 extra vehicle spaces would not be beneficial for the site, nor the surrounding area. The community has voiced their concerns regarding vehicle congestion and additional parking spaces would increase vehicle trips from and to the existing facilities. The addition of medical offices above the existing parking structure does not need extra parking spaces to accommodate any future patients or workers. Furthermore, the addition of 192 parking spaces would result in the project exceeding the maximum parking count of 1,591 spaces allowed for the HPMC. The exception request will allow the HPMC to remain below the maximum parking count, which is a right possessed by other Subarea C projects within the SNAP. The exception is necessary for the preservation and enjoyment of a substantial property right possessed by other properties with Subarea C of the SNAP.

Pedestrian Throughway

The SNAP's intention is to have one (1) Pedestrian Throughway for project sites that have an excess of 250 feet of street frontage. The project site already provides a Pedestrian Throughway and already satisfies the SNAP's requirement under Section 9.G. If the project site had multiple street frontages with 250 feet in length or greater, a second Pedestrian Throughway would be ideal. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue. The project site's De Longpre Avenue frontage is the only frontage with a length greater than 250 feet. Therefore, only one Pedestrian Throughway is necessary and the project site currently accommodates that requirement.

Maintaining one Pedestrian Throughway is necessary for the preservation and enjoyment of a substantial property right possessed by other properties with Subarea C of the SNAP.

- d. **The granting of the exception will not be detrimental to the public welfare and injurious to property or improvements adjacent to or in the vicinity of the subject property.**

The proposed project includes addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure is an extension of the HPMC. The applicant requests a Specific Plan Exception to allow for zero additional parking, as well as, to allow the existing Pedestrian Throughway to satisfy the SNAP's requirement in lieu of an additional Pedestrian Throughway. As demonstrated in Finding No. 2 below, aside from the two (2) requests for the Specific Plan Exceptions, the project otherwise complies with the Subarea C regulations and applicable Hospital and Medical Center Development Standards and Design Guidelines of the Specific Plan. Furthermore, the country has been facing a crisis with the pandemic that has caused a shortage in hospital space. The additional medical offices can help expand capacity within the current hospital system and provide more care for its patients. The zero parking spaces proposed would keep the project from adding vehicles to a congested area, which has been a community concern. Moreover, not adding a second Pedestrian Throughway will not be detrimental because the existing throughway already serve's that requirement. Therefore, it can be found that granting the Exception will not be detrimental to the public welfare or injurious to property or improvements adjacent to or in the vicinity of the property.

- e. **The granting of the exception is consistent with the principles, intent and goals of the specific plan and any applicable element of the general plan.**

The General Plan sets forth goals, objectives, and programs that serve as the foundation for all land use decisions. The City of Los Angeles' General Plan consists of the Framework Element, seven State-mandated Elements, including Land Use, Mobility, Housing, Conservation, Noise, Safety, Open Space, and optional Elements including Plan for a Healthy Los Angeles, Air Quality and Service Systems. The Land Use Element is comprised of 35 community plans that establish parameters for land use decisions within those subareas of the City. The subject property is located within the Hollywood Community Plan, which designates the site for Neighborhood Office Commercial land uses with corresponding zones of C1, C2, C4, P, RAS3, RAS4. The subject property is zoned C4-1D, [T][Q]C2-1, R4-1D, which is consistent with the land use designation. The project site is located within Subarea C of the Vermont/Western SNAP Specific Plan, which was adopted by City Council on January 23, 2001.

The proposed project meets the following objectives and policies contained in the Framework Element, Chapter 3 – Land Use:

Distribution of Land

Objective 3.1 *Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.*

Community Centers

Policy 3.9.7 *Provide for the development of public streetscape improvements, where appropriate.*

The project proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The

existing parking structure is an extension of the HPMC. The new medical offices will help serve the community and provide for the expansion of medical services that are needed in the medical field. The use will satisfy the Framework Element by adding a use that supports the needs of existing and future people.

Land Use Element – Hollywood Community Plan

The project site is located within the boundaries of the Hollywood Community Plan, which was adopted by the Los Angeles City Council on December 13, 1988. The proposed Medical Office development advances the following objectives and policies contained in the Community Plan:

Objective 4 Recognizing the existing concentration of medical facilities in East Hollywood as a center serving the medical needs of Los Angeles.

The project will continue to contribute to the medical facilities within East Hollywood. The Hollywood Community Plan views this area as one with a concentration of medical facilities. The proposed use will continue to grow the medical field which would provide support to all people in need.

Vermont/Western Station Neighborhood Plan Area (SNAP)

The Vermont/Western SNAP was adopted by the Los Angeles City Council and became effective on March 1, 2001. The proposed project meets the following purposes of the SNAP as outlined in Section 2 of the Specific Plan:

O. Support the hospital core near the corner of Sunset Boulevard and Vermont Avenue such that this industry will generate jobs and medical services for local residents...

As demonstrated in Finding Number 2 below, the project is in conformance with the Specific Plan regulations as well as the Hospital and Medical Centers Development Standards and Design Guidelines. The proposed addition of medical offices will support the hospital core within the vicinity and provide an expansion of medical services for residents. The country has been facing a crisis with the pandemic that has caused a shortage in hospital space. The additional medical offices can help expand capacity within the current hospital system and provide more care for its patients. The project therefore conforms with the purpose, intent, and provisions of the General Plan, Hollywood Community Plan, and the Vermont/Western SNAP.

2. Findings for Project Permit Compliance per LAMC Section 11.5.7 C.

a. The project substantially complies with the applicable regulations, findings, standards, and provisions of the specific plan.

(1) Parks First. Section 6.F of the Vermont/Western Specific Plan requires the applicant to pay a Parks First Trust Fund of \$4,300 for each new residential unit, prior to the issuance of a Certificate of Occupancy. The project proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. There will be no construction of dwelling units as part of the proposed project. As such, Section 6.F of the Specific Plan does not apply.

(2) Use. Section 9.A of the Vermont/Western Specific Plan states that commercial uses permitted in the C4 Commercial Zone by LAMC Section 12.16 shall be permitted by-right on any lot located within Subarea C of the Specific Plan area. The project site is allowed C4 uses on the subject property and is proposing 95,995 square feet of medical offices. A medical office is allowed within the C4 use list. Any change of use

within the project site, for a use allowed under the C4 designation, is required to obtain a Project Permit Compliance Review approval before any permit clearance is given. Therefore, as proposed and conditioned, the project complies with Section 9.A of the Specific Plan.

- (3) Height and Floor Area.** Section 9.B of the Vermont/Western Specific Plan states Hospital and Medical Uses shall not exceed a maximum building height of 100 feet, except that roofs and roof structures for the purposes specified in Section 12.21.1 B.3 of the Code, may be erected above the height limit established in this section, if those structures and features are setback a minimum of 10 feet from the roof perimeter and are screened from view at street level by a parapet or a sloping roof; and shall not exceed a maximum floor area ratio (FAR) of 3:1. The project proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The existing parking structure has a height of 43 feet, including five-stories above-grade and two (2) subterranean levels. The proposed addition would give the structure a new maximum height of 96 feet, 4 inches, which is below the 100-foot maximum.

The LAMC does not consider parking areas, and associated driveways and ramps, as 'floor area' (see Section 12.21.1.A.5 and the definition of Floor Area in Section 12.03). The proposed project is proposing the addition 95,995 square feet of floor area for a FAR of 2.8:1, which is within the maximum allowable 3:1 FAR. Therefore, as conditioned, the project complies with Section 9.B of the Specific Plan.

- (4) Transitional Height.** Section 9.C of the Vermont/Western Specific Plan states that portions of buildings on a lot located within Subarea C adjoining or abutting a lot within Subarea A shall not exceed 25 feet in height, 33 feet in height, and 61 feet in height when located within 0-49 feet, 50-99 feet, and 100-200 feet respectively. The project site does not abut a Subarea A lot. Therefore, Section 9.C of the Specific Plan does not apply.
- (5) Usable Open Space.** Section 9.D of the Vermont/Western Specific Plan states that residential projects with two or more dwelling units must provide specified amounts of common and private open space pursuant to the standards set forth in LAMC 12.21 G.2 of the Code. The project consists of a parking structure and medical offices. There are no residential units proposed. Therefore, Section 9.D of the Specific Plan does not apply.
- (6) Project Parking Requirements.** Section 9.E. of the Vermont/Western Specific Plan states that hospitals shall provide a minimum of one and maximum of two parking spaces for each patient bed for which the hospital is licensed. However, the project does not propose patient beds as part of the project. Section 9.E.3 of the Vermont/Western SNAP requires two (2) parking spaces per 1,000 square feet of commercial floor area, except for Hospital and Medical Uses. The project proposed 95,995 square feet of medical offices. Since the SNAP is silent on medical uses, such as medical offices which do not include patient beds, the parking requirement defaults to the LAMC. Based on LAMC Section 12.21 A.4(x)(3), the parking requirement is two (2) vehicle parking spaces per 1,000 square feet of floor area. As such, the project is required to provide a total of 192 parking spaces.

The proposed addition of medical offices will be constructed above an existing parking structure, containing 562 vehicle parking spaces. The applicant has requested a Specific Plan Exception to allow for the addition of zero parking spaces in lieu of the

required 192 parking spaces. The current parking structure is fully capable of providing adequate parking for the medical office expansion.

Bicycles. Section 9.E.2 of the Vermont/Western Specific Plan requires one (1) parking space for every 1,000 square feet of commercial floor area for the first 10,000 square feet, and one (1) parking space for every additional 10,000 square feet of floor area thereafter. The project proposes 95,995 square feet of commercial floor area, thereby requiring 19 commercial parking spaces. The applicant proposes 20 bicycle parking spaces, which is above the minimum requirement.

Therefore, with the approval of the Specific Plan Exception and as conditioned, the project complies with Section 9.E and 9.E.2 of the Specific Plan.

- (7) **Conversion Requirements.** Section 9.F of the Vermont/Western Specific Plan sets forth requirements pertaining to the conversion of existing structures to residential condominium uses. The project proposes the addition of medical offices above an existing parking structure. Therefore, Section 9.F of the Specific Plan does not apply.
- (8) **Yards.** Section 9.H of the Vermont/Western Specific Plan specifies that no front, side or rear yard setbacks shall be required for the development of any project within Subarea C. The project has an existing parking structure that has already established the building footprint. Therefore, the project complies with Section 9.H of the Specific Plan.
- (9) **Pedestrian Throughways.** Section 9.G states that applicants shall provide one public pedestrian walkway, throughway, or path for every 250 feet of street frontage for the project. The pedestrian throughway shall be accessible to the public and have a minimum vertical clearance of 12 feet and a minimum horizontal clearance of 10 feet. Under the original approval of Case No. DIR-2015-309-SPPA-SPP, the applicant team provided a Pedestrian Throughway. The applicant team has requested a Specific Plan Exception to allow for the existing Pedestrian Throughway to satisfy the requirement for an additional Pedestrian Throughway since the lower levels of the building are already existing. Therefore, with the approval of the Specific Plan Exception and as conditioned, the project complies with Sections 9.G of the Specific Plan.
- (10) **Development Standards.** Section 9.I of the Vermont/Western Specific Plan requires that all projects with new development and extensive remodeling be in substantial conformance with the following Development Standards and Design Guidelines. The proposed project conforms to Development Standards and Design Guidelines as discussed in the Findings below.

Development Standards

- a. **Landscape Plan.** The Development Standard for Subarea C requires that all open areas not used for buildings, driveways, parking, recreational facilities, or pedestrian amenities shall be landscaped by lawns and other ground coverings, allowing for convenient outdoor activity. All landscaped areas shall be landscaped in accordance with a landscape plan prepared by a licensed landscape architect, licensed architect, or licensed landscape contractor. The landscape plan in Exhibit "A" shows that adequate landscaping currently exists based on the conditions set forth under the original approval of the parking structure, Case No. DIR-2015-309-SPPA-SPP. However, the project will still add additional street trees with approval from the Urban Forestry Division to satisfy the SNAP requirements. The applicant has been conditioned to submit a final landscape plan prepared by a licensed

landscape architect and a final irrigation plan. Therefore, as conditioned, the project complies with this Development Standard.

- b. **Streetscape Elements.** The Development Standards require that any hospital related project with frontage along Vermont Avenue and Sunset Boulevard shall conform to the criteria, standards and general design intent of the Barnsdall Park Master Plan, and the Vermont Streetscape Project. For hospital related projects with frontage along other public streets, the following provisions prevail:
 - I. **Street Trees.** The Development Standards require that one 36-inch box shade tree be planted and maintained in the sidewalk for every 30 feet of street frontage. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue, thus, requiring four (4) street trees along the public right-of-way of the project site. The project proposes a total of 18 street trees. The project has been conditioned to provide the required 18 street trees, unless Bureau of Street Services, Urban Forestry Division determines otherwise. Therefore, as conditioned, the project complies with this Development Standard.
 - II. **Tree Well Covers.** The Development Standards require that a tree well cover be provided for each new and existing street tree in the project area. The project has been conditioned to provide the required 18 street trees, unless Bureau of Street Services, Urban Forestry Division determines otherwise. Therefore, as conditioned, the project complies with this Development Standard.
 - III. **Bike Racks.** The Development Standards require one bike rack for every 100 feet of street frontage. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue, thus, requiring five (5) bike racks along the public right-of-way. The project has been conditioned to provide five (5) bike racks along the public right-of-way of the project site. Therefore, as conditioned, the project complies with this Development Standard.
 - IV. **Trash Receptacles.** The Development Standards require one trash receptacle be provided in the public right of way for every 300 feet of lot frontage along any public street. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue, thus, not meeting the length requirement of 300 feet. Therefore, this Development Standard does not apply.
 - V. **Public Benches.** The Development Standards require that one public bench be provided in the public right of way for every 250 feet of lot frontage on a Major or Secondary Highway. The project site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue, thus, requiring

one (1) public bench. Therefore, as conditioned, the project complies with this Development Standard.

- c. **Pedestrian/Vehicular Circulation.** The Development Standards require that all structures be oriented toward the main commercial street where the parcel is located. The applicant proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The ground floor of the project will not be revised as part of the project scope. Therefore, this Development Standard does not apply.
- d. **Utilities.** The Development Standards require that when new utility service is installed in conjunction with new development or extensive remodeling, all proposed utilities on the project site shall be placed underground. The project does not propose any installation of new utility service at this time. However, in the event new utility lines are to be installed on the site, the Conditions of Approval require all new utility lines which directly service the lot or lots shall be installed underground. If underground service is not currently available, then provisions shall be made for future underground service. Therefore, as conditioned, the project complies with this Development Standard.
- e. **Building Design.** The purpose of the following provisions is to ensure that a project avoids large blank expenses of building walls, is designed in harmony with the surrounding neighborhood, and contributes to a lively pedestrian friendly atmosphere. Accordingly, the following standards shall be met:
 - I. **Setbacks.** The Development Standards require that a five-foot setback be provided as part of a Unified Hospital Development Site. The project is not part of a Unified Hospital Development Site, as defined in the SNAP, and is not subject to this setback requirement.
 - II. **Stepbacks.** The Development Standards require that no portion of any structure exceed more than 50 feet in height within 10 feet of the front property line, and 2) that all buildings shall set the fourth floor back from the first floor frontage at least ten feet. This stepback provision is triggered when the building is fronting on Sunset Boulevard and/or Vermont Avenue. The project site does not front on any of the two designated streets. Therefore, this Development Standard does not apply.
 - III. **Street Level Façade Relief.** The Development Standards require that a building use a variety of techniques to create visual 'breaks' in the street level façade in order to facilitate human scale and pedestrian orientation. The applicant proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. The ground floor of the project will not be revised as part of the project scope. This provision was satisfied under the original approval of the parking structure, Case No. DIR-2015-309-SPPA-SPP. Therefore, this Development Standard does not apply.
 - IV. **Articulation of the Building Mass.** The Development Standards require that buildings include a change in materials for portions of the building above street level to soften the effect of the building mass. The standard also requires: the structure to use at least two types of complementary buildings materials for the facade, the side and rear elevations to continue the design from the front elevation, and for roof lines to be broken up through architectural elements. As seen in "Exhibit A" the project proposes horizontal

and vertical plane breaks, change in material, and lineal orientation of the façade construction. Therefore, the project complies with this Development Standard.

- V. **Surface Mechanical Equipment.** The Development Standards require that all surface or ground mounted mechanical equipment be screened from public view and treated to match the materials and colors of the building which they serve. The plans do not indicate the location of surface mechanical equipment. However, in the event surface mechanical equipment is constructed, the Conditions of Approval require surface mechanical equipment to match the colors and materials of the building which they serve. Therefore, as conditioned, the project complies with this Development Standard.
- VI. **Heliports.** The Development Standards requires that heliports be integrated into the roof landscape to meet functional and regulatory criteria without conflicts of access and air intake/exhaust. The project does not include a heliport. Therefore, this Development Standard does not apply.
- f. **Rooftop Appurtenances.** The Development Standards require that all rooftop equipment and building appurtenances shall be screened from public view or architecturally integrated into the design of the building. The proposed project will have mechanical equipment placed on the roof. A Condition of Approval has been included requiring said equipment and ducts be screened from view from any street, public right-of-way or adjacent property and the screening shall be solid and match the exterior materials, design and color of the building. Therefore, as conditioned, the project complies with this Development Standard.
- g. **Trash and Recycling Areas.** The Development Standards require that trash storage bins be located within a gated, covered enclosure constructed of identical building materials, be a minimum of six feet high, and have a separate area for recyclables. The proposed project provides a minimum six-foot trash and recycle enclosure located within the existing parking garage. Therefore, the project complies with this Development Standard.
- h. **Pavement.** The Development Standards require that paved areas not used as parking and driveway areas consist of enhanced paving materials such as stamped concrete, permeable paved surfaces, tile, and/or brick pavers. The project site does not currently contain areas not being used as parking and driveway access that would require enhance paving at the ground level. Therefore, the project complies with this Development Standard.
- i. **Freestanding Walls.** The Development Standards require that all freestanding walls contain an architectural element at intervals of no more than 20 feet and be set back from the property line adjacent to a public street. This project does not propose any freestanding walls. Therefore, this Development Standard does not apply.
- j. **Parking Structures – Required Additional 10-foot set back of Commercial Frontage.** The Development Standards require parking structures with frontage along Sunset Boulevard or Vermont Avenue to contain commercial, community facilities, or other non-residential uses to a minimum depth of 24 feet, or be set back an additional 10 feet from the property line than would otherwise be required by other provisions in the Specific Plan, Los Angeles Municipal Code, or Development Standards and Design Guidelines. The project does not involve the construction of a new parking

structure that would front on Sunset Boulevard or Vermont Avenue. Therefore, this Development Standard does not apply.

- k. **Parking Structures – Façade Treatments.** This Development Standard requires that the exterior elevations of all parking structures be designed to match the main building they serve so that there is no notable differentiation between the parking and non-parking portions of the structure. This provision was satisfied under the original approval of the parking structure, Case No. DIR-2015-309-SPPA-SPP. Therefore, this Development Standard does not apply.
- l. **Parking Structures Across from Residential Uses.** The Development Standards require that whenever a parking structure abuts or is directly across an alley or Public Street from any residential use or zone the facade facing such residential use or zone shall conform to the standards set forth in the Development Standards. This provision was satisfied under the original approval of the parking structure, Case No. DIR-2015-309-SPPA-SPP. Therefore, this Development Standard does not apply.
- m. **Surface Parking Lots.** The Development Standards require at least 10 percent of the surface parking lot to be landscaped with: one (1) 24-inch box shade tree for every four parking spaces, spaced evenly to create an orchard-like effect; a landscaped buffer around the property line; and a three and a half foot solid decorative masonry wall behind a three-foot landscaped buffer. The trees shall be located so that an overhead canopy effect is anticipated to cover at least 50 percent of the parking area after 10 years of growth. The project does not propose a surface parking lot. The site has an existing parking structure. Therefore, this Development Standard does not apply.
- n. **Surface Parking Abutting Residential.** The Development Standards require surface parking abutting or directly across an alley or public street from any residential use or zone conform to standards regarding a decorative wall and landscaping buffer. The project does not propose a surface parking lot. The project does not propose a surface parking lot. The site has an existing parking structure. Therefore, this Development Standard does not apply.
- o. **On-Site Lighting.** The Development Standards require that the project include on-site lighting along all vehicular and pedestrian access ways. The Development Standards specify that the acceptable level of lighting intensity is $\frac{3}{4}$ foot-candle of flood lighting measured from the ground, a maximum mounting height of light sources shall be 14 feet, and “white” color corrected lamp color shall be used for ground level illumination. A Condition of Approval has been included to ensure that any lighting shall meet the on-site lighting standards mentioned above. Therefore, as conditioned, the project complies with this Development Standard.
- p. **Security Devices.** The Development Standards require security devices to be screened from public view. The proposed project does not contain any type of security devices at this time. In the event that additional security devices are installed in the future, a Condition of Approval has been included requiring all proposed devices to be integrated into the design of the building, concealed and retractable. Therefore, the project complies with this Development Standard.
- q. **Off-site Directional Signage.** The Development Standards indicates that off-site directional signage is strongly encouraged and should be integrated in to the overall streetscape design. The Development Standards state that off-site directional signage includes kiosks and directory signs mounted on buildings, indicating the location of

hospital departments, programs, public entrances, subway portals and emergency department access. The applicant does not propose any off-site signage at this time. The Development Standard does indicate the area and dimension requirements for signage. The project has been conditioned to comply with sign regulations set forth in the Vermont/Western SNAP and the Los Angeles Municipal Code Section 14.4. Therefore, as conditioned, the project complies with the Development Standard.

Design Guidelines – Hospital and Medical Centers

- r. **Street Level Façade.** According to the Design Guidelines, new hospitals should enhance the pedestrian experience by: improving access to adjacent public amenities (such as Metro portals), providing landscaped open space at street level that is visually accessible to the public view from public streets or walkways, widening sidewalks, providing a generous amount of street furniture and public art, and emphasizing the human scale of the street level to balance the massing necessary for the rest of the building. As part of the original approval under Case No. DIR-2015-309-SPPA-SPP, the project included streetscape features to facilitate an appropriate human scale for pedestrians along the street including the addition of street trees, landscaping along all street frontages, benches, and new street lighting fixtures. As designed, the project satisfies the intent of the Street Level Façade Design Guideline.
- s. **Architecturally Articulated.** According to the Design Guidelines, new hospitals should be designed so that tall towers can be softened by the articulation of upper facades to achieve visual blending with the Hollywood Hills to the north, while still allowing for patient rooms to access natural light and scenic views. As seen in “Exhibit A” the project proposes horizontal and vertical plane breaks, change in material, and lineal orientation of the façade construction. As designed, the project satisfies the intent of the Street Level Façade Design Guideline.
- t. **Architectural Features.** The Design Guidelines encourage courtyards, balconies, arbors, roof gardens, water features, and trellises. Appropriate visual references to historic building forms – especially Mediterranean traditions – are encouraged in new construction. The proposed project provides multiple private balconies on the second floor. Furthermore, all street-facing elevations employ a variety of building materials and articulation by way of changes in building plane and transparency. Therefore, the project complies with this Design Guideline.
- u. **Collaborative.** According to the Design Guidelines, new hospitals should attempt to create a coordinated approach to creating an architectural identity for the hospital core. It is not necessary for the buildings to look alike but they should belong together as a group of related facilities. The additional three levels above the existing parking structure are being proposed with similar articulation, materials, and colors as other structures found within the HPMC campus across the street. Therefore, the project complies with this Design Guideline.
- v. **Context.** According to the Design Guidelines, new hospital structures need to visually and functionally support public access to the Barnsdall Park and the two subway portals. The Design Guidelines further stipulate that it is necessary for the hospitals to widely support and advertise the transit accessibility of their sites by incorporating directional signage to subway and transit stops on their buildings. As indicated in the original approval under Case No. DIR-2015-309-SPPA-SPP, the proposed project is not close enough to visually connect the pedestrian with these features. However, the project still conforms to the underlying intent of this Design Guideline since the design of the project site has incorporated several elements which encourage pedestrian

mobility (benches, additional trees, landscaping, visual interest along the facade, etc.). Therefore, the design of the proposed project satisfies the provisions of the Design Guidelines, which endeavor to support the use of civic resources by supporting pedestrian mobility.

- b. The project incorporates mitigation measures, monitoring measures when necessary, or alternatives identified in the environmental review, which would mitigate the negative environmental effects of the project, to the extent physically feasible.**

The Department of City Planning found that based on the independent judgment of the decision-maker, after consideration of the whole of the administrative record (Case No. ENV-2015-310-MND-REC1), the project was assessed in Mitigated Negative Declaration, No. ENV- ENV-2015-310-MND adopted on January 11, 2016; and pursuant to CEQA Guidelines 15162 and 15164, as supported by the Addendum dated July 27, 2021, no major revisions are required to the Mitigated Declaration; and no subsequent EIR or negative declaration is required for approval of the project.

3. Findings for Site Plan Review per LAMC Section 16.05.

- a. The project is in substantial conformance with the purposes, intent and provisions of the General Plan, applicable community plan, and any applicable specific plan.**

As discussed in Finding No. 1.e., the granting of the exception would allow the construction of additional medical office spaces which would be consistent with principles, intent and goals of the SNAP and the applicable elements of the General Plan.

- b. The project consists of an arrangement of buildings and structures (including height, bulk and setbacks), off-street parking facilities, loading areas, lighting, landscaping, trash collection, and other such pertinent improvements, that is or will be compatible with existing and future development on adjacent properties and neighboring properties.**

Development of the project site into a parking structure with medical offices would be consistent and compatible with existing and future development on neighboring and other properties within close proximity, which is generally developed with hospitals, commercial, residential, and public facility uses. Furthermore, the project provides architectural features that vary and articulate the building façade and incorporates a variety of colors and materials.

Building Arrangement (Height, Bulk, and Setbacks)

The subject site is located in Subarea C of the Vermont/Western SNAP, which contains provisions for building height, FAR, and setbacks. Per Section 3 of the SNAP, the Specific Plan prevails and supersedes the applicable provisions of the Municipal Code, wherever the Specific Plan contains provisions on development.

The surrounding area is characterized by level sloped topography and improved streets. Properties surrounding the property are located within the SNAP Subarea B (Mixed Use Boulevards) and Subarea C of the SNAP. The property to the north, across De Longpre Avenue, is developed with a grocery store. The property to the west, across Lyman Place, is developed with the Hollywood Presbyterian Medical Center. Properties to the east, across Virgil Avenue, are developed with a medical office building and residential buildings. Properties to the south are developed with commercial and residential properties.

The project proposes a maximum of 96 feet, 4 inches in building height and consists of 95,995 square feet of floor area. The proposed 96-foot tall, medical office will be consistent with other hospital developments in the area that have height maximums of 100 feet and allow for a similar bulk on multiple lots. The 95,995 square feet of floor area equates to a 2.8:1 FAR, which is below the allowable 3:1 FAR for Hospital and Medical uses within the SNAP.

The SNAP does not require front, side, and rear yards for projects that are located in Subarea C. In addition to meeting the height, FAR, and setback requirements per the Specific Plan, the project proposes various articulation and architectural elements that reduce the effect of a large-scale development in the neighborhood. The additional three levels of medical office floors are defined by various planes that consist of perforated metal, glass, metal panels, and horizontal louvers. The roof plane varies in height which adds articulation to the building. The changes in the plane as well as materials also further articulates the building and increases the visual interest from public streets.

Off-Street Parking Facilities and Loading Areas

The project site has an existing parking structure that contains 562 parking spaces. The parking structure is accessible along Lyman Place and Virgil Avenue. As discussed under Finding No. 2, the project proposes to maintain the existing 562 parking. The project will also provide 20 new bicycle parking spaces and five (5) bike racks along the public right-of-way.

Lighting

The plans for this project do not specify lighting details at this time. However, the Development Standards specify that the acceptable level of lighting intensity is $\frac{3}{4}$ foot-candle of flood lighting measured from the ground, a maximum mounting height of light sources shall be 14 feet, and "white" color corrected lamp color shall be used for ground level illumination. As such, the project has been conditioned to comply with the lighting regulations of the Specific Plan.

Landscaping

The illustrative landscape plan in Exhibit "A" shows that adequate landscaping will be provided throughout the project site. The grade level along all street frontages level is landscaped with ground cover, shrubbery, and trees. The proposed plant palette shows that the landscaping includes trees such as Lophostemon Confertus, Koelreuteria Bipinnata, Forest Pansy, and Cassia Leptophilla. The applicant is also required to submit a final landscape plan prepared by a licensed landscape architect showing a combination of shrubs, trees, clinging vines, ground cover, lawns, planter boxes, flower and/or fountains incorporated into all landscaped areas on the project site, as well as an irrigation plan.

Trash Collection

The Vermont/Western SNAP Development Standards specify requirements for the location and design of trash storage and recycling areas. The project has an enclosed trash and recycling area within the subterranean parking level of the existing parking structure. The trash collection will be provided via Virgil Avenue.

- c. Any residential project provides recreational and service amenities to improve habitability for its residents and minimize impacts on neighboring properties.**

The project proposes the addition/construction of three levels of medical office space, containing 95,995 square feet of floor area, on top of an existing parking structure. There will be no construction of residential dwelling units as part of the proposed project.

PUBLIC HEARING AND COMMUNICATIONS

Due to concerns over COVID-19, the Hearing Officer, on behalf of the Area Planning Commission conducted the Public Hearing entirely telephonically by Zoom [<https://zoom.us/>] on September 24, 2021 at 10:00 AM. In attendance were the project applicant and representative.

Summary of Public Hearing

Public Hearing

1. Public Speakers: The project applicant, representative, consultant, and 21 members from the public.
2. The applicant's representative described the project and entitlement requests, and clarified that the request for a reduction in parking and elimination of a second pedestrian throughway would not be detrimental. The environmental consultant team reiterated that no new impacts would occur from the new construction above the existing parking structure.
3. Seventeen (17) public speakers were from local labor unions that opposed the project because there was no commitment to hire locally.
4. Two (2) residents within the vicinity opposed the project because of traffic concerns and other environmental impacts
5. Two (2) public speakers opposed the project because the Addendum was seen as insufficient and the Addendum was not made available online for review.

Communication

There were no letters from the public pertaining to the project scope prior to the Hearing Officer hearing.

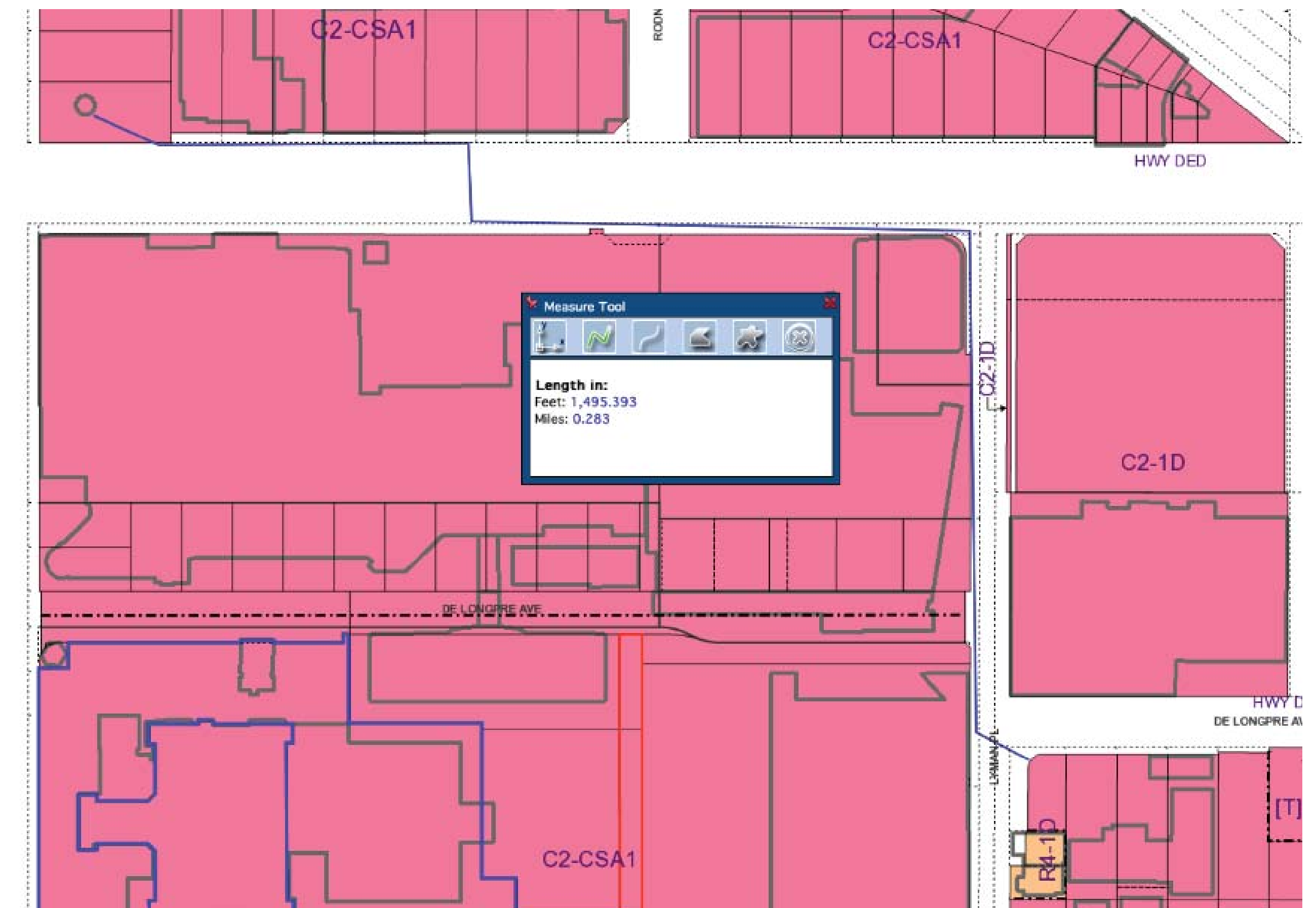
BUILDING SUMMARY

EXHIBIT A

Plans

Subject	Content	Resource
Site Address	1318 N.Lyman Place, Los Angeles CA 90027	
Site Area	43,972 SF	
Zoning	C4-1D, C2-1D, R4-1D	Zimas
APN	5542012028, 5542012029, 5542012034, 5542012035, 5542012036	Zimas
Tract	Thoren Place, East Hollywood Heights, Girder and Hamiltons Olive Place	Zimas
Designation of Subareas	Subarea C - Community Center	
Setback	5' Setback along the street	Vermont/Western TOD (SNAP)
Height Limit	Allowed : 100' (+5' for Roof features - Required 10' set back from the perimeter) - Subarea C/Hospital/Sec.12.21.1B.3 Proposed : 96'-4" / 103'-10" Top of elevator penthouse	Vermont/Western TOD (SNAP) - Section 9.B.3.a
Floor Area	Allowed : 131,916 SF Proposed : 95,995 SF	Vermont/Western TOD (SNAP)
FAR	Allowed : 3.0 maximum - Subarea C/Hospital Proposed : 2.81	Vermont/Western TOD (SNAP)
Site Coverage	No Limit / 34,385 SF (78%)	Vermont/Western TOD (SNAP)
Number of Story(s)	3 Stories (Over the existing parking garage)	
Parking	Dedicated : 164 Cars Calculation - 192 Cars Per 95,995 SF (95,995 / 500 = 191.99) - 15% Reduction per SNAP = 192 X 15% = 164 Cars Proposed : 164 Cars	Vermont/Western TOD (SNAP) See Figure 1
Bike Parking	Existing : 21 Spaces at the Ground Floor Required : 19 Spaces Calculation - 10,000/1,000 + 85,995/10,000 = 19 Proposed : Total 41 Spaces (21 spaces + 20 spaces in New Facility)	Vermont/Western TOD (SNAP)
Bike Racks	N/A	SNAP Guidelines - Chapter VIII
Trash Receptacles	N/A (One Trash Receptacle was voluntarily installed on the Lyman Pl.)	Determination Letter - DIR-2015-309-SPPA-SPP-1A
Public Benches	Required : 1 Proposed : 1 One existing public bench on the Lyman pl. fulfills the requirement	Determination Letter -DIR-2015-309-SPPA-SPP-1A
Street Trees	Required : 4 trees along the Lyman Pl. / 9 trees along the De Longpre Ave. 6 trees along the Virgil Ave. Proposed : 4 new trees on the Lyman Pl./ 9 trees (7 Existing + 2 New) on the De Longpre Ave. / 6 trees (4 Existing+2 New) on Virgil AveL.	Determination Letter -DIR-2015-309-SPPA-SPP-1A
Landscape	Existing Area : 6,256 SF / At least 3 feet wide landscape buffer	SNAP Guidelines
Building Use	Medical Office Building	Vermont/Western TOD (SNAP)
Occupancy Type	B	California Building Code 2016
Construction Type	1-B	
Fire Protection	Fully Sprinklered	

FIGURE 01 - SNAP Specific Plan Sec. 6

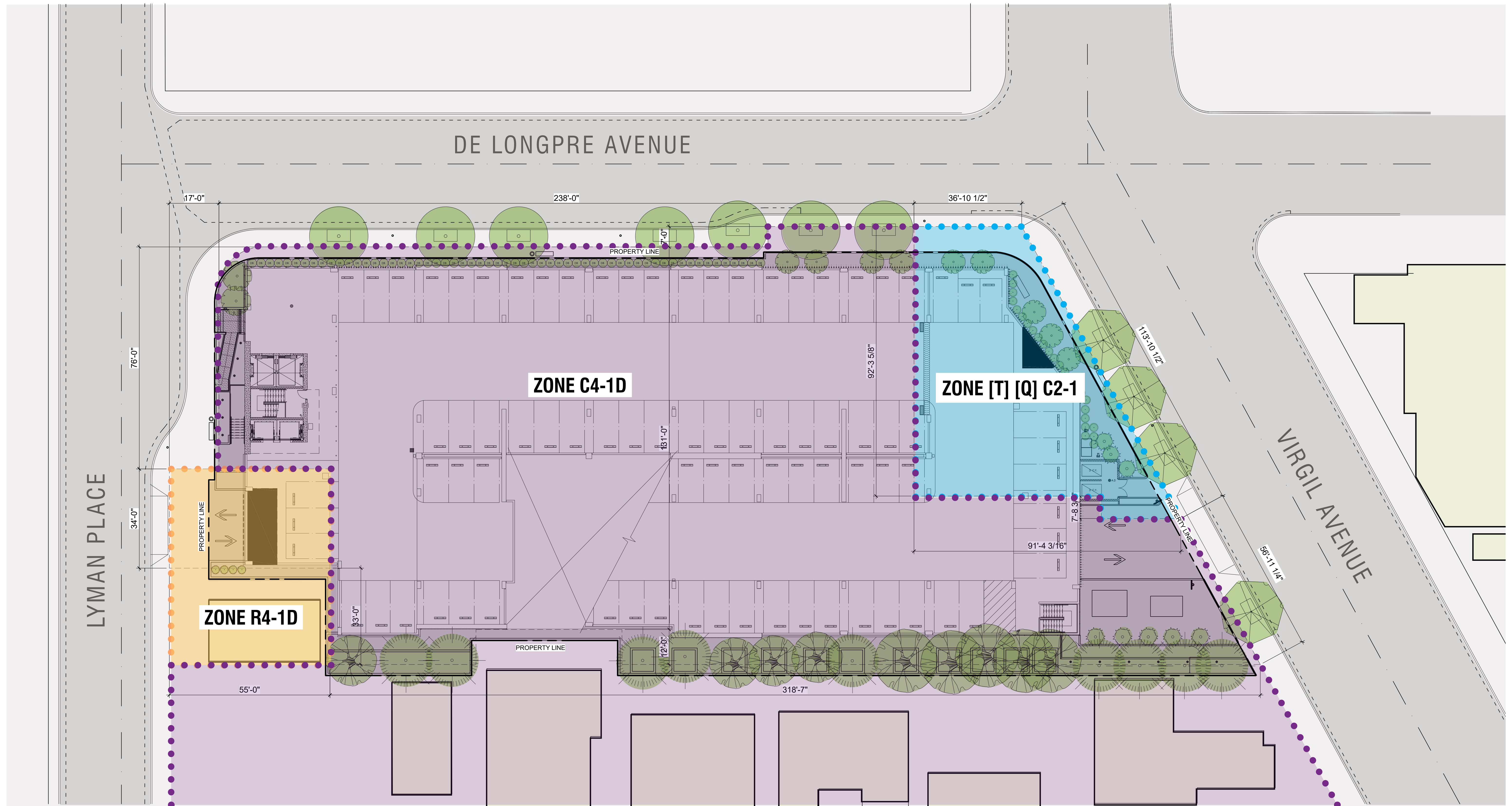


Distance from Metro Red Line Station to the Site = 1,495 FT

M. Parking Reduction Within 1,500 Feet of a Metro Red Line Station. In connection with a Project Permit Compliance pursuant to Section 12 of this Specific Plan, the Director of Planning shall grant a 15% reduction in the minimum parking space standards otherwise required by this Specific Plan for any Project in any zone on any lot, any portion of which is located within 1,500 feet of a portal entrance to a Metro Red Line subway station.

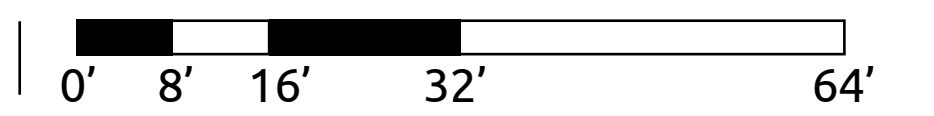
PLOT/SITE PLAN

EXISTING CONDITIONS

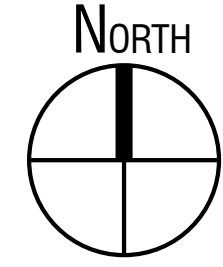


PLOT / SITE PLAN - EXISTING

SCALE: 1/16" = 1'-0"



PLOT/SITE PLAN



LEGAL DESCRIPTION :

TRACK	LOT	ARB	LOT AREA(sq.ft.)
THOREN PLACE	7-10	5542012028	23,689.5
THOREN PLACE / EAST HOLLYWOOD HEIGHT	12/5-6	5542012029	5,728.5
THOREN PLACE	7	5542012034	1,360.0
THOREN PLACE	11	5542012035	7,249.9
THOREN PLACE / EAST HOLLYWOOD HEIGHT / GRIDER AND HAMILTONS OLIVE PLACE	12/5/4	5542012036	5,944.1
TOTAL LOT AREA			43,972 sq.ft.

SITE ADDRESS :

1318 N. LYMAN PLACE,
4470,4472,4474, 4480,4480 1/2, 4482,
4484,4490,4494 W. DE LONGPRE AVENUE
1321, 1323 N. VIRGIL AVENUE
LOS ANGELES, CA 90027

PARKING CALCULATIONS :

DEDICATED (15% REDUCTION PER SNAP) - 164 SPACES
PROPOSED - 164 SPACES

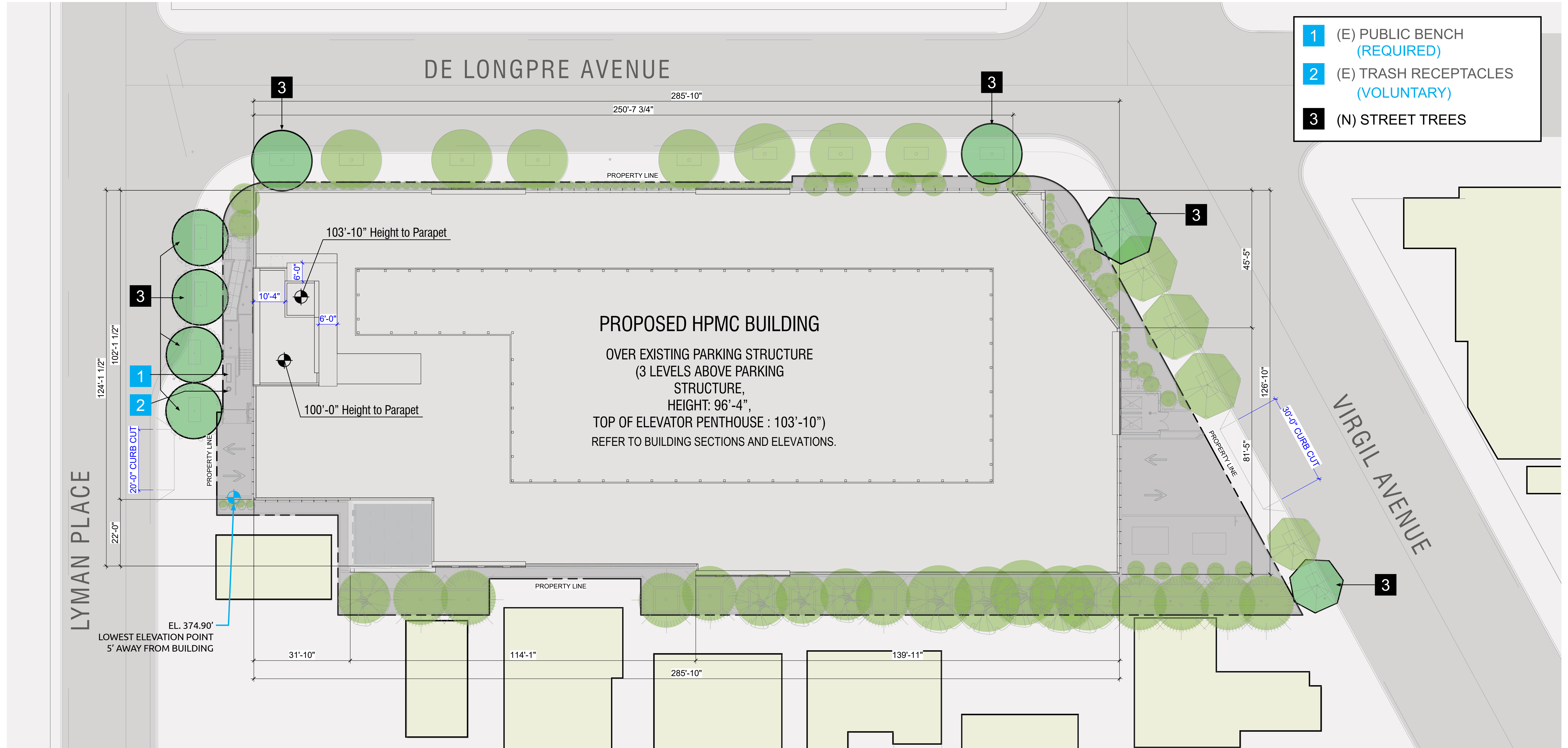
FLOOR AREA :

HPMC LEVEL 1 - 31,958 SF
HPMC LEVEL 2 - 32,346 SF
HPMC LEVEL 3 - 31,691 SF
TOTAL 95,995 sq.ft.

FAR : 2.18

BUILDING FOOTPRINT AREA : 34,385 SF

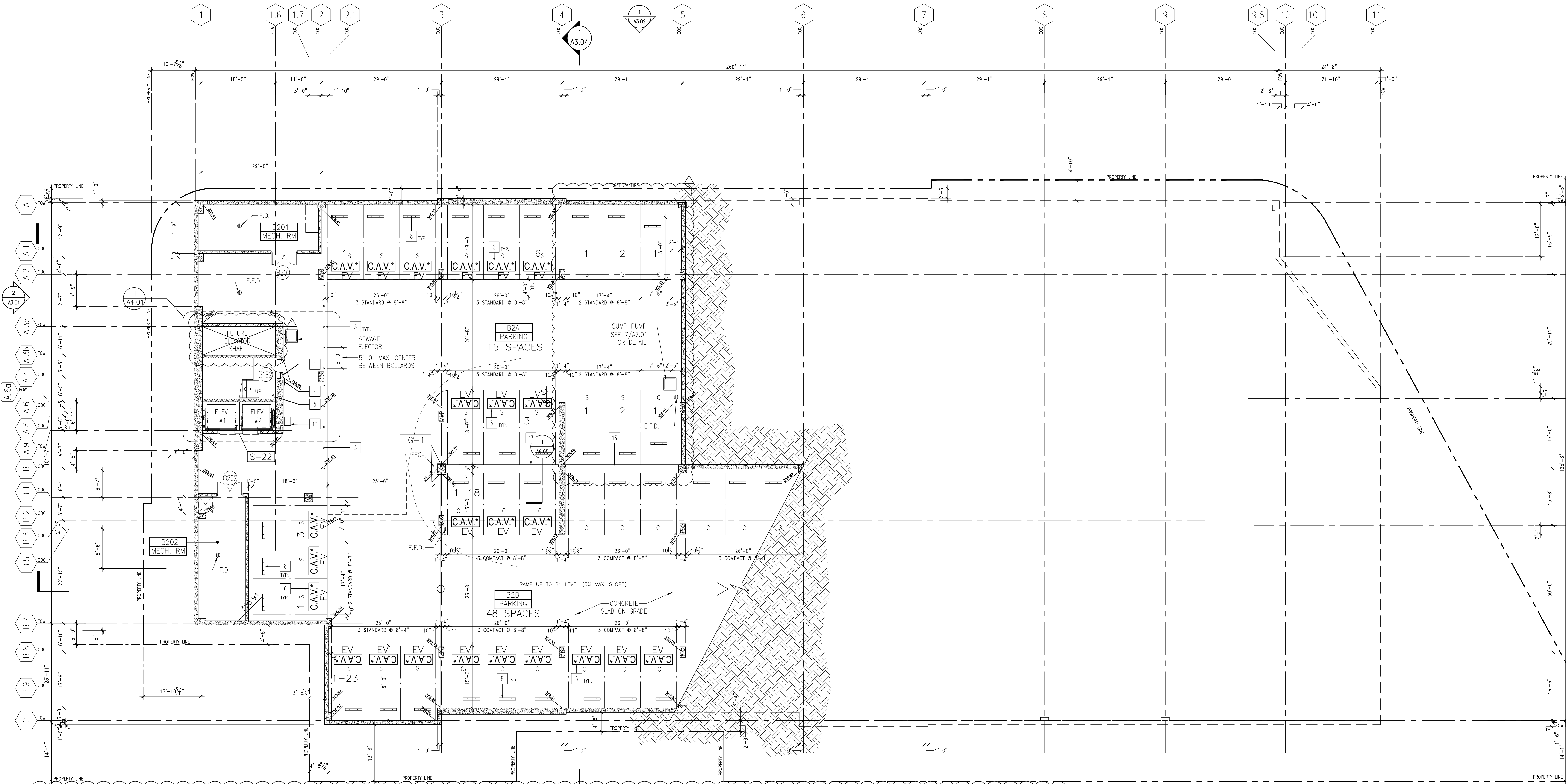
EXISTING LANDSCAPE AREA : 6,256 SF



- 1** (E) PUBLIC BENCH (REQUIRED)
- 2** (E) TRASH RECEPTACLES (VOLUNTARY)
- 3** (N) STREET TREES

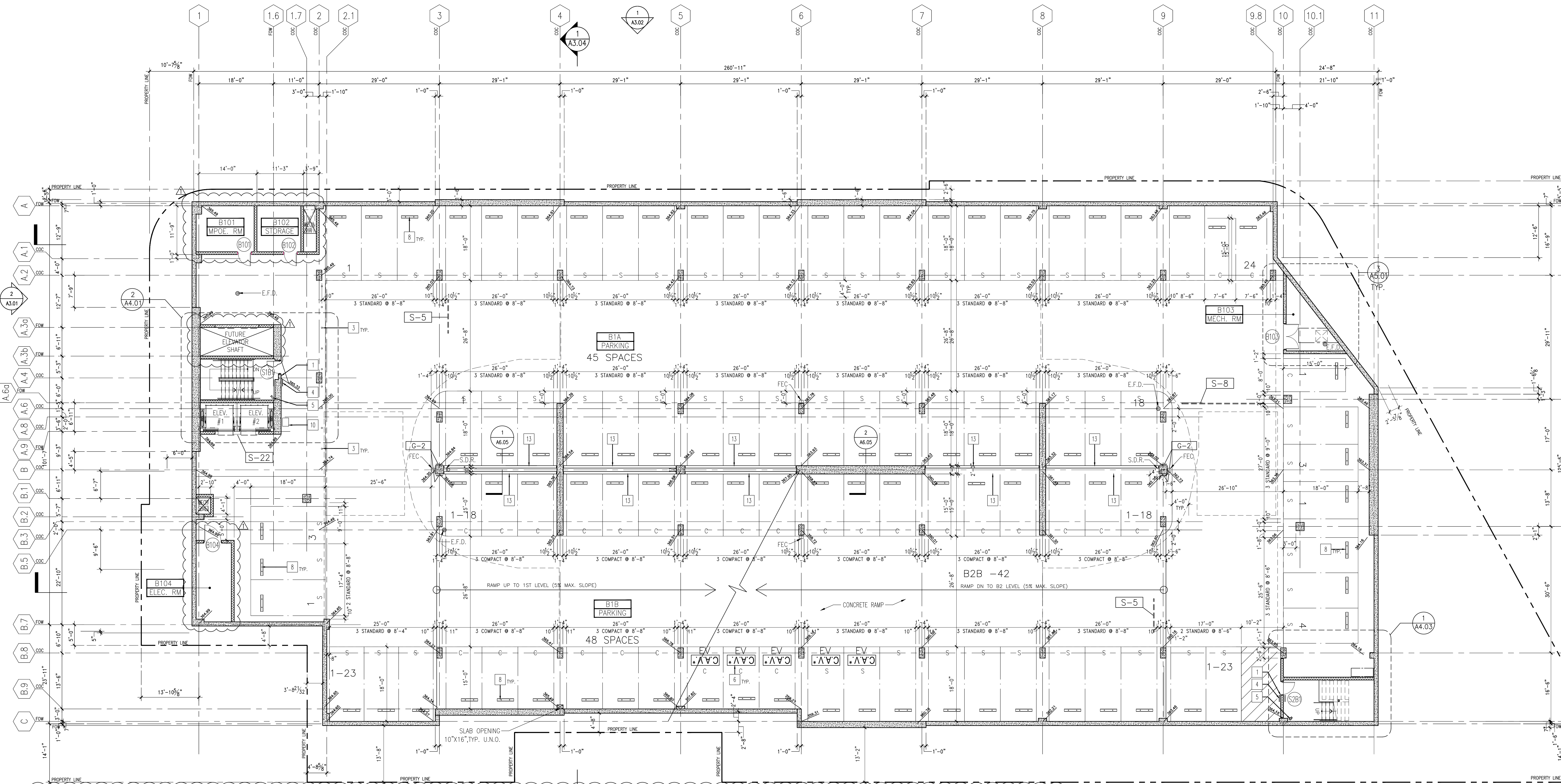
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL B2 PLAN



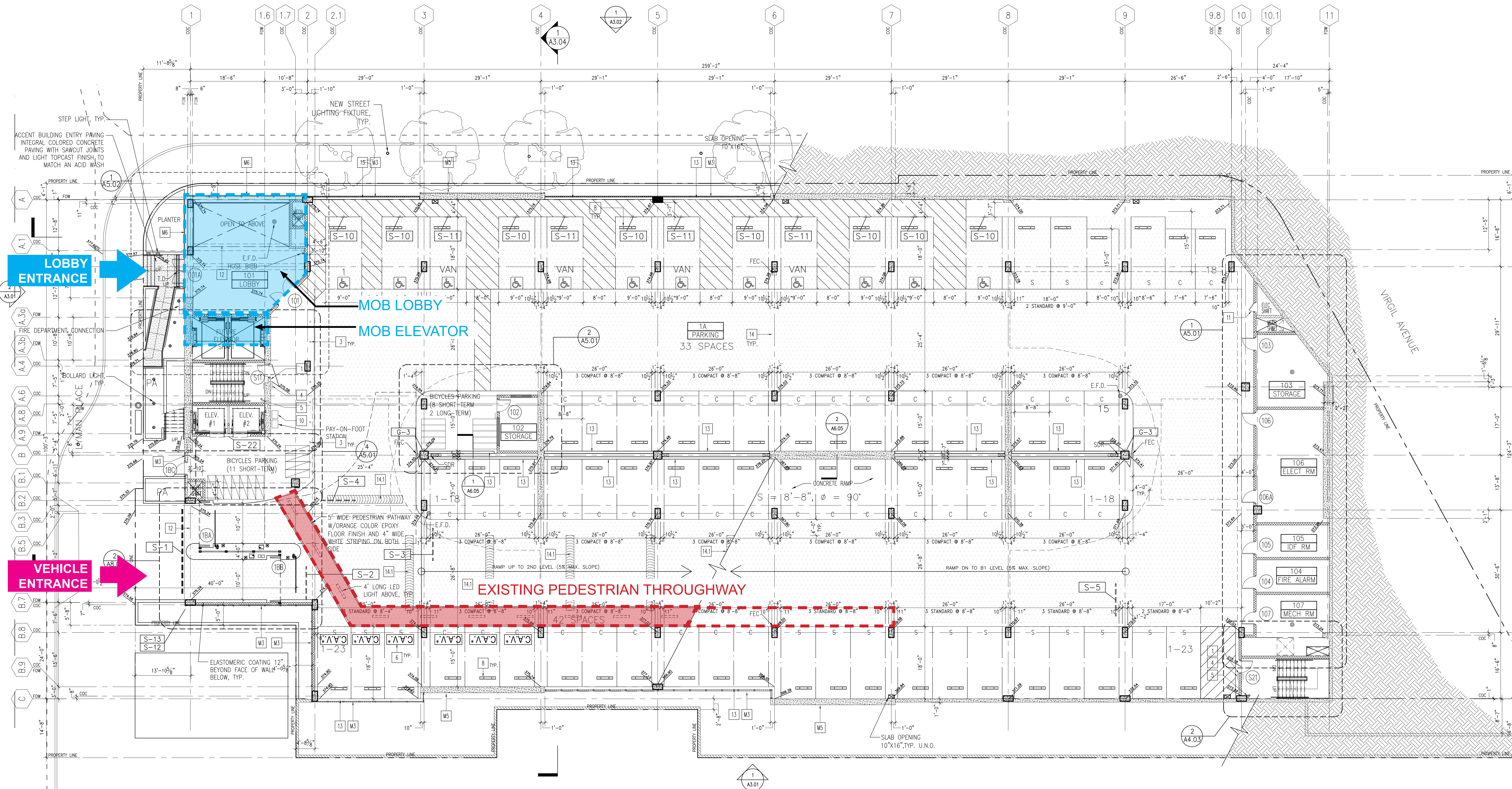
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL B1 PLAN



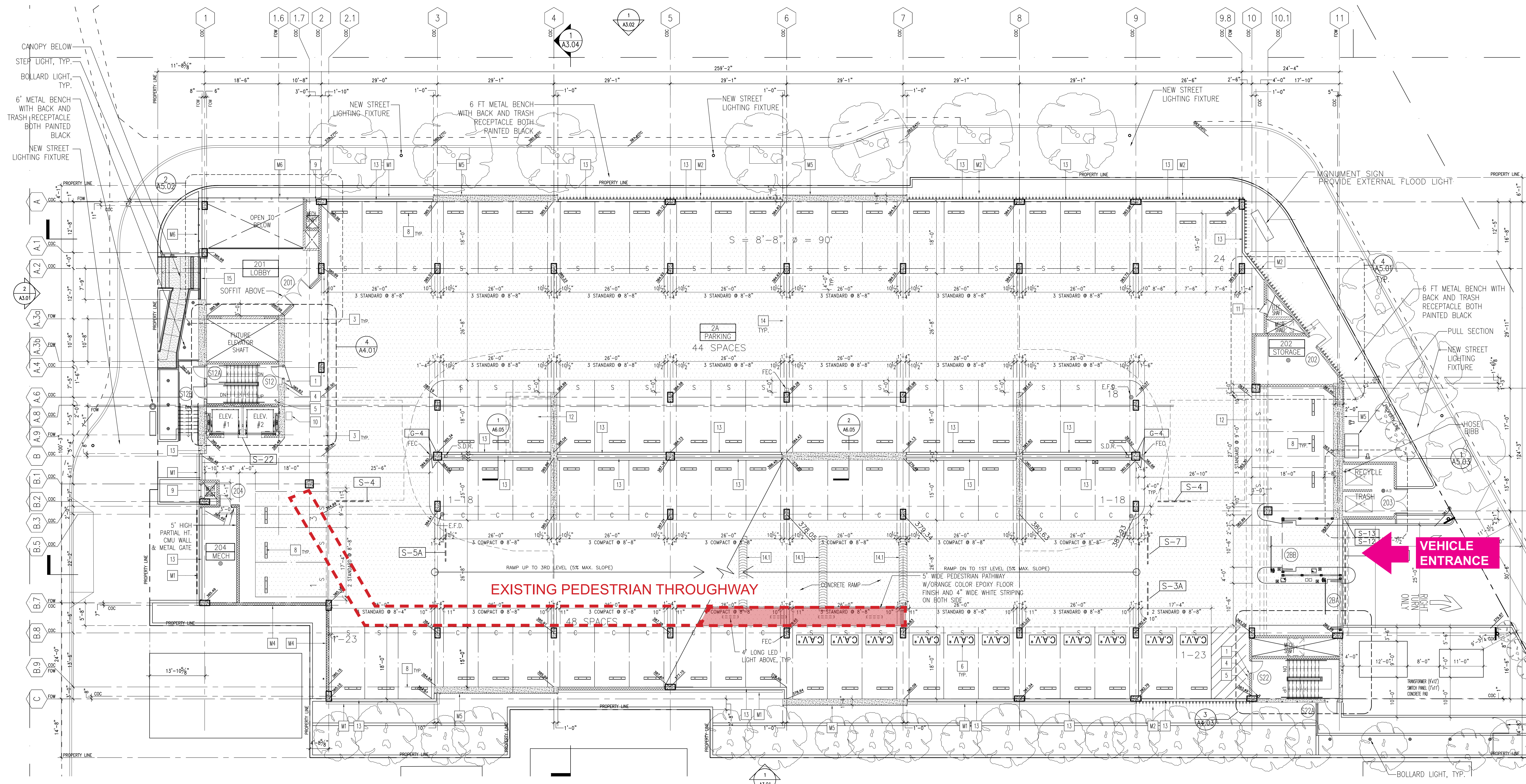
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL 1 PLAN



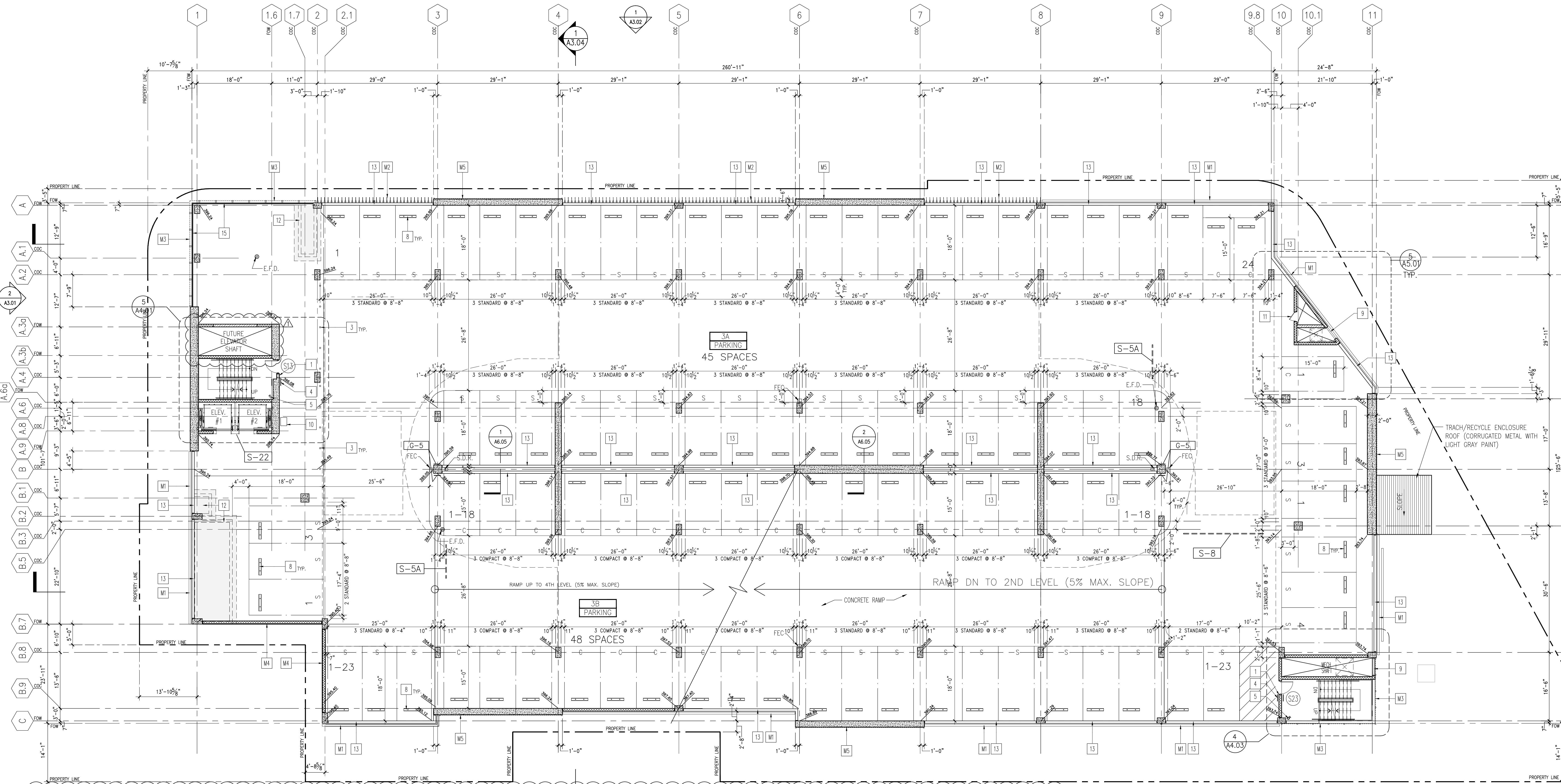
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL 2 PLAN



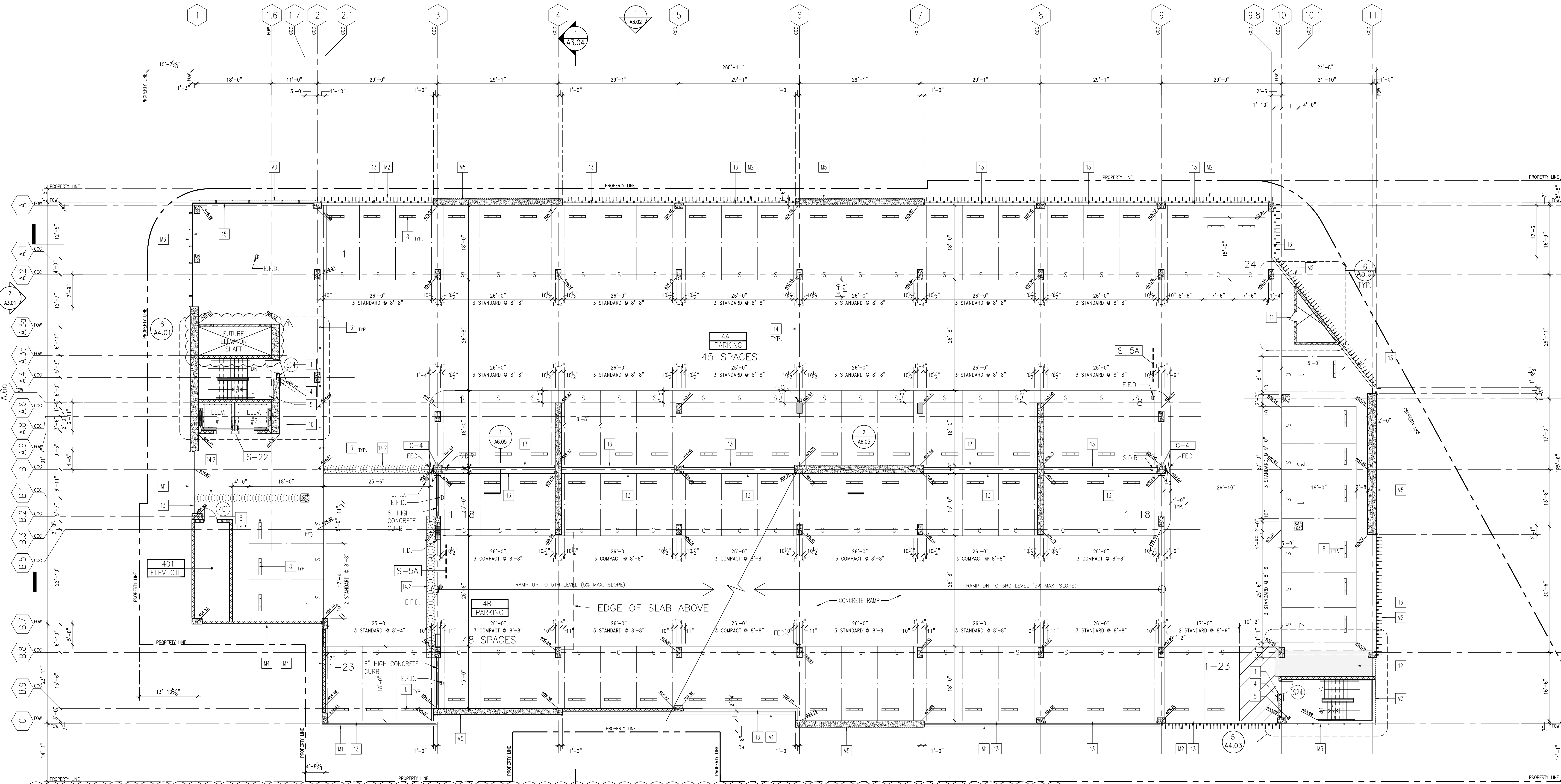
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL 3 PLAN



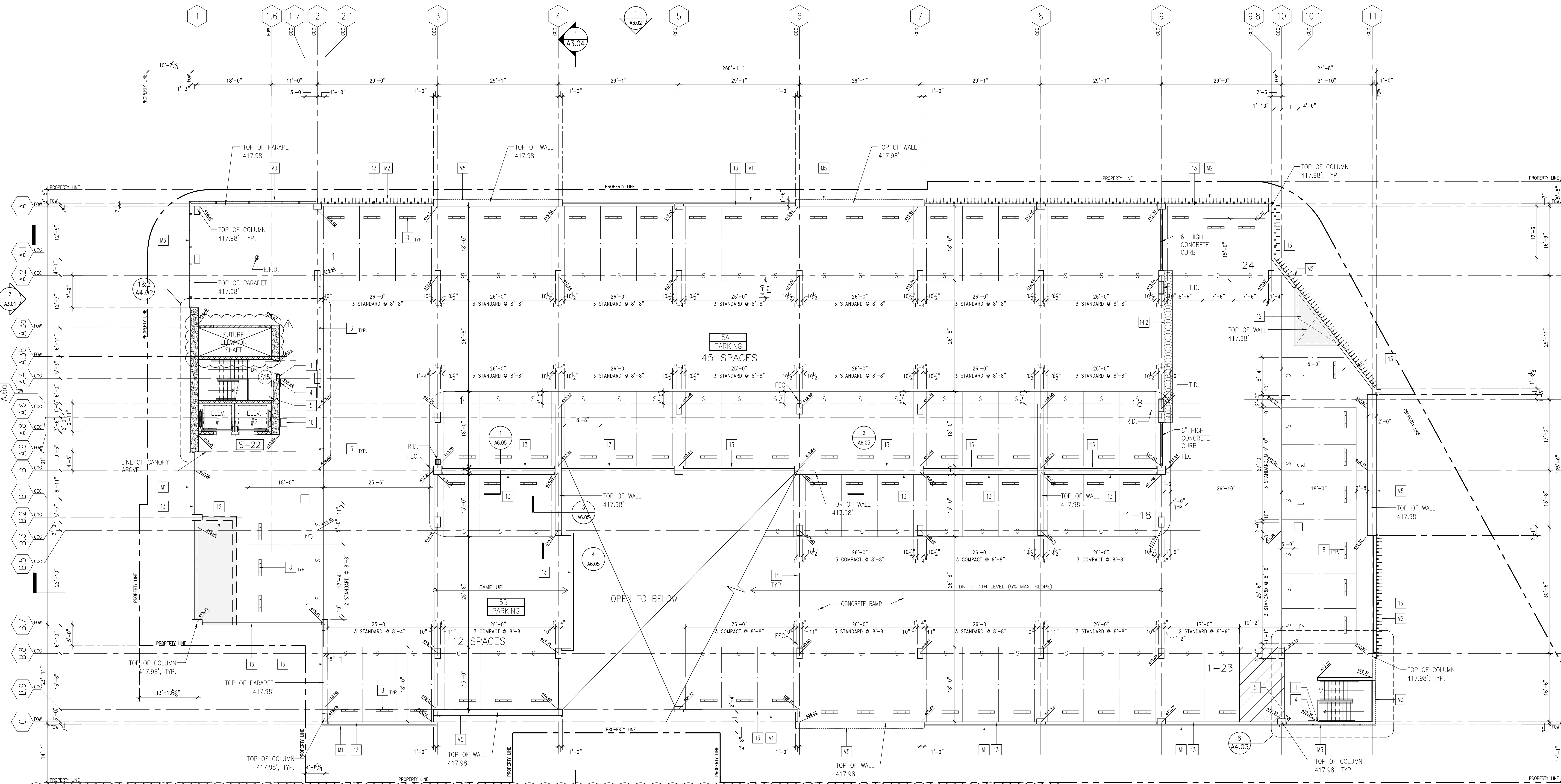
EXISTING PARKING GARAGE FLOOR PLAN

LEVEL 4 PLAN



EXISTING PARKING GARAGE FLOOR PLAN

LEVEL 5 PLAN



FLOOR PLAN

HPMC LEVEL 1 PLAN

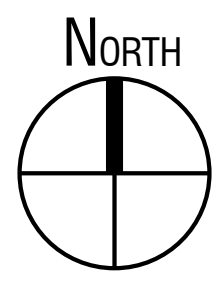
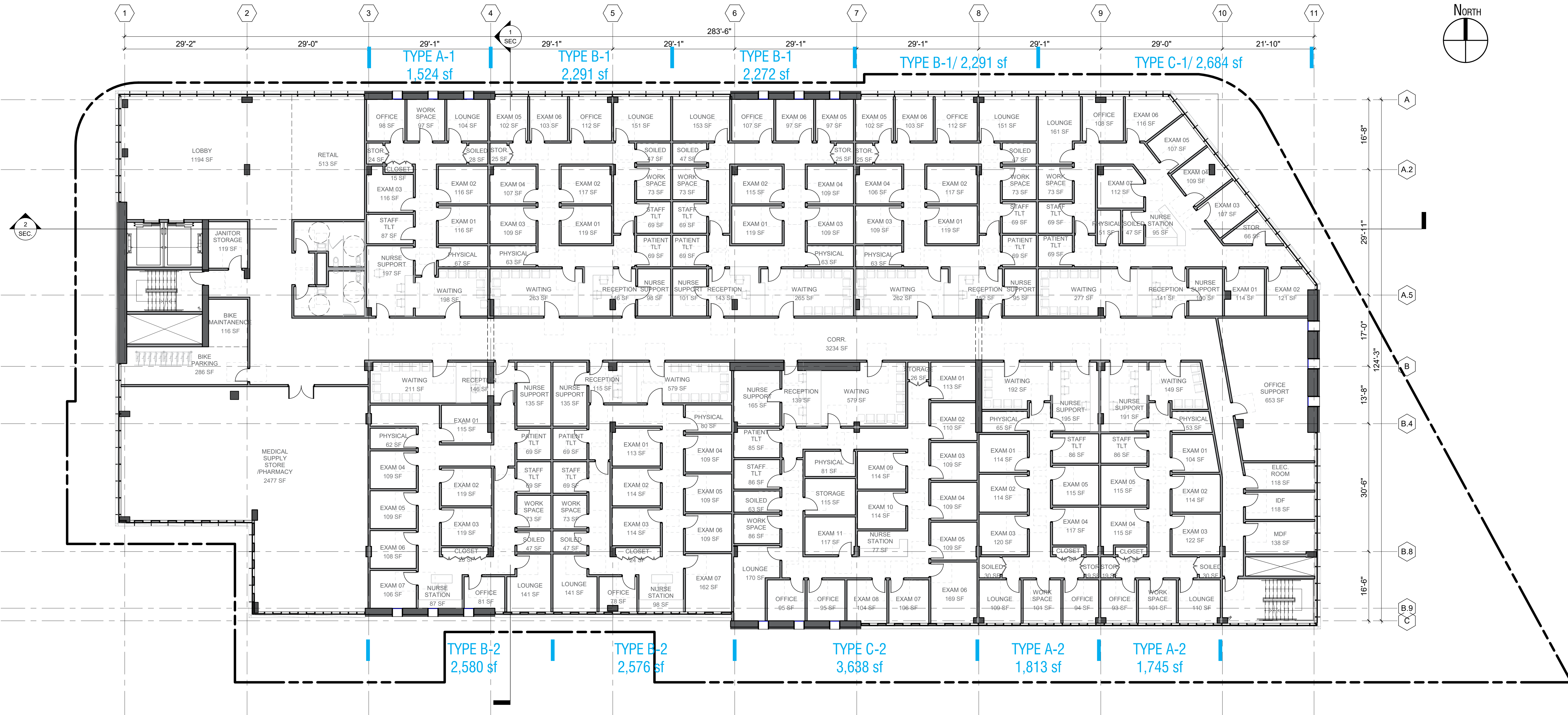
FLOOR AREA : 31,958 SF

LOBBY	-	1,207 SF
RETAIL	-	513 SF
MEDICAL OFFICE	-	24,069 SF
MEDICAL SUPPLY STORE / PHARMACY	-	2,495 SF
TOILET / JANITOR	-	452 SF
CORRIDOR	-	3,242 SF

[EXCLUDING]	
CORE	- 888 SF
MDF/IDF/ELEC.RM	- 376 SF
BIKE PARKING	- 402 SF
SHAFT	- 42 SF
	<hr/> 1,688 SF

MOB UNIT :

A-1	1
A-2	2
B-1	3
B-2	2
C-1	1
C-2	1
	<hr/> 10 UNITS



HPMC LEVEL 1 PLAN | SCALE: 3/32" = 1'-0"

FLOOR PLAN

HPMC LEVEL 2 PLAN

FLOOR AREA : 32,346 SF

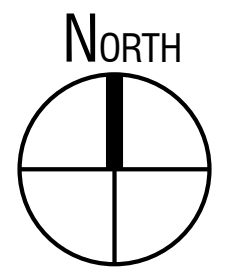
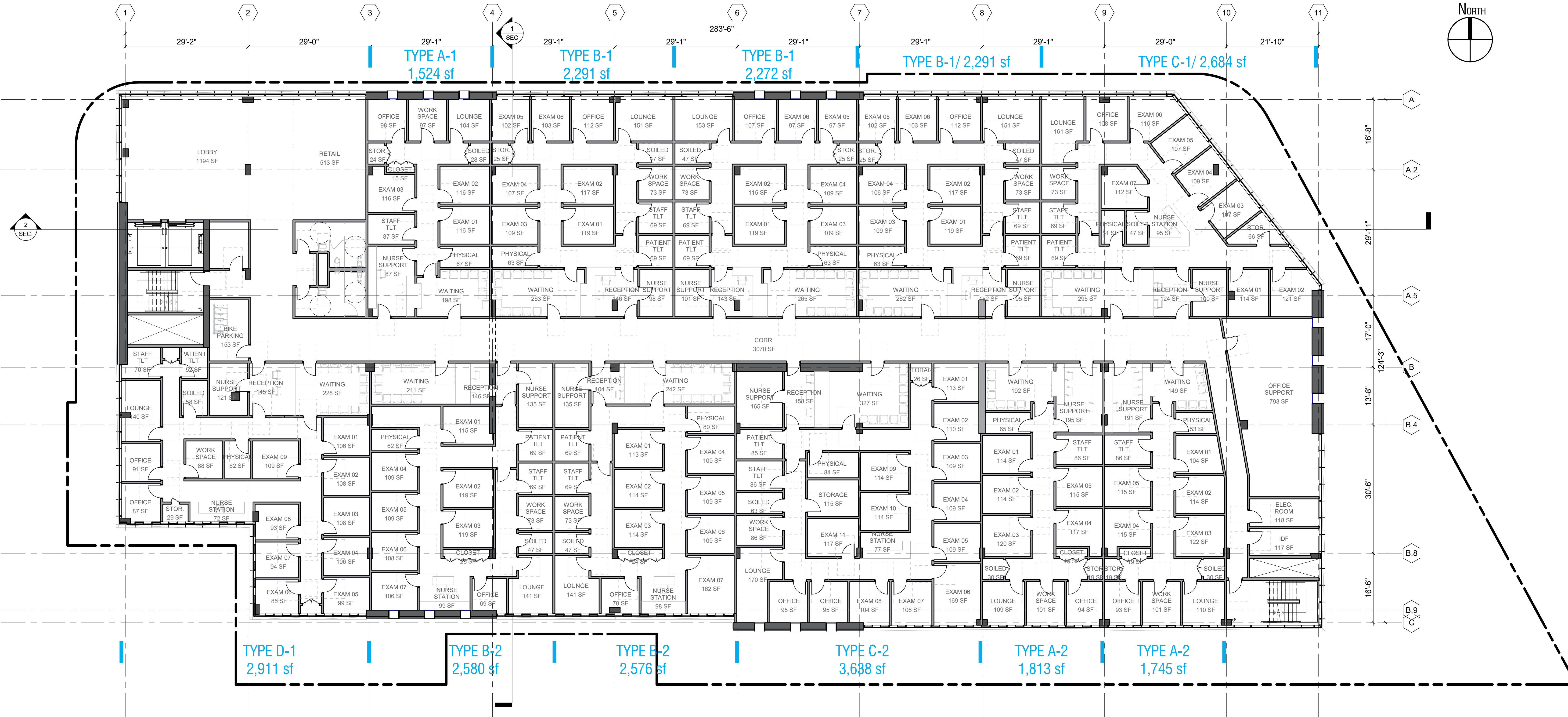
LOBBY - 1,207 SF
 RETAIL - 513 SF
 MEDICAL OFFICE - 27,119 SF
 TOILET / JANITOR - 452 SF
 CORRIDOR - 3,075 SF

[EXCLUDING]
 CORE - 888 SF
 MDF/IDF/ELEC.RM - 237 SF
 BIKE PARKING - 153 SF
 SHAFT - 42 SF
 1,300 SF

MOB UNIT :

A-1 1
 A-2 2
 B-1 3
 B-2 2
 C-1 1
 C-2 1
 D-1 1

11 UNITS



HPMC LEVEL 2 PLAN | SCALE: 3/32" = 1'-0"

FLOOR PLAN

HPMC LEVEL 3 PLAN

FLOOR AREA : 31,691 SF

LOBBY - 1,949 SF
 MEDICAL OFFICE - 23,299 SF
 MULTI-PURPOSE
 With KITCHEN - 2,984 SF
 TOILET / JANITOR - 343 SF
 CORRIDOR - 3,136 SF

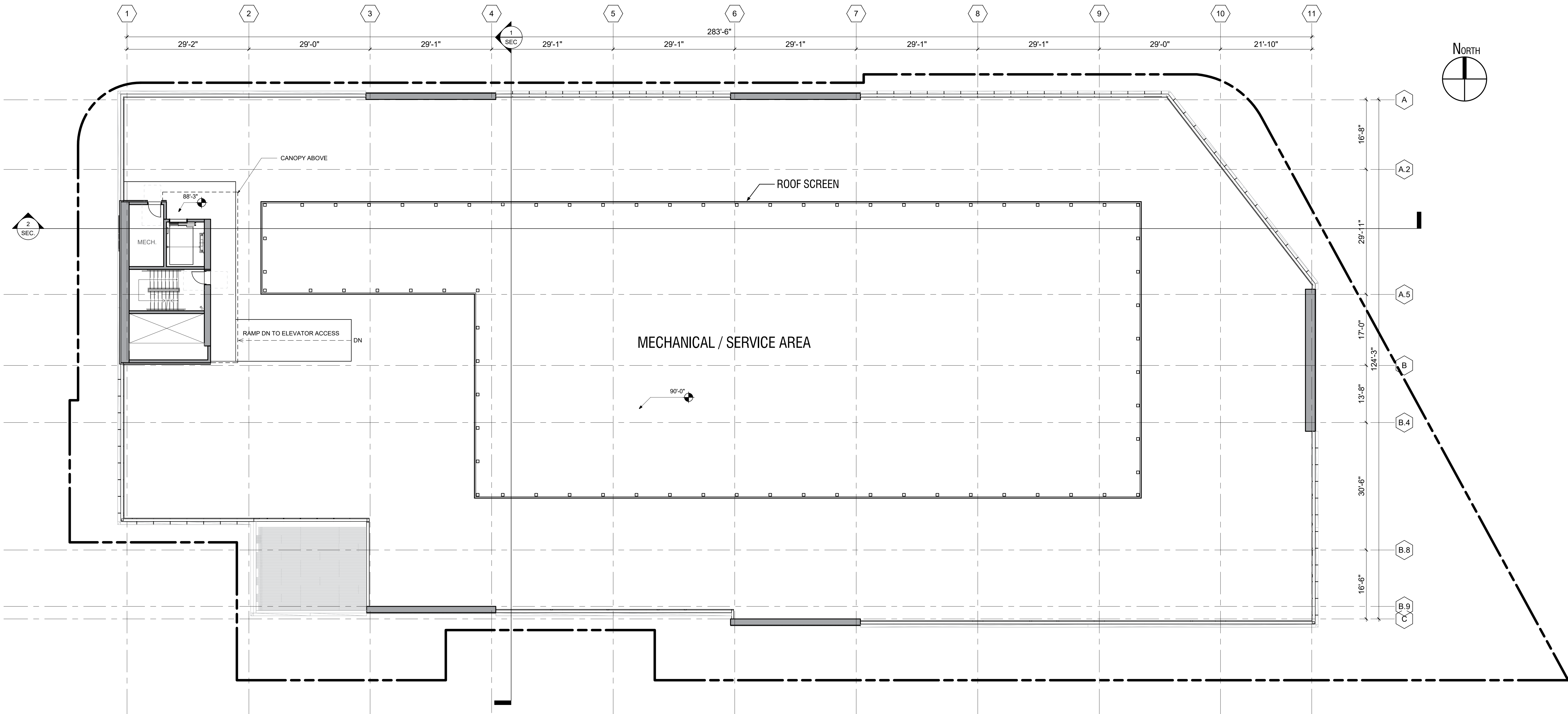
[EXCLUDING]
 CORE - 922 SF
 MDF/IDF/ELEC.RM - 305 SF
 BIKE PARKING - 116 SF
 SHAFT - 44 SF
 1,367 SF



HPMC LEVEL 3 PLAN | SCALE: 3/32" = 1'-0"

FLOOR PLAN

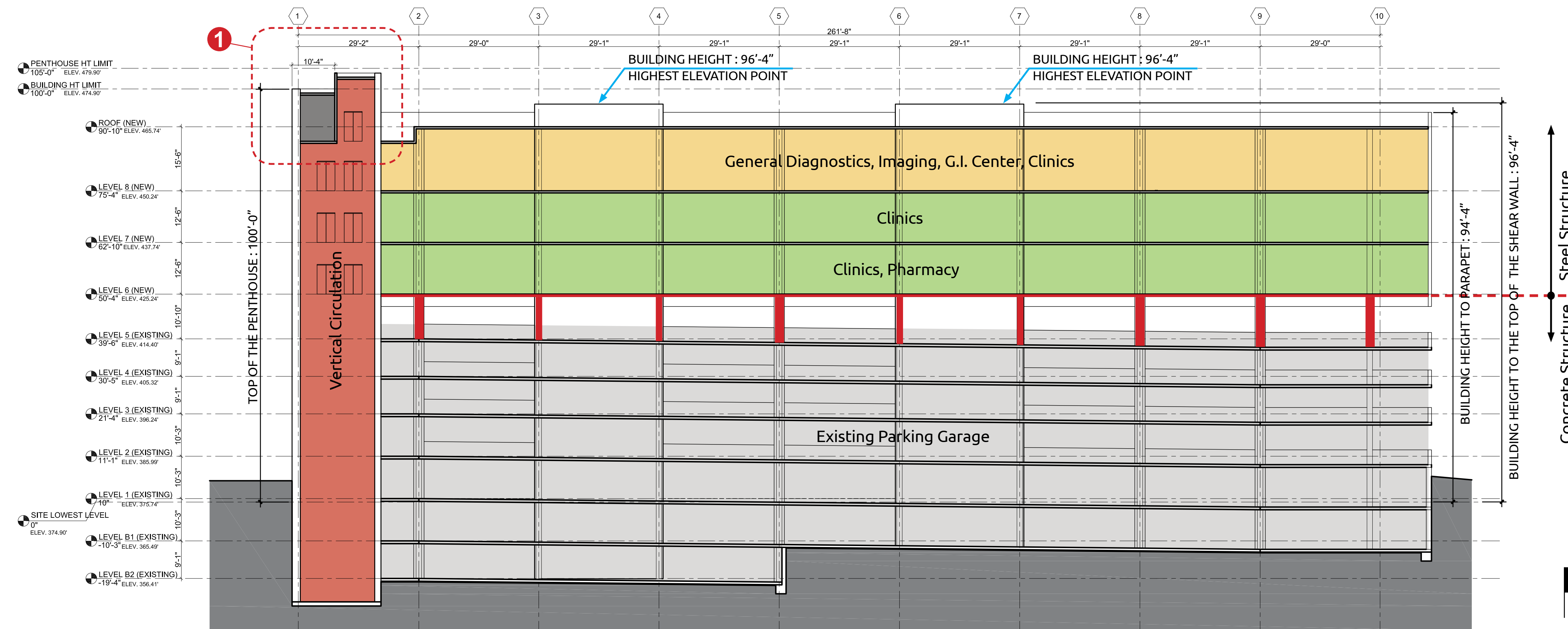
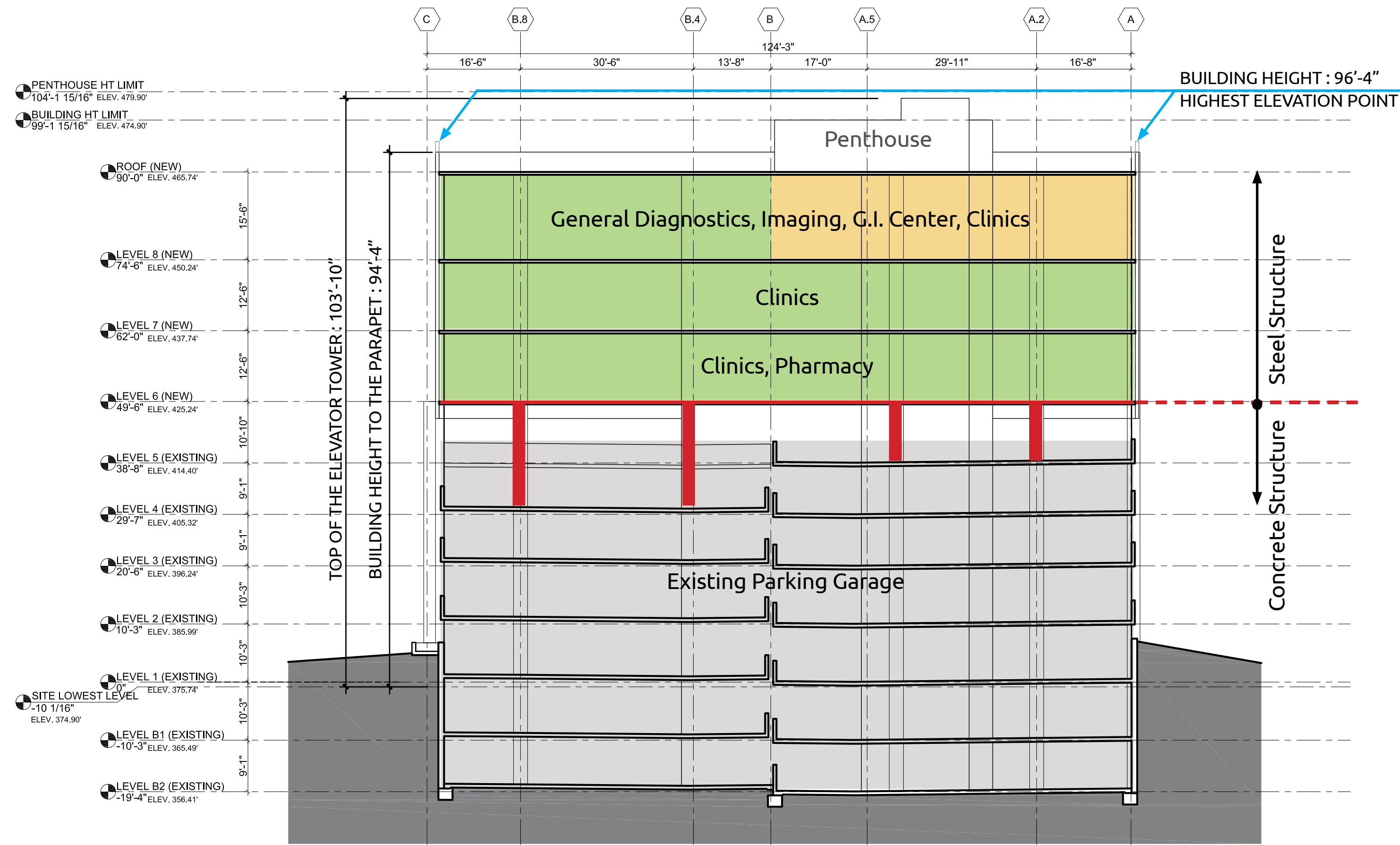
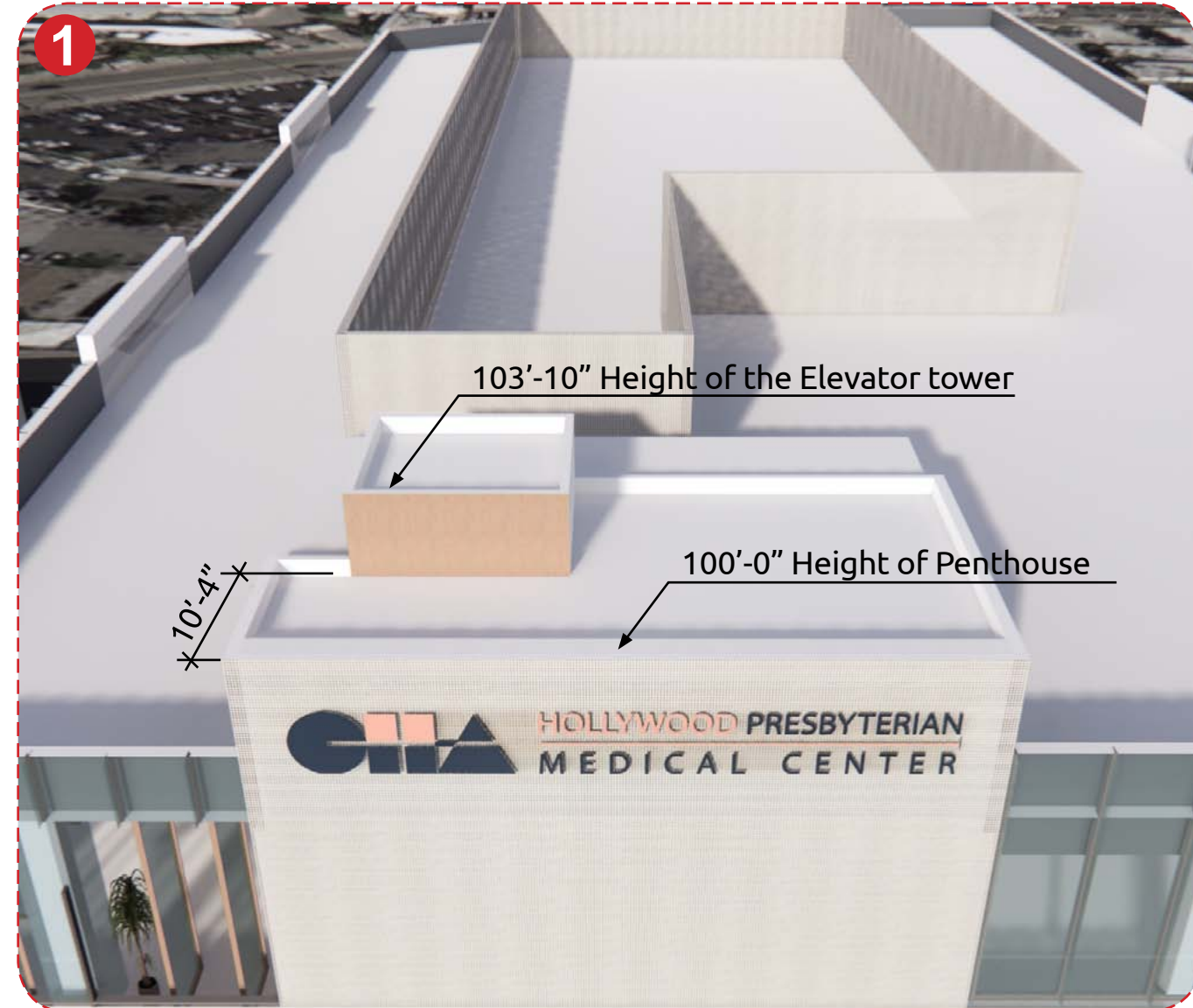
HPMC ROOF PLAN



HPMC ROOF PLAN

SCALE: 3/32" = 1'-0"

BUILDING SECTIONS



BUILDING ELEVATIONS

SOUTH, RENDERED

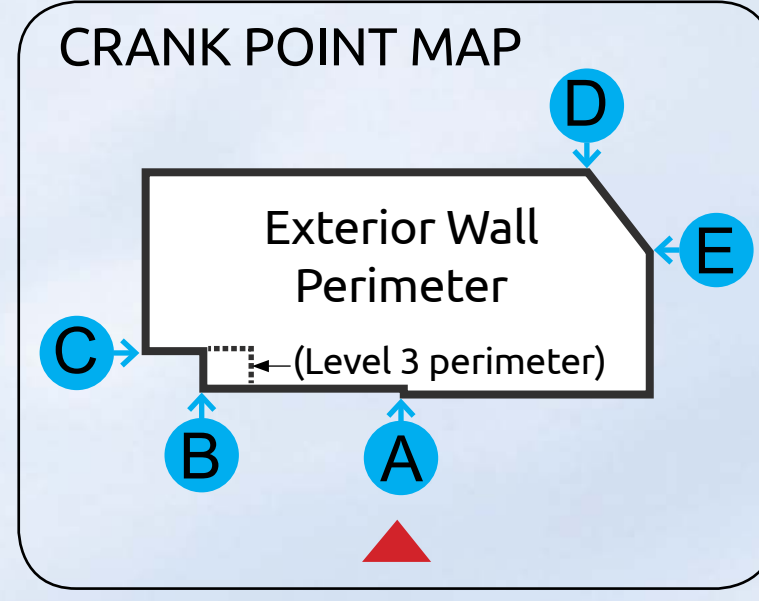
SITE ADDRESS :

1318 N. LYMAN PLACE,
4470,4472,4474, 4480,4480 1/2, 4482,
4484,4490,4494 W. DE LONGPRE AVENUE
1321, 1323 N. VIRGIL AVENUE
LOS ANGELES, CA 90027

LEGAL DESCRIPTION :

TRACK	LOT	ARB	LOT AREA(sq.ft.)	TRACK	LOT	ARB	LOT AREA(sq.ft.)
THOREN PLACE	7-10	5542012028	23,689.5	THOREN PLACE	11	5542012035	7,249.9
THOREN PLACE / EAST	12/			THOREN PLACE / EAST			
HOLLYWOOD HEIGHT	5-6	5542012029	5,728.5	HOLLYWOOD HEIGHT /	12/5/4	5542012036	5,944.1
THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
				TOTAL LOT AREA : 43,972 sq.ft.			

- KEY NOTES**
- ① RAISED SHEAR WALL HEIGHT
 - ② VINES OVER PAINTED CONCRETE SHEAR WALL
 - ③ HORIZONTAL LOUVER



- METAL PANEL, WHITE
- METAL WINDOW FRAME, WOOD COLOR
- PAINTED CONCRETE WALL, WHITE
- PAINTED PERFORATED METAL SCREEN (FOR ROOF EQUIP.)
- PAINTED CONCRETE WALL, LIGHT GRAY
- WOOD SCREEN INFILLED GLAZING
- GLAZING, SHADOW BOX
- PAINTED PERFORATED METAL PANEL



SOUTH ELEVATION | SCALE: 3/32" = 1'-0"

BUILDING ELEVATIONS

WEST, RENDERED

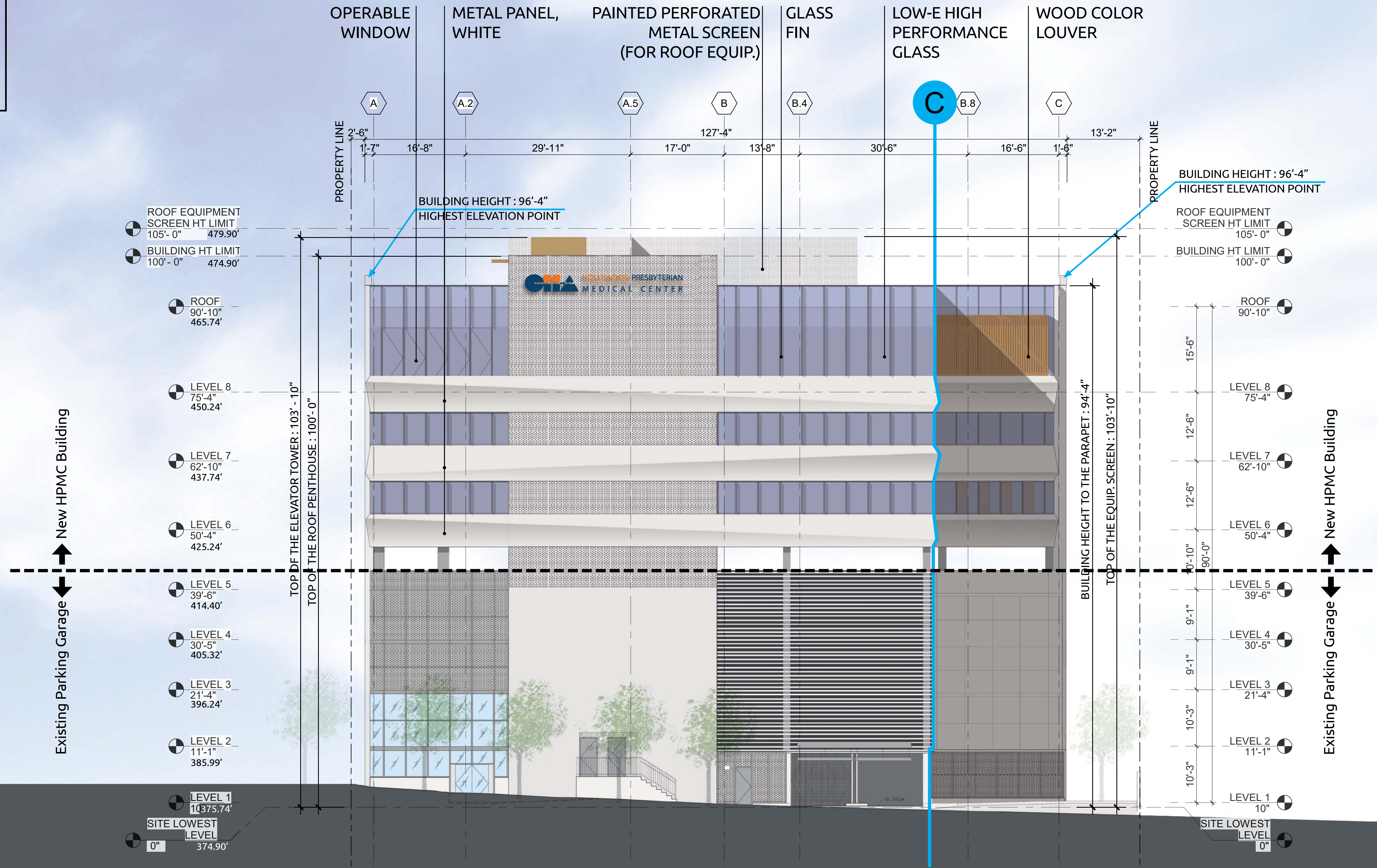
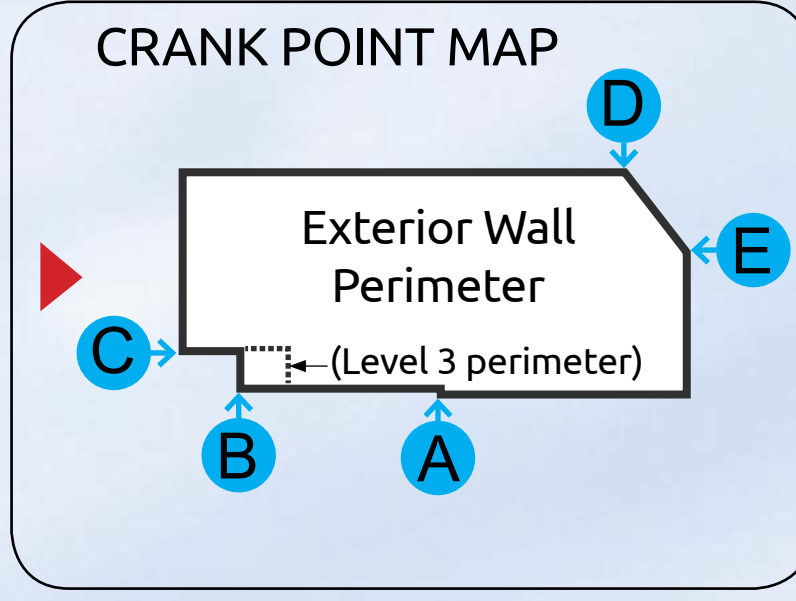
SITE ADDRESS :

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HOLLYWOOD HEIGHT	5-6	5542012034	1,360.0	HOLLYWOOD HEIGHT / GRIDER AND HAMILTONS OLIVE PLACE			
THOREN PLACE	7	5542012034	1,360.0				
				TOTAL LOT AREA : 43,972 sq.ft.			

- KEY NOTES**
- ① RAISED SHEAR WALL HEIGHT
 - ② VINES OVER PAINTED CONCRETE SHEAR WALL
 - ③ HORIZONTAL LOUVER



WEST ELEVATION | SCALE: 3/32" = 1'-0"

BUILDING ELEVATIONS

NORTH, RENDERED

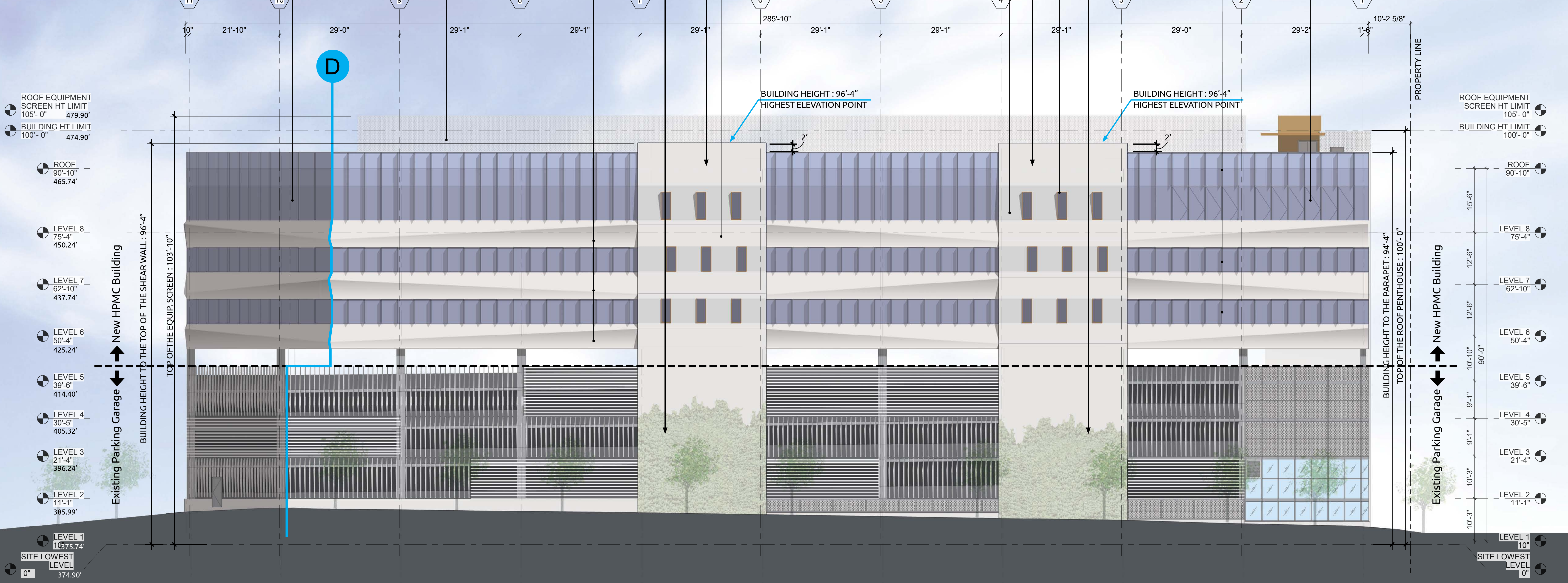
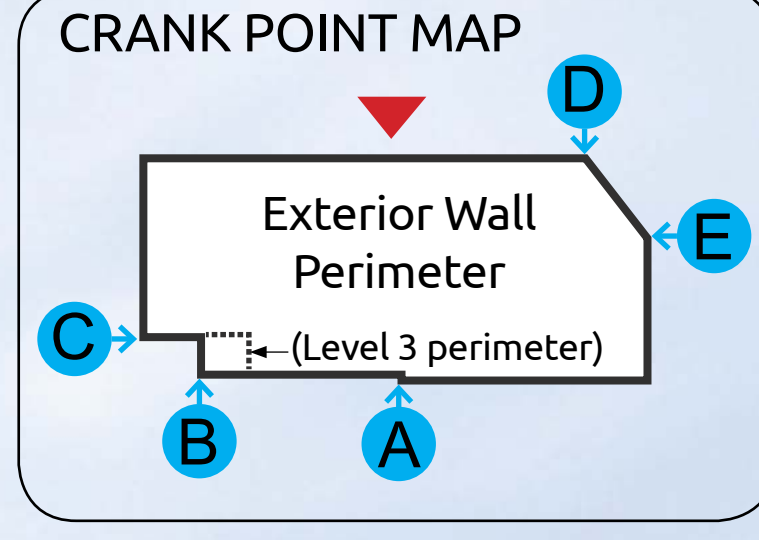
SITE ADDRESS :

1318 N. LYMAN PLACE,
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4484,4490,4494 W. DE LONGPRE AVENUE
1321, 1323 N. VIRGIL AVENUE
LOS ANGELES, CA 90027

LEGAL DESCRIPTION :

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THOREN PLACE / EAST	12/	5542012029	5,728.5	THOREN PLACE / EAST	12/5/4	5542012036	5,944.1
HOLLYWOOD HEIGHT	5-6	5542012034	1,360.0	HOLLYWOOD HEIGHT / GRIDER AND HAMILTONS			
THOREN PLACE	7	5542012034	1,360.0	OLIVE PLACE			
				TOTAL LOT AREA : 43,972 sq.ft.			

- KEY NOTES**
- ① RAISED SHEAR WALL HEIGHT
 - ② VINES OVER PAINTED CONCRETE SHEAR WALL
 - ③ HORIZONTAL LOUVER



BUILDING ELEVATIONS

EAST, RENDERED

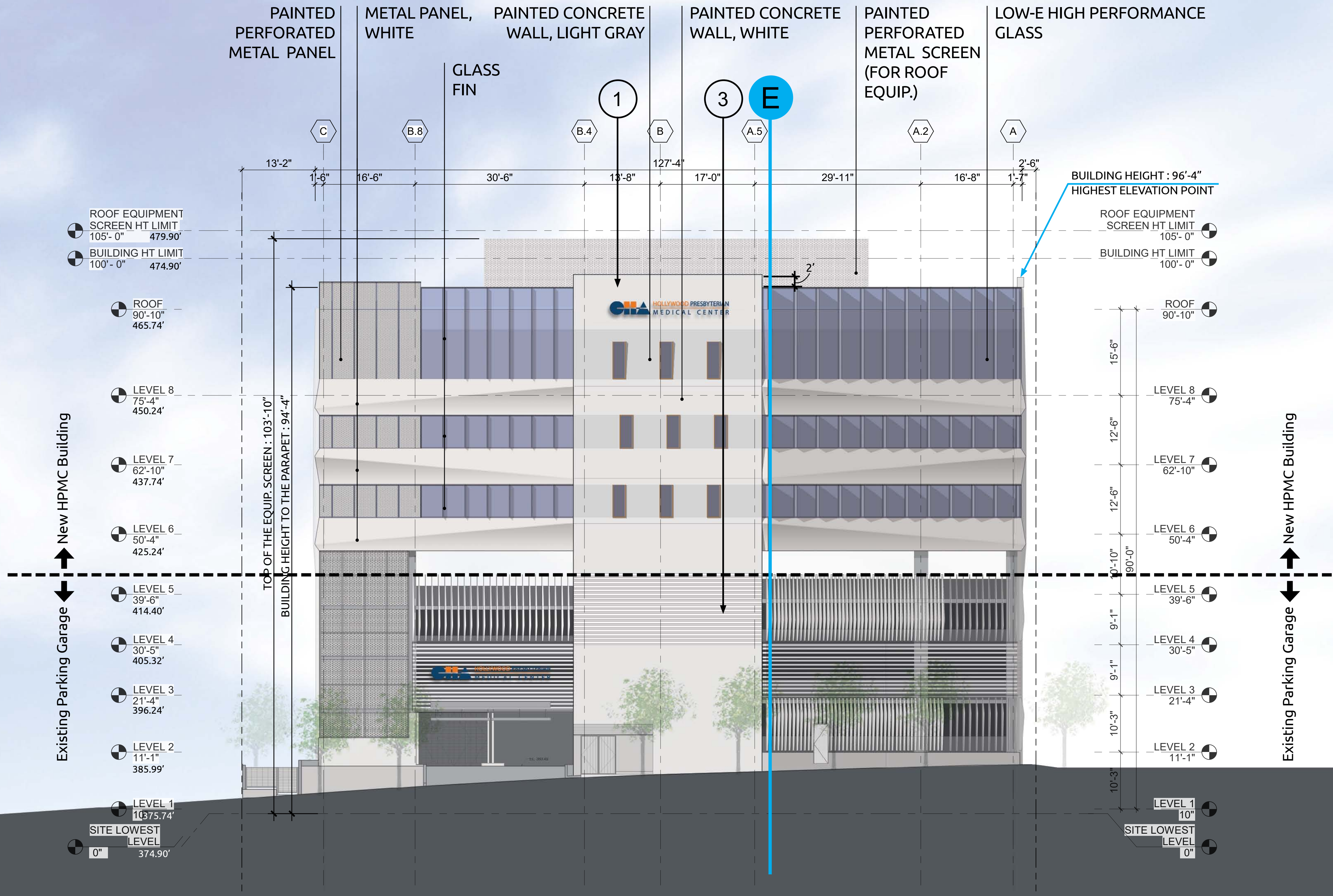
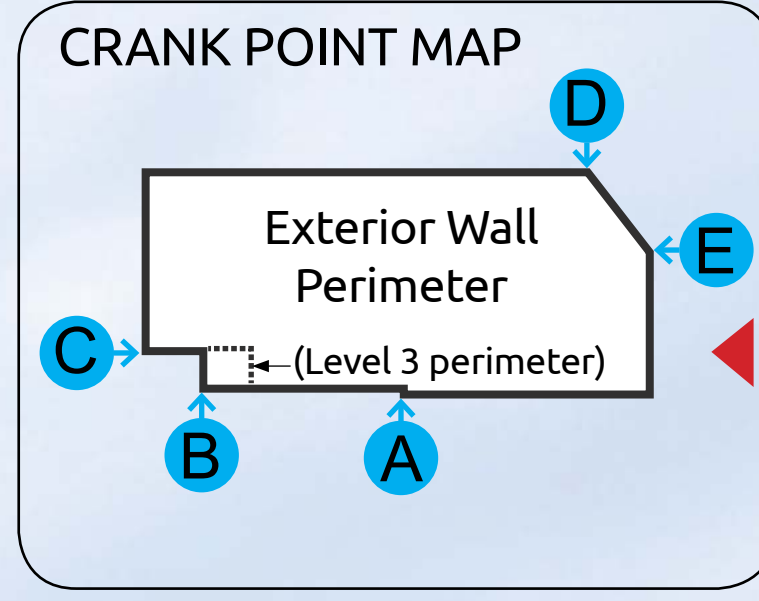
SITE ADDRESS :

1318 N. LYMAN PLACE,
4470,4472,4474, 4480,4480 1/2, 4482,
4484,4490,4494 W. DE LONGPRE AVENUE
1321, 1323 N. VIRGIL AVENUE
LOS ANGELES, CA 90027

LEGAL DESCRIPTION :

TRACK	LOT	ARB	LOT AREA(sq.ft.)	TRACK	LOT	ARB	LOT AREA(sq.ft.)	
THOREN PLACE	7-10	5542012028	23,689.5	THOREN PLACE	11	5542012035	7,249.9	
THOREN PLACE / EAST	12/			THOREN PLACE / EAST				
HOLLYWOOD HEIGHT	5-6	5542012029	5,728.5	HOLLYWOOD HEIGHT /	12/5/4	5542012036	5,944.1	
THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS				
				OLIVE PLACE				
							TOTAL LOT AREA	: 43,972 sq.ft.

- KEY NOTES**
- ① RAISED SHEAR WALL HEIGHT
 - ② VINES OVER PAINTED CONCRETE SHEAR WALL
 - ③ HORIZONTAL LOUVER



EAST ELEVATION | SCALE: 3/32" = 1'-0"

BUILDING MATERIALS

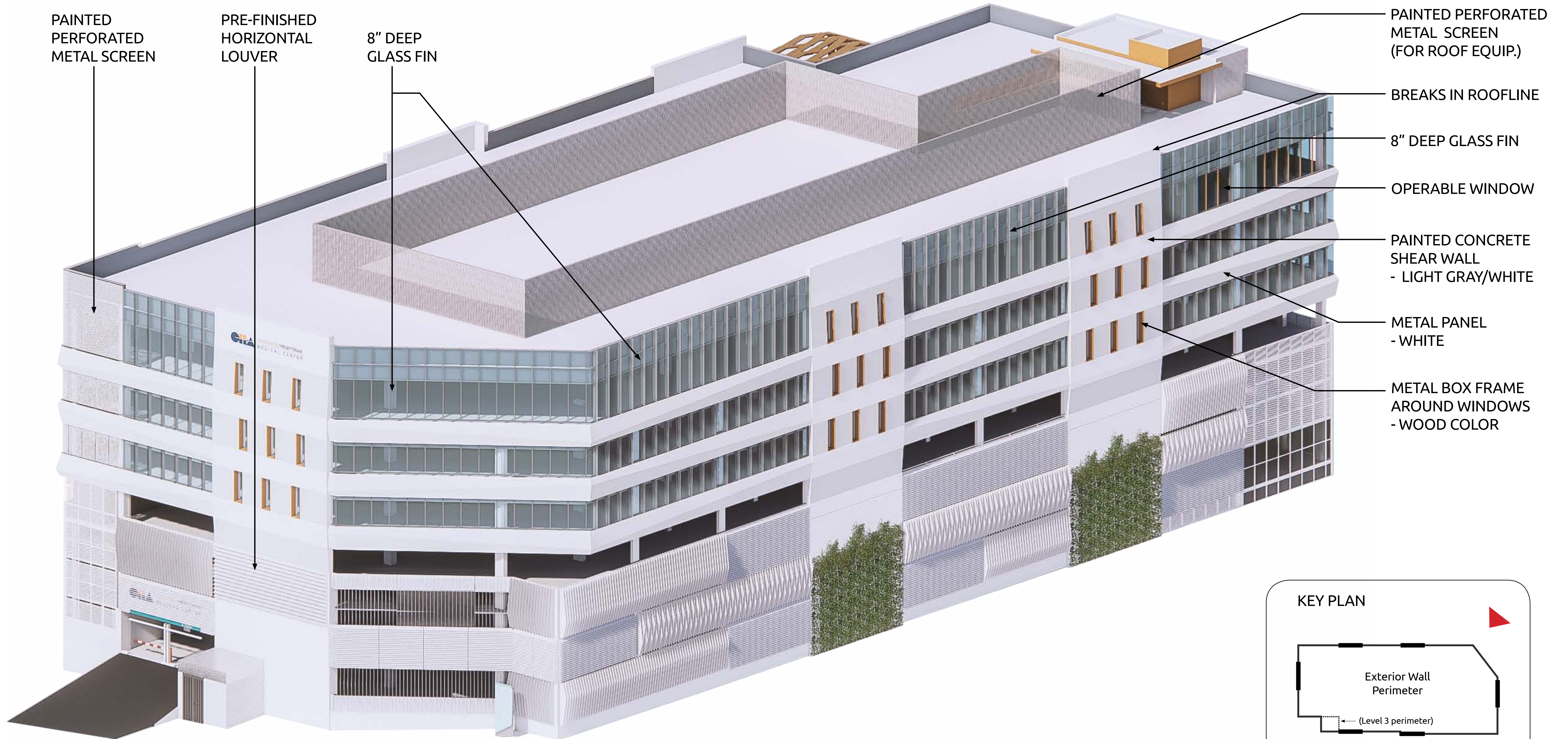
VIEW FROM CORNER OF VIRGIL AND De LONGPRE

SITE ADDRESS :

1318 N. LYMAN PLACE,
4470,4472,4474, 4480,4480 1/2, 4482,
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HOLLYWOOD HEIGHT	5-6	5542012029	5,728.5	HOLLYWOOD HEIGHT /	12/5/4	5542012036	5,944.1
THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
						TOTAL LOT AREA	: 43,972 sq.ft.



BUILDING MATERIALS

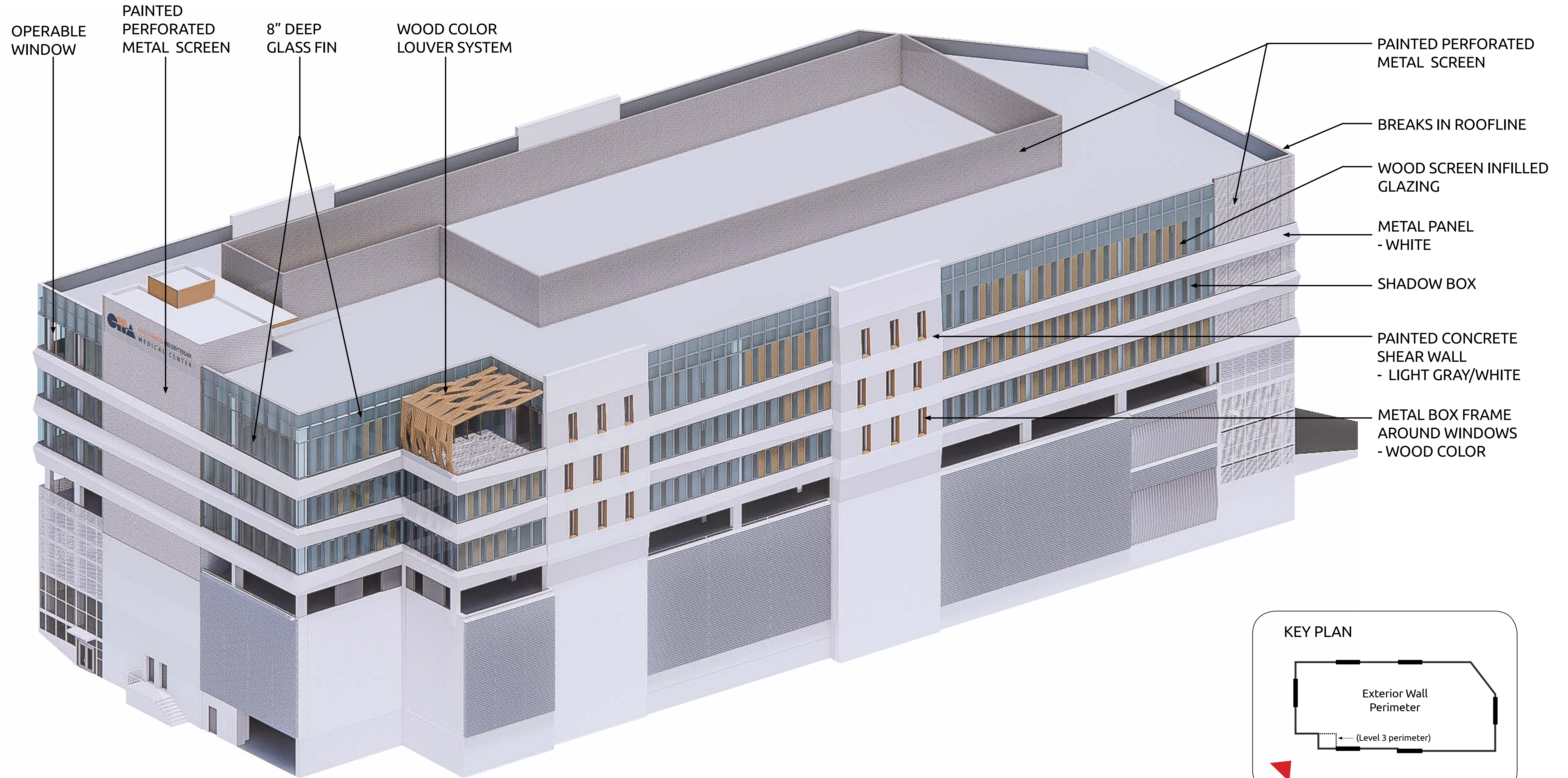
VIEW FROM LYMAN PLACE

SITE ADDRESS :

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4470,4472,4474, 4480,4480 1/2, 4482,
4484,4490,4494 W. DE LONGPRE AVENUE
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LEGAL DESCRIPTION :

TRACK	LOT	ARB	LOT AREA(sq.ft.)	TRACK	LOT	ARB	LOT AREA(sq.ft.)
THOREN PLACE	7-10	5542012028	23,689.5	THOREN PLACE	11	5542012035	7,249.9
THOREN PLACE / EAST	12/			THOREN PLACE / EAST			
HOLLYWOOD HEIGHT	5-6	5542012029	5,728.5	HOLLYWOOD HEIGHT /	12/5/4	5542012036	5,944.1
THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
						TOTAL LOT AREA	: 43,972 sq.ft.



PERSPECTIVE RENDERING

VIEW FROM CORNER OF De LONGPRE AND LYMAN

KEY NOTES

- ① RAISED SHEAR WALL HEIGHT
- ② VINES OVER PAINTED CONCRETE SHEAR WALL
- ③ HORIZONTAL LOUVER

PAINTED CONCRETE WALL, WHITE

2'-0"

31'-1"



PERSPECTIVE RENDERING

VIEW FROM CORNER OF VIRGIL AND De LONGPRE

KEY NOTES

- ① RAISED SHEAR WALL HEIGHT
- ② VINES OVER PAINTED CONCRETE SHEAR WALL
- ③ HORIZONTAL LOUVER



PROJECT STREET ADDRESS: 1318 N. LYMAN PLACE, LOS ANGELES, CA 90027

PERSPECTIVE RENDERING

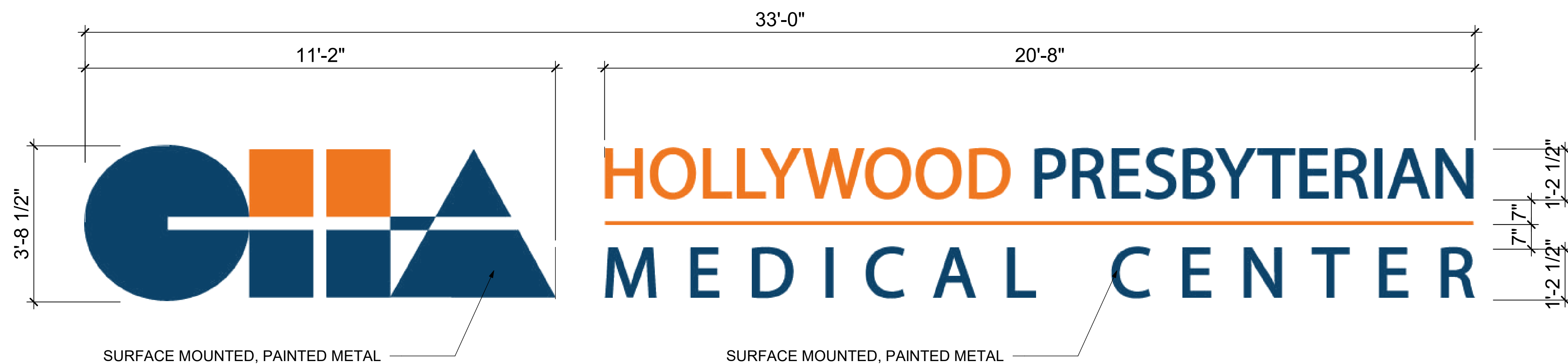
VIEW FROM VIRGIL AVENUE

KEY NOTES

- ① RAISED SHEAR WALL HEIGHT
- ② VINES OVER PAINTED CONCRETE SHEAR WALL
- ③ HORIZONTAL LOUVER

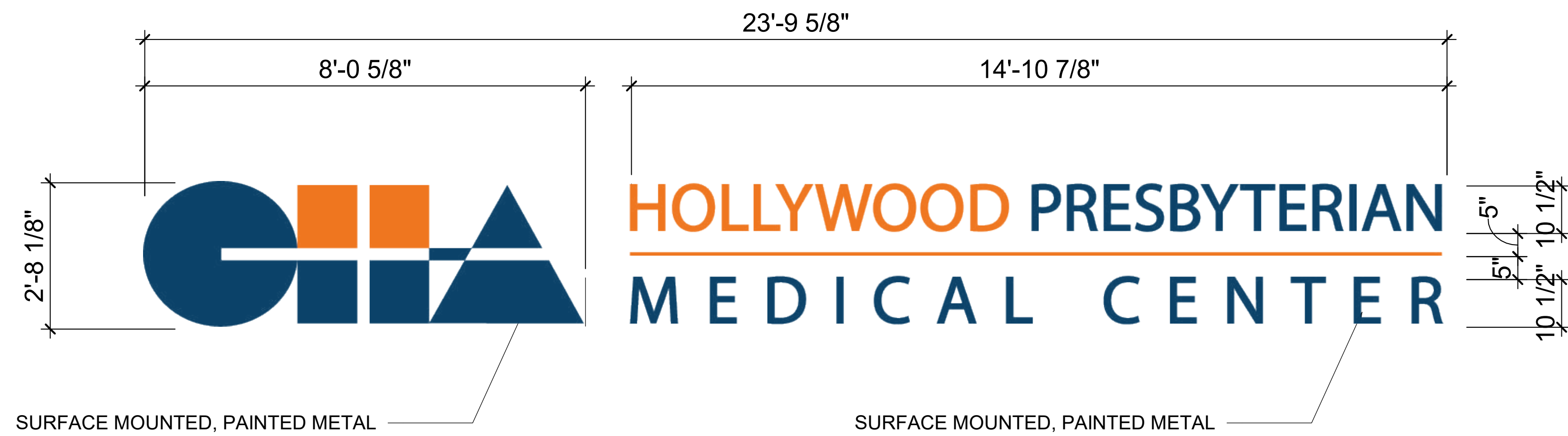


BUILDING SIGNAGE



SIGNAGE ON WEST ELEVATION

BUILDING SIGNAGE



SIGNAGE ON EAST ELEVATION

LANDSCAPE PLAN

PARKING GARAGE PPCR SUBMITTAL

SITE ADDRESS :

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THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS				
				OLIVE PLACE				
							TOTAL LOT AREA	: 43,972 sq.ft.



MATERIAL PALLETTE

- | SYMBOL | DESCRIPTION |
|--------|--|
| 1 | CITY SIDEWALK PAVING |
| 2 | TREE WELL PLANTERS FOR STREET TREES 4'x8' CAST IRON TREE GRATES ADA COMPLIANT |
| 3 | LANDSCAPE PLANTING AREA |
| 4 | SEATING AREA WITH LANDSCAPE LIGHTING |
| 5 | ACCESSIBLE ROUTE |
| 6 | 6 FOOT METAL BENCH WITH BACK AND TRASH RECEPTACLE BOTH PAINTED BLACK |
| 7 | PROPERTY LINE TYPICAL |
| 8 | ACCENT BUILDING ENTRY PAVING, INTEGRAL COLORED CONCRETE PAVING WITH SAWCUT JOINTS AND LIGHT TOPCAST FINISH TO MATCH AN ACID WASH |
| 9 | RAISED PLANTER WITH INDOOR/OUTDOOR LANDSCAPING AND DECORATIVE GRAVEL BELOW |
| 10 | MAINTENANCE ACCESS GRAVEL BAND |
| 11 | GREEN SCREEN OR OTHER VINE SUPPORT SYSTEM WITH LANDSCAPE LIGHTING |
| 12 | NEW BUILDING SEE ARCHITECTS PLANS |
| 13 | EXISTING TREES TO BE REMOVED SEE PLANTING PLAN |
| 14 | LANDSCAPE LIGHTING AT ACCENT TREES |
| 15 | NEW STREET LIGHTING FIXTURES |
| 16 | MONUMENT SIGN |
| 17 | DECORATIVE WALL TREATMENT - SEE ARCHITECTS PLANS |
| 18 | PEDESTRIAN PATH MINIMUM 5 FEET WIDE IN PARKING GARAGE. |
| 19 | EXISTING BUILDING TO BE DEMOLISHED |

FONG HART SCHNEIDER PARTNERS

Landscape Architecture - Planning - Urban Design
31742 Coast Highway
Laguna Beach, California
92651-6824
Tel: 949 836 5444
Fax: 949 715-7286



LANDSCAPE PLAN

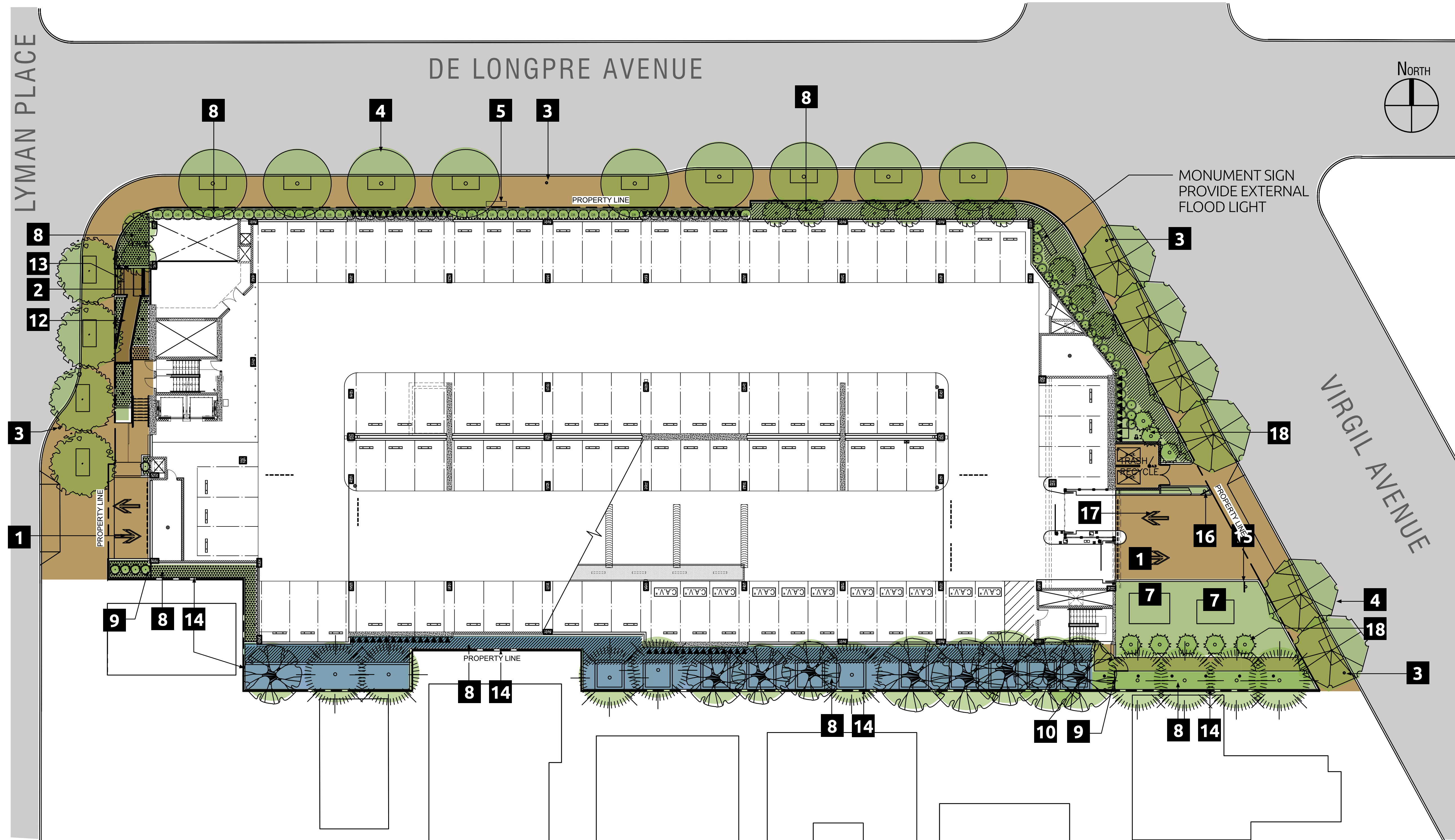
APPROVED LANDSCAPE
PER DIR-2015-309-SPPA-SPP

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THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
						TOTAL LOT AREA	: 43,972 sq.ft.



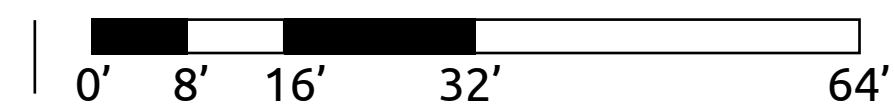
* Existing Landscape Area : 6,256 sf

- 1** VEHICLE ENTRANCE / EXIT
- 2** PEDESTRIAN ENTRANCE / EXIT
- 3** EXISTING STREET LIGHTING FIXTURE
- 4** STREET TREE WITH 4'X8' DECOMPOSED GRANITE
- 5** PUBLIC BENCH
- 6** TRASH RECEPTACLES
- 7** TRANSFORMER PAD
- 8** LANDSCAPING AREA W/ AUTOMATIC IRRIGATION SYSTEM
- 9** 6' HIGH METAL FENCE
- 10** METAL GATE
- 11** ACCESSIBLE (PEDESTRIAN) PATH OF TRAVEL
MIN. 48" WIDE CONCRETE WALKWAY
5% MAX. SLOPE FOR TRAVEL DIRECTION
2% MAX. SLOPE FOR CROSS DIRECTION
- 12** RAMP
- 13** EXTERIOR STAIR
- 14** 6' HIGH DECORATIVE 6" CMU FENCE WALL ALONG SOUTH PROPERTY LINE.
NORTHFIELD SPLIT FACE CMU (WHITE BIRCH-8540)
- 15** TRAFFIC SIGN "RIGHT TURN ONLY"
- 16** TRAFFIC SIGN "NO LEFT TURN"
- 17** PAINTED DIRECTIONAL ARROW
- 18** EQUIPMENT SCREENING TREE. TREE HEIGHT SHALL BE HIGHER THAN THE TOP OF EQUIPMENT AT TIME OF PLANTING. VERIFY TREE HEIGHT WITH LADWP EQUIPMENT SPEC

- IMPERVIOUS SURFACE
- CONCRETE DRIVEWAY, WALKWAY
- PERVIOUS SURFACE
- LANDSCAPE AREA
- PERVIOUS SURFACE
- EPIC SYSTEM AREA

MATERIAL PLAN

SCALE: 1/16" = 1'-0"



LANDSCAPE PLAN

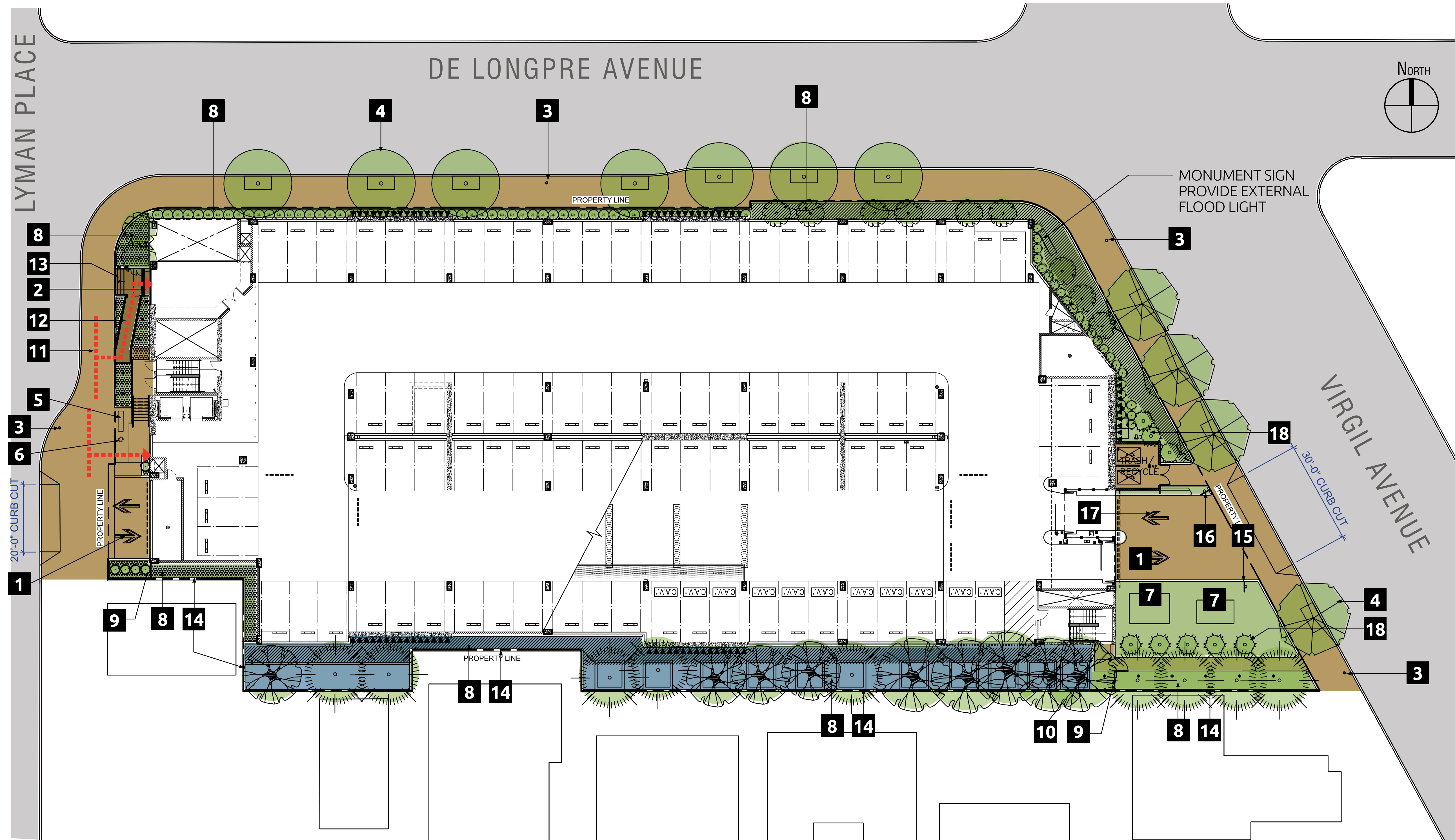
EXISTING CONDITION APPROVED
VIA PLAN CHECK (SEE APPENDIX)

SITE ADDRESS :

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				OLIVE PLACE				
							TOTAL LOT AREA	: 43,972 sq.ft.



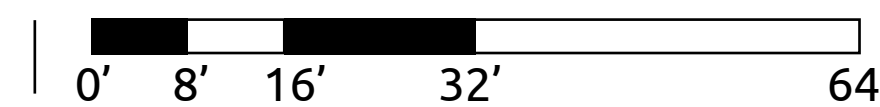
* Existing Landscape Area : 6,256 sf

- 1** VEHICLE ENTRANCE / EXIT
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- 3** EXISTING STREET LIGHTING FIXTURE
- 4** STREET TREE WITH 4'X8' DECOMPOSED GRANITE
- 5** PUBLIC BENCH (VOLUNTARY)
- 6** TRASH RECEPTACLES (VOLUNTARY)
- 7** TRANSFORMER PAD
- 8** LANDSCAPING AREA W/ AUTOMATIC IRRIGATION SYSTEM
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- IMPERVIOUS SURFACE
- CONCRETE DRIVEWAY, WALKWAY
- PERVIOUS SURFACE
- LANDSCAPE AREA
- PERVIOUS SURFACE
- EPIC SYSTEM AREA

MATERIAL PLAN

SCALE: 1/16" = 1'-0"



LANDSCAPE PLAN

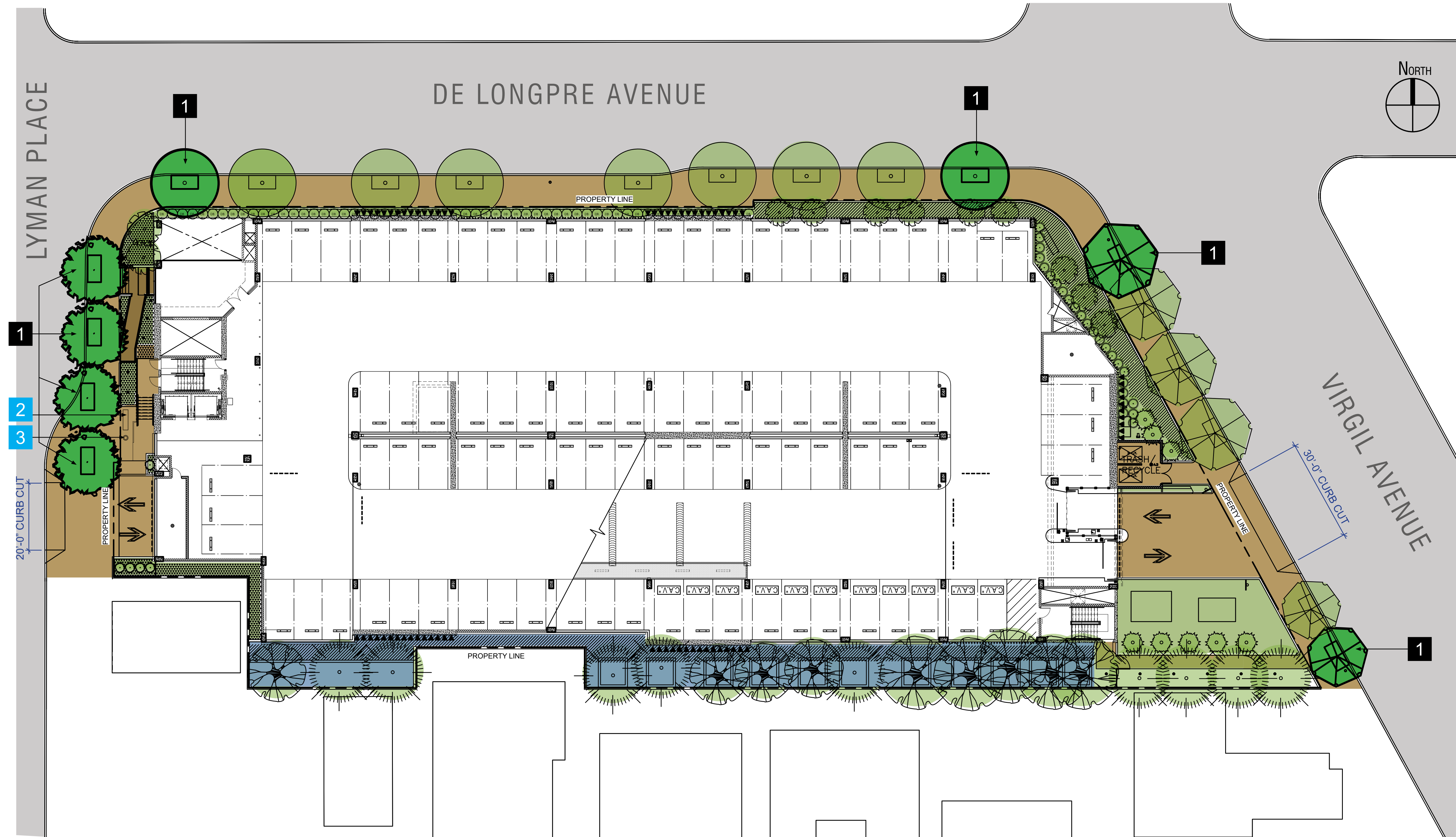
PROPOSED CONDITION

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1318 N. LYMAN PLACE,
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THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
						TOTAL LOT AREA	: 43,972 sq.ft.



* Existing Landscape Area : 6,256 sf

- 1** NEW STREET TREES WITH TREE WELL COVER
- 2** EXISTING PUBLIC BENCH (REQUIRED)
- 3** EXISTING TRASH RECEPTICLE (VOLUNTARY)

MATERIAL PLAN

SCALE: 1/16" = 1'-0"

0' 8' 16' 32' 64'

- IMPERVIOUS SURFACE
- CONCRETE DRIVEWAY, WALKWAY
- PERVIOUS SURFACE
- LANDSCAPE AREA
- PERVIOUS SURFACE
- EPIC SYSTEM AREA

LANDSCAPE PLAN

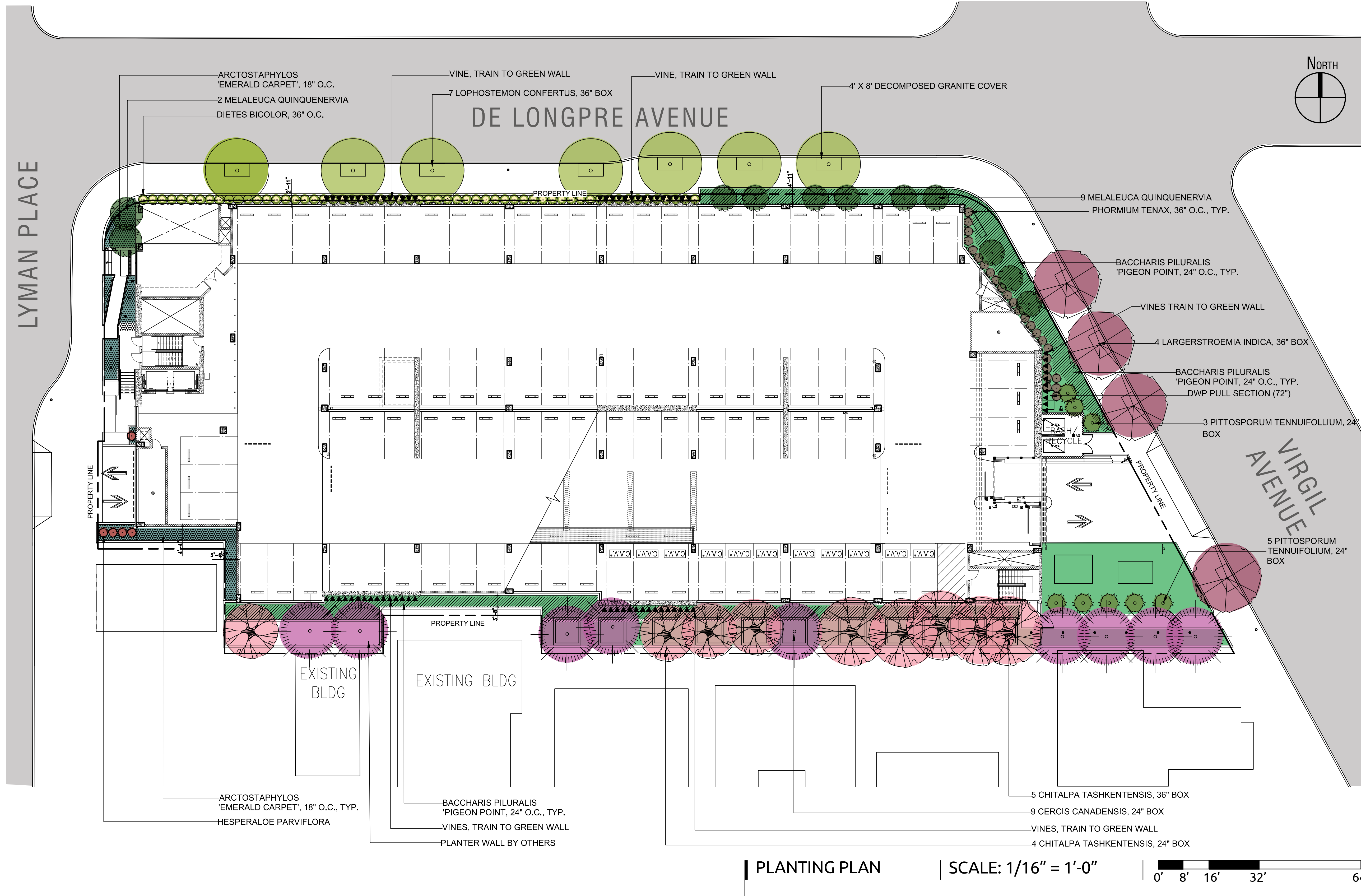
EXISTING CONDITION APPROVED
VIA PLAN CHECK (SEE APPENDIX)

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1318 N. LYMAN PLACE,
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THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS				
				OLIVE PLACE				
							TOTAL LOT AREA	: 43,972 sq.ft.



*** Existing Landscape Area : 6,256 sf**

PLANT LEGEND

Q'TY	SYMBOL	SCIENTIFIC NAME	SIZE	WUCOLS	PLANT FACTOR
TREES					
7	(Green circle)	LOPHOSTEMON CONFERTUS	36" BOX, STANDARD	MEDIUM	0.4
5	(Pink circle)	CHITALPA TASHKENTENSIS 'SILVER KING'	36" BOX, STANDARD ADJACENT TO 4525 FOUNTAIN AVENUE, NOT LESS TEN FEET AT TIME OF PLANTING	LOW	0.2
4	(Pink circle)	CHITALPA TASHKENTENSIS 'SILVER KING'	24" BOX, STANDARD NOT LESS THAN TEN FEET AT TIME OF PLANTING	LOW	0.2
4	(Purple circle)	KOELREUTERIA BIPINNATA	36" BOX, STANDARD	MEDIUM	0.4
9	(Purple circle)	CERCIS CANADENSIS 'FOREST PANSY'	24" BOX, STANDARD NOT LESS THAN TEN FEET AT TIME OF PLANTING	MEDIUM	0.4
8	(Purple circle)	PITTIOSPORUM TENNUIFOLIUM 'SILVER SHEEN'	24" BOX, HEDGE NOT LESS THAN TEN FEET AT TIME OF PLANTING	MEDIUM	0.4
11	(Green circle)	MELALEUCA QUINQUENERVIA	15 GAL. MULTI-TRUNK	MEDIUM	0.4
SHRUBS/ GROUND COVERS					
24	(Brown circle)	PHORMIKUM 'YELLOW WAVE'	5 GAL.	MEDIUM	0.4
7	(Green circle)	HESPERALOE PARVIFLORA	5 GAL.	VERY LOW	0.1
59	(Green circle)	DIETES BICOLOR	5 GAL.	MEDIUM	0.4
530	(Green square)	ARCTOSTAPHYLOS 'EMERALD GREEN'	1 GAL., 18" O.C.	LOW	0.2
1180	(Green square)	BACCHARIS PILURALIS 'PIGEON POINT'	1 GAL., 12" O.C.	LOW	0.4
48	(Black triangle)	FICUS PUMILA	5 GAL., 36" O.C.	MEDIUM	0.4

PLANTING NOTES

THERE ARE NO PROTECTED TREES IN THE PROPERTY.
FOR PROJECT THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION, FORM GNR 12, SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.
MULCH SHALL BE COMPOSTED AGED BARK MULCH. PROVIDE 3" DEPTH IN ALL PLANTING BEDS.
CLASS I OR CLASS II COMPOST SHALL BE USED AS A SOIL AMENDMENT IN ALL LANDSCAPED AREAS.
FILL SHRUBS AND GRASSES IN ALL PLANTERS FROM EDGE TO EDGE WITHOUT VOID PER PLANT SPACING NOTED IN THE PLANT LEGEND.

PLANTING PLAN | SCALE: 1/16" = 1'-0" | 0' 8' 16' 32' 64'

LANDSCAPE PLAN

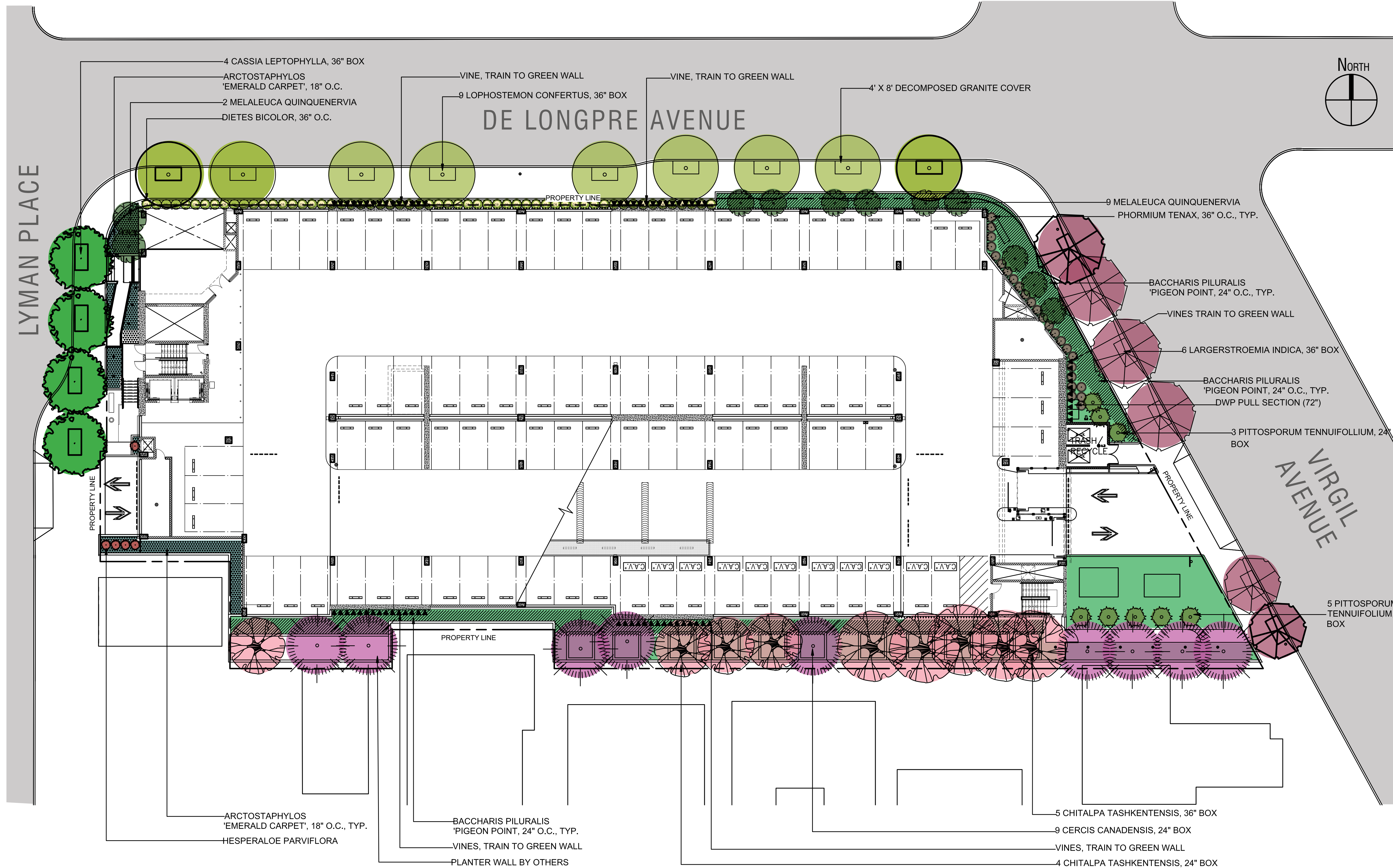
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Q'TY	SYMBOL	SCIENTIFIC NAME	SIZE	WUCOLS	PLANT FACTOR
TREES					
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4	(Green circle)	CASSIA LEPTOPHYLLA	36" BOX, STANDARD	MEDIUM	0.4
5	(Pink circle)	CHITALPA TASHKENTENSIS 'SILVER KING'	36" BOX, STANDARD ADJACENT TO 4525 FOUNTAIN AVENUE, NOT LESS TEN FEET AT TIME OF PLANTING	LOW	0.2
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PLANTING PLAN | SCALE: 1/16" = 1'-0" | 0' 8' 16' 32' 64'

LANDSCAPE PLAN

EXISTING CONDITION

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THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS			
				OLIVE PLACE			
						TOTAL LOT AREA	: 43,972 sq.ft.



LOPHOSTEMON CONFERTUS



LARGERSTROEMIA INDICA



MELALEUCA QUINQUENERVIA
CAJEPUT TREE



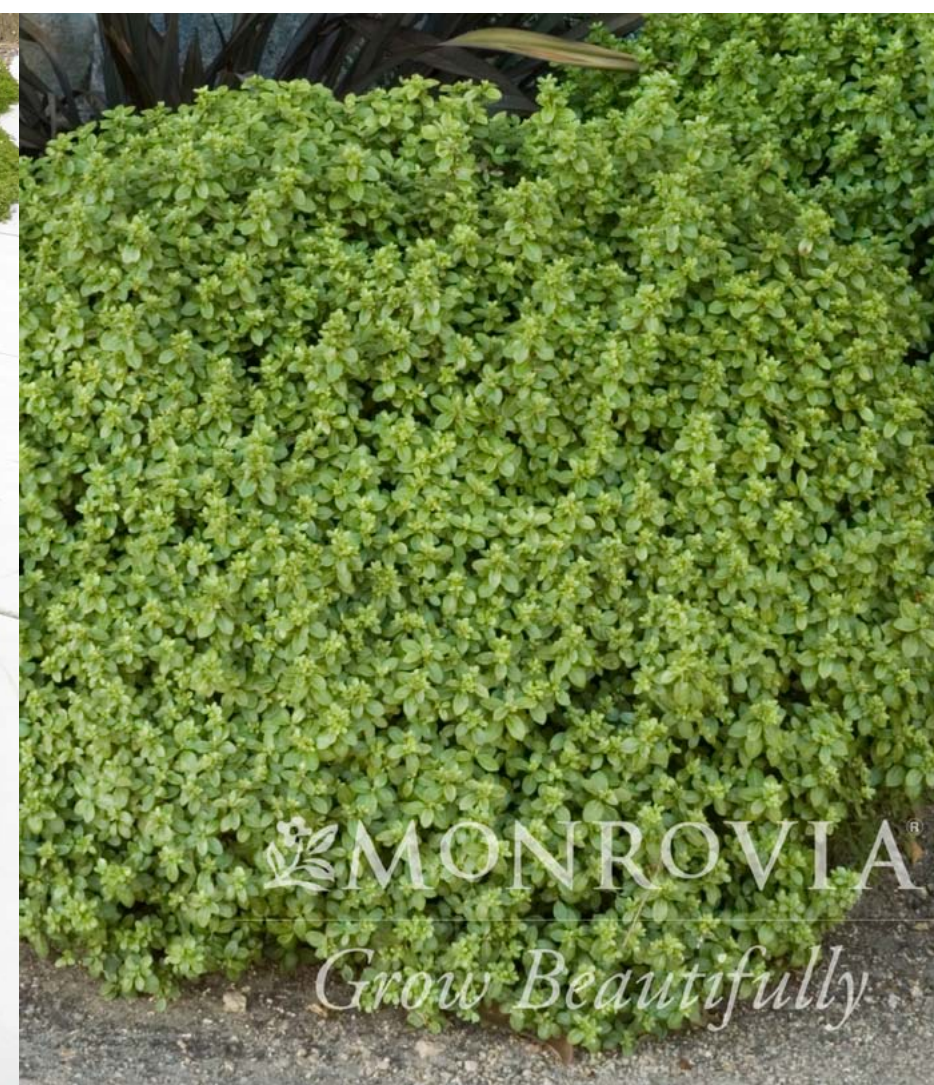
CERCIS CANADENSIS 'FOREST PANSY'
PURPLE LEAF REDBUD



CHITALPA TASHKENTENSIS
SILVER KING CHITALPA



ARCTOSTAPHYLOS
EMERALD CARPET



BACCHARIS PILULARIS
PIGEON POINT COYOTE BUSH



HESPERALOE PARVIFLORA
RED YUCCA



DIETES BICOLOR
FORTNIGHT LILY



PHORMIKUM 'YELLOW WAVE'
NEW ZEALAND FLAX

IRRIGATION PLAN

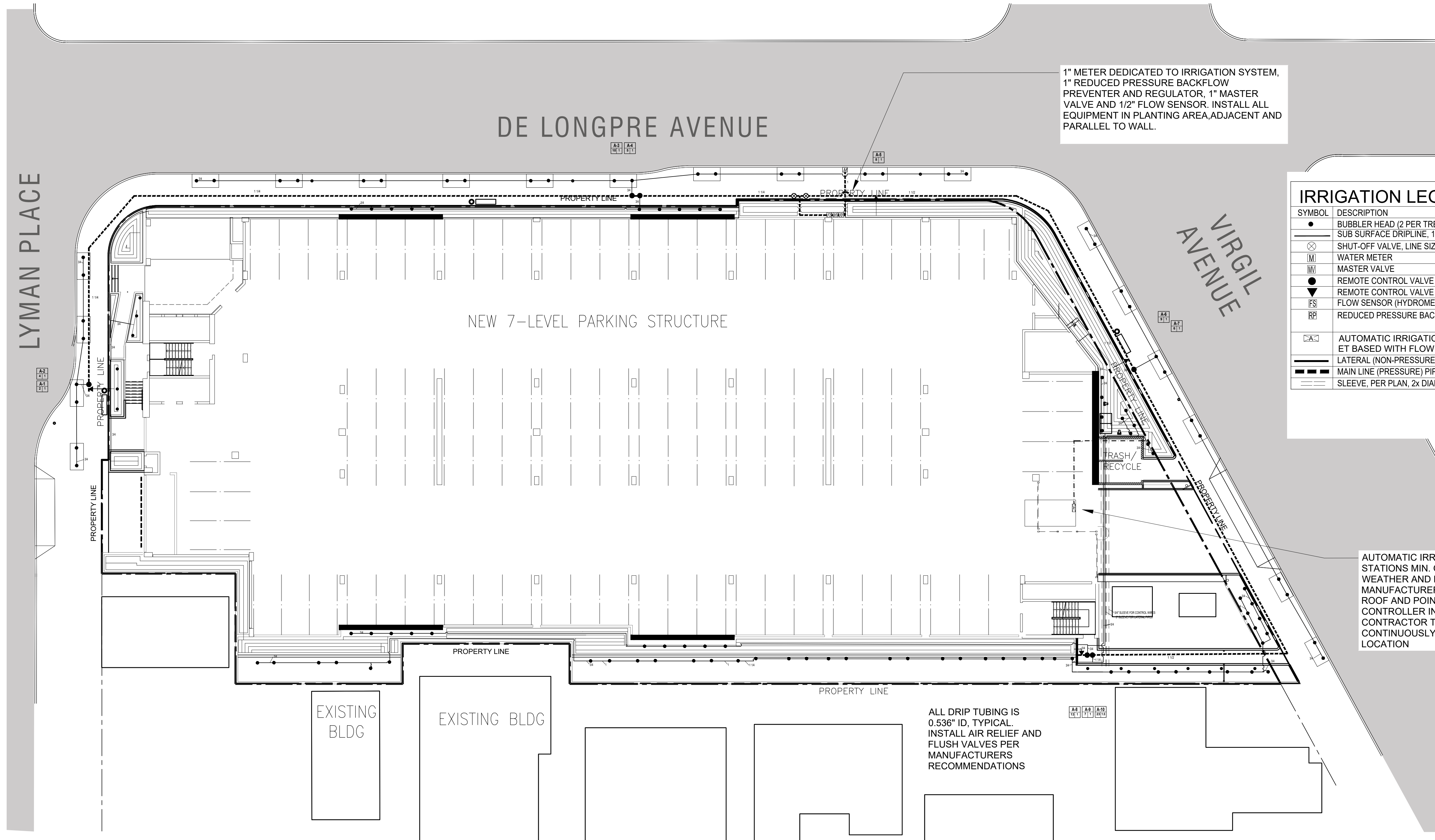
EXISTING CONDITION

SITE ADDRESS :

1318 N. LYMAN PLACE,
4470,4472,4474, 4480,4480 1/2, 4482,
4484,4490,4494 W. DE LONGPRE AVENUE
1321, 1323 N. VIRGIL AVENUE
LOS ANGELES, CA 90027

LEGAL DESCRIPTION :

TRACK	LOT	ARB	LOT AREA(sq.ft.)	TRACK	LOT	ARB	LOT AREA(sq.ft.)	
THOREN PLACE	7-10	5542012028	23,689.5	THOREN PLACE	11	5542012035	7,249.9	
THOREN PLACE / EAST	12/			THOREN PLACE / EAST				
HOLLYWOOD HEIGHT	5-6	5542012029	5,728.5	HOLLYWOOD HEIGHT /	12/5/4	5542012036	5,944.1	
THOREN PLACE	7	5542012034	1,360.0	GRIDER AND HAMILTONS				
				OLIVE PLACE				
							TOTAL LOT AREA	: 43,972 sq.ft.



IRRIGATION LEGEND

SYMBOL	DESCRIPTION	PSI	GPM	RAD	MFGR/MODEL
●	BUBBLER HEAD (2 PER TREE)	30	0.5	--	RAIN BIRD 1402 IN 1806 BODY W/ PA-80 ADAPTER
—	SUB SURFACE DRIPLINE, 12" SPACING, 12" O.C.	30	0.01	12"	RAIN BIRD XFS-09-12
⊗	SHUT-OFF VALVE, LINE SIZE, W/ BRONZE CROSS HANDLE				NIBCO T-580
M	WATER METER				PER CITY STANDARDS
MV	MASTER VALVE				RAIN BIRD 100-PESB
●	REMOTE CONTROL VALVE				RAIN BIRD 100-PESB
▼	REMOTE CONTROL VALVE FOR DRIP SYSTEMS				RAIN BIRD XCZ-100-PRB-LC
FS	FLOW SENSOR (HYDROMETER)				RAIN BIRD FS100P
RP	REDUCED PRESSURE BACKFLOW PREVENTER W/ STRAINER & REGULATOR				FEBCO 825Y W/ WILKINS 500YSBR STRAINER/REGULATOR
CA	AUTOMATIC IRRIGATION CONTROLLER, WALL MOUNT ET BASED WITH FLOW SENSOR AND RAIN SWITCH				RAINBIRD LXME/F W/ ETC-LX MANAGER & FSMLXMEF FLOW SMART MODULES
—	LATERAL (NON-PRESSURE) PIPING, SIZE AS SHOWN				SCH 40
—	MAIN LINE (PRESSURE) PIPING, SIZE AS SHOWN				SCH 40
—	SLEEVE, PER PLAN, 2x DIAM OF CARRYING PIPE, MIN.				SCH 40

CONTROLLER **A-1** SEQUENCE NUMBER
APPROXIMATE GPM **12** VALVE SIZE, INCHES

AUTOMATIC IRRIGATION CONTROLLER 'A', 12 STATIONS MIN. ON WALL MOUNT. CONNECT WEATHER AND FLOW SENSORS PER MANUFACTURER'S RECOMMENDATIONS FROM ROOF AND POINT OF CONNECTION TO CONTROLLER IN 3/4" ELECTRICAL CONDUIT. CONTRACTOR TO PROVIDE 120V CONTINUOUSLY HOT POWER TO THIS LOCATION

LANDSCAPE ORDINANCE WATER CONSERVATION	
TOTAL PROJECT SQUARE FOOTAGE:	44,715
TOTAL POINTS REQUIRED:	400
DESCRIPTION	POINTS
DRIP SYSTEMS (4)	20
BUBBLER SYSTEMS (6)	30
TURF LESS THAN 15% (0%):	10
AUTOMATIC IRRIGATION CONTROLLER	5
ET, RAIN, FLOW SENSORS	6
LOW WATER USE PLANTS	700
TOTAL:	771
EXCESS:	371

MAWA				
ET DATA FROM:	LOS ANGELES			
ETO	EFFECTIVE PRECIP	IN TO GAL	ET ADJ FACTOR	TOTAL AREA SPECIAL AREAS
50.1	0.00	0.620	0.45	5630 0
MAWA = ETO - EFFECTIVE RAIN x IN TO GAL x (ET ADJ FACTOR x TOTAL AREA) + (SPECIAL AREA x 0.3)				
MAWA =	78,696 GAL/YEAR			

ETWU				
ETWU = ETO - EFFECTIVE RAIN x IN TO GAL x (PLANT FACTOR x AREA) / (IRRIG EFFICIENCY)				
HYDROZONE	WATER USE	PLANT FACTOR (PF)	AREA (HA)	ETWU
1	STREET TREE	LOW-MED	0.40	640 256 9,817
2	MIXED	LOW-MED	0.30	5630 1689 64,770
REGULAR AREA				74,587
SPECIAL LANDSCAPE AREA				0
TOTAL ETWU				74,587
MAWA				78,696
DIFFERENCE				(4,108)

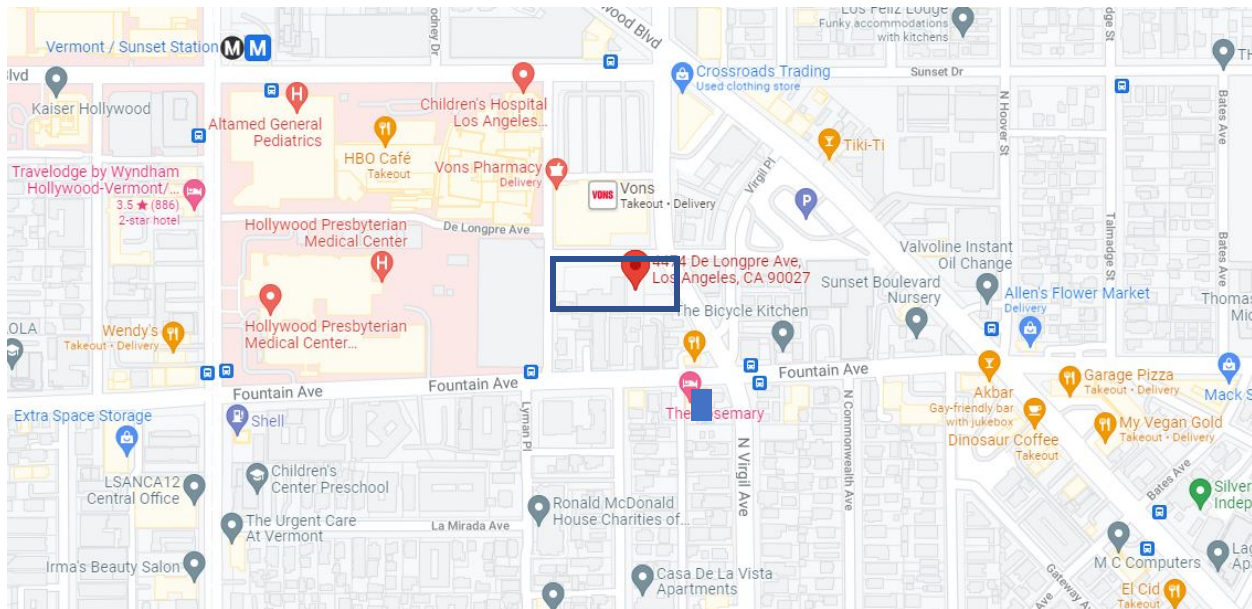
IRRIGATION EFFICIENCY = 0.81

IRRIGATION PLAN | SCALE: 1/16" = 1'-0" | 0' 8' 16' 32' 64'

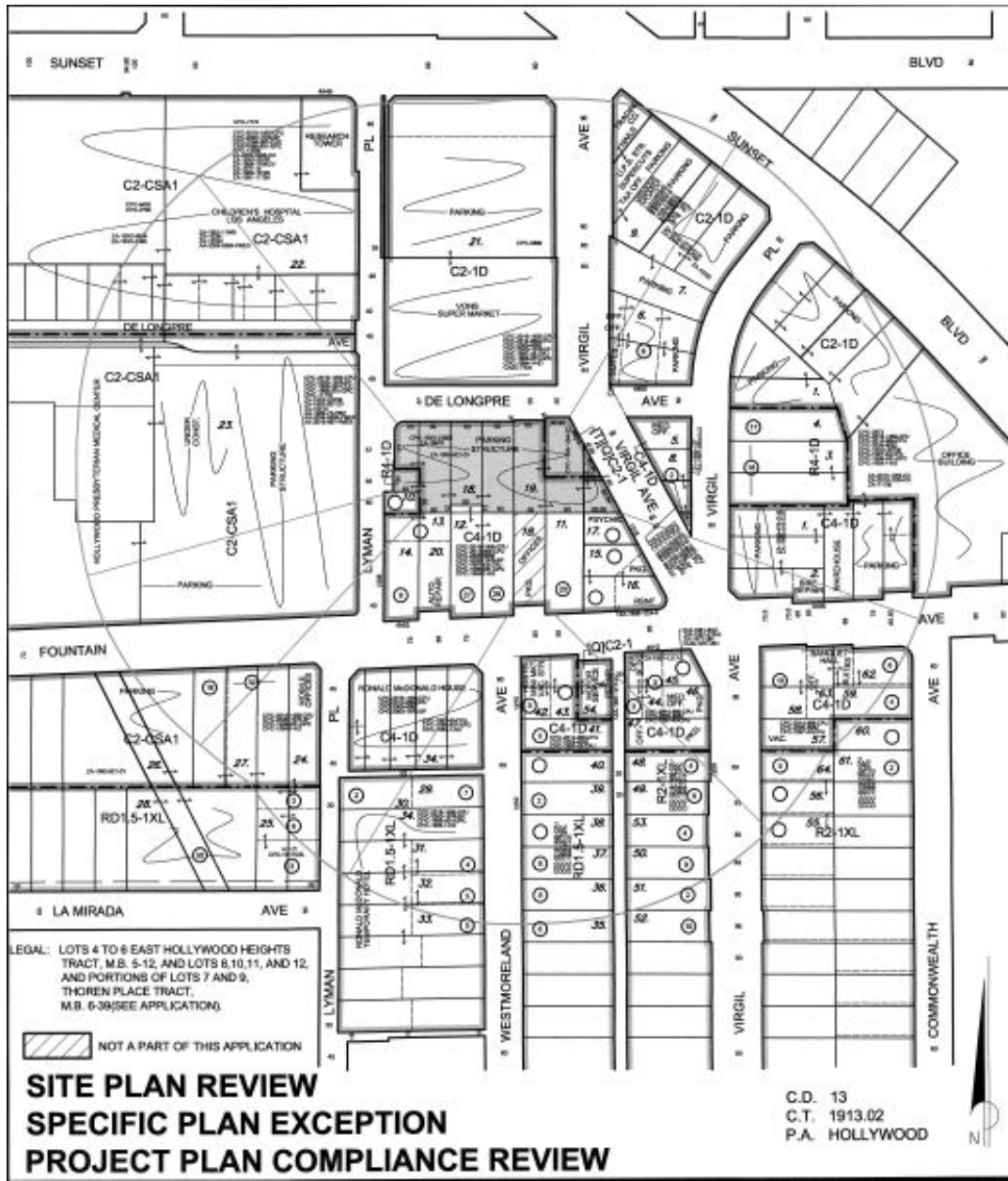
EXHIBIT B

Maps

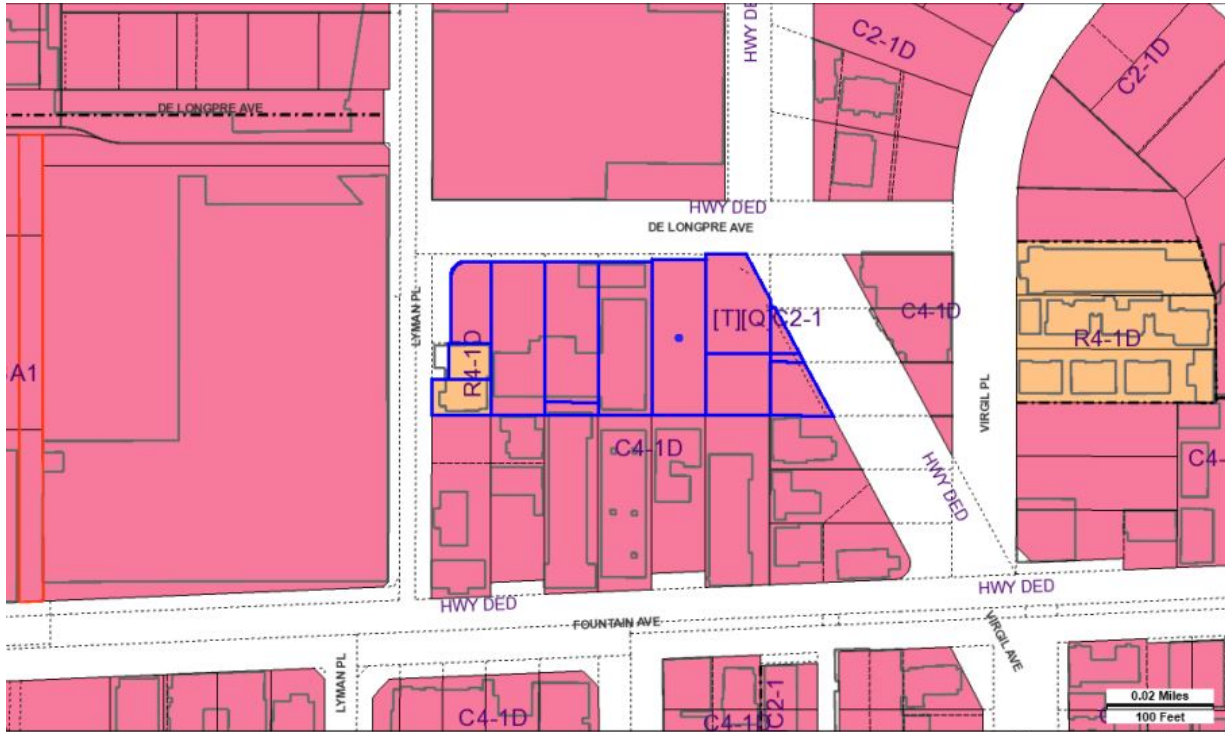
Vicinity Map



Radius Map



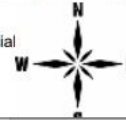
ZIMAS Map



Address: 4474 W DE LONGPRE AVE
APN: 5542012037
PIN #: 147B197 928

Tract: THOREN PLACE
Block: None
Lot: FR 11
Arb: None

Zoning: C4-1D
General Plan: Neighborhood Office Commercial



LOS ANGELES
DEPARTMENT OF CITY
PLANNING

221 North Figueroa St., Suite 1350
Los Angeles, CA 90012



INITIAL STUDY

HPMC Building Project Addendum

Case Number: ENV-2015-310-MND-REC1

Project Location: 1318 N. Lyman Place, 4470,4472,4474, 4480,4480-1/2, 4482, 4484,4490,4494 W. De Longpre Avenue and 1321 and 1323 N. Virgil Avenue in the City of Los Angeles, California.

Community Plan Area: Hollywood

Council District: 13 - Mitch O'Farrell

Project Description: An Initial Study/Mitigated Negative Declaration (MND) was previously prepared in June 2015, circulated on June 15, 2015, and adopted by the City of Los Angeles on October 15, 2015, for the demolition of two maintenance facilities, a single-family residence and a surface parking lot in order to allow the construction of a four-story parking structure including three subterranean levels ("Approved Project"). The subject of this Addendum is the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure ("Revised Project").

The Approved Project, under Case No. DIR-2015-309-SPPA-SPP, included a request for Project Permit Compliance Review with the Vermont/Western Transit Oriented District Station Neighborhood Area Plan (SNAP) Specific Plan ("Specific Plan"), Project Permit Adjustment from the development standards for pedestrian and vehicular circulation, Site Plan Review, and a Haul Route approval. For the Revised Project, the Applicant is seeking the following approvals from the City: (1) a Project Permit Compliance for the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure; (2) a Specific Plan Exception from Section 9.E.3 to allow for zero additional vehicle parking spaces for the Revised Project; (3) a Specific Plan Exception from Section 9.G to allow for the existing Pedestrian Throughway to satisfy the SNAP's requirement in lieu of an additional Pedestrian Throughway; and (4) a Site Plan Review for a development project that creates 95,995 square feet of nonresidential floor area. The applicant would also request approvals and permits from the Department of Building and Safety (and other municipal agencies) for project construction activities which may include, but are not limited to, the following: project construction, installation of street furniture in the public right-of-way, and addition of street trees for the project site.

APPLICANT:

CHA Health Systems, Inc.
3731 Wilshire Blvd Suite 850
Los Angeles, CA 90010

PREPARED BY:

Meridian Consultants LLC
910 Hampshire Rd., Ste. V
Westlake Village, CA 91361

PREPARED FOR:

The City of Los Angeles
Department of City Planning
Environmental Analysis Section

APRIL 2021

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1 INTRODUCTION

The City of Los Angeles, as lead agency, previously prepared and adopted a Mitigated Negative Declaration (“MND”) for the construction of a parking structure at the Hollywood Presbyterian Medical Center (“Approved Project”). An application for the proposed HPMC Building Project, to be located at the same site as the previously approved parking structure (“Revised Project”) has been submitted to the City of Los Angeles Department of City Planning for discretionary review. The City of Los Angeles, as lead agency, has determined that the Revised Project is subject to the California Environmental Quality Act (CEQA) and can be evaluated through an Addendum to the adopted MND. For that purpose, the preparation of an Initial Study is required.

PURPOSE OF ADDENDUM

Section 15160 of the CEQA Guidelines explains that there are several mechanisms, and variations in environmental documents, that can be tailored to different situations and intended uses of environmental review. Specifically, Section 15160 states that the "variations [including Subsequent EIRs, Supplemental EIRs, and Addendums] are not exclusive. Lead agencies may use other variations consistent with the Guidelines to meet the needs of other circumstances." This provision allows lead agencies to tailor the use of CEQA mechanisms (such as this Addendum) to fit the circumstances presented to the lead agency by a project. Here, the City has opted to prepare an Addendum to assess the modifications of the Project that have transpired since the adopted MND.

Pursuant to Section 15164 of the State CEQA Guidelines, the lead agency or responsible agency shall prepare an addendum to a previously approved environmental document if some changes or additions are necessary, but none of the conditions described in Section 15162 that require the preparation of a new or expanded MND have occurred. Section 15162 specifies that a subsequent EIR or MND shall not be prepared unless:

- changes in the Project are substantial enough to involve new significant environmental effects or substantial increase in the severity of identified effects;
- changes in the circumstances of the Project are substantial enough to involve new significant environmental effects or substantial increase in the severity of identified effects; or
- new information shows the Project would have new significant environmental effects, substantially more effects or result in a change in mitigation of previously identified effects.

The Environmental Impact Analysis contained in this Initial Study supports the Lead Agency's decision not to prepare a subsequent EIR or new Negative Declaration pursuant to CEQA Guidelines Section 15162.

STATUS OF MITIGATION

The mitigation measures shown in **Table 1-1: Mitigation Measures Incorporated into Approved Project** were included in the MND adopted for the Approved Project. Mitigation implemented to ensure pedestrian and vehicle safety during construction would be implemented again as part of the Revised Project. No new mitigation measures are proposed for the Revised Project.

**Table 1-1
Mitigation Measures Incorporated into Approved Project**

Mitigation Measure	Status
<p>MM IV-20: Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)</p> <ul style="list-style-type: none"> • Proposed Project activities (including disturbance to native and non-native vegetation, structures, and substrates) should take place outside of the breeding season for birds which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill (California Fish and Wildlife Code Section 86) • If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Applicant shall: <ul style="list-style-type: none"> ○ Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a Qualified Biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. ○ If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31. ○ Alternatively, the Qualified Biologist could continue the surveys in order to locate any nests. If an active nest is located, clearing and construction (within 300 feet of the nest or as determined by a qualified biological monitor) shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area. ○ The Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the Project. 	<p>Street trees were removed and replaced as part of the Approved Project in accordance with this mitigation measure.</p> <p>The Revised Project proposes additional street trees to match the amount originally required in the Approved Project, as fewer than the required number were installed due to direction from Urban Forestry after approval. Therefore, this mitigation measure is still applicable and will be incorporated and implemented as part of the Revised Project.</p>

<p>MM XII-30: Increased Noise Levels (Parking Wall)</p> <ul style="list-style-type: none"> • A 6-foot-high solid decorative masonry wall adjacent to residential use and/or zones shall be constructed if no such wall exists 	<p>Parking structure has already been constructed and no alteration of parking ramps or walls is included in the Revised Project. Therefore, this mitigation has been implemented and is no longer necessary to implement as part of the Revised Project.</p>
<p>MM XII-40: Increased Noise Levels (Parking Structure Ramps)</p> <ul style="list-style-type: none"> • Concrete, not metal, shall be used for construction of parking ramps • The interior ramps shall be textured to prevent tire squeal at turning areas 	<p>Parking structure has already been constructed and no alteration of parking ramps or walls is included in the Revised Project. Therefore, this mitigation has been implemented and is no longer necessary to implement as part of the Revised Project.</p>
<p>MM XVI-30: Transportation (Haul Route)</p> <ul style="list-style-type: none"> • The developer shall install traffic signs in accordance with the LAMC around the site to ensure pedestrian and vehicle safety 	<p>MM XII-30 is still applicable to the Revised Project and the Project Applicant would comply with this measure during construction.</p>
<p>MM XVI-40: Safety Hazards</p> <ul style="list-style-type: none"> • The developer shall install appropriate traffic signs around the site to ensure pedestrian and vehicle safety • The Applicant shall submit a parking and driveway plan that incorporates design feature that reduce accidents, to the Bureau of Engineering and the Department of Transportation for approval 	<p>Parking structure has already been constructed and no alteration of the parking or driveway plan is included in the Revised Project. Therefore, this mitigation has been implemented and is no longer necessary to implement as part of the Revised Project.</p>

PURPOSE OF INITIAL STUDY

The California Environmental Quality Act was enacted with several basic purposes, including: (1) to inform governmental decision makers and the public about the potential significant environmental effects of proposed projects; (2) to identify ways that environmental damage can be avoided or significantly reduced; (3) to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures; and (4) to disclose to the public the reasons behind a project’s approval even if significant environmental effects are anticipated.

This Initial Study (“IS”) evaluates the potential environmental effects that could result from the construction, implementation, and operation of the Revised Project. This Initial Study has been prepared in accordance with CEQA (Public Resources Code §21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.), and the City of Los Angeles CEQA Guidelines (1981, amended 2006). The City uses Appendix G of the State CEQA Guidelines as the thresholds of significance unless another threshold of significance is expressly identified in this document.

ORGANIZATION OF INITIAL STUDY

This Initial Study Addendum is organized into four sections as follows:

1. Introduction — Describes the purpose and content of the Initial Study and provides an overview of the CEQA process.
2. Executive Summary — Provides information on the Revised Project, identifies key areas of environmental concern, and includes a determination whether the project may have a significant effect on the environment
3. Project Description — Provides a description of the environmental setting and the Revised Project, including project characteristics and a list of discretionary actions.
4. Environmental Impact Analysis — Contains the completed Initial Study Checklist and a discussion of the environmental factors that would be potentially affected by the Revised Project.

2 EXECUTIVE SUMMARY

PROJECT TITLE	HPMC Building Project
ENVIRONMENTAL CASE NO.	ENV-20015-310-MND-REC1
RELATED CASES	APCC-2020-1764-SPE-SPP-SPR

PROJECT LOCATION	1318 N. Lyman Place, 4470,4472,4474, 4480,4480-1/2, 4482, 4484,4490,4494 W. De Longpre Avenue and 1321 and 1323 N. Virgil Avenue in the City of Los Angeles, California
COMMUNITY PLAN AREA	Hollywood
GENERAL PLAN DESIGNATION	Highway Oriented Commercial and High Density Residential
ZONING	C4-1D, R4-1D and [T][Q]C2-1
COUNCIL DISTRICT	13 - Mitch O'Farrell

LEAD AGENCY	City of Los Angeles
CITY DEPARTMENT	Department of City Planning
STAFF CONTACT	Jason Hernández
ADDRESS	200 North Spring Street, 6th floor, Los Angeles, CA 90012-2601
PHONE NUMBER	213-978-1276
EMAIL	jason.hernandez@lacity.org

APPLICANT	CHA Health Systems, Inc.
ADDRESS	3731 Wilshire Blvd Suite 850, Los Angeles, CA 90010
PHONE NUMBER	323-679-9106

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED


The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

<p>Jason Hernández</p> <hr/> <p>PRINTED NAME</p>  <hr/> <p>SIGNATURE</p>	<p>City Planning Associate</p> <hr/> <p>TITLE</p> <p>July 27, 2021</p> <hr/> <p>DATE</p>
--	---

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross referenced).
5. Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - Earlier Analysis Used. Identify and state where they are available for review.
 - Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.
9. The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

Project Summary

An Initial Study/Mitigated Negative Declaration (ENV-2015-310-MND) was previously prepared and adopted by the City of Los Angeles for the demolition of two maintenance facilities, a single-family residence and a surface parking lot in order to allow the construction of a parking structure as part of the Hollywood Presbyterian Medical Center campus. As evaluated in that MND, the structure would contain 654 automobile parking spaces in 3 subterranean and 4 aboveground parking levels, with an additional level of parking on the roof deck (“Approved Project”). As built, the parking structure contains 562 automobile parking spaces in 7 levels, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck.

The subject of this Addendum is the addition of three levels, containing approximately 95,995 square feet of floor space, on top of the parking structure (“Revised Project”). No additional vehicle parking spaces will be added to the existing 562 parking spaces as part of the Revised Project. The Revised Project proposes a height of 96 feet, 4 inches, and a FAR of 2.81:1.

ENVIRONMENTAL SETTING

Project Location

The Project Site is bound by De Longpre Avenue to the north; Virgil Avenue to the east; Lyman Place to the west; and an automotive services business and 2-story multifamily residential buildings to the south. The location of the Project Site is shown in **Figure 3-1: Project Location Map**. The Project Site has approximately 124 feet of frontage along the easterly side of Lyman Place, approximately 285 feet of frontage along the southerly side of De Longpre Avenue, and approximately 126 feet of frontage along the westerly side of Virgil Avenue.

Existing Site Conditions

The Project Site has a lot area of approximately 43,972 square feet. The Project Site contains a five-story parking structure constructed in 2018 that was evaluated in the Approved Project under Case No. DIR-2015-309-SPPA-SPP. The Project Site’s Assessor’s Parcel Numbers (APNs), property addresses, and lot areas are summarized in **Table 3-1: Project Site Summary**.

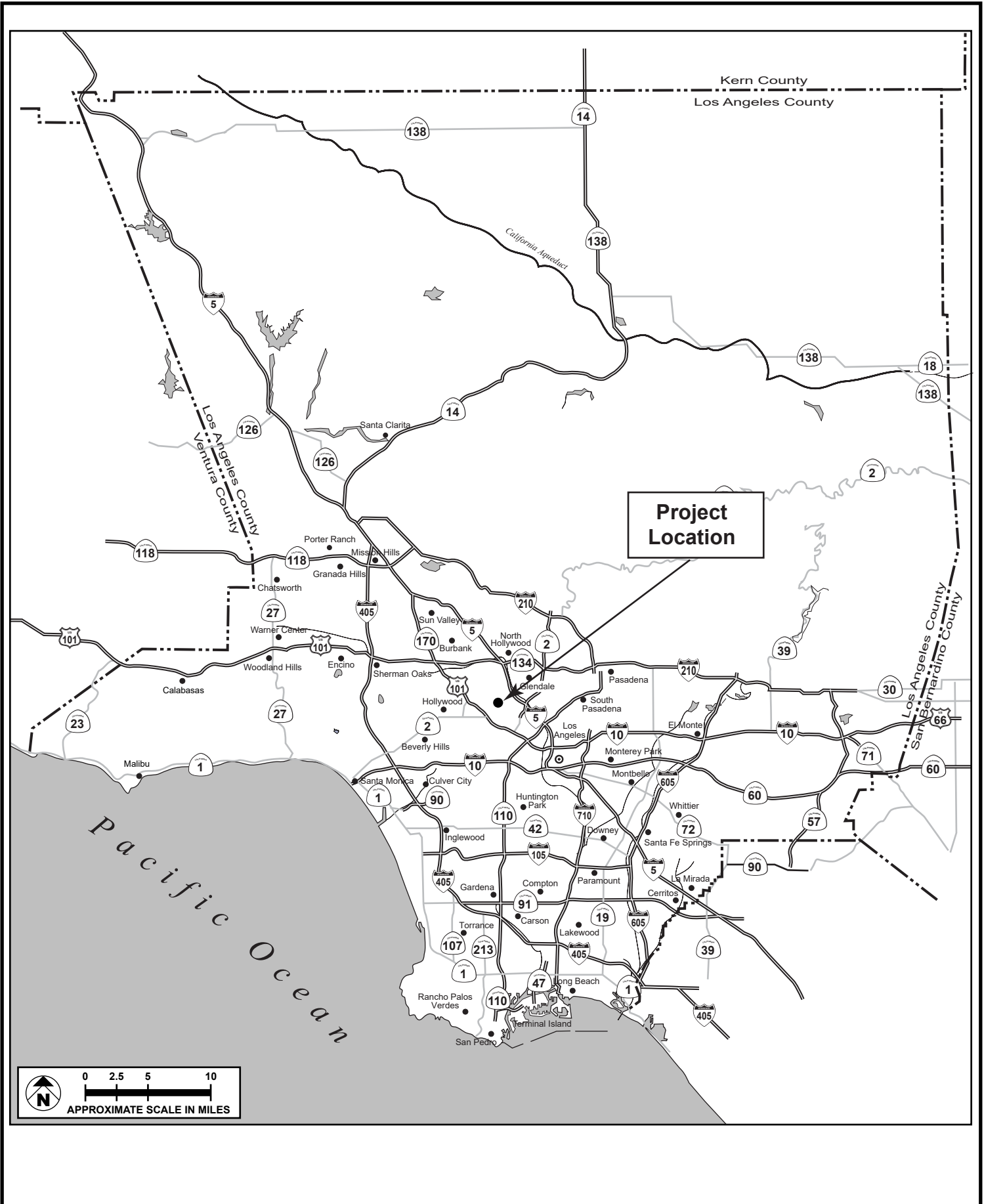


FIGURE 3-1

**Table 3-1
Project Site Summary**

APN	Address	Lot Area (sq. ft.)
5542012034	1318 N. Lyman Place	1,360
5542012035	4474 W. De Longpre Avenue	7,250
5542012028	4480, 4480 1/2, 4482, 4484, 4490, 4494 W, De Longpre Avenue	23,690
5542012029	4470, 4472 W. De Longpre Avenue	5,729
5542012036	1321, 1323 N. Virgil Avenue	5,940
Total Site Area		43,972 sq. ft. ^a

*Source: City of Los Angeles Department of City Planning, City of Los Angeles Zone Information and Map Access System (ZIMAS), March 2020.
Note: sq. ft. = square feet. Due to rounding and slight measurement differences, the lot area according to ZIMAS may not exactly match the lot area per architectural plans.*

Land Use and Zoning

The Project Site is located within the Hollywood Community Plan (“Community Plan”) area in the City of Los Angeles and within the Specific Plan. The stated intent of the Community Plan is to allow Hollywood to continue to be a major center of population, employment, retail services, and entertainment; and to provide housing to satisfy the varying needs and desires of all economic segments of the community, maximizing the opportunity for individual choice. The Community Plan designates the Project Site as a Neighborhood Office Commercial.¹

Consistent with the Community Plan designation, most of the Project Site is zoned C4-1D with portions of it zoned [T][Q]C2-1 and R4-1D. However, the Project Site is located within the northeastern portion of the Specific Plan, and the typical provisions of the site’s zoning with regard to permitted uses and development standards, including height, floor area ratio (FAR), and setbacks, are superseded by the provisions of the Specific Plan, according to its terms. The Specific Plan was adopted to make the neighborhood livable, economically viable, and pedestrian and transit friendly in an effort to achieve the maximum benefit from the subway stations located within the vicinity. In addition, the Specific Plan includes standards and plans to transform neighborhood streets into shared streets to create safer routes to school and transit, with the ultimate goal of creating a transit-friendly area. The Project Site is located within Subarea C: Community Center. Subarea C permits multiple dwelling residential uses (includes single-family residences, apartment buildings, and childcare), commercial uses (includes limited commercial uses, as well as retail with limited manufacturing, service stations, and garages), and hospital and medical uses. Within Subarea C, hospital and medical uses are permitted in all areas. The maximum permitted height for hospital and medical uses is 100 feet.²

¹ City of Los Angeles, *Hollywood Community Plan Land Use Map* (2014).

² City of Los Angeles, *Vermont/Western Transit Oriented District Specific Plan* (2001).

Surrounding Land Uses

The properties surrounding the Project Site include the Hollywood Presbyterian Medical Center campus, as well as a variety of commercial buildings, residential buildings, and surface parking lots, as shown in **Figure 3-2: Aerial View of the Project Site**. The Hollywood Freeway is also located approximately 1.3 miles west of the Project Site.

North: The Project Site is bounded by De Longpre Avenue. Across De Longpre Avenue is a grocery store. The property is zoned C2-1D (Commercial Zone) and designated as Highway Oriented Commercial. Properties south of Hollywood Boulevard are also within Subarea C: Community Center of the Specific Plan. Uses along Virgil Avenue north of Hollywood Boulevard are within Subarea B: Mixed Use Boulevards of the Specific Plan.

East: The Project Site is bound by N. Virgil Avenue to the east. Across N. Virgil Avenue is Bezikian's Medical Center, which is a 2-story medical office building. Additionally, a 1-story, single-family residence is located adjacent to the medical office building. Properties to the east are zoned C4-1D (Commercial Zone) and designated as Neighborhood Office Commercial. Properties east of Virgil Avenue are outside of the Specific Plan.

South: Located south of the Project Site are multifamily residential buildings, an automotive services business, a restaurant, and a single-family home. Properties are zoned R4-1 (Multiple Dwelling Zone) and C4-1D (Commercial Zone) and designated as Neighborhood Office Commercial. Uses along Virgil Avenue south of Fountain Avenue are within Subarea B: Mixed Use Boulevards of the Specific Plan.

West: Located to the west of the Project Site is Lyman Place, and across is the Hollywood Presbyterian Medical Center, with surface parking lots and a parking structure. Properties to the west are zoned C2-CSA1 (Community Commercial). Properties to the west are also within Subarea C: Community Center of the Specific Plan.



FIGURE 3-2

Access

Primary regional access to the Community Plan area is provided by the Hollywood Freeway (US 101), which runs in a north–south direction to the west of the Project Site. Primary access to and from the US 101 is via an interchange at Sunset Boulevard. Regional access is also provided by the Los Angeles County Metropolitan Transportation Authority (Metro) Red Line. In addition, State Route (SR) 134 is located to the north, Interstate (I-) 5 is located to the east, and the Harbor/Pasadena Freeway (I-110/SR 110) is located to the south.

The major arterials providing regional and subregional access to the Revised Project include Vermont Avenue and Fountain Avenue. The following is a brief description of the major roadways near the Revised Project.

- Sunset Boulevard – Designated Avenue I in the Mobility Plan, Sunset Boulevard travels in the east-west direction and is located north of the Project Site. It provides four travel lanes, two in each direction.
- De Longpre Avenue – De Longpre Avenue is a designated Local Street in the Mobility Plan that travels in the east-west direction and is located adjacent to the northern boundary of the Project Site. It provides two unmarked lanes, one in each direction.
- Fountain Avenue – Fountain Avenue is a designated Avenue III in the Mobility Plan. It travels in the east-west direction and is located south of the Project Site. It provides three lanes, one in each direction and one two-way left-turn lane.
- Vermont Avenue – Designated Avenue I in the Mobility Plan, Vermont Avenue travels in the north-south direction and is located west of the Project Site. It provides four travel lanes, two in each direction, during off peak periods and six lanes, three in each direction, during the afternoon peak hour.
- Lyman Place – Lyman Place is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located adjacent to the western boundary of the Project Site. It provides two unmarked travel lanes, one in each direction.
- Virgil Avenue – Designated Modified Avenue II in the Mobility Plan, Virgil Avenue travels in the north-south direction and is located east of the Project Site. It provides four travel lanes, two in each direction.
- Virgil Place – Virgil Place is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located east of the Project Site. It provides two unmarked travel lanes, one in each direction.
- Hoover Street – Hoover Street is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located east of the Project Site. It provides two unmarked travel lanes, one in each direction.

DESCRIPTION OF THE PROJECT

The Approved Project evaluated in the MND consisted of the construction of a parking structure containing 654 automobile parking spaces in 7 levels, consisting of 3 subterranean parking levels and 4 aboveground levels, with an additional level of parking on the roof deck. As built, the parking structure contains 562 automobile parking spaces in 7 levels, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck. The structure features a lobby at the corner of De Longpre Avenue and Lyman Place and provides parking spaces for patients, visitors, and employees of HPMC. The structure is approximately 42 to 56 feet above ground level, due to the sloping nature of the Project Site.

The Revised Project would create three levels of medical office and clinical suites with a total net floor area of approximately 95,995 square feet (and gross floor area of approximately 102,780 square feet) on top of the existing parking garage. Each level would have several shared elements, including lobbies, restrooms, bike racks, a staff lounge, physician's workspace, and accessory retail. Expected accessory retail, which would be located close to the lobby for convenient access, could include a pharmacy, medical equipment shop, optical shop, beauty and cosmetic shop, or supplement store. No additional vehicle parking spaces would be proposed as part of the Revised Project.

The first and second new floors of the Revised Project would consist of 10 and 11 variably sized medical office/clinic suites along with the previously listed shared spaces. Each suite will have its own access from the central corridor and will provide private waiting and restroom areas. The northern area of the third new floor would be occupied by an executive check-up and diagnostics program combined with consultation and health coaching areas, an imaging center, and GI labs. The southern side of the third level would be occupied by a series of specialty clinics, such as dermatology, alternative medicine, and a physical rehabilitation center. The third level would also include a multipurpose lounge area for outdoor activities connected to a balcony facing southwest.

The Revised Project would increase the height of the building to a maximum of 96 feet and 4 inches above ground level. The elevator and mechanical penthouse would extend to a height of 103 feet and 10 inches above ground. The roof would be reserved for the mechanical uses. One of the two new elevators would provide access to the roof for maintenance purposes only.

The site plan for the Revised Project is illustrated in **Figure 3-3: Site Plan**. Floor plans for the Revised Project are shown in **Figure 3-4: First Floor Plans**; **Figure 3-5: Second Floor Plans**, and **Figure 3-6: Third Floor Plans**.

Architectural Design

The Approved Project was constructed of high-performance glass, aluminum wall elements, vertical and horizontal metal panel screening elements, and concrete. The Revised Project would use consistent building materials to integrate the new levels into the existing structure.

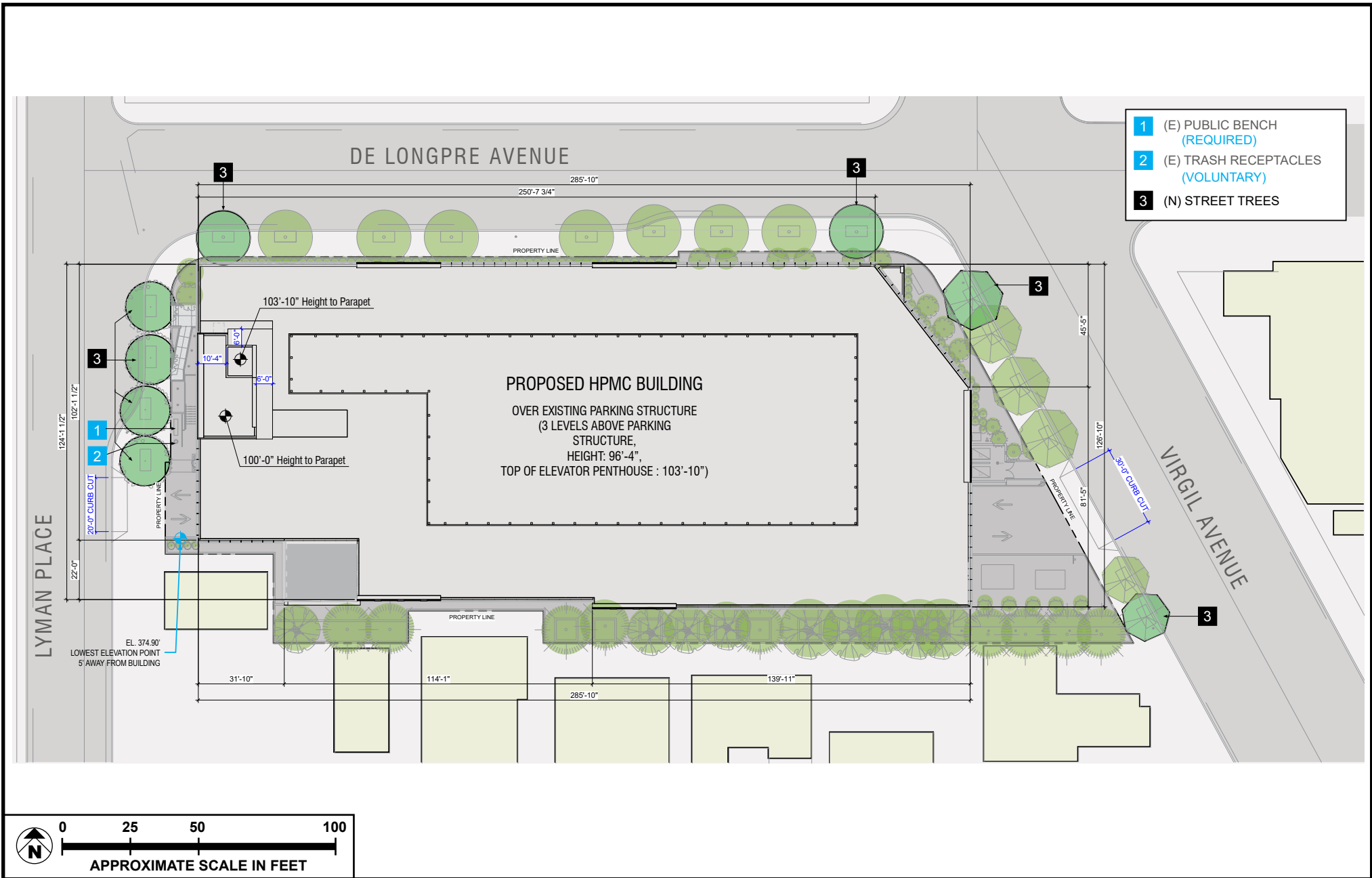
The Revised Project's architectural design incorporates a number of design features that reduce the visual mass of the building, complement the existing parking structure facades, and relate to the HPMC campus, including the new hospital building currently under construction. The Lyman Place elevation would continue the solid element adjacent to the lobby up to the roof on the corner of Lyman Place and De Longpre Avenue, providing continuity of material and design and integrating the Revised Project's new floors with the existing parking garage below. The De Longpre Avenue elevation includes a combination of vertical glazing elements and deep window wall frames to create shadow patterns. Accent lights would illuminate this elevation at night to create visual interest and encourage a welcoming pedestrian environment along the street. The Virgil Avenue elevation would be divided into three horizontal planes demarcating the floor levels with vertical glazing and window wall elements which continue the design of the adjacent sides. The Revised Project would also create a roof garden at the southwestern corner of the third level. The design of the structure is illustrated in **Figure 3-7** and **Figure 3-8: Building Elevations**.

Access, Circulation, and Parking

Pedestrian and bicycle access to the Revised Project would be provided via elevators and stairs in the existing lobby at the corner of De Longpre Avenue and Lyman Place.

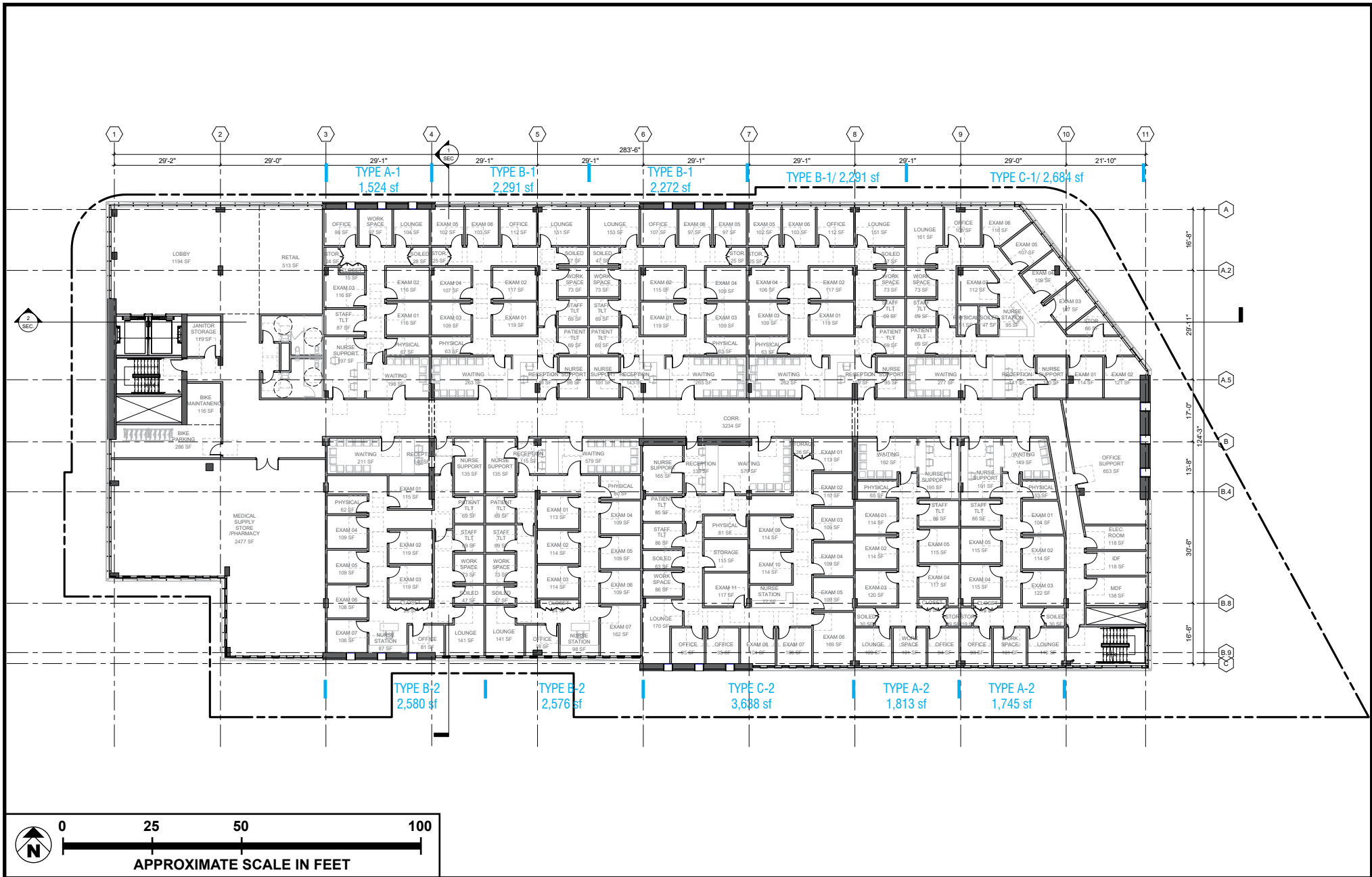
Automobile parking for the Revised Project would be provided in the existing parking structure. Vehicular access to the structure is provided from two driveways, one on Lyman Place and one on Virgil Avenue. The parking spaces within the existing structure are presently dedicated toward the parking required for the HPMC hospital campus. As presented below, the current parking covenant would be modified to permit the exclusive use by the Revised Project of 164 of the 562 spaces within the existing garage on the Project Site. Access to the spaces dedicated to the Revised Project would be controlled.

The existing parking structure contains 21 existing bicycle parking spaces; the new floors of the Revised Project would include a total of 20 additional bicycle spaces available to visitors and staff.



SOURCE: kmd+ - December, 2020

FIGURE 3-3



SOURCE: kmd+ - December, 2020

FIGURE 3-4

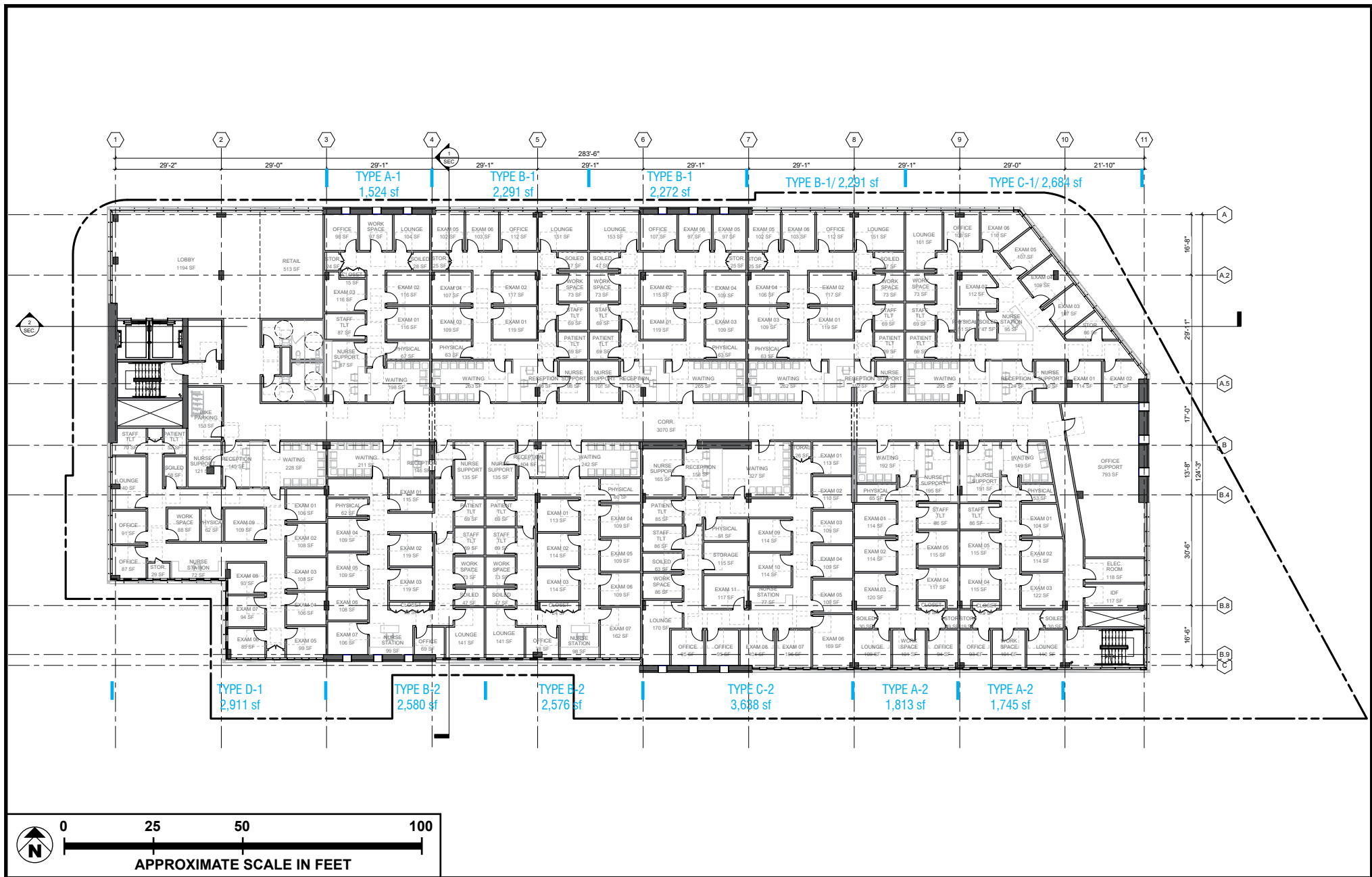
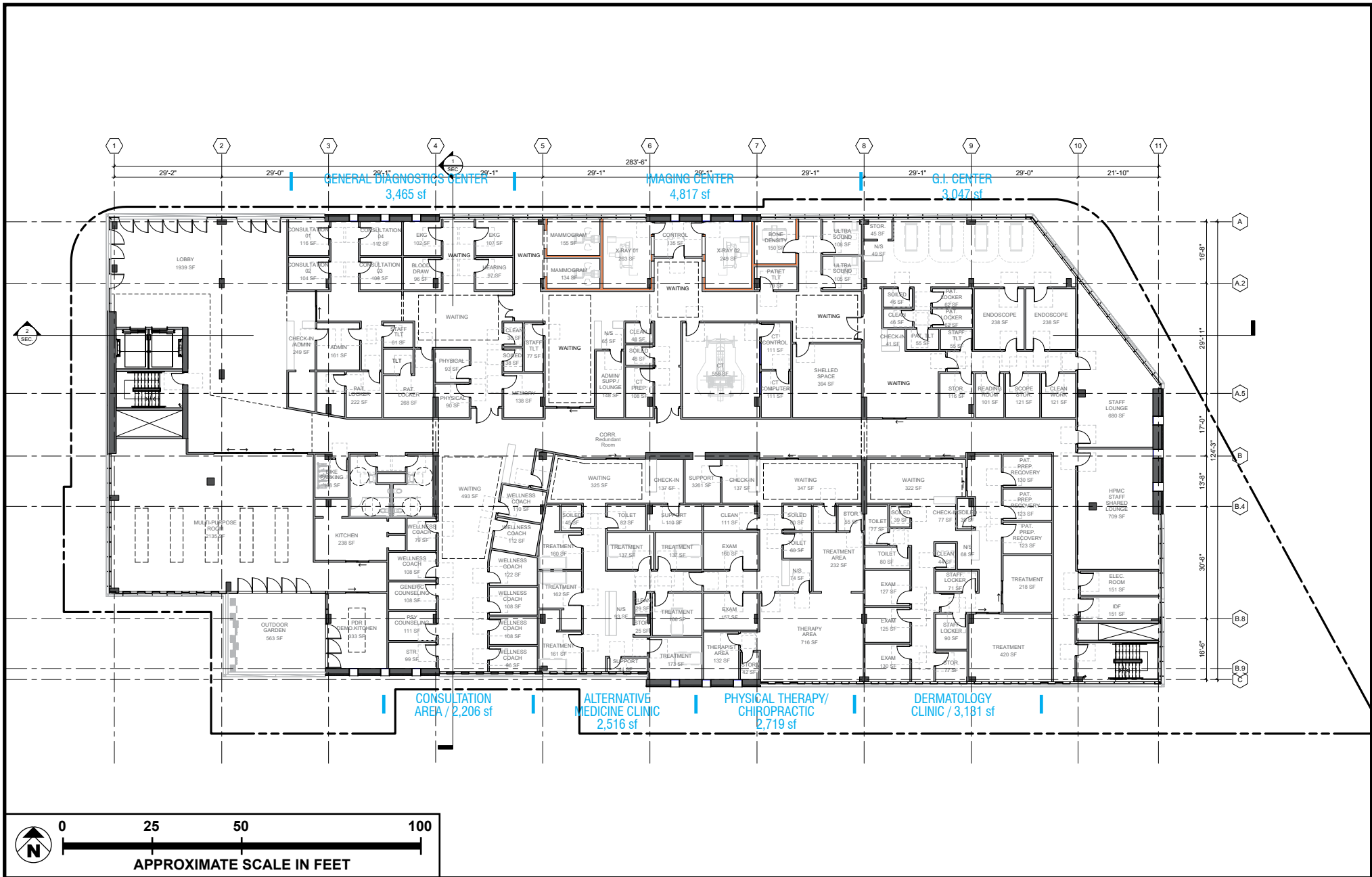
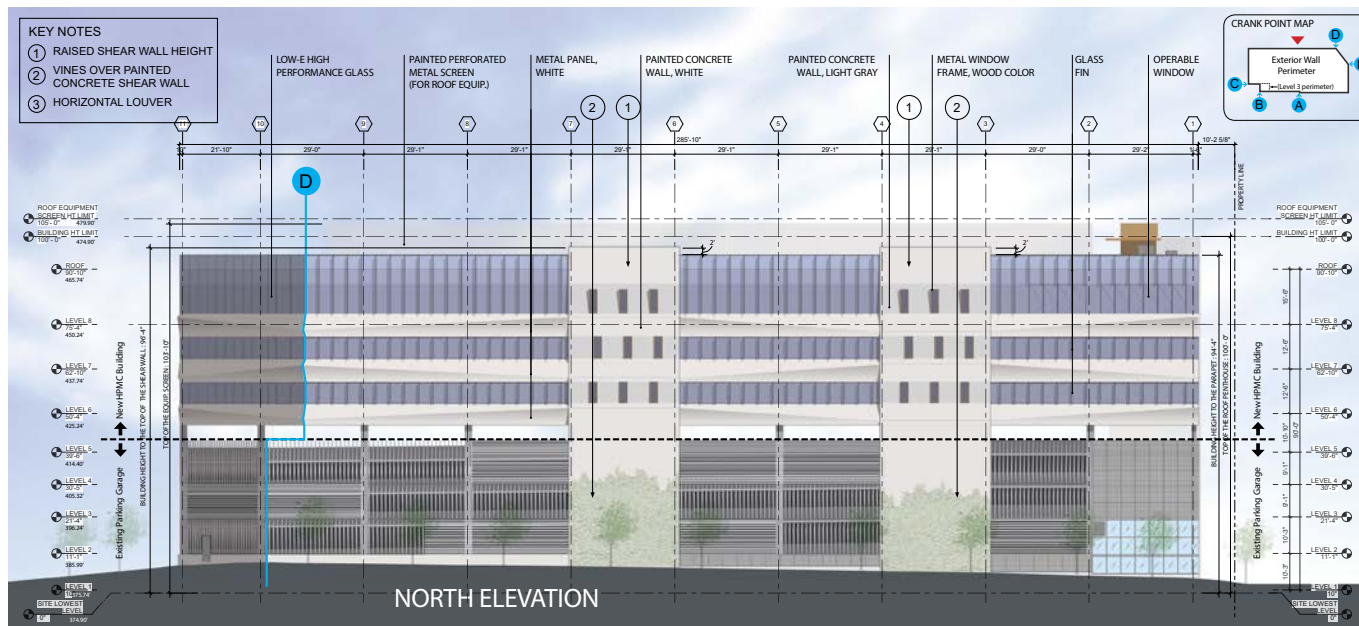
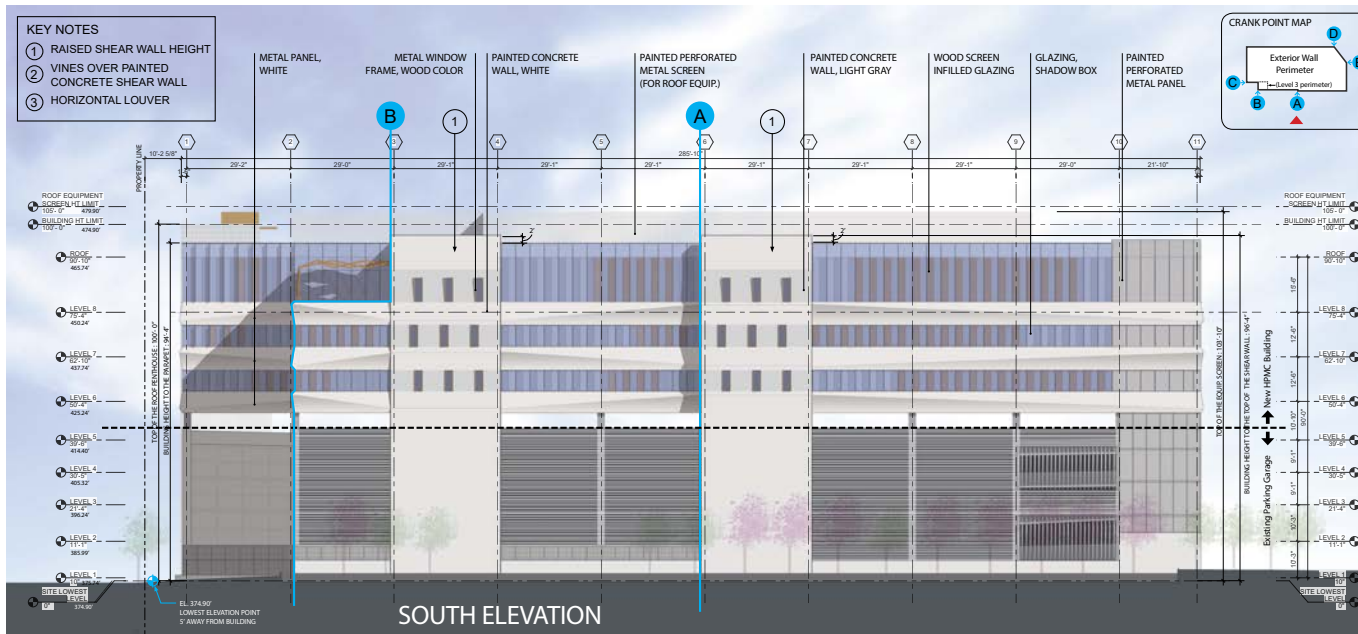


FIGURE 3-5



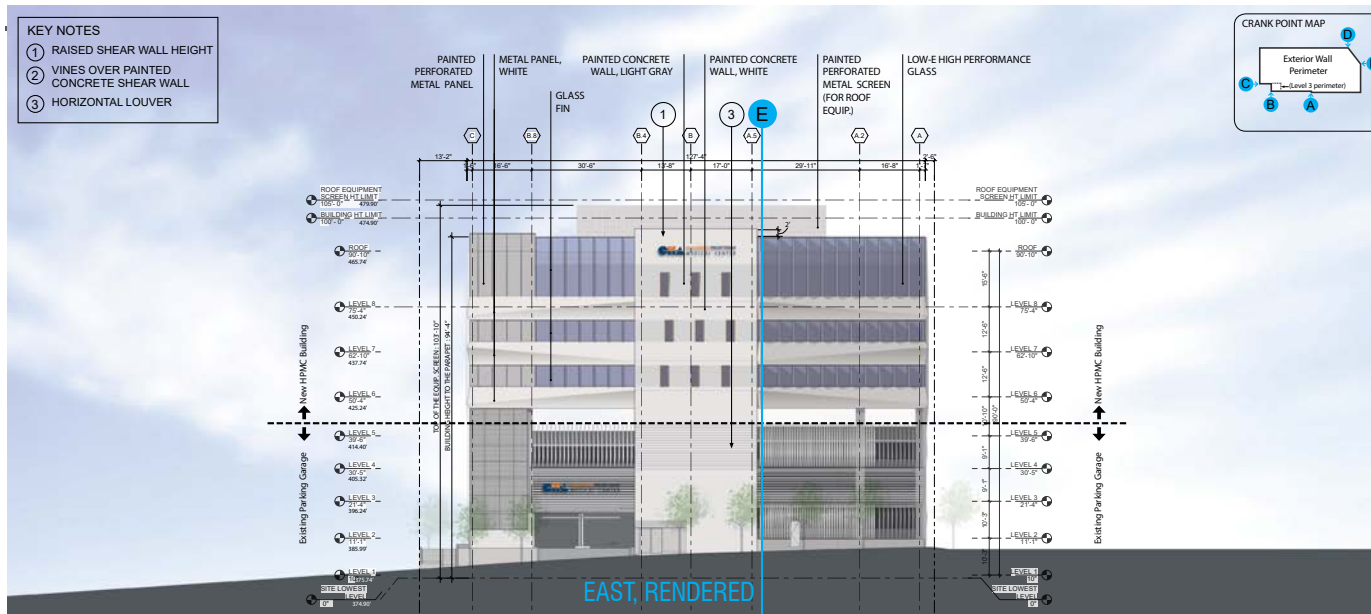
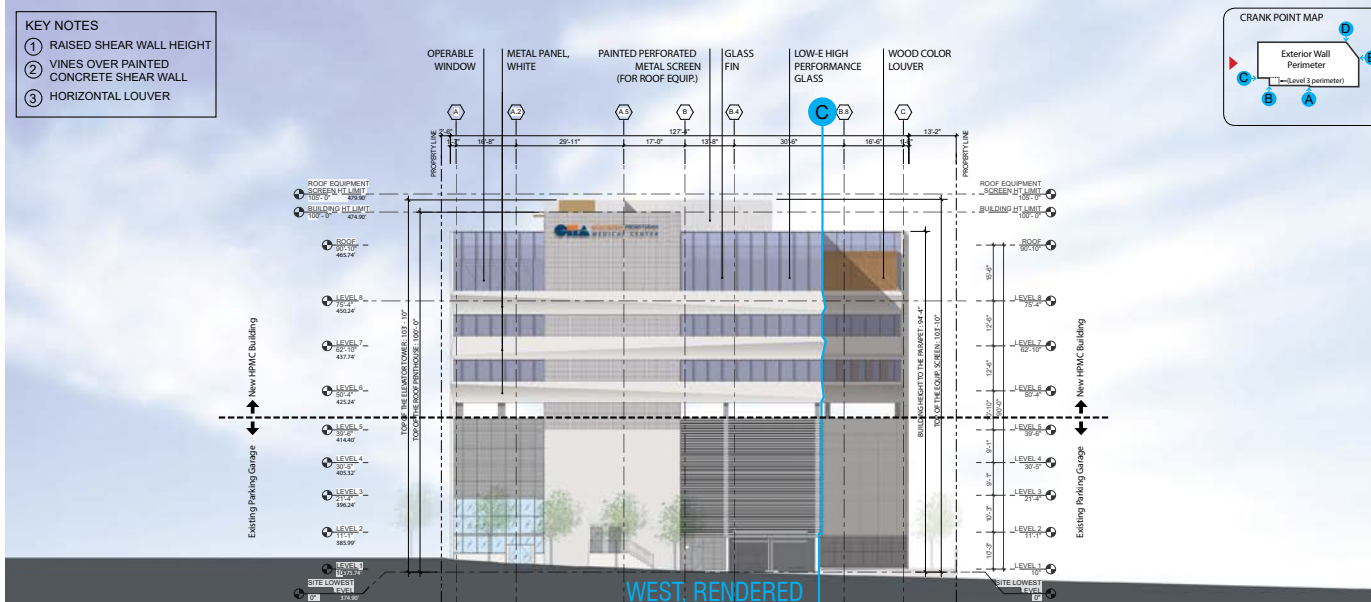
SOURCE: kmd+ - December, 2020

FIGURE 3-6



SOURCE: kmd+ - December, 2020

FIGURE 3-7



SOURCE: kmd+ - December, 2020

FIGURE 3-8

Landscaping

The Approved Project provides approximately 6,256 square feet of landscaping along the perimeter of the site, including street trees and flowering shrubs. The Revised Project includes no change to the landscape features originally proposed for the Approved Project. However, as some landscape features were waived by City departments during construction of the Approved Project, some landscape features, including eight additional street trees, will be added to match those originally proposed for the Approved Project.

Lighting

The Approved Project includes on-site lighting along all vehicular accessways and pedestrian walkways. Accent lights would be situated in the landscaping near the base of the structure to illuminate the building for pedestrian walkways and provide safety lighting along De Longpre Avenue. All lighting used throughout the structure would consist of energy-efficient LED light bulbs. The Revised Project includes no change to the exterior lighting features from the Approved Project.

Sustainability Features

The Revised Project will be designed and built to comply with the California Green Code and Title 24.

CONSTRUCTION

Schedule/Sequence

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule for the Revised Project of approximately 24 months, with completion in 2023. Construction activities associated with the Revised Proposed Project would be undertaken in the following sequence: (1) steel structure; (2) building dry-in including exterior framing and roofing; and (3) interior build out.

Steel Structure

The additional three floors would be built up with a steel structure in order to minimize any effect on the operation of the existing parking structure and any potential disruption to neighboring properties. It will take approximately one (1) month to prepare the anchor bolts for retrieval of the steel columns and approximately one (1) additional month to complete the erection of the steel and welding. A 100-ton mobile crane will be utilized for steel framing, which is contingent upon the size of the heaviest piece of steel structure.

Exterior framing and roofing

After the completion of the steel structure, the fire proofing, concrete decking, exterior cladding, and roofing works will follow in order to make dry-in of the building. A 25-ton mobile crane and a concrete truck will be temporarily staged on De Longpre for material hoisting and concrete decking work. This phase is anticipated to be completed in approximately eight (8) months.

Build-Out

The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finishing work, as well as medical imaging equipment installation, which will last for approximately fourteen (14) months. A 25-ton mobile crane will be temporarily staged on De Longpre for hoisting material and equipment until two (2) new elevators are available approximately ten (10) months after the beginning of the build-out phase.

Street Closures

It is necessary to close one lane of De Longpre for the entire construction period. For the safety of the pedestrians, the northern side of the existing parking structure will be closed, and pedestrians will be guided to use the north side of De Longpre with construction signs and barricades during the construction period. Depending on the size of steel members or other equipment, there may be street closures at limited times in order to use larger mobile cranes to hoist required materials. Traffic lane and right-of-way closures, if required, will be properly permitted by the City agencies, and will conform to City standards.

Logistics and Temporary Facilities

Unless stated otherwise, all construction activities will be performed in accordance with all applicable State and federal laws and City codes and policies with respect to building construction and activities. As provided in Section 41.40 of LAMC, the permissible hours of construction within the City are 7:00 AM to 9:00 PM Monday through Friday, and between 8:00 AM and 6:00 PM on any Saturday or national holiday. No construction activities are permitted on Sundays. The Revised Project would comply with these restrictions.

There will be designated parking spaces for construction workers in the existing parking structure during the construction period. The workers will use the existing elevator to the roof of the existing parking structure, and use temporary stairs to access upper decks for the construction activities. A maximum of 80 workers are anticipated on-site at peak construction times. The roof deck of the existing parking structure will be temporarily closed during the construction period, and will be utilized for temporary offices, container storage, and temporary toilets after the first deck is casted.

The existing parking structure was designed and constructed with sufficient electrical capacity to power additional floors. As such, there is ample surplus power available for construction use and operation of the Revised Project. The potential need for surplus power for construction activities (i.e., generators required during the construction period) is extremely low.

Haul Routes

Neither excavation of the soil nor hauling is required for the Revised Project.

REQUESTED PERMITS AND APPROVALS

The Approved Project included approval of the following entitlements:

1. **Pursuant to Los Angeles Municipal Code (LAMC) Section 11.5.7 C, a Project Permit Compliance** for the demolition of two 1-story metal maintenance facilities and an adjacent 1-story single family home along North Lyman Place; and the construction, use and maintenance of a seven-level, 56 foot tall parking structure to contain 654 parking spaces in the R4-1D, C4-1D, and [T][Q]C2-1 zones within Subarea C (Community Center) of the Vermont/Western SNAP; and
2. **Pursuant to LAMC Section 11.5.7 E, a Project Permit Adjustment from Development Standard No. 4 Pedestrian/Vehicular Circulation** to allow for the reduced pedestrian path minimum horizontal clearance from 10 feet in width to 5 feet in width and to allow for the reduced minimum vertical clearance from 12 feet in height to a range of 8 to 9 feet in height.

For the Revised Project, the Applicant is requesting:

1. **Pursuant to LAMC Section 11.5.7 C, a Project Permit Compliance** for the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure within Subarea C of the Vermont/Western SNAP;
2. **Pursuant to LAMC Section 11.5.7 F, a Specific Plan Exception** for relief from the following Vermont/Western Station Neighborhood Plan (“SNAP”) requirements:
 - a. **SNAP Section 9.E.3: Project Parking Requirements - Commercial.** To allow zero vehicle parking spaces for the Revised Project;
 - b. **SNAP Section 9.G: Pedestrian Throughways.** To allow for the existing Pedestrian Throughway to satisfy the SNAP’s requirement in lieu of an additional Pedestrian Throughway; and
3. **Pursuant to LAMC Section 16.05, a Site Plan Review** for a hospital medical use development project that creates 95,995 square feet of non-residential floor area.

Other discretionary and ministerial permits and approvals may be deemed necessary, including, but not limited to, temporary street closure permits, building permits, and sign permits.

RESPONSIBLE PUBLIC AGENCIES

A Responsible Agency under CEQA is a public agency with some discretionary authority over a project or a portion of it, but which has not been designated the Lead Agency (State CEQA Guidelines Section 15381). No responsible agencies have been identified for the Revised Project.

4 ENVIRONMENTAL IMPACT ANALYSIS

Section 15164(b) of the CEQA Guidelines states that the lead agency shall prepare an addendum to a previously adopted MND if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred. The conditions described in Section 15162 are:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous Negative Declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous negative declaration; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous negative declaration would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Based on this analysis and the information contained in this Addendum, the Revised Project would not result in a new significant impacts, there are no substantial changes to the circumstances under which the Revised Project would be undertaken, and no new information of substantial importance which was not known at the time of the Approved Project has since been identified. As such, the information contained in this Addendum supports the conclusion that none of the conditions described in State CEQA Guidelines Section 15162 calling for preparation of a subsequent Negative Declaration have occurred.

I. AESTHETICS

Public Resources Code (PRC) §21099(d) states that “Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment.” PRC Section 21099 defines a “transit priority area” as an area within 0.5 miles of a major transit stop that is “existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.” PRC Section 21064.3 defines “major transit stop” as “a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.” PRC Section 21099 defines an “employment center project” as “a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area. PRC Section 21099 defines an “infill site” as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. The related City of Los Angeles Department of City Planning Zoning Information (ZI) File ZI No. 2452 provides further instruction concerning the definition of transit priority projects and that “visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact” shall not be considered an impact for infill projects within TPAs pursuant to CEQA.³

The Revised Project is an employment center project and is located on an infill site within a transit priority area. The Revised Project is within 0.5 miles of the Vermont/Sunset station on the Metro Red Line and is zoned for commercial uses with a floor area ratio of approximately 2.18 on a lot located within an urban area. As such, PRC Section 21099 applies to the Revised Project. Therefore, aesthetic impacts of the Revised Project shall not be considered significant. The analysis of aesthetics in this Initial Study is for informational purposes only and not for determining whether the Revised Project will result in significant impacts to the environment. As such, nothing in the aesthetic impact discussion in this Initial Study shall trigger the need for any CEQA findings or mitigation measures.

3 City of Los Angeles Department of City Planning, Zoning Information File ZA No. 2452, Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking Within TPAs Pursuant to CEQA. Available at: <http://zimas.lacity.org/documents/zoneinfo/ZI2452.pdf>. Accessed Dec. 2, 2016.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Except as provided in Public Resources Code Section 21099 would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a. Would the project have a substantial adverse effect on a scenic vista?

Approved Project

Less than Significant Impact. The Community Plan does not identify any scenic vistas, nor is the Project Site located within or along a designated scenic corridor. Views near the Project Site are largely constrained by adjacent structures. No scenic views are provided from or through the Project Site. Impacts were identified as less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause those conditions to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project Site is in the same location as the Approved Project. The Revised Project would alter the existing views and character of the Project Site and immediately surrounding area; however, it will remain compatible with the urban form of the area. Although the Revised Project would increase the height from 56 feet to 96 feet 4 inches (net increase of 40 feet and 4 inches) and would extend the massing of the existing development on the Project Site upward, the Revised Project would not obstruct any scenic views. Moreover, as an infill project within one-half mile from a major transit stop, the Revised Project will not have an adverse effect on a scenic vista. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to scenic vistas within the area which the Revised Project is located, that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to scenic vistas.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

Approved Project

No Impact. The Approved Project is not located within or along a designated scenic highway and no scenic views exist from or through the currently developed site. The nearest designated State scenic highway is State Route (SR) 2, which runs from 2.7 miles north of SR 210 at La Cañada to the San Bernardino County line.⁴ However, at its nearest point, SR 2 is located approximately 2 miles east of the Project Site. As such, no impacts were identified.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would occur at the same location as the Approved Project, at which no scenic resources, including State scenic highways, trees, rock outcroppings, and historic structures, have been identified. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to scenic resources within area in which the Revised Project is located that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project*

⁴ California Department of Transportation, "Officially Designated State Scenic Highways" (October 2013), Accessed February 18, 2015, <https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf>

proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to scenic resources.

- c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Approved Project

Less than Significant Impact. Within the Community Plan area, there are commercial, retail, office, restaurant, parking, and residential land uses of various heights. The Approved Project was found to have a less than significant impact due to its scale, mass and style being compatible with the surroundings.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project involves the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure, on an infill site located in an established urban community. Implementation of the Revised Project would change the visual character of the Project Site by increasing the height by approximately 40 feet (from 56 feet to 96 feet and 4 inches) and adding massing. As shown in **Figures 3-2**, the Project Site is surrounded by commercial and residential developments on all sides. The Revised Project would add to the existing landscaping and tree plantings on the Project Site, which would enhance the scenic quality of the Project Site. The proposed eight-story, 96-foot, 4-inch building would be consistent with the 100-foot height limit for Hospital and Medical Use buildings imposed by the Vermont/Western SNAP Subarea C provisions under Section 9.B.3. Consistent with the Subarea C Development Standards in the Specific Plan, the Revised Project would be required to comply with all other SNAP development standards/requirements for Subarea C (including but not limited to signage, architectural colors and materials, building form, etc.). Although the construction of three (3) additional

stories to the existing parking garage would modify the visual character of the Project Site, it would not degrade the existing visual character or quality of the Project Site and its immediate surroundings.

In summary, for the reasons discussed above, the proposed Revised Project would not adversely impact the visual character of the surrounding urban landscape and would be consistent with applicable Specific Plan, General Plan, and LAMC regulations and policies relating to visual character and quality. The Revised Project would remain compatible with the urban form of the area and would not conflict with applicable zoning and other regulations governing scenic quality. Furthermore, in accordance with PRC §21099, changes to the visual character and quality of the Project Site and surrounding area would be less than significant. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

The Revised Project is in the same location as the Approved Project and would not require major revisions of the previous MND. There have not been any significant changes with respect to aesthetics within the area which the Revised Project is undertaken that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to Aesthetics.

d. Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Approved Project

Less than Significant Impact. The Approved Project was determined to have a less than significant impact as Approved Project lighting would be consistent with SNAP Development Standards and Guidelines and the surrounding development. Likewise, the Approved Project would not introduce any new sources of glare that are incompatible with the surrounding areas. Thus, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Due to the urbanized nature of the area, a moderate level of ambient nighttime light already exists. Nighttime lighting sources include streetlights, vehicle headlights, and interior and exterior building illumination. The Revised Project would have lighting similar to the Approved Project and would be constructed of similar materials. The Revised Project does not include any elements or features that would create substantial new sources of glare. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*

There have not been any significant changes with respect to light and glare in the area which the Revised Project is located that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C)*

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to light and glare.

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a. **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Approved Project

No Impact. The Approved Project is located within a developed and urbanized area of the City of Los Angeles. No farmland or agricultural activity exists on or near the Project Site. According to the California Department of Conservation's "Los Angeles County Important Farmland 2010" map, the Project Site is not designated as farmland.⁵ No portion of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project is located on the same site as the Approved Project; therefore, no impacts would occur. The Project Site is located within a developed and urbanized area of the City of Los Angeles. No farmland or agricultural activity exists on or near the Project Site. According to the California Department of Conservation's "Los Angeles County Important Farmland 2010" map, the Project Site is not designated as farmland.⁶ No portion of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Based on the above, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to farmland in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of

5 California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland Map, Los Angeles County Important Farmland 2010 (January 2011), <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf>.

6 California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland Map, Los Angeles County Important Farmland 2010 (January 2011), <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf>.

previously identified significant effects. As mentioned, no farmland or agricultural activity exists on or near the Project Site. According to the California Department of Conservation's "Los Angeles County Important Farmland 2010" map, the Project Site is not designated as farmland.⁷ No portion of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to agriculture and forestry resources.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Approved Project

No Impact. The Project Site is located within the jurisdiction of the City of Los Angeles and is subject to the applicable land use and zoning requirements of the LAMC. The Project Site is split between C4-1D, [T][Q]C2-1, and R4-1D zoning designations, and is designated as Neighborhood Office Commercial in the Hollywood Community Plan. The Project Site is not zoned for agricultural production, and there is no farmland at the Project Site. In addition, no Williamson Act Contracts are in effect for the Project Site.⁸ No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

7 California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland Map, Los Angeles County Important Farmland 2010 (January 2011), <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf>.

8 California Department of Conservation, Division of Land Resource Protection, "The Land Conservation (Williamson) Act" (2013), <http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx>.

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to agricultural resources within the vicinity of the Revised Project. As such, there would not be new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to existing zoning for agricultural use.

- c. **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

No Impact. The Project Site is zoned C4-1D [T][Q]C2-1, and R4-1D. The Project Site is not zoned as forestland or timberland, and there is no timberland production at the Project Site. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

- (3) *There have not been any significant changes with respect to existing zoning for forestland or timberland in the area which the Revised Project is located that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to zoning for forestland or timberland.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Approved Project

No Impact. The Project Site does not contain any forest land. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to forestland within the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to forestland.

- e. **Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

Approved Project

No Impact. Neither the Project Site nor nearby properties are currently utilized for agricultural or forestry uses. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to conversion of Farmland to non-agricultural use in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects. As mentioned, the Revised Project site is currently utilized for agricultural or forestry uses.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to conversion of Farmland to non-agricultural use.

III. AIR QUALITY

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Approved Project

Less than Significant Impact. A significant air quality impact could occur if a project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. For projects within the City of Los Angeles or elsewhere in the South Coast Air Basin (Basin), the applicable AQMP is that prepared by the South Coast Air Management District (SCAQMD). The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, and cooperates actively with all State and federal government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the Regional Comprehensive Plan (RCP) are considered consistent with the AQMP growth projections because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP. The Approved Project was an infill parking structure to serve the existing Hollywood Presbyterian Medical Center. As such, it was not a substantial source of employment and population growth.

In addition, SCAQMD developed regional emissions thresholds to determine whether or not a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin. As shown in the approved MND under Case No. ENV-2015-310-MND, the Approved Project would not exceed any of the SCAQMD regional emissions thresholds. Therefore, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

As stated above, projects that are consistent with the projections of population forecasts contained in the AQMP are considered consistent with the AQMP. The City of Los Angeles had a total of 1,696,400 employees in 2012 and the AQMP estimates a total of 2,169,100 employees by the year 2040. The Revised Project is expected to have 308 employees. As such, the Revised Project represents an insubstantial portion of the projected employment growth in the City of Los Angeles and is therefore consistent with the projections of population forecasts of the AQMP.

In addition, SCAQMD developed regional emissions thresholds to determine whether or not a project would contribute to air pollutant violations. An estimate of emissions was prepared utilizing the California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD. **Table 4.3-1: Maximum Construction Emissions**, identifies daily emissions that are estimated to occur on peak construction days for each construction phase. As shown, construction-related daily emissions associated with the Revised Project would not exceed any regional SCAQMD significant threshold for criteria pollutants during the construction phases. The analysis of daily operational emissions associated with the Revised Project has been prepared utilizing CalEEMod as recommended by the SCAQMD. The results of these calculations are presented in **Table 4.3-2: Maximum Operational Emissions**. All criteria pollutant emissions would be

below the SCAQMD construction and operational thresholds. As such, the Revised Project would not conflict with or obstruct the implementation of the AQMP. Therefore, no new significant environmental effects or substantial increase in the severity of previously identified significant effects would occur. Further discussion and detailed model results are provided in the Air Quality Study prepared by Meridian Consultants on April 2020 contained in **Appendix A**.

**Table 4.3-1
Maximum Construction Emissions**

Source	VOC	NOx	CO	SOx	PM10	PM2.5
	pounds/day					
Unmitigated Year 2021	1	7	7	<1	1	<1
Unmitigated Year 2022	1	4	5	<1	1	<1
Unmitigated Year 2023	1	4	5	<1	1	<1
Unmitigated Maximum	1	7	7	<1	1	<1
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes:

CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.

*Refer to **Appendix A** for Air Quality Study, Sections 3.2 through 3.7, for maximum on-site plus off-site emissions during both the summer and winter seasons.*

**Table 4.3-2
Maximum Operational Emissions**

Source	VOC	NOx	CO	SOx	PM10	PM 2.5
	pounds/day					
Area	2	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	4	19	50	<1	13	4
Total	6	19	50	<1	13	4
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.

CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.

*Refer to **Appendix A**, Section 2.2, for maximum operational emissions during both the summer and winter seasons.*

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same. There have not been any significant changes with respect to implementation of the applicable air quality plan under which the Revised Project is located that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to the AQMP.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?

A significant impact could occur if the Approved Project would add a considerable cumulative contribution to federal or State nonattainment pollutants. With respect to determining the significance of the Project contribution, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the development project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

Approved Project

Less than Significant Impact. As discussed in the adopted MND under Case No. ENV-2015-310-MND, the Approved Project would not generate construction or operational emissions that exceed the SCAQMD's

recommended regional thresholds of significance. As such, impacts of the Approved Project would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

As shown in **Table 4.3-1** and **Table 4.3-2** above, the Revised Project would not generate construction or operational emissions that exceed the SCAQMD's recommended regional thresholds of significance. The Revised Project would not generate a cumulatively considerable increase in emissions of the pollutants for which the Basin is in nonattainment. Moreover, the Revised Project would be subject to standard regulatory compliance measures, which reduce the impacts of operational and construction emissions on the region. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to air quality within the region that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to air quality.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Approved Project

Less than Significant Impact. Sensitive receptors are defined as schools, residential homes, hospitals, resident care facilities, daycare centers or other facilities that may house individuals with health conditions who would be adversely impacted by changes in air quality. Residential uses located to the southwest of the Project Site would be considered the nearest sensitive receptor.

The SCAQMD has developed localized significance thresholds (LSTs) based on the pounds of emissions per day that could be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the “Final Localized Significance Threshold Methodology” document prepared by the SCAQMD,⁹ apply to projects that are less than or equal to 5 acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each Source Receptor Area (SRA). For PM₁₀, the LSTs were derived based on requirements in SCAQMD Rule 403—Fugitive Dust. For PM_{2.5}, LSTs were derived based on a general ratio of PM_{2.5} to PM₁₀ for both fugitive dust and combustion emissions.

As shown in the approved MND under Case No. ENV-2015-310-MND, the Approved Project would not exceed SCAQMD’s construction or operational LSTs and impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

⁹ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology* (June 2003; rev. October 21, 2009).

The nearest sensitive receptors to the Revised Project are residential uses to the south of the Project Site. The area includes other sensitive receptors, including other parts of the Hollywood Presbyterian Medical Center and Children's Hospital. However, evaluation of impacts is assessed at the nearest receptor, as the significance of potential impacts would be reduced by the greater distance to other receptors. The localized effects from the on-site portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the Revised Project according to the SCAQMD Final LST Methodology,¹⁰ which relies on on-site mass emission rate screening tables and project-specific dispersion modeling, where appropriate. The LST are only applicable to NO_x, CO, PM₁₀, and PM_{2.5}. For NO_x and CO, significance thresholds are based on the ambient air quality standards. For PM₁₀ and PM_{2.5}, the thresholds are based on requirements in SCAQMD Rule 403 (Fugitive Dust) and Rule 1303 (New Source Review Requirements). The SCAQMD provides mass emission rate screening tables which are used for projects five acres or less in size. Projects which are larger than five acres, detailed dispersion modeling is recommended to assess air quality impacts. The Project Site is approximately one acre; therefore, the screening tables are used to evaluate localized emissions.

The screening criteria depend on: (1) the area in which the Revised Project is located, (2) the size of the Project Site; and (3) the distance between the Project Site and the nearest sensitive receptors (e.g., residences, schools, hospitals). The SCAQMD provides screening criteria distances of 25, 50, 100, 200, and 500 meters and allows for linear interpolation to estimate the screening criteria between these distances. The Project Site (1.02 acres) is located within Source Receptor Area (SRA) 1, which covers the Central Los Angeles County area. The screening criteria used a 1.0-acre site with sensitive receptors located adjacent to the Project Site, within the 80 feet (25 meters) distance.

The result of the LST analysis are provided in **Table 4.3-3: Localized Construction and Operational Emissions**. These estimates assume the maximum area that would be disturbed during construction on any given day during Revised Project buildout. Construction would comply with the SCAQMD's Rule 403 (Fugitive Dust), which requires watering of the Project Site during dust-generating construction activities, stabilizing disturbed areas with water or chemical stabilizers, and preventing track-out dust from construction vehicles. However, it should be noted that there would be no grading or excavation needed for the Revised Project. As shown, emissions would not exceed the localized significance construction and operational thresholds.

10 Southern California Air Quality Management District, *Final Localized Significance Threshold Methodology*, 2008. <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>, accessed February 2020.

**Table 4.3-3
Localized Construction and Operational Emissions**

Source	NOx	CO	PM10	PM2.5
	On-Site Emissions (pounds/day)			
Construction				
Total maximum emissions	5	4	<1	<1
LST threshold	74	680	5	3
Threshold Exceeded?	No	No	No	No
Operational				
Project area/energy emissions	<1	<1	<1	<1
LST threshold	74	680	2	1
Threshold Exceeded?	No	No	No	No

Notes:

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

*Refer to **Attachment A.1 (Proposed Summer)** and **Attachment A.2 (Proposed Winter)**, Sections 3.2 through 3.7, for maximum on-site emissions during both the summer and winter seasons.*

Toxic Air Contaminants

Revised Project construction would result in short-term emissions of diesel particulate matter, which is a Toxic Air Contaminant (TAC). Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Residences, which are sensitive receptors, are located adjacent to the southern edge of the Revised Project. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in **Table 4.3-3**. Revised Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Revised Project area.

Revised Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize emission from existing diesel trucks. In addition, Revised Project operations would only result in minimal emissions of air pollutants from maintenance or other ongoing activities, such as from the use of architectural coatings or cleaning products. As a result, emissions of toxic or carcinogenic air pollutants are expected to be minimal during operation of the Revised Project. Based on the uses expected on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of

significance. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to sensitive receptors or pollutant concentrations in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to exposure of sensitive receptors to substantial pollutant concentrations.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Approved Project

Less than Significant Impact. According to the SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Approved Project does not contain any of these uses. Therefore, objectionable odors would not be emitted by the Approved Project. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

According to the SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Revised Project does not involve any active manufacturing activities or any of the other uses listed above. Therefore, objectionable odors would not be emitted by the Revised Project. In addition, the Revised Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (1) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to other emissions that could adversely affect a substantial number of people in the area of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (2) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to other emissions that could adversely affect a substantial number of people.

IV. BIOLOGICAL RESOURCES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?
- a. **Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Approved Project

Less than Significant with Project Mitigation. The Project Site did not contain any critical habitat or support any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or US Fish and Wildlife Service (USFWS). The Approved Project involved the removal and replacement of street trees along De Longpre Avenue. As these trees may provide shelter and habitat for nesting birds, which are protected under the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC),^{11,12} the Approved Project included mitigation measures to ensure that no significant impacts to nesting birds or sensitive biological species or habitat would occur. Street trees were removed and replaced as part of the Approved Project in accordance with this mitigation measure.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

11 United States Code, Title 33, sec. 703 et seq., see also Title 50, Code of Federal Regulations, pt. 10.
 12 California of Fish and Game Code, sec. 3503.

The Revised Project would be developed on the same site as the Approved Project, which does not contain critical habitat or support any specified identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The Revised Project proposes additional street trees. Therefore, the mitigation incorporated into the Approved Project would still be applicable and will be incorporated and implemented as part of the Revised Project. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to critical habitat or support any specified identified as a candidate, sensitive, or special status species in local regional plans, policies, or regulations, or by the CDFW or USFWS in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to biological resources.

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Approved Project

No Impact. The Project Site did not contain any riparian or other sensitive natural community. Therefore, implementation of the Approved Project did not result in any adverse impacts to riparian habitat or other sensitive natural communities.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project Site remains the same for the Revised Project. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to riparian habitat or other sensitive natural communities in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to riparian habitat or other sensitive natural communities.

- c. **Would the project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Approved Project

No Impact. The Project Site is entirely developed and does not contain any wetlands or natural drainage channels. Nor does the Project Site have the potential to support any riparian or wetland habitat. Therefore, no impacts to wetlands would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project Site remains the same for the Revised Project. The Revised Project would be built on top of the existing parking structure. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to State or federally protected wildlands in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to State or federally protected wildlands.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Approved Project

No Impact. The Project Site has been previously developed and is located in a heavily urbanized area of the City of Los Angeles. Due to the highly urbanized surroundings, the Approved Project would not interfere with the movement of any fish or wildlife species, and there are no wildlife corridors or native wildlife nursery sites on the Project Site. Therefore, no impacts to fish or wildlife would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project Site remains the same for the Revised Project. The Revised Project would be built on top of the existing parking structure. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to biological resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible*

and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to biological resources.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Approved Project

No Impact. As discussed above, the Approved Project was required to comply with the provisions of the MBTA. The Approved Project also complied with City policies regarding replacement of street trees. Therefore, the Approved Project would not conflict with any local policies or ordinances protecting biological resources.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be built on top of the existing parking structure and would not remove existing trees. Additionally, eight additional street trees would be added. Further, the Revised Project would not conflict with any local policies or ordinances protecting other biological resources. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to local policies or ordinances protecting biological resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to local policies or ordinances protecting biological resources.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

Approved Project

No Impact. The Project Site is not part of any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, the Approved Project had no impact on the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Project Site remains the same for the Revised Project, which would be built on top of the existing parking structure. The Project Site is not part of any draft or adopted Habitat Conservation Plan, Natural

Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. As such, the Revised Project would not conflict with any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to conservation plans in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to conservation plans.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5? Potentially Significant Impact Less Than Significant with Mitigation Incorporated Less Than Significant Impact No Impact
- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? Potentially Significant Impact Less Than Significant with Mitigation Incorporated Less Than Significant Impact No Impact
- c. Disturb any human remains, including those interred outside of dedicated cemeteries? Potentially Significant Impact Less Than Significant with Mitigation Incorporated Less Than Significant Impact No Impact

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?

Approved Project

No Impact. The Project Site had not been designated on any federal, State, or local register of historic resources. The previous MND under Case No. ENV-2015-310-MND concluded that no impact on historic resources would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains the same for the Revised Project. The Revised Project would be built on top of the existing parking structure. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the*

involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to historical resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to historical resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Approved Project

Less Than Significant Impact. The Project Site and immediately surrounding areas do not contain any known archaeological sites or archaeological survey areas. The MND under Case No. ENV-2015-310-MND concluded that the construction of the Approved Project had the potential to uncover archaeological materials, but compliance with local and State protocols would ensure that impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Revised Project location remains the same as the Approved Project. The proposed construction is a vertical expansion above the existing parking structure and new excavation is not required. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to archaeological resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to archaeological resources.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Approved Project

Less than Significant Impact. While no formal cemeteries, other places of human internment, or burial grounds or sites are known to occur within the Project Site, there is always a possibility that human remains could have been encountered during construction. The MND under Case No. ENV-2015-310-MND concluded that the construction of the Approved Project would have less than significant impacts with compliance with local and State protocols for the potential discovery of human remains.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same as the Approved Project. The proposed construction is a vertical expansion above the existing parking structure and new excavation is not required. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to cultural resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to cultural resources.

VI. ENERGY

	Less Than Significant	Potentially Significant Impact	with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

A significant impact would occur if the project would substantially increase demand for energy resources, which exceeds the available supply.

Approved Project

Less than Significant Impact. The MND for the Approved Project under Case No. ENV-2015-310-MND was adopted prior to the inclusion of this threshold. Nonetheless, the Approved Project was built to comply with the applicable building standards set forth in Title 24, Part 6 (Building Energy Efficiency Standards for Residential and Nonresidential Buildings) and Title 24, Part 11 (California Green Building Standards Code, aka CALGreen) of the California Code of Regulations (CCR), which create uniform building codes to reduce California’s energy consumption and provide energy efficiency standards. Furthermore, construction of the Approved Project utilized construction contractors who were compliant with applicable California Air Resources Board (CARB) regulations governing construction equipment standards. As such, consumption of energy resources for the Approved Project would not be wasteful, inefficient, or unnecessary and therefore impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project involves vertical expansion of the existing parking structure with the construction of new medical offices.

Short-Term Construction Impacts. Construction of the project would require the use of electric power for lighting and equipment. The amount of electricity used during construction would be minimal because most construction equipment used would be petroleum powered. Petroleum would be consumed throughout construction of the project from on-site equipment and vehicles associated with the transportation of construction materials and construction workers. The project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time. In addition, construction would be temporary and would not be wasteful or inefficient. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Long-Term Operational Impacts. The proposed project would require electricity, natural gas, and petroleum during operations. The Revised Project would be built and operated in accordance with the applicable State Building Code Title 24 regulations and City of Los Angeles Green Building code, which impose energy conservation measures. Adherence to these energy requirements would ensure conformance with the State's goal of promoting energy efficiency. Design features that could be implemented would include, but not be limited to, use of efficient lighting technology; energy efficient heating, ventilation and cooling equipment. As such, the energy use within the Project would not be wasteful, inefficient, or unnecessary. During operation of the Project, travel to and from the Project site would consume energy. Over the lifetime of the Project, the fuel efficiency of vehicles is expected to increase. In addition, the Project is located convenient to transit services. As such, the transportation energy use associated with the Project would not be wasteful, inefficient, or unnecessary. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to consumption of energy resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to consumption of energy resources.

b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Approved Project

No Impact. The MND for the Approved Project was adopted prior to the inclusion of this threshold. Nonetheless, the Approved Project was built to comply with the applicable building standards set forth in Title 24, Part 6 (Building Energy Efficiency Standards for Residential and Nonresidential Buildings) and Title 24, Part 11 (California Green Building Standards Code, aka CALGreen) of the California Code of Regulations, which create uniform building codes to reduce California's energy consumption and provide energy efficiency standards. As such, the Approved Project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency. Therefore, no impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project involves the addition of medical offices above the existing parking structure. The Revised Project would be constructed and operated to the current applicable building standards, including all applicable mandatory measures within the LA Green Building Code that would have the effect of reducing the Revised Project's energy use. As such, the Revised Project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to renewable energy and energy efficiency in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to renewable energy or energy efficiency.

VII. GEOLOGY AND SOILS

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- b. Result in substantial soil erosion or the loss of topsoil?
- c. Be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Approved Project

Less than Significant Impact. The Approved Project was determined to have a less than significant impact as the Project Site is not located within a currently established Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards and the nearest fault, the Hollywood Fault located approximately 0.8 miles to the north-northwest, has not produced any damaging earthquakes during the historical period and has had only relatively minor seismic activity. Therefore, the potential hazard for earthquake fault rupture at the Project Site is considered less than significant, and no mitigation is required.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project is located on the same site as the Approved Project. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to known faults in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to known earthquake faults.

ii. Strong seismic ground shaking?

Approved Project

Less than Significant Impact. The Approved Project was determined to have a less than significant impact as the Project Site location is not within an area identified as having a potential for seismic slope instability, liquefaction or landsliding.¹³ Furthermore, the Approved Project was designed and built to the provisions of the most current Los Angeles Building Code that are intended to minimize the potential effects of ground shaking.

13 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 49 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains unchanged from the Approved Project location. The Revised Project would also be designed to meet the provisions of the most current Los Angeles Building Code. Therefore, the potential impact for strong seismic ground shaking remains less than significant. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to seismic ground shaking in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction?

Approved Project

Less than Significant Impact. The Approved Project is not located within an area identified as having a potential for liquefaction.¹⁴ Additionally, based on the State of California’s “Seismic Hazard Zone Maps, Hollywood Quadrangle,” the Project Site is not located within a designated liquefaction hazard zone.¹⁵ Construction of the Approved Project complied with the City of Los Angeles Building Code, which is designed to ensure safe construction and includes building foundation requirements appropriate to site conditions. As such, impacts were determined to be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project Site remains unchanged, and the Revised Project involves a vertical expansion above the existing parking structure. The Revised Project would comply with the City of Los Angeles Building Code. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to liquefaction in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant*

14 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 49 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

15 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed February 19, 2020, http://online.wsj.com/public/resources/documents/Hollywood_EZRIM_010813.pdf?mod=article_inline.

effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to liquefaction.

iv. Landslides?

Approved Project

No Impact. A project-related significant adverse effect may occur if the project is located in a hillside area with soil conditions that would suggest a high potential for sliding. Based on the State of California's "Seismic Hazard Zone Maps, Hollywood Quadrangle,"¹⁶ the Project Site is not in a designated earthquake-induced landslide hazard zone. Due to the lack of undeveloped slopes on the Project Site and surrounding areas, the probability of seismically induced landslides is minimal. As such, the Approved Project was determined to have no impacts.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located in the same location as the Approved Project; as such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the*

16 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed February 19, 2020, http://online.wsj.com/public/resources/documents/Hollywood_EZRIM_010813.pdf?mod=article_inline

involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to landslides in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to landslides.

b. Result in substantial soil erosion or the loss of topsoil?

Approved Project

Less Than Significant Impact. Development of the Approved Project had the potential to result in the erosion of soils during site preparation and construction activities. However, compliance with City and State regulatory requirements would minimize erosion potential to a less than significant level.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Revised Project would consist of a vertical construction on top of the Approved Project that does not require any grading and excavation activity. Therefore, no substantial soil erosion or loss of topsoil would

occur under the Revised Project. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to soil erosion in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to soil erosion.

- c. **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse caused in whole or in part by the project's exacerbation of the existing environmental conditions?**

Approved Project

Less than Significant Impact. A significant impact could occur if any unstable geological conditions would result in any type of geological failure, including lateral spreading, off-site landslides, liquefaction, or collapse. The Project Site location is not located within an area identified as having a potential for seismic slope instability, liquefaction or landsliding.¹⁷ Notwithstanding, the MND under Case No. ENV-2015-310-MND concluded that some seismically induced settlement could be expected as a result of strong ground

17 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 49 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

shaking. However, the relatively dense and uniform nature of the underlying alluvial soils would not cause excessive differential settlements. Additionally, construction of the Approved Project complies with the City and State building codes that minimize the potential effects of soil conditions. As such, impacts of the Approved Project were less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Since the Revised Project is located at the same site as the Approved Project, development of the Revised Project would not have the potential to expose people and structures to seismic-related ground failure, including liquefaction and landslide. Furthermore, the Revised Project would be required to comply with City and State building codes. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to geologic unit stability in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to geologic unit stability.

- d. **Be located on expansive soil, as defined in table 18-1-b of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property caused in whole or in part by the project exacerbating the expansive soil conditions?**

Approved Project

Less than Significant Impact. A significant impact could occur if any unstable geological conditions would result in any type of geological failure, including lateral spreading, off-site landslides, liquefaction, or collapse. The MND under Case No. ENV-2015-310-MND concluded that, while on-site geologic materials have medium to very-high expansive potential, construction of the Approved Project would be required to comply with the Los Angeles Building Code, which includes building foundation requirements appropriate to site-specific conditions. As such, impacts of the Approved Project were less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would add three (3) additional levels above the Approved Project. The additional levels are considered to be within the range of load for the foundation of the Approved Project.¹⁸ Additionally, as part of the building permit process, the adequacy of the existing foundation would be confirmed by the Los Angeles Department of Building and Safety. As such, development of the Revised Project would not have the potential to expose people and structures to danger due to expansive soils. Furthermore, the Revised Project would be required to comply with the Los Angeles Building Code. As such, The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the*

18 Wood Environment & Infrastructure Solutions, *Supplemental Geotechnical Consultation: Proposed Vertical Extension of the Existing Virgil Parking Structure*, February 3, 2020

involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to the Uniform Building Code in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to Uniform Building Code.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

Approved Project

No Impact. A project could cause a significant impact if adequate wastewater disposal were not available, but the Project Site is located in a highly urbanized area where wastewater infrastructure is currently in place. Therefore, no impact would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Project Site remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to wastewater disposal systems in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to wastewater disposal systems.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Approved Project

Less than Significant Impact. The Project Site had been previously graded and developed. The Project Site and immediate surrounding areas did not contain any known vertebrate paleontological resources or unique geologic forms. The MND under Case No. ENV-2015-310-MND concluded that the Approved Project would have a less than significant impact.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Due to the construction of the Approved Project, all portions of the Project Site at grade level have been developed and the Revised Project would not require grading and excavation activities because it is a vertical extension of the Approved Project. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to paleontological resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to paleontological resources.

VIII. GREENHOUSE GAS EMISSIONS

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Approved Project

Less than Significant Impact. Estimated emissions of GHGs, using the CalEEMod data that was generated to quantify Air Quality impacts, are presented in **Table 4.8-1: Estimated Greenhouse Gas Emissions**. The Approved Project was determined to not have a considerable contribution to GHG emissions. The approved MND, under Case No. ENV-2015-310-MND, stated that a new development project that demonstrates compliance with the LA Green Building Code is considered consistent with Statewide GHG-reduction goals and policies, including AB 32, and does not make a cumulatively considerable contribution to global warming. As the Approved Project complied with the LA Green Building Code, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There are no federal, State, or local quantitative adopted thresholds of significance for addressing a project’s greenhouse gas emissions. Nonetheless, using the emissions data from CalEEMod that was utilized to quantify Air Quality impacts, the estimated GHG emissions of the Revised Project is shown in **Table 4.8-1**.

**Table 4.8-1
Estimated Greenhouse Gas Emissions**

Emissions Source	Approved (MTCO2e/year)	Project Revised (MTCO2e/year)	Project
Construction (amortized)	20.62	12.51	
Operational (mobile) sources	0.00	2,057.83	
Area sources	0.02	<0.01	
Energy	956.33	802.56	
Waste	0.00	558.23	
Water	0.00	126.51	
Annual Total	976.95	3,557.65	

Source: CalEEMod

Notes: Emissions estimate for the Approved Project comes from the approved MND; Emissions estimates for Revised Project are included in **Appendix A**. MTCO2e = metric tons of carbon dioxide emissions.

In the absence of any adopted, numeric threshold, the City evaluates the significance of a project by considering whether the project conflicts with applicable regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of mitigation of greenhouse gas emissions. As discussed under threshold b, below, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to greenhouse gas emissions that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one

or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to greenhouse gas emissions.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Approved Project

Less than Significant Impact. The approved MND, under Case No. ENV-2015-310-MND, stated that through required implementation of the Title 24 Part 6, and the LA Green Building Code, the Approved Project would be consistent with local and Statewide goals and policies aimed at reducing the generation of GHGs. As such, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would also be designed and built to comply with Title 24 Part 6, and the LA Green Building Code. Furthermore, the Revised Project is an infill development served by existing public transit. As described in Section 17, the Project would result in Vehicle Miles Traveled (VMT) of 15% below the existing average work VMT. As such, the Revised Project would also be consistent with local and Statewide goals and policies aimed at reducing the generation of GHGs. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to policies regulating greenhouse gas emissions that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to policies regulating greenhouse gas emissions.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?

Approved Project

Less than Significant Impact: A significant impact would occur if the Approved Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. In the approved MND, under Case No. ENV-2015-310-MND, the Approved Project was found to have a less than significant impact as the proposed uses would not involve substantial quantities of hazardous materials nor the routine use or disposal of materials in a way that would pose a hazard to the public.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would involve medical uses that may handle small quantities of hazardous materials. However, all potentially hazardous materials would be used and stored in accordance with applicable federal, State, and local regulations. As such, the routine operations of the Revised Project would not create a significant hazard to the public or the environment. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to disposal of hazardous materials in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C)*

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to disposal of hazardous materials.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Approved Project

Less than Significant Impact. The Approved Project was found to have a less than significant impact as the use and presence of any hazardous materials was minimal and all potentially hazardous materials would be used and stored in accordance with applicable federal, State, and local regulations.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would involve medical uses that may handle small quantities of hazardous materials. However, all potentially hazardous materials would be used and stored in accordance with applicable federal, State, and local regulations. As such, reasonably foreseeable upset and accident conditions would not pose a significant hazard to the public or the environment. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to reasonably foreseeable upset and accident conditions in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to reasonably foreseeable upset and accident conditions.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Approved Project

Less than Significant Impact. The closest school to the Project Site is the Los Angeles Unified School District's King Middle School located at 4201 Fountain Avenue, approximately 0.4 miles east of the Project Site. Operation of the Approved Project would not generate direct emissions or handle substantial amounts of hazardous materials that would impact people at this school, which is more than one-quarter mile distant. As such, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to emitting or handling hazardous materials in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to emitting or handling hazardous materials.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions?

Approved Project

Less than Significant Impact. The Project Site was not identified in a search of available environmental records.^{19,20} As such, the MND for the Approved Project concluded that impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

19 Department of Toxic Substances Control, "EnviroStor," Accessed February 13, 2020, <https://www.envirostor.dtsc.ca.gov/public/>.
20 State Water Resources Control Board, "GeoTracker," Accessed February 13, 2020, <https://www.envirostor.dtsc.ca.gov/public/>.

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to hazardous materials sites in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to hazardous materials sites.

- e. **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

Approved Project

No Impact. The closest public airports to the Project Site are the Burbank Airport (BUR) and the Los Angeles International Airport (LAX). However, BUR is located approximately 8 miles northwest and LAX is located approximately 12.5 miles southwest of the Project Site. Therefore, the Project Site is not within

two miles of an airport, and the MND for the Approved Project therefore concluded that there would be no impact.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to airports in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to airports.

f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Approved Project

Less than Significant Impact. The Approved Project is not located on or near an adopted emergency response or evacuation plan.²¹ Construction may cause temporary and/or partial street closures around the perimeter of the site. While such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans and would be required to comply with City standards for construction activity in a right of way. As such, the prior MND concluded that impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to emergency response plans in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project*

21 City of Los Angeles General Plan, "Safety Element," Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles, <http://cityplanning.lacity.org/cwd/gnlpn/saftyelt.pdf>.

proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to emergency response plans.

g. Exacerbate existing hazardous environmental conditions by bringing people or structures, either directly or indirectly, into areas that are susceptible to a significant risk of loss, injury or death involving wildland fires?

Approved Project

No Impact. The Approved Project is located in an urbanized area of Los Angeles and does not include wildlands or high fire hazard terrain or vegetation. As such, no impact would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Project location remains the same; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to wildfire in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to wildfire.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Approved Project

Less than Significant Impact. The Approved Project is a parking structure. As is typical of most nonindustrial urban development, stormwater runoff from the Approved Project has the potential to introduce small amounts of pollutants into the stormwater system. Pollutants would be associated with runoff from landscaped areas and paved surfaces. The Approved Project was required to comply with the NPDES standards and the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project Site are minimized for downstream receiving waters. Conformance would be ensured during the City's building plan review and approval process. As built, the Approved Project includes an Environmentally Passive Integrated Chamber (EPIC) system along the southern boundary of the site that provides stormwater percolation and treatment. Therefore, the Approved Project would result in less than significant impacts and would not violate water quality standards, waste discharge requirements, or stormwater NPDES permits or otherwise substantially degrade water quality.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

A significant impact would occur if the proposed project discharges water that does not meet the quality standards of agencies which regulate surface water quality and water discharge into storm water drainage systems or does not comply with all applicable regulations as governed by the LARWQCB.

Short-Term Construction Impacts. The Revised Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) standards and the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the project site are minimized for downstream receiving waters. The ordinances contain requirements for construction activities and operation of projects to integrate low impact development practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all projects consistent with the City's landscape ordinance and other related requirements in the City's

Development Best Management Practices (BMPs) Handbook. Conformance would be ensured during the City's building plan review and approval process.

Long-Term Operational Impacts. The Revised Project would be located on the same site as the Approved Project and would not increase or otherwise alter the quantity of impervious area on the site. Pursuant to local practice and City policy, stormwater retention will be required as part of the Low Impact Development (LID) and SUSMP implementation features (despite no increased imperviousness of the site). The Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first three-quarters of an inch of rainfall in a 24-hour period, which would reduce the Revised Project's impact to the stormwater infrastructure. The Revised Project would not create or contribute to increased levels of runoff water as the footprint of the Project site would remain the same as the Approved Project. Full compliance with the LID Ordinance and implementation of design related BMPs would ensure that the operation of the Project would not generate stormwater that would violate any water quality standards or discharge requirements or otherwise substantially degrade water quality. The Revised Project would also add new uses to the Project site that would generate new wastewater flows. The wastewater associated with the uses with the Revised Project would be consistent with other medical office and clinic uses within the existing HPMC campus and would comply with the same standards and regulations. As such, wastewater generated by the Revised Project would not result in a substantial change in pollutant load to be treated by the Los Angeles Bureau of Sanitation wastewater system.

Based on the above analysis, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to water quality standards or waste discharge requirements in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or*

alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to water quality standards or waste discharge requirements.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Approved Project

No Impact. A significant impact could occur if a project would substantially deplete groundwater or interferes with groundwater recharge. The Approved Project would not require the use of groundwater at the Project Site. Potable water would be supplied by the Los Angeles Department of Water and Power (LADWP), which draws its water supplies from distant sources for which it conducts its own assessment and mitigation of potential environmental impacts. Therefore, the Project would not require direct additions or withdrawals of groundwater. Excavations are not proposed at a depth that would result in the interception of existing aquifers or penetration of the existing water table. In addition, because the existing Project Site is mostly impervious, the Approved Project would not reduce any existing percolation of surface water into the groundwater table. Therefore, Project development would not impact groundwater supplies or groundwater recharge, and no impact would occur.

Revised Project When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project and would not require any additional site excavation. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to groundwater supplies or groundwater recharge in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to groundwater supplies or groundwater recharge.

- c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**
- i. result in substantial erosion or siltation on- or off-site;*

Approved Project

Less than Significant Impact. A project would normally have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. The Project Site is located in a highly urbanized area of Los Angeles, and no streams or river courses are located on or within the Project vicinity. The majority of the Project Site consists of impervious surfaces with some ornamental landscape. Implementation of the Approved Project would not increase site runoff or result in any changes in the local drainage patterns. Implementation of the SWPPP, however, would reduce the amount of surface water runoff after storm events, as the Approved Project would be required to implement stormwater Best Management Practices (BMPs) to retain or treat the runoff from a storm event producing $\frac{3}{4}$ inch of rainfall in a 24-hour period.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project and would be required to comply with the same regulations as the Approved Project. Further, the Revised Project would not require any additional excavation or grading. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to erosion or siltation on- or off-site that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to erosion or siltation on- or off-site.

- ii. ***substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;***

Approved Project

Less than Significant Impact. A project would normally have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. The Approved Project was designed to include SUSMP and LID BMPs to maintain and treat the first ¼ inch of a 24-hour storm. Therefore, the existing off-site surface water runoff would be maintained. Examples of BMPs include, but are not limited to, ensuring that discharge from downspouts, roof drains, and scuppers would not be permitted on unprotected soils. As such, the Approved Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns, which would result in flooding on or off site.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project and would be required to comply with the same regulations as the Approved Project; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to surface runoff in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C)*

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to surface runoff.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Approved Project

Less than Significant Impact. A project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Section 13050 of the CWC or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact may occur if the volume of stormwater runoff from the Project Site were to increase to a level that exceeds the capacity of the storm drain system serving the Project Site or provides substantial sources of polluted runoff. A Project-related significant adverse effect would also occur if the Approved Project would substantially increase the probability that polluted runoff would reach the storm drain system or that would increase runoff of any water.

Two existing storm drain catch basins are located adjacent to the Project Site at the intersection of N. Lyman Place and Fountain Avenue and at the intersection of N. Virgil Avenue and Fountain Avenue, which connects to a storm drain trunk line running away from the Project Site along N. Lyman Place and N. Virgil Avenue, respectively.²² Storm drain facilities are owned and maintained by City of Los Angeles.

The majority of the Project Site is impervious with ornamental landscape cover over the remaining portions of the site and all surface water is directed off site to the adjacent storm drain system. The Approved Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns. Runoff from the Project Site currently is, and would continue to be, collected on the site, and directed toward existing storm drains in the Project vicinity that have adequate capacity. Pursuant to local practice and City policy, stormwater retention would be required as part of the LID/SUSMP implementation features (despite no increased imperviousness of the site). Any contaminants gathered

²² Los Angeles County Department of Public Works, "Los Angeles County Storm Drain System," <http://dpw.lacounty.gov/fcd/stormdrain/index.cfm>.

during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits. Further, any pollutants from the Project Site would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance requirements. Accordingly, the Approved Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first ¾ inch of rainfall in a 24-hour period. The Approved Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project and would be required to comply with the same regulations as the Approved Project. The Revised Project would not increase or otherwise alter the quantity of impervious area on the site; therefore, would not result in any increase in stormwater runoff. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to creation or contribution to runoff in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would*

substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to creation or contribution of runoff.

iv. *impede or redirect flood flows?*

Approved Project

No Impact. The Approved Project is not within a special flood hazard area or within a 100-year flood zones mapped by the Federal Emergency Management Agency.²³ As such, the Approved Project would not impede or redirect flood flows. No impact would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to flood flows in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

23 Federal Emergency Management Agency (FEMA). 2020, March. FEMA's National Flood Hazard Layer (NFHL) Viewer. <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=->

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to flood flows.

d. Would the project risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zones?

Approved Project

No Impact. A significant impact would occur if the Project Site is sufficiently close to the ocean or other water body to potentially be at risk of the effects of seismically induced tidal phenomena (i.e., seiche and tsunami), or if the Project Site is located adjacent to a hillside area with soil characteristics that would indicate potential susceptibility to mudslides or mudflows. The Project Site is not located in a potential seiche or tsunami zone. With respect to the potential impact from a mudflow, the Project Site is relatively flat and surrounded by urban development; the Project Site is located greater than 1 mile from Griffith Park and the eastern end of the Santa Monica Mountains (which are identified as areas with the potential for landslides).²⁴ Therefore, there are no sources of mudflow near the Project Site.

Revised Project When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

²⁴ City of Los Angeles General Plan, "Safety Element," Exhibit C Landslide Inventory & Hillside Areas (1996), p. 51.

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Revised Project would be located on the same site as the Approved Project. As such, no impact would occur. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to the release of pollutants during inundation in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to the release of pollutants during inundation.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Approved Project

Less than Significant Impact. The Approved Project was required to comply with the NPDES standards and the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project Site are minimized for downstream receiving waters. In addition, the Approved Project would be required to demonstrate compliance with LID Ordinance standards. As such, the Approved Project would have less than significant impacts.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be located on the same site as the Approved Project and would be required to comply with the same regulations as the Approved Project; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to implementation of a water quality control plan or sustainable groundwater management plan in the vicinity of the Revised Project is required to abide by, that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to implementation of a water quality control plan or sustainable groundwater management plan.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Physically divide an established community? Potentially Significant Impact Less Than Significant with Mitigation Incorporated Less Than Significant Impact No Impact
- b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? Potentially Significant Impact Less Than Significant with Mitigation Incorporated Less Than Significant Impact No Impact

a. Would the project physically divide an established community?

Approved Project

No Impact. A significant impact could occur if a project would be sufficiently large or configured in such a way so as to create a physical barrier within an established community. did not alter or obstruct any existing roadways. The Approved Project is located within an urbanized area of Hollywood and is consistent with the existing physical arrangement of the properties near the site. The Approved Project is part of the Hollywood Presbyterian Medical Center. The Approved Project did not disrupt or divide the physical arrangement of the established community. As such, no impact would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project is located on the same site as the Approved Project, which is part of the existing Hollywood Presbyterian Medical Center (HPMC). The Project would develop the site with medical office space connected to the HPMC and would maintain or improve roadway and pedestrian connections within and through the medical center. Specifically, the Revised Project would add 95,995 square feet of floor area

of medical office uses and clinic uses in three new floors above the existing parking garage. These new uses would be complementary to the existing hospital uses in the main area of the HPMC campus to the west. Because these new uses would be added onto an existing HPMC building, the footprint of the HPMC campus will not be extended in any way that could physically divide an established community. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to land use in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to physically dividing an established community.

- b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

Approved Project

Less than Significant Impact. A significant impact may occur if a project is inconsistent with the General Plan or zoning designations currently applicable to the project site, and would cause adverse environmental effects, which the General Plan and zoning ordinance are designed to avoid or mitigate.

The Project Site is located within the Hollywood Community Plan Area, with a General Plan land use designation of Neighborhood Office Commercial. The majority of the Project Site is zoned C4-1D, with

small portions of the site zoned [T][Q]C2-1 and R4-1D. The Project Site is also within Subsection C of the Vermont/Western Station Neighborhood Area Plan.

The Approved Project was an urban infill parking structure to serve the existing Hollywood Presbyterian Medical Center. The Approved Project complied with the allowed uses and intensity of the zoning and Station Neighborhood Area Plan. The Approved Project included minor Project Permit Adjustments to the dimensions of the pedestrian path and vertical clearance. Impacts were determined to be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The land use policies of the City of Los Angeles' General Plan are generally set forth in the Framework Element and the applicable Community Plan.

The Framework Element provides guidance regarding policy issues for the entire City of Los Angeles, including the Project Site. The Framework identifies the Project Site as within a Community Center, which are intended to function as an activity center containing a diversity of uses with an FAR of 1.5:1 to 3:1. The Revised Project would add new medical services to the HPMC campus, enhancing the existing medical activity center. The Revised Project would be built to at an FAR of approximately 2.18:1. Therefore, the Project is consistent with the Framework Element.

The Project Site is located within the boundaries of the Hollywood Community Plan. The Project Site is designated on the Hollywood Community Plan Land Use Map as Neighborhood Office Commercial. The Community Plan identifies the existing concentration of medical facilities in East Hollywood as a center serving the medical needs of Los Angeles. The Revised Project furthers the objective of maintaining the vitality of this activity center.

The majority of the Project Site is zoned C4-1D, with small portions of the site zoned [T][Q]C2-1 and R4-1D. These zones permit medical uses.

The Project Site is also within Subsection C of the Vermont/Western SNAP. Pursuant to the provisions of LAMC Section 11.5.7.C, the Applicant is requesting the approval of a Project Permit Compliance Review

to allow for the Revised Project within the Vermont/Western SNAP. The Specific Plan permits hospital and medical uses within Subarea C, up to 100 feet in height and 3:1 FAR. The Revised Project would have a final building height of 96 feet, 4 inches, and a 2.18:1 FAR.

Additionally, the SNAP's Development Standards require that projects provide specified amounts of parking and, among other requirements, furnish pathways for pedestrian travel. The Applicant is requesting a specific plan exception, Pursuant to LAMC Section 11.5.7 F, for relief from the parking requirements and the pedestrian throughway requirement. The existing parking that was developed through the Approved Project would be adequate to support the Revised Project. The pedestrian path developed as part of the Approved Project was approved through a minor adjustment from the Specific Plan regulation but was determined to not substantially alter the intent of the Specific Plan regulation. As such, the existing pedestrian throughway satisfies the intent of the SNAP requirement. Therefore, the Revised Project substantially complies with the Specific Plan.

Lastly, the Revised Project would obtain Site Plan Review, pursuant to LAMC 16.05 F, to approve a project with more than 50,000 square feet – specifically 95,995 square feet - of nonresidential floor area. After obtaining Project Permit Compliance, a Specific Plan Exception for the two elements previously mentioned, and Site Plan Review, the Revised Project will substantially comply with the Specific Plan and all other relevant provisions of the LAMC. The Revised Project is consistent with the allowed uses and intensity of the zoning and Station Neighborhood Area Plan and is supportive of the land use objectives and policies of the Community Plan and General Plan.

Based on the above analysis, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to a land use plan, policy, or regulation in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible*

and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to land use plan, policy, or regulation.

XII. MINERAL RESOURCES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

a. Would the project result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?

Approved Project

No Impact. The Project Site is not located within an MRZ-2 Area, an Oil Drilling/Surface Mining Supplemental Use District, or an Oil Field/Drilling Area.²⁵ No mineral resources are known to exist beneath the Project Site. As such, the MND concluded that the Approved Project would have no impacts associated with the loss of availability of a known mineral resource.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

25 Los Angeles County Department of Public Works, *Mineral Resources and Oil Fields in East Los Angeles County, Los Angeles County Bicycle Master Plan*, Figure 3.8-2 (January 2012).

The Revised Project would be constructed on top of the Approved Project. and does not require any grading or excavation. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to availability of a mineral resource of state or local importance in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to mineral resources of state or local importance.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Approved Project

No Impact. The Project Site is not located within an MRZ-2 Area.²⁶ The Project Site is not designated as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. As such, the MND concluded that the Approved Project would have no impacts associated with the loss of availability of a locally important mineral resource.

26 Los Angeles County Department of Public Works, *Mineral Resources and Oil Fields in East Los Angeles County, Los Angeles County Bicycle Master Plan*, Figure 3.8-2 (January 2012).

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to mineral resource recovery sites in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to mineral resource recovery sites.

XIII. NOISE

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project result in:

- a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
 - b. Generation of excessive groundborne vibration or groundborne noise levels?
 - c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- a. **Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Approved Project

Less than Significant Impact with Mitigation Incorporated. A significant impact could occur if a project were to generate excessive noise that would cause the ambient noise environment to exceed noise level standards set forth in the City’s General Plan Noise Element. The approved MND identified that, based on the provisions set forth in LAMC 112.05 and compliance with the *City of Los Angeles Noise Ordinance Nos. 144,331 and 161,574*, construction of the Approved Project would have a less-than-significant impact on noise levels. The approved MND, under Case No. ENV-2015-310-MND, identified potential noise impacts from automobiles entering and exiting the parking structure. As such, mitigation was identified in the MND

that would reduce these noise impacts to ensure operational noise impacts are less than significant. This Mitigation was implemented in construction of the Approved Project.

Revised Project When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The nearest sensitive receptors to the Project Site are residential uses which lie directly adjacent to the Project Site, specifically to the south along Lyman Place and Fountain Avenue. In addition, the Children's Hospital is located less than 150 feet to the northwest of the Project Site. The noise-sensitive receptors were selected based on the relative distance from the receptors to the Project Site (i.e., within 500 feet).

Short-term (15-minute) noise monitoring was conducted at four (4) locations to measure the ambient sound environment in the Revised Project vicinity as indicated in **Table 4.13-1: Existing Ambient Noise Measurements**. As shown in **Table 4.13-1**, ambient noise levels ranged from a low of 59.7 dBA south of the Project Site along Lyman Place (Site 4) to a high of 67.9 dBA at the northwest corner of the De Longpre Avenue and Lyman Place intersection (Site 3).

Construction

Section 41.40 of the LAMC regulates noise from demolition and construction activities. Exterior demolition and construction activities that generate noise are permitted between the hours of 7:00 AM and 9:00 PM Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. Pursuant to Section 41.40 of the LAMC, construction would be limited to the hours between 7:00 AM and 9:00 PM, Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. No construction activities would occur on Sundays or federal holidays. As such, the first threshold listed above would not be exceeded.

The City's Noise Regulations further limit noise from construction equipment located within 500 feet of a residential zone to 75 dBA (between 7:00 AM and 10:00 PM), measured at a distance of 50 feet from the source, unless compliance with this limitation is technically infeasible. More specifically, technical infeasibility means that compliance would not be achieved despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of equipment.

Construction activities that would occur during the construction phases (steel structure, building dry-in including exterior framing and roofing, and interior build out) would generate noise due to the use of a

100-ton mobile crane for erection of structural steel and a 25-ton mobile crane for material hoisting and concrete decking work. The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finish work as well as medical imaging equipment installation, and would not generate noise at the exterior of the site. The Revised Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required.

**Table 4.13-1
Existing Ambient Noise Measurements**

Location Number/Description	Nearest Use	Time Period	Noise Source	dBA Leq
1 Southeast corner of the Project Site along Virgil Avenue	Residential	2:17 PM– 2:33 PM	Heavy traffic along Virgil Avenue	66.8
2 South of the Project Site along Fountain Avenue	Residential/Commercial	2:44 PM– 2:59 PM	Heavy traffic along Fountain Avenue.	64.8
3 Northwest corner of the De Longpre Avenue and Lyman Place intersection.	Children’s Hospital occupies the area west of Lyman Place and north of De Longpre Avenue	3:17 PM– 3:32 PM	Heavy construction noise, medium traffic along Lyman Place.	67.9
4 South of the Project site along Lyman Place	Residential uses along east side of Lyman Place south of the Project	3:01 PM– 3:16 PM	Light traffic along Lyman Place.	59.8

Source: Refer to **Appendix B** for the Noise Study.

Notes: dBA = A-weighted decibels; Leq = average equivalent sound level.

Measurements taken between 2:17 PM and 3:32 PM on February 13, 2020.

The potential noise impact generated during construction depends on the phase of construction and the percentage of time the equipment operates over the workday. The noise levels at the sensitive receptors from construction activity are shown in **Table 4.13-2: Construction Noise Estimates**. It is important to note that one lane of De Longpre Avenue would be closed for the entire construction period for equipment hoisting from the previously mentioned cranes. As such, construction noise levels are estimated from De Longpre Avenue where the crane would be operating. As shown, construction noise levels would result in a maximum increase of 0.9 dBA above the significance threshold without implementation of regulatory compliance measures. However, compliance with City ordinances, as detailed in the following paragraphs, would reduce noise levels below the threshold of significance.

Pursuant to Section 41.40 of the LAMC, construction would be limited to the hours between 7:00 AM and 9:00 PM, Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. No construction activities would occur on Sundays or federal holidays.

All construction related noise would be required to comply with the provisions of Section 112.05 of the LAMC. Pursuant to Section 112.05, the operation of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from the source of the noise between the hours of 7:00 AM to 9:00 PM when the source is located within 500 feet of a residential zone would not be permitted.

**Table 4.13-2
Construction Noise Estimates**

Nearest Off-Site Building Structures	Distance from Project Site (feet)	Max Leq	Ambient Noise Leq (dBA)
Residential to the east across Virgil Avenue	80	68.5	66.8
Residential to the south across Fountain Avenue	385	54.9	64.8
Hospital to the west across Lyman Place	115	65.4	67.9
Adjacent residential to the south along Lyman Place	110	65.7	59.8

Techniques for compliance with Section 112.05 of the LAMC include the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques. The incorporation of these measures into the construction management of the Revised Project represents regulatory compliance with the LAMC. Regulatory compliance through optimal muffler systems for all equipment may reduce construction noise levels by approximately 10 dB or more.²⁷ As shown in Table 4.132-2 above, noise from construction equipment without this regulatory compliance would be less than 75bBA at the nearest residences and would only exceed ambient noise at closer locations by 6dB or less. Compliance with the LAMC as described above further reduce this noise level and would be sufficient to ensure noise levels would be less than significant.

²⁷ FHWA, *Special Report—Measurement, Prediction, and Mitigation*, updated June 2017, accessed February 2020, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm.

Off-Site Construction Noise

Construction of the Revised Project would require approximately 80 worker trips per day and 17 vendor truck trips per day to and from the site to deliver supplies. Noise associated with construction worker trips were estimated using the Caltrans FHWA Traffic Noise Model based on the maximum number of trips in a day. Revised Project worker and vendor trips, which includes medium- and heavy-duty trucks would generate noise levels of approximately 47.2 dBA to 54.1 dBA, respectively, measured at a distance of 25 feet along Virgil Avenue, Fountain Avenue, and Lyman Place. As shown in **Table 4.13-1**, existing noise levels at the Project Site ranged from 59.8 dBA to 67.9. dBA. The noise level increases from truck trips would be below the significance threshold of 5 dBA.

Operation

New stationary sources of noise, HVAC equipment, would be installed for the proposed building. The design of this equipment would be required to comply with Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than 5 dB. Because the noise levels generated by the HVAC equipment serving the Project would not be allowed to exceed the ambient noise level by 5 dB on the premises of the adjacent properties, a substantial temporary or permanent increase in noise levels would not occur at the nearby sensitive receptors. Impacts would be less than significant.

Changes in traffic noise are generally audible if there is a 3 dB(A) or greater increase. Traffic volumes would need to approximately double in order to generate a 3 dB(A) increase in noise. As the Project would not create additional parking and would not generate a doubling in the trips associated with HPMC, traffic-generated noise impacts would be less than significant.

Based on the above, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to increases in ambient noise levels in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one*

or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to ambient noise levels within the Revised Project site.

b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Approved Project

Less than Significant Impact. The City has not adopted a significance threshold to assess vibration impacts during construction. Caltrans has referenced studies of human response to vibration indicating that while ground-borne vibration is perceptible at 0.02 inches per second (ips), ground-borne vibration does not reach a level of “annoying” until 0.2 ips and above.²⁸ Moreover, the significance threshold at which potential building damage could occur would be 0.5 ips PPV at the nearest off-site residential building.²⁹ Excessive ground borne vibration is typically the result of heavy equipment such as excavators, pile drivers and heavy trucks. Evaluation of expected construction indicated that vibration impacts at off-site locations would not exceed 0.1 ips. Furthermore, the Approved Project did not involve the use of stationary equipment that would result in high vibration levels during operation. As such, it was determined in the approved MND, under Case No. ENV-2015-310-MND, that impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

28 Caltrans, *Transportation- and Construction-Induced Vibration Guidance Manual* (September 2013).

29 Caltrans, *Transportation and Construction Vibration Guidance Manual* (September 2013), accessed February 2020, <https://cityofdavis.org/home/showdocument?id=4521>.

Perceptible levels of vibration are generally associated with impactful construction activity involving pile driving, rollers, bulldozers, caisson drills, or jack hammers. The Revised Project would utilize a 100-ton mobile crane for erection of structural steel and a 25-ton mobile crane for material hoisting and concrete decking work, which are not sources of substantial vibration. The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finish work as well as medical imaging equipment installation, and would not generate any construction vibration. Furthermore, the Revised Project includes the construction of medical office uses above an existing parking structure and would not require vibration inducing equipment. As such, vibration levels would not exceed the significance thresholds. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to ground-borne vibration or ground-borne noise levels in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to ground-borne vibration or ground-borne noise levels.

c. For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Approved Project

No Impact. A significant impact may occur if a proposed project were located within an airport land use plan and would introduce substantial new sources of noise or substantially add to existing sources of noise

within or near a project site. There are no airports within a 2-mile radius of the Project Site, nor is the Project Site within any airport land use plan or airport hazard zone. The closest public airport to the Project Site is the Burbank Airport which is located approximately 7.7 miles north of the Project Site. As such, no impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project location remains the same, as such, no impact would occur in regard to excessive noise levels resulting from nearby airports. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to vicinity of a private airstrip or an airport in the vicinity of the Revised Project is located, that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to vicinity of a private airstrip or an airport.

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Approved Project

Less than Significant Impact. The construction of Approved Project would not create new residential units nor would employment associated with a parking structure represent a substantial increase in employment within the City of Los Angeles. As such, the Approved Project would not cause unexpected growth. In addition, the Approved Project was located on a previously developed site served by existing infrastructure. As such the Approved Project did not require unplanned infrastructure. Therefore, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Like the Approved Project, the Revised Project would not create new residential units nor would employment associated with the Revised Project represent a substantial increase in employment within the City of Los Angeles. The Revised Project is expected to have approximately 308 employees. Based on SCAG's 2016-2040 RTP/SCS estimates, the Hollywood Community plan area had 101,000 employees in 2016 and is projected to reach 119,000 by 2020. Thus, the Project would represent only 1.7% of the forecasted employment growth for the Community Plan area. In addition, the Revised Project would be located on a previously developed site served by existing infrastructure. As such the Revised Project would not cause unexpected growth nor require unplanned infrastructure. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to population growth in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to population growth.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Approved Project

Less than Significant Impact. A significant impact may occur if a project would result in the displacement of existing housing units, necessitating the construction of replacement housing elsewhere. The Approved

Project displaced one (1) residence. The approved MND, under Case No. ENV-2015-310-MND, concluded that the implementation of the Approved Project would not necessitate the construction of replacement housing.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be developed on top of the Approved Project and would not displace any people or housing. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to population or housing in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to displacement of people or housing.

XV. PUBLIC SERVICES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- a. Fire protection?
- b. Police protection?
- c. Schools?
- d. Parks?
- e. Other public facilities?

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire protection

Approved Project

Less than Significant Impact. A project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service. The City of Los Angeles Fire Department (LAFD) considers fire protection services for a project adequate if a project is within the maximum response distance for the land use proposed. If this distance were exceeded, all structures located in the applicable residential or commercial area would be required to install automatic fire sprinkler systems. The Approved Project replaced existing uses served by LAFD Station No. 35, located at 1601 Hillhurst Avenue (at Hillhurst Avenue and Clayton Avenue), approximately 0.25 miles north of the Project Site. Based on the response distance criteria

specified in the LAMC and the relatively short distance from Fire Station No. 35 to the Project Site, fire protection response would be considered adequate. As such, no new or physically altered facilities would be necessary, and impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would be developed on the same site as the Approved Project; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to fire protection in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to fire protection.

ii. Police protection

Approved Project

Less than Significant Impact. A significant impact may occur if the City of Los Angeles Police Department (LAPD) could not adequately serve a project without necessitating a new or physically altered station, the construction of which may cause significant environmental impacts. The Project Site is served by the Northeast Community Police Station, located at 3353 San Fernando Road. Unlike fire protection services, police units are most often in a mobile state; hence, actual distance between a headquarters facility and a given project site is of little relevance to response time.

The Approved Project would result in increased traffic on the Project Site, and therefore could result in an increase in demand for LAPD services. However, the Approved Project includes security gates at both access driveways and the design of the building includes other security features such that anticipated demand for police protection would not be substantial. As such, no new or physically altered facilities would be necessary, and impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would result in number of employees and patrons on the Project Site, and therefore could result in some additional demand for LAPD services. However, the scale of the Revised Project would not result in a substantial increase in demand. Furthermore, the Revised Project would be constructed on top of the Approved Project and would thus maintain security features at the entrances to the parking structure. As such, no new or physically altered facilities would be necessary. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to police protection in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to police protection.

iii. Schools

Approved Project

Less than Significant Impact. A significant impact may occur if a project includes substantial employment or population growth, which could generate a demand for school facilities that could exceed the capacity of the Los Angeles Unified School District (LAUSD). The Approved Project did not include residential uses nor substantial employment. As such, the Approved Project would not generate increased demand for school services or the need for new school facilities. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project also does not include residential uses and the projected employment on the site would not generate a substantial increase in population. As such, the Revised Project would not generate the need for new school facilities. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to schools in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to schools.

iv. Parks

Approved Project

Less than Significant Impact. The Approved Project did not include residential uses nor substantial employment. Therefore, there would be no substantial increase in demand for park services. As such, the Approved Project would not generate the need for new park facilities. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would add three levels of medical office and clinical suites to the Approved Project. The Revised Project is estimated to add 308 employees; the Hollywood Community Plan Area is estimated to have over 100,000 employees.³⁰ The Revised Project would not include residential uses, nor would it generate a substantial increase in employment. Therefore, there would be no substantial increase in demand for park services. As such, the Revised Project would not generate the need for new park facilities. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to parks in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to parks.

v. Other public services

Approved Project

Less than Significant Impact. A significant impact may occur if a project includes substantial employment or population growth that could generate a demand for other public facilities (such as libraries), that would

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exceed the available capacity. The Approved Project would not generate a substantial increase in population and therefore would not increase the demand for other public services.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would not include residential uses nor would it generate a substantial increase in employment. Therefore, there would be no substantial increase in demand for services. As such, the Revised Project would not generate the need for new facilities. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to additional public services in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to additional public services.

XVI. RECREATION

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Approved Project

Less than Significant Impact. A significant impact may occur if a project includes substantial employment or population growth, which would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The Approved Project would not generate a substantial increase in population and therefore would not increase the demand upon recreational facilities. As such, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would add three levels of medical office and clinical suites to the Approved Project. The Revised Project is estimated to add 308 employees; the Hollywood Community Plan Area is estimated to have over 100,000 employees.³¹ The Revised Project would not include residential uses, nor would it generate a substantial increase in employment. Therefore, there would be no substantial increase in demand for recreational facilities. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to regional parks or other recreational facilities in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to regional parks or other recreational facilities.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Approved Project

No Impact. A significant impact may occur if a project includes the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment. The Approved Project does not include recreational facilities. No impacts would occur.

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Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project does not include recreational facilities. The third floor would include a 588 square foot outdoor garden that would provide a passive recreation amenity as a component of the building but would not have any physical effects on the environment distinct from the effects of the Revised Project described previously in this document. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to additional or improved recreational facilities in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to additional or improved recreational facilities.

XVII. TRANSPORTATION

The following section summarizes and incorporates by reference information from the *Traffic Assessment for the Hollywood Presbyterian Medical Center Building Project, Los Angeles, California* (Traffic Study) dated April 2020 and prepared by Gibson Transportation Consulting. The Traffic Assessment and LADOT review of it are included as **Appendix C** to this Initial Study.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
- b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d. Result in inadequate emergency access?

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Approved Project

Less than Significant Impact. Access and circulation of the Approved Project was reviewed and approved by LADOT. The Approved Project would not require the disruption of public transportation services or the alteration of public transportation routes. Furthermore, the Approved Project would not interfere with any bicycle or pedestrian facilities. As such, the MND for the Approved Project concluded that impacts were less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Mobility Element of the Los Angeles General Plan presents the City's vision for the circulation system. The Plan is structured around five goals: Safety First; Access for All Angelenos; World Class Infrastructure; Collaboration, Communication, and Informed Choices; Clean Environments & Healthy Communities. The Plan describes policies associated with each of these goals that primarily focus on the design and use of public rights of way. The Revised Project would utilize the existing driveways and access points of the Approved Project and does not propose any new curb cuts or modifications to the public rights of way. The Revised Project would include additional bicycle parking. In addition, the Revised Project would comply with the Transportation Demand Management requirements of LMC Section 12.26. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to any program plan, ordinance or policy addressing the circulation system in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to any program plan, ordinance or policy addressing the circulation system.

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Approved Project

Less than Significant Impact. Pursuant to CEQA Guidelines section 15064.3, subdivision (b), a significant impact to the transportation system may occur if the project causes Vehicle Miles Traveled (VMT) to exceed the criteria established by the Los Angeles Department of Transportation (LADOT). The MND for the Approved Project was adopted prior to the adoption of this threshold. Nonetheless, the Approved Project provided parking for existing uses at the Hollywood Presbyterian Medical Center, and therefore would not be considered a substantial source of additional VMT. As such, impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

LADOT has developed a VMT Calculator, which determines a project's VMT based on trip length information from the City's Travel Demand Forecasting Model. LADOT set the significance threshold for a commercial project as exceeding 15% below the existing average work VMT per employee for the applicable Area Planning Commission area. The Revised Project is within the Central Area Planning Commission area, for which 15% below the existing average work VMT per employee is 7.6.

As shown in **Appendix C**, a Transportation Assessment was prepared in accordance with the LADOT Guidelines and reviewed and approved by LADOT. The Revised Project is estimated to generate 2,368 daily trips for a total of 15,739 daily VMT. The LADOT VMT Calculator estimated the Project VMT per employee would be 7.6. The Revised Project would utilize the parking and access of the Approved Project without adding any additional parking and would not make any alterations to existing off-site transportation facilities. Due to the project's request for a Specific Plan Exception, no additional parking would be added to the existing garage, and no structural changes would be made to the garage that would alter access. The project proposes to incorporate transportation demand management strategies of reducing parking supply and priced workplace parking as project design features. Furthermore, the Project Site is located within 0.25 miles of the Metro B (Red) Line Hollywood/Vine Station and is also well-served by various bus lines. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to CEQA Guidelines section 15064.3, subdivision (b) in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to consistency with CEQA Guidelines section 15064.3, subdivision (b). The Revised Project did not identify any mitigation measures or alternatives that had been previously identified nor recently identified that would mitigate any substantial impacts cause by the Revised Project.

- c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Approved Project

Less than Significant with Mitigation incorporated. The Approved Project would require the use of haul trucks during site clearing and excavation and the use of a variety of other construction vehicles throughout the construction of the Proposed Project. These vehicles have the potential to interfere with traffic and pedestrian safety when positioned on or adjacent to the perimeter of the site. In addition, the Approved Project would include two new vehicular access driveways to the Project Site that, if not properly designed and constructed, could potentially conflict with pedestrian circulation in the Project area. Therefore, the Approved Project included mitigation identified in the MND to ensure these impacts would be less than significant level.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the

conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would utilize the existing parking and access of the Approved Project. No additional access points or driveway widening are proposed. As such, no unusual or new obstacles are presented in the design that would be considered hazardous. In its review of the Traffic Assessment, LADOT has concurred that the project would not result in adverse effects on emergency vehicle site access and circulation. During construction, the Project would continue to implement the applicable Mitigation that was included in the Approved MND. Therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to transportation hazards in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to increase in hazards due to a geometric design feature or incompatible use.

d. Would the project result in inadequate emergency access?

Approved Project

Less than Significant. A significant impact may occur if a project design would not provide emergency access meeting the requirements of the LAFD, or in any other way threatened the ability of emergency vehicles to access and serve the project site or adjacent uses. The Approved Project's driveways and

internal circulation have already been designed to meet all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access, and have been approved by LADOT. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would utilize the existing parking and access of the Approved Project. No additional access points or driveway widening are proposed. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to emergency access in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (1) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to emergency access.

XVIII. TRIBAL CULTURAL RESOURCES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?

Approved Project

Less than Significant Impact. As described in section 4.5, Cultural Resources, of the approved MND, under Case No. ENV-2015-310-MND, the Project Site does not contain known cultural resources as defined in

PRC Section 5020.1(k). Inadvertent unearthing of subsurface cultural resources did not occur with construction of the Approved Project. Impacts were less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would occur in the same location as the Approved Project and would not require new excavation or subterranean levels. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to listed or eligible tribal cultural resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to listed or eligible tribal cultural resources.

- b. **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Approved Project

Less than Significant Impact. Assembly Bill 52 (AB 52) established a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code §21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a project site if the tribe has submitted a written request to be notified. The Approved Project was evaluated through an MND prior to the adoption of AB52. The Initial Study that supported the MND concluded that the Approved Project would have a less than significant impact on cultural resources. Furthermore, no tribal cultural resources were discovered during construction of the Approved Project.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would occur in the same location as the Approved Project and would not require new excavation or subterranean levels. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to tribal cultural resources in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to tribal cultural resources.

XIX. UTILITIES AND SERVICE SYSTEMS

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. **Would the project require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction of which could cause significant environmental effects?**

Approved Project

Less Than Significant Impact. The Approved Project was a parking structure that replaced several existing uses and is adequately served by existing infrastructure including water, wastewater, storm water, electric power, natural gas, and telecommunications facilities. As such, the approved MND, under Case No. ENV-2015-310-MND, determined that the Approved Project would not be a substantial source of new demand on utility systems.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Water

The Project Site is located in a developed, urbanized portion of Los Angeles that is served by existing water mains and utility services. Water is provided by the Los Angeles Department of Water and Power (LADWP). LADWP ensures the reliability and quality of its water supply through an extensive distribution system that includes more than 7,100 miles of pipes, more than 100 storage tanks and reservoirs within the City, and eight storage reservoirs along the Los Angeles Aqueducts. The Revised Project would require new connections to water distribution lines. Construction associated with the installation of water distribution lines and laterals would be limited to on-site and minor off-site construction activities. Prior to any work within public right-of-way, Revised Project contractors would coordinate with LADWP to identify the locations and depth of all lines in the Revised Project vicinity to avoid disruption of water service and would coordinate with Public Works to ensure that adequate and safe access remains available within and near the Project Site during construction activities.

Wastewater

The Project Site is located in a developed, urbanized portion of Los Angeles that is served by the existing wastewater system operated by the City of Los Angeles Sanitation Department (LASAN). LASAN serves over 4 million residential and industrial customers and processes approximately 328 million gallons per

day (mgd) of wastewater.³² LASAN estimated that wastewater flow will increase to 376 mgd by 2040 and has planned capacity to serve this forecasted growth. As shown in **Table 4.19-1: Estimated Sewage Generation** below, it is estimated that the Revised Project would generate approximately 23,999 gpd of new wastewater. The Project wastewater generation is within the assumed growth projections of the City. As such, it is expected that LASAN has sufficient capacity to serve the Project.

**Table 4.19-1
Estimated Sewage Generation**

Land Use	Quantity	Factor (gpd/unit) ^a	Daily Generation (gpd)
Medical Office/Clinic	95,995 sq. ft.	250/1,000	23,999

^a *Los Angeles Bureau of Sanitation, Sewage Generation Factors, April 2012., line 86.
Note: gpd = gallons per day; ksf = thousand square feet.*

The Revised Project would require new connections to wastewater collection lines. Construction would be limited to on-site and minor off-site construction activities. Prior to any work within public right-of-way, Revised Project contractors would coordinate with LASAN and with Public Works to ensure that adequate and safe access remains available within and near the Project Site during construction activities.

Stormwater

The Project Site is located in a developed portion of Los Angeles that is currently served by existing stormwater infrastructure. Stormwater infrastructure for the Project Site was developed for the Approved Project. The Revised Project would add additional levels to the Approved Project and would utilize the existing stormwater infrastructure of the Approved Project. As such, the Revised Project can adequately be served by the stormwater utility system.

Solid Waste

Solid waste generated within the City is disposed of at landfill facilities throughout Los Angeles County. While the City Bureau of Sanitation provides waste collection services to single-family and some small multifamily developments, private haulers provide waste collection services for most multifamily residential and for all commercial developments within the City. The County of Los Angeles Department of Public Works prepares an annual report on solid waste management in the County in order to help meet long-term needs and maintain adequate capacity. As described in the County’s most recent report, a shortfall in permitted solid waste disposal capacity within the County is not anticipated to occur under

³² City of Los Angeles Sanitation Department.

forecasted growth and ongoing municipal efforts at waste reduction and diversion. The Revised Project is estimated to generate less than 324 tons of solid waste per year.³³ As of the end of 2018, the County had an estimated remaining landfill capacity of more than 160 million tons.³⁴ As such, the Revised Project would not result in a substantial demand for landfill capacity.

Electric Power, Natural Gas, and Telecommunications

The Project Site is located in a developed, urbanized portion of Los Angeles that is served by existing electric power, natural gas, and telecommunications services. The Approved Project replaced existing commercial and light industrial buildings, already served by electric power, natural gas, and telecommunications services. In the context of the greater Los Angeles service area, the Revised Project would not be a substantial source of new demand for services. New connections would be established for the Revised Project; however, no substantial additional off-site infrastructure would need to be installed or relocated to provide electric power facilities, natural gas facilities, or telecommunication services. Furthermore, the Project Applicant shall be required to implement applicable building code and LA Green Building Code requirements that would further reduce demand as compared to the existing structures. Thus, the Revised Project would be adequately served by existing electric power, natural gas, and telecommunications services.

Based on the above, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C)

33 Based on average waste disposal of 1.05 tons per employee per year as reported by The City of Los Angeles Department of Public Works Bureau of Sanitation in City of Los Angeles Solid Waste Planning Background Studies Summary Report, January 2006.

34 Los Angeles County Public Works, Countywide Integrated Waste Management Plan 2018 Annual Report, December 2019

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Approved Project

Less Than Significant Impact. The Approved Project was a parking structure that replaced several existing uses. As such, the Approved Project would not be a source of substantial net new water demand. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

A significant impact may occur if a project would increase water consumption to such a degree that new water sources would need to be identified. The Project Site is served by the Los Angeles Department of Water and Power (LADWP). Based on forecasted growth, the LADWP's 2015 Urban Water Management Plan (UWMP) projects adequate water supplies through 2040.³⁵ The 2015 UWMP reports that LADWP's current water demand is approximately 611,800-acre feet per year and a forecasted demand of 675,700-acre feet per year in 20240, with supply available to meet this demand. The Revised Project is estimated to generate a water demand of 23,999 gallons per day.³⁶ This is the equivalent of approximately 27-acre feet per year. The Revised Project is within the assumed growth projections used in LADWP's projections. The Revised Project would also be designed to current building codes that would reduce water demand.

35 City of Los Angeles Department of Public Works, *2015 City of Los Angeles Urban Water Management Plan* (2016).

36 Based on wastewater calculation provided under threshold a.

As such, it is expected that LADWP has sufficient water supplies available to serve the Revised Project. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to water supply in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to water supply.

c. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Approved Project

Less Than Significant Impact. The Approved Project was a parking structure that replaced several existing uses. As such, the Approved Project would not be a source of substantial net wastewater generation. No impacts would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

A significant impact may occur if a project would increase wastewater generation to such a degree that additional treatment capacity would be required. The Project Site is served by the existing wastewater system operated by the City of Los Angeles Sanitation Department (LASAN). LASAN serves over 4 million residential and industrial customers and processes approximately 328 million gallons per day (mgd) of wastewater.³⁷ LASAN estimated that wastewater flow will increase to 376 mgd by 2040 and has planned capacity to serve this forecasted growth. The Revised Project is estimated to generate 23,999 gallons of wastewater per day.³⁸ The Revised Project is within the planned growth forecasts used by LASAN. As such, LASAN has the planned capacity to serve the Revised Project. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to wastewater treatment in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to wastewater treatment.

³⁷ City of Los Angeles Sanitation Department.

³⁸ Based on wastewater calculation provided under threshold a.

- d. **Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

Approved Project

Less than Significant Impact. A significant impact may occur if a project would generate solid waste that was not disposed of in accordance with applicable regulations. The Approved Project would generate solid waste that is typical of a parking structure and would comply with all federal, State, and local statutes and regulations regarding proper disposal. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Construction waste would be generated and disposed of at local landfills. Additionally, since grading and excavation activity is not required for the Project, it would not result in a substantial increase in solid waste disposal at licensed landfills and other waste disposal facilities within Los Angeles County during construction. Construction of the Project would adhere to Los Angeles County standards. Therefore, construction waste generated during construction of the Revised Project would not adversely impact landfills. As described above, under threshold a, the operation of the Revised Project would not result in a substantial demand for landfill capacity. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to solid waste in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C)*

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to solid waste.

e. Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Approved Project

Less than Significant Impact. A significant impact may occur if a project would generate solid waste that was not disposed of in accordance with applicable regulations. The Approved Project would generate solid waste that is typical of a parking structure and would comply with all federal, State, and local statutes and regulations regarding proper disposal. Impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Revised Project would generate solid waste that is typical of medical office space. The Revised Project is designed to comply with all federal, State, and local statutes and regulations regarding proper disposal and would utilize existing waste collection services that comply with these regulations. The Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to federal, State, and local management and reduction statutes and regulations related to solid waste in the vicinity of the Revised Project that would

result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to federal, State, and local management and reduction statutes and regulations related to solid waste.

XX. WILDFIRE

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Approved Project

No Impact. The Approved Project is not located in or near State responsibility areas of lands classified as very high fire hazard severity zones.³⁹ While it is expected that the majority of construction activities for the Project would be confined to the Project Site, limited off-site construction activities may occur in adjacent street rights-of-way during certain periods of the day, which may result in temporary lane closures that could have the potential to interfere with established emergency response or evacuation plans. However, any such closures would be temporary in nature and would be coordinated with the City of Los Angeles Departments of Transportation, Building and Safety, and Public Works. The Project would not impair an adopted emergency reasonable plan or emergency evacuation plan. As such, there would be no impact.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Project location remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to adopted emergency response plan or emergency evacuation plan in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or

³⁹ City of Los Angeles Department of Planning, *Zone Information and Map Access System*, <http://zimas.lacity.org/>.

the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to an adopted emergency response plan or emergency evacuation plan.

b. Due to the slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Approved Project

No Impact. As noted above, the Approved Project is not located in or near State responsibility areas of lands classified as very high fire hazard severity zones. The Project would not change or exacerbate current risks of wildfire or pollutant concentrations from a wildfire to project occupants. As such, there would be less a less than significant impact.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to wildfire risks in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to wildfire risks.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or on going impacts to the environment?

Approved Project

No Impact. As noted above, the Approved Project is not located in or near State responsibility areas of lands classified as very high fire hazard severity zones. The Project would not require the installation or maintenance of any infrastructure or utility improvements or additions that may exacerbate fire risks. As such impacts related to infrastructure modifications increasing fire risk would not result in any impacts. As such, no impact would occur.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Project location remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to installation or maintenance of associated infrastructure in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to installation or maintenance of associated infrastructure.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Approved Project

No Impact. As noted above, the Approved Project is not located in or near State responsibility areas of lands classified as very high fire hazard severity zones. The Project is not located near a potential flooding, or landslide area, and would not result in potential drainage changes. As such, the Project would result in no impact.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project location remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to runoff, post-fire slope instability, or drainage changes in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to runoff, post-fire slope instability, or drainage changes.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				

Approved Project

Less than Significant Impact. Based on the analysis in the prior MND, the Approved Project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Compliance with existing regulations would reduce impacts to less than significant levels.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The Project Site remains unchanged; therefore, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to the potential of the Revised Project to result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to the potential of the Revised Project to substantially degrade the quality of the environment.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Approved Project

Less than Significant Impact. A significant impact may occur if the Approved Project, in conjunction with other projects in the area of the Project Site, would result in impacts that would be less than significant when viewed separately, but would be significant when viewed together. As concluded in the previous MND, the Approved Project’s incremental contribution to cumulative impacts would be less than significant.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

A significant impact may occur if the Revised Project, in conjunction with other projects, would result in impacts that are less than significant when viewed separately but significant when viewed together. The Adopted MND concluded that the Approved Project would not make a considerable contribution to cumulative impacts. The Revised Project would occur on the same site and, as discussed under each topic in this Addendum, it would not result in any new significant effects or substantial increases in severity of previously identified significant effects. The Cumulative effect of the revised Project would be equivalent to the Approved Project. Therefore, the Revised Project would not involve new significant cumulative effects or a substantial increase in the severity of previously identified cumulative effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to cumulative impacts in the vicinity of the Revised Project that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to cumulative impacts.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Approved Project

Less than Significant Impact. The Approved Project was found to have a less than significant effects on human beings, either directly or indirectly.

Revised Project

When a negative declaration has been adopted for a project, an addendum may be prepared if none of the conditions described in Section 15162 of the CEQA Guidelines have occurred. The following lists the conditions described in Section 15162 and explains why the changes resulting from the Revised Project would not cause them to occur:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

A significant impact may occur if the Revised Project has the potential to result in significant impacts, as discussed in the preceding sections. Based on the preceding environmental analysis, the Revised Project would not have significant environmental effects on human beings, either directly or indirectly. Upon implementation of applicable Mitigation Measures identified for the Approved Project and compliance with existing regulations, any potentially significant impacts would be reduced to less than significant levels. As such, the Revised Project would not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

There have not been any significant changes with respect to environmental effects which would cause substantial adverse effects on human beings in the vicinity of the Revised Project, that would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects.

- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

There is no new information of substantial importance that shows that the Revised Project would result in a new significant environmental impact or substantial increase in the severity of previously identified significant effects relating to environmental effects which would cause substantial adverse effects on human beings.

Air Quality Study
for the
HPMC Building Project
1318 N. Lyman Place, Los Angeles, CA 90027

PREPARED FOR:

CHA Property Holdings LP
3731 Wilshire Blvd Suite 850
Los Angeles, CA 90010

PREPARED BY:

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361



Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

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- A CalEEMod Air Quality Emission Output Files

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EXECUTIVE SUMMARY

This Air Quality Study assesses and discusses the potential air quality impacts that may occur with the HPMC Building Project (Project), located in the City of Los Angeles. The analysis estimates future emission levels at surrounding land uses resulting from construction and operation of the Project and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative air quality impacts is also provided. Air quality worksheets are provided in **Attachment A: CalEEMod Air Quality Emission Output Files**.

This report summarizes the potential for the Project to conflict with an applicable air quality plan; violate an air quality standard or threshold; result in a cumulatively net increase of criteria pollutant emissions; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people. The findings of the analyses are as follows:

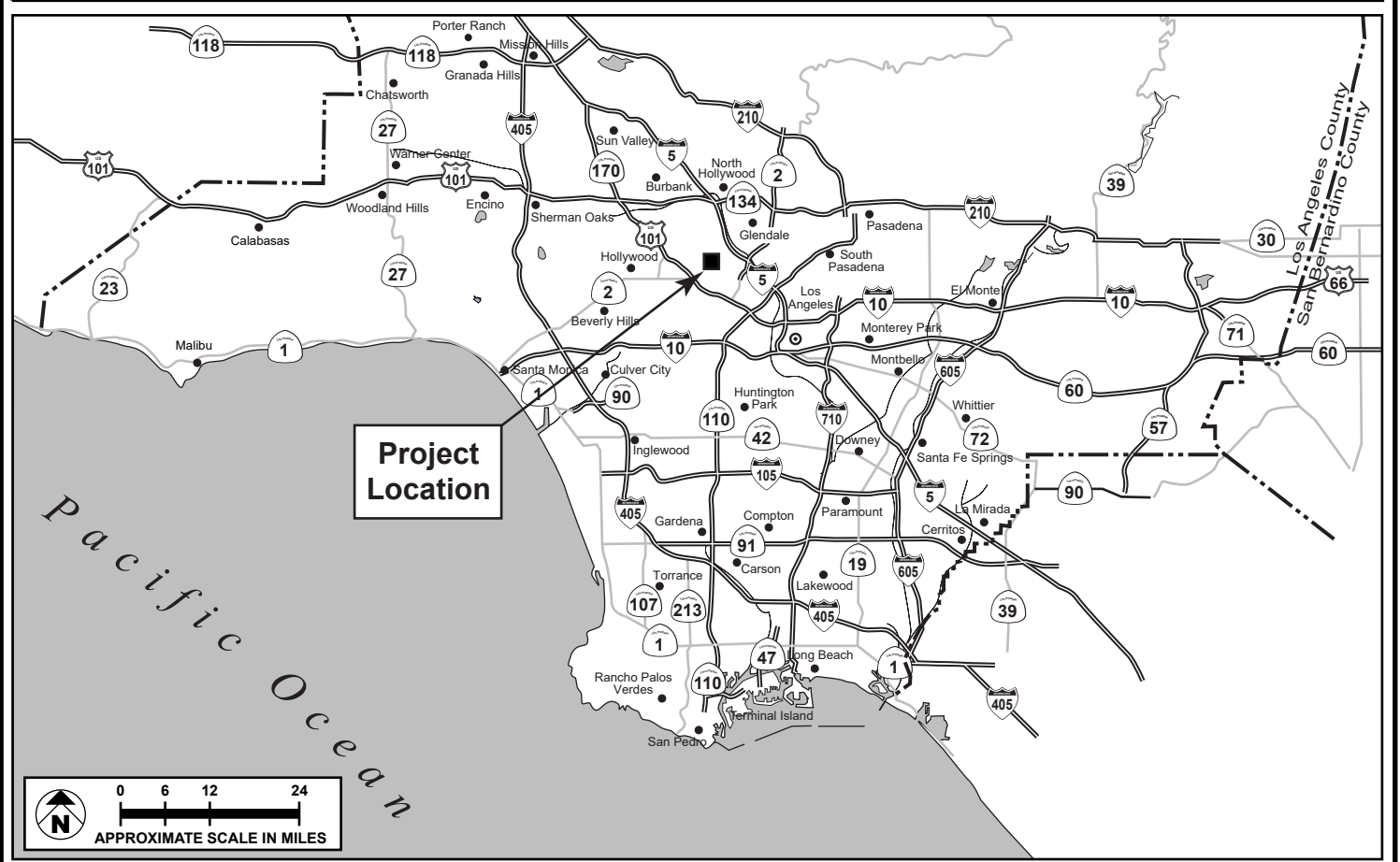
- The Project would be consistent with air quality policies set forth by the South Coast Air Quality Management District (SCAQMD) and the Air Quality Management Plan.
- Construction and operational emissions would not contribute to short- or long-term emissions that would increase the carcinogenic effects on sensitive receptors. Emissions associated with operation would not exceed the SCAQMD-recommended thresholds. Thus, the Project would not result in a regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in the South Coast Air Basin.
- Operation of the Project will not employ toxic air contaminant-emitting processes. No substantial pollutant concentration would be generated.
- Project construction and operations would not result in significant levels of odors.
- The Project would result in less than significant cumulative air quality impacts during construction and operation of the Project.

INTRODUCTION

This Air Quality Study was prepared to evaluate the potential impacts during construction and operation of the HPMC Building Project (Project) in the City of Los Angeles, California. The report provides a summary of the Project components; describes the existing regulatory framework for air pollutants; discusses the environmental setting of the Project; and assesses the potential environmental impacts pertaining to air quality that may result from Project implementation. Determination of significance for Project impacts is based on analysis in accordance with the applicable regulatory thresholds.

PROJECT DESCRIPTION

An Initial Study/Mitigated Negative Declaration (IS/MND) was previously prepared and adopted by the City of Los Angeles which assessed the property located at 1318 N. Lyman Place (refer to **Figure 1: Regional and Local Vicinity Map**). The Project included demolition of two maintenance facilities, a single-family residence and a surface parking lot for construction of a parking structure containing 654 automobile parking spaces in 7 levels, consisting of 3 subterranean parking levels and 4 aboveground levels, with an additional level of parking on the roof deck (“Approved Project”). As built the parking structure contains 562 automobile parking spaces in 7 levels, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck. This Project (“Revised Project”) includes three levels of medical office space, containing approximately 95,995 square feet of floor space, on top of the parking structure. The Revised Project would increase the height of the building to approximately 94 feet above ground level. Construction of the Revised Project would begin in September 2021 and is expected to be completed by August 2023.



SOURCE: Google Earth - 2020; Meridian Consultants, LLC - 2020

FIGURE 1

REGULATORY SETTING

Ambient air quality emissions present complex environmental issues that require regulatory attention on both large and small scales. The cumulative nature of project-level and localized emissions contributing to greater regional conditions warrants that regulatory policies be instituted on national, state, and regional levels to address air quality concerns. The following sections outline the applicable regulatory framework that exists at the national, state, and regional levels for air quality.

Background

The United States Environmental Protection Agency (USEPA) is responsible for federal oversight and enforcement of air quality management policies under the 1970 Clean Air Act (CAA). Each individual state is tasked with preparing and adhering to State Implementation Plans¹ (SIPs) for achieving the goals set forth within the CAA. California has some of the most stringent air quality policies in the country and, through the California Air Resources Board (CARB) branch of the California Environmental Protection Agency (CalEPA), has developed its own ambient air quality standards (AAQS).

The state is divided into air quality jurisdictions; each jurisdiction is governed by a regional air district that oversees policy implementation, permitting of air pollution emission sources, and enforcement of regulatory requirements. Six criteria air pollutants (CAPs) are monitored at the federal, state, and regional levels. These six CAPs—ozone, particulate matter PM10 and PM2.5, nitrogen dioxide, carbon monoxide, lead, and sulfur dioxide—were identified based on a consensus of decades of research that concluded inhalation of each of the chemicals results in adverse health effects in humans. The six pollutants are identified below in **Table 1: Sources and Health Effects of Criteria Air Pollutants**, along with their common sources and primary health effects from inhalation exposure.

Ozone

Ozone (O₃) is a gas formed when volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months, when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

1 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards.

Table 1
Sources and Health Effects of Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O ₃)	Formed when VOCs and NO _x react in the presence of sunlight; VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil), solvents, petroleum processing, and storage and pesticides	Breathing difficulties; lung tissue damage; damage to rubber and some plastics
Respirable particulate matter (PM ₁₀)	Road dust, windblown dust (agriculture) and construction (fireplaces); also formed from other pollutants (e.g., acid rain, NO _x , oxides of sulfur [SO _x], organics) and from incomplete combustion of any fuel	Increases respiratory disease, lung damage, cancer, premature death; reduced visibility; surface soiling
Fine particulate matter (PM _{2.5})	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; also formed from reaction of other pollutants (e.g., acid rain, NO _x , SO _x , organics)	Increases respiratory disease, lung damage, cancer, premature death; reduced visibility; surface soiling
Carbon monoxide (CO)	Any source that burns fuel, such as automobiles, trucks, heavy construction equipment, farming equipment, and residential heating	Chest pain in heart patients; headaches; reduced mental alertness
Nitrogen dioxide (NO ₂)	See carbon monoxide.	Lung irritation and damage
Lead (Pb)	Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint	Learning disabilities; brain and kidney damage
Sulfur dioxide (SO ₂)	Coal- or oil-burning power plants and industries, refineries, diesel engines	Increases lung disease and breathing problems for asthmatics; reacts in the atmosphere to form acid rain

Source: California Air Resources Board, "ARB Fact Sheet: Air Pollution and Health" (2009), <http://www.arb.ca.gov/research/health/fs/fs1/fs1.htm> (accessed February 2020).

Volatile Organic Compounds

VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including ozone. VOCs themselves are not criteria pollutants; however, they contribute to the formation of ozone and are regulated under state policies.

Respirable Particulate Matter

Respirable particulate matter (PM₁₀) consists of extremely small, suspended particles or droplets 10 micrometers (µm) or smaller in diameter. Some sources of PM₁₀, like pollen and windstorms, are

naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, the abrasion of tires and brakes, and construction activities.

Fine Particulate Matter

PM2.5 refers to fine particulate matter that is 2.5 µm or smaller in size. Sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles, such as buses and trucks. These fine particles are also formed in the atmosphere when gases, such as sulfur dioxide (SO₂), NO_x, and VOCs are transformed in the air by chemical reactions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and because motor vehicles operating at slow speeds are the primary source of CO in the South Coast Air Basin (Basin), the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Dioxide

Nitrogen dioxide (NO₂) is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO₂ is also a byproduct of fuel combustion. The principle form of NO₂ produced by combustion is NO, but NO reacts quickly to form NO₂, creating the mixture of NO and NO₂ referred to as NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_x is only potentially irritating. NO₂ absorbs blue light, the result of which is a brownish-red cast to the atmosphere and reduced visibility.

Lead

Lead (Pb) occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as race cars, that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries; sanding or removal of lead-based paint; ink; ceramics; ammunition; and secondary lead smelters.

Sulfur Dioxide

SO₂ is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of the burning of high-sulfur-content fuel oils and coal, as well as from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄).

Federal

The USEPA sets national vehicle and stationary source emission standards; oversees approval of all SIPs; provides research and guidance for air pollution programs; and sets National Ambient Air Quality Standards (NAAQS). The NAAQS for the six CAPs are shown in **Table 2: Ambient Air Quality Standards** and were identified from provisions of the 1970 CAA. The sections of the CAA that are most applicable to the Project include Title I: Nonattainment Provisions and Title II: Mobile Source Provisions.

The CAA and the promulgated standards have evolved as a living document over time as research into the effects of air pollution has enhanced regulatory understanding of the associated issues. The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. On the national level, the USEPA designates regions as achieving “attainment” or suffering from “nonattainment” of the NAAQS based on air quality monitoring data. Regions that are designated as being in nonattainment are responsible for devising localized strategies for reducing emissions of CAPs and achieving regional attainment within a predetermined timeframe set by the USEPA.

The NAAQS were further amended in July 1997 to include an 8-hour standard for ozone and to adopt an NAAQS for PM_{2.5}. The NAAQS were amended again in September 2006 to include an established methodology for calculating PM_{2.5}, as well as to revoke the annual PM₁₀ threshold. Additional revisions to the AAQS may be implemented in the future as the science of air quality progresses.

**Table 2
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O3)	1 hour	0.09 ppm (180 µg/m ³)	Ultraviolet photometry	—	Same as primary standard	Ultraviolet photometry
	8 hours	0.07 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable particulate matter (PM10)	24 hours	50 µg/m ³	Gravimetric or beta attenuation	150 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	20 µg/m ³		—		
Fine particulate matter (PM2.5)	24 hours	No separate state standard		35 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	12 µg/m ³	Gravimetric or beta attenuation	15 µg/m ³		
Carbon monoxide (CO)	8 hours	9.0 ppm (10 mg/m ³)	Nondispersive infrared photometry (NDIR)	9 ppm (10 mg/m ³)	None	NDIR
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
Nitrogen dioxide (NO2)	Annual arithmetic mean	0.03 ppm (57 µg/m ³)	Gas phase chemiluminescence	0.053 ppm (100 µg/m ³)	Same as primary standard	Gas phase chemiluminescence
	1 hour	0.18 ppm (339 µg/m ³)		0.100 ppm (188 µg/m ³)		

Source: California Air Resources Board website at: <http://www.arb.ca.gov/research/aaqs/aaqs.htm> (accessed February 2020).

Note: ppm = parts per million.

State

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. The CARB is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions and the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by

the state. The CAAQS are provided in **Table 2**; it should be noted that the CAAQS are generally more stringent than the NAAQS, reflecting California’s diligent efforts toward reducing air pollution and improving air quality.

Regional

In California, jurisdiction over air quality management, enforcement, and planning divided into 35 geographic regions. Within each region, a local air district is responsible for oversight of air quality monitoring, modeling, permitting, and enforcement to ensure that regulatory violations are avoided wherever possible.

The Project site is located within the 6,700-square-mile Basin and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin includes the southern two-thirds of Los Angeles County, all of Orange County, and the western urbanized portions of Riverside and San Bernardino Counties.

South Coast Air Quality Management District

SCAQMD shares responsibility with CARB for ensuring that all state and federal AAQS are achieved and maintained over an area of approximately 10,743 square miles. This area includes the South Coast and Salton Sea Air Basins, all of Orange County, and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. It does not include the Antelope Valley or the nondesert portion of western San Bernardino County.

SCAQMD is responsible for controlling emissions, primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the air basins. SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the air basins. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as being in nonattainment of the NAAQS or CAAQS. The term “nonattainment area” is used to refer to an air basin in which one or more AAQS are exceeded. SCAQMD also prepares the SIP for its jurisdiction and promulgates rules and regulations. The SIP includes strategies and tactics to be used to attain the federal ozone standards in the South Coast Air Basin. The SIP elements are taken from the most recent AQMP.

SCAQMD approved a Final 2016 AQMP on March 3, 2017.² The 2016 AQMP includes transportation control measures developed by SCAG from its *2016–2040 Regional Transportation Plan/Sustainable*

2 South Coast Air Quality Management District (SCAQMD), “Final 2016 Air Quality Management Plan” (2016), accessed February 2020, <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>.

Communities Strategy, as well as the integrated strategies and measures needed to meet the NAAQS. The 2016 AQMP demonstrates attainment of the 1-hour and 8-hour ozone NAAQS, as well as the latest 24-hour and annual PM_{2.5} standards.

SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the air basins by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board that limit the emissions that can be generated by various uses/activities and identifying specific pollution-reduction measures that must be implemented in association with various uses and activities. These rules regulate not only the emissions of the federal and state criteria pollutants, but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 requires the use of stringent best available control measures (BACMs) to minimize PM₁₀ emissions during grading and construction activities. Rule 1113 limits the VOC content of coatings, with a VOC content limit for flat coatings of 50 grams per liter (g/L).³ Additional details regarding these rules and other potentially applicable rules are presented as follows.

Rule 402 (Nuisance): This rule states that a “person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”⁴

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement BACMs for all sources and prohibits all forms of visible particulate matter from crossing any property line. BACMs may include application of water or chemical stabilizers to disturbed soils covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); sweeping loose dirt from paved site-access roadways; cessation of construction activity when winds exceed 25 mph; and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

3 SCAQMD, “Rule 1113 Architectural Coating” (amended September 6, 2013), accessed February 2020, <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>.

4 SCAQMD, “Rule 402—Nuisance,” accessed February 2020, <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf>.

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural-gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing AQMPs.

ENVIRONMENTAL SETTING

Regional Air Quality

The USEPA is the federal agency responsible for overseeing the country's air quality and setting the NAAQS for the CAPs. The NAAQS were devised based on extensive modeling and monitoring of air pollution across the country; they are designed to protect public health and prevent the formation of atmospheric ozone. Air quality of a region is considered to be in attainment of the NAAQS if the measured ambient air pollutant levels do not exceed the applicable concentration threshold. **Table 2** presents the federal and state AAQS.

As noted previously, the CARB is the state agency responsible for setting the CAAQS. Air quality of a region is considered to be in attainment of the CAAQS if the measured ambient air pollutant levels for O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and Pb are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period. The CAAQS are also presented in **Table 2**.

For evaluation purposes, the SCAQMD territory is divided into 38 source receptor areas (SRAs). These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The Project site is within SRA 1, Central Los Angeles County.⁵ The nearest air monitoring station SCAQMD operates is located at 1630 North Main Street.⁶ This station monitors O3, NO2, PM10 and PM2.5. **Table 3: Air Quality Monitoring Summary** summarizes published monitoring data from 2016 through 2018, the most recent 3-year period available. The data show that during the past few years, the region has exceeded the O3, PM 10, and PM2.5 standards.

Table 3
Air Quality Monitoring Summary

Air Pollutant	Average Time (Units)	2016	2017	2018
Ozone (O3)	State Max 1 hour (ppm)	0.103	0.116	0.098
	Days > CAAQS threshold (0.09 ppm)	2	6	2
	National Max 8 hour (ppm)	0.078	0.086	0.073
	Days > NAAQS threshold (0.075 ppm)	4	14	4
	State Max 8 hour (ppm)	0.078	0.086	0.074
	Days > CAAQS threshold (0.07 ppm)	4	16	4
Carbon monoxide (CO)		—	—	—
Nitrogen dioxide (NO2)	National Max 1 hour (ppm)	0.065	0.081	0.070
	Days > NAAQS threshold (0.100 ppm)	0	0	0
	State Max 1 hour (ppm)	0.064	0.080	0.070
	Days > CAAQS threshold (0.18 ppm)	0	0	0
Respirable particulate matter (PM10)	National Max (µg/m3)	64.0	64.6	68.2
	National Annual Average (µg/m3)	25.8	25.7	30.2
	Days > NAAQS threshold (150 µg/m3)	0	0	0
	State Max (µg/m3)	74.6	96.2	81.2
	State Annual Average (µg/m3)	—	—	34.0
	Days > CAAQS threshold (50 µg/m3)	21	40	31
Fine particulate matter (PM2.5)	National Max (µg/m3)	44.3	54.9	61.4
	National Annual Average (µg/m3)	11.7	12.0	12.8
	Days > NAAQS threshold (35 µg/m3)	2	6	6
	State Max (µg/m3)	49.4	61.7	65.3
	State Annual Average (µg/m3)	12.0	16.3	16.0

Source: CARB, iADAM: Air Quality Data Statistics.

Note: (—) = Data not available.

5 SCAQMD, *General Forecast Areas and Air Monitoring Areas*, map, accessed February 2020, <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

6 South Coast Air Quality Management District, *Site Survey Report for Los Angeles (Central)–North Main Street*, AQS ID 060371103, accessed February 2020, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-monitoring-network-plan/aaqmnp-losangeles.pdf?sfvrsn=16>.

The USEPA and the CARB designate air basins where AAQS are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The current attainment designations for the Basin are shown in **Table 4: South Coast Air Basin Attainment Status**. The Basin is currently designated as being in nonattainment at the federal level for O3 and PM2.5; and at the state level for O3, PM10, and PM2.5.

**Table 4
South Coast Air Basin Attainment Status**

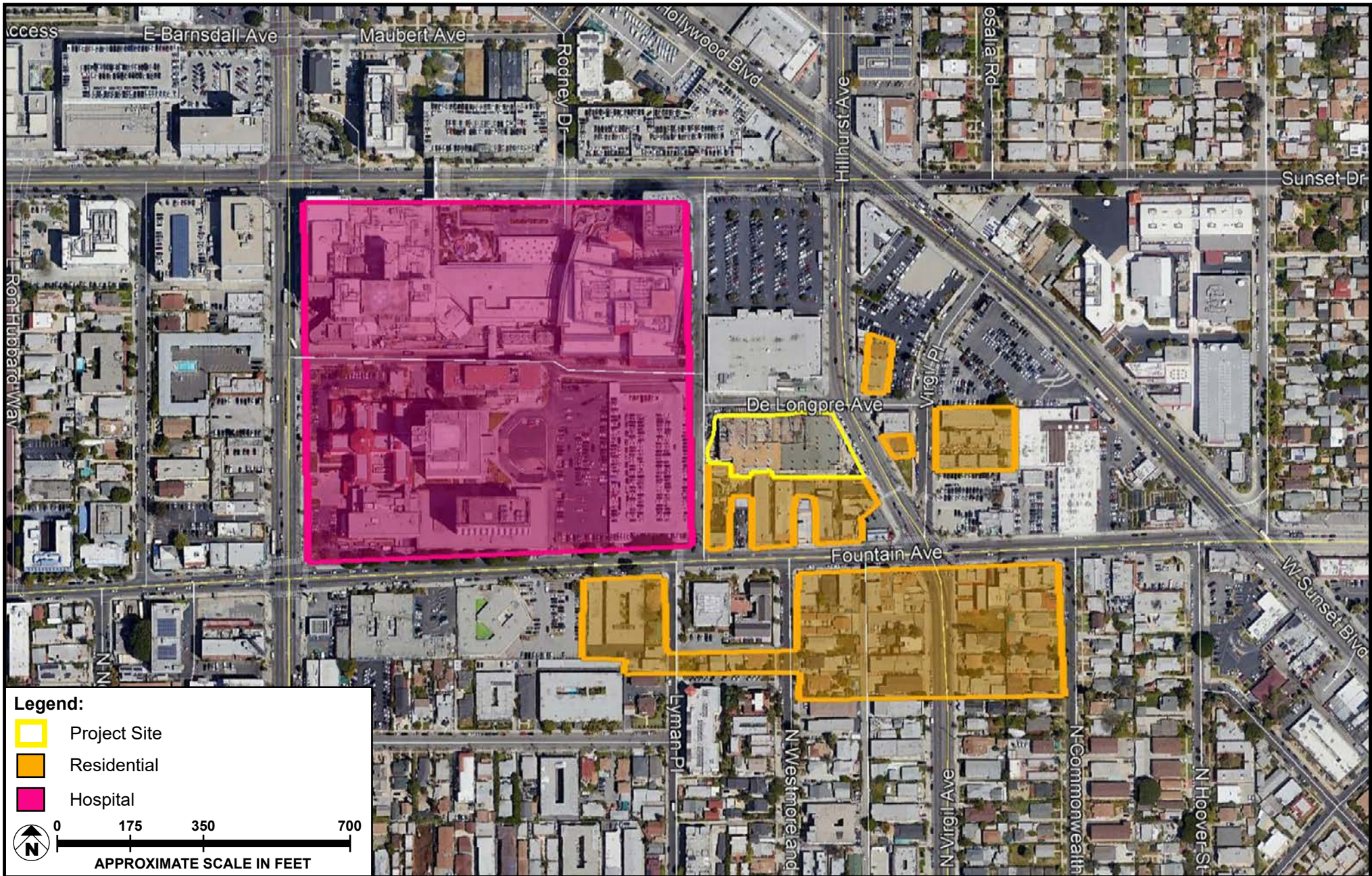
Pollutant	State Status	National Status
Ozone (O3)	Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen dioxide (NO2)	Attainment	Unclassified/Attainment
Sulfur dioxide (SO2)	Attainment	Unclassified/Attainment
Respirable particulate matter (PM10)	Nonattainment	Attainment
Fine particulate matter (PM2.5)	Nonattainment	Nonattainment

Source: California Air Resources Board (CARB) Area Designation Maps / State and National, accessed February 2020, <http://www.arb.ca.gov/desig/adm/adm.htm>, last reviewed October 24, 2019.

Sensitive Receptors

The SCAQMD considers a sensitive receptor to be a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. Sensitive receptors are identified near sources of air pollution to determine the potential for health hazards. Locations evaluated for exposure to air pollution include but are not limited to residences, schools, hospitals, and convalescent facilities.

Residential neighborhoods lie directly adjacent to the Project site, specifically to the south along Lyman Place and Fountain Avenue and to the east across Virgil Avenue. In addition, the main campus of Hollywood Presbyterian Medical Center (HPMC) and a building associated with Children’s Hospital are located to the west across Lyman Place. Other hospital facilities, including Kaiser Permanente, are located around the nearby intersection of Vermont Avenue and Sunset Boulevard. **Figure 2: Location of Sensitive Receptors**, provides a detailed image of the proximal land uses and identifies the sensitive receptors closest to the Project site. These uses represent the nearest sensitive receptors who may be impacted by emissions of air pollutants from Project implementation.



SOURCE: Google Earth - 2020

FIGURE 2

METHODOLOGY

Construction

Construction of the Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment and through vehicle trips generated from workers and haul trucks traveling to and from the Project site. Typically fugitive dust emissions would result from various soil-handling activities; however the Project involves an addition to an existing structure and thus does not entail soil excavation or grading. Mobile-source emissions, primarily NO_x, would result from the use of construction equipment. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the SCAQMD-recommended CalEEMod software. CalEEMod is based on outputs from the CARB off-road emissions model (OFFROAD) and the CARB on-road vehicle emissions model (EMFAC), which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis are based on conservative assumptions in CalEEMod, with appropriate, Project-specific adjustments based on equipment types and expected construction activities. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Attachment A**.

Operation

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project site. In addition, emissions would result from area sources on site, such as natural gas combustion, landscaping equipment, and use of consumer products.

Operational emissions were estimated using the CalEEMod software, which was used to forecast the daily regional emissions from area sources that would occur during long-term Project operations. In calculating mobile-source emissions, trip-length values were based on the distances provided in CalEEMod.

Area-source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product (including paint) usage rates provided in CalEEMod. Natural gas usage

factors in CalEEMod are based on the California Energy Commission’s California Commercial End Use Survey data set, which provides energy demand by building type and climate zone.

SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Significance Criteria

The *L.A. CEQA Thresholds Guide* states that the determination of a project’s significance on air quality shall be made considering the factors provided in the *SCAQMD CEQA Air Quality Handbook* (Handbook). The City of Los Angeles has not adopted specific Citywide significance thresholds for air quality impacts; rather, the *L.A. CEQA Thresholds Guide* references the thresholds and methodologies contained in the SCAQMD Handbook evaluating projects in the City.⁷

The thresholds for determining the significance of impacts are set forth by the SCAQMD for both construction and operational emissions. These thresholds are described below.

Construction Emission Thresholds

The Project will have a significant impact if it exceeds the construction thresholds listed in **Table 5: Construction Thresholds**.

**Table 5
Construction Thresholds**

Pollutant	Construction Emissions (pounds/day)
Volatile organic compounds (VOCs)	75
Nitrogen dioxide (NO ₂)	100
Carbon monoxide (CO)	550
Sulfur dioxide (SO ₂)	150
Respirable particulate matter (PM ₁₀)	150
Fine particulate matter (PM _{2.5})	55

Construction and Operational Localized Significance Thresholds

The local significance thresholds are based on the SCAQMD’s Final *Localized Significance Threshold (LST) Methodology* (LST Methodology)⁸ guidance document for short-duration construction activities. The

⁷ City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), p. B-1.

⁸ South Coast Air Quality Management District, *Final Localized Significance Threshold (LST) Methodology*, (June 2003, rev. July 2008).

SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project site because of construction activities. The SCAQMD provides voluntary guidance on the evaluation of localized air quality impacts to public agencies conducting environmental review of projects located within its jurisdiction. Localized air quality impacts are evaluated by examining the on-site generation of pollutants and their resulting downwind concentrations. For construction, pollutant concentrations are compared to significance thresholds for particulates (PM10 and PM2.5), CO, and NO2. The significance threshold for PM10 represents compliance with SCAQMD Rule 403 (Fugitive Dust). The threshold for PM2.5 is designed to limit emissions and to allow progress toward attainment of the AAQS. Thresholds for CO and NO2 represent the allowable increase in concentrations above background levels that would not cause or contribute to an exceedance of their respective AAQS.

The LST Methodology provides lookup tables of emissions that are based on construction projects of up to 5 acres in size. These LST lookup tables were developed to assist lead agencies with a simple tool for evaluating the impacts from small typical projects. Ambient conditions for Central Los Angeles County, as recorded in SRA 1 by the SCAQMD, were used for ambient conditions in determining appropriate threshold levels. Thresholds for each criteria pollutant for construction activity and Project operation of the 1.02-acre Project site are listed in **Table 6: Localized Significance Thresholds**.

**Table 6
Localized Significance Thresholds**

Pollutant	Construction	Operational
	pounds/day	
Nitrogen dioxide (NO2)	74	74
Carbon monoxide (CO)	680	680
Respirable particulate matter (PM10)	5	2
Fine particulate matter (PM2.5)	3	1

Notes:

Based on a distance to sensitive receptors of 25 meters (82 feet). SCAQMD's Localized Significance Threshold (LST) Methodology for CEQA Evaluations guidance document provides that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

LST values for 1-acre site.

Operational Thresholds

Based on the SCAQMD Handbook, thresholds for each criteria pollutant for the operations of the Project are provided in **Table 7: Operational Thresholds**.

Table 7
Operational Thresholds

Pollutant	Operational Emissions (pounds/day)
Volatile organic compounds (VOCs)	55
Nitrogen dioxide (NO ₂)	55
Carbon monoxide (CO)	550
Sulfur dioxide (SO ₂)	150
Respirable particulate matter (PM ₁₀)	150
Fine particulate matter (PM _{2.5})	55

Toxic Air Contaminants

As set forth in the *L.A. CEQA Thresholds Guide*, the determination of significance of a project with respect to TACs shall be made on a case-by-case basis, considering the following factors:

- Regulatory framework for toxic materials and process involved;
- Proximity of TACs to sensitive receptors;
- Quantity, volume, and toxicity of the contaminants expected to be emitted;
- Likelihood and potential level of exposure; and
- Degree to which project design will reduce risk of exposure.

Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD Handbook, the following criteria were used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Will the Project result in any of the following:
 - Increase the frequency or severity of existing air quality violations?
 - Cause or contribute to new air quality violations?
 - Delay the timely attainment of the air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?

- Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?
- Does the Project include air quality mitigation measures?
- To what extent is Project development consistent with the AQMP land use policies?

Cumulative Threshold

SCAQMD recommends that a project be considered to result in a cumulatively considerable impact to air quality if any construction-related emissions and operational emissions from individual development projects exceed the mass daily emissions thresholds for individual projects.⁹

The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

A project is also considered to result in a cumulatively considerable contribution to significant impacts if the population and employment projections for the project exceed the rate of growth defined in SCAQMD's AQMP.

IMPACT ANALYSIS

Construction

As noted previously, emissions of air pollutants were estimated for construction and operation of the Project using CalEEMod. Information needed to parameterize the Project in CalEEMod was obtained from the construction engineer and the Project architect. As mentioned previously, construction of the Project would begin in September 2021 and is expected to be completed by August 2023.

Table 8: Project Construction Schedule provides the dates and durations of each of the activities will take place during construction, as well as a brief description of the scope of work. Future dates represent approximations based on the general Project timeline and are subject to change pending unpredictable circumstances that may arise. As shown in **Table 8**, construction of the Project would be undertaken in the following sequence: (1) steel structure; (2) building dry-in including exterior framing and roofing; and (3) interior build out.

The additional three floors would be built up with a steel structure in order to minimize the impact to operation of the existing parking structure and any potential to neighboring properties. It will

9 SCAQMD, *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions*, board meeting, Agenda No. 29 (September 5, 2003), Appendix D, p. D-3.

approximately take one (1) month to prepare the anchor bolts for retrieval of the steel columns and another one (1) month to complete the erection of the steel and welding. A 100-ton mobile crane will be utilized for steel erections, which is contingent upon the size of the heaviest piece of steel structure.

After the completion of the steel structure, the fire proofing, concrete decking, exterior cladding, and roofing works will be followed in order to make dry-in of the building. A 25-ton mobile crane and the concrete truck will be staged on De Longpre for material hoisting and concrete decking work. This phase is anticipated to be completed in eight (8) months.

The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finishing work, as well as medical imaging equipment installation, which will last for approximately 14 months. 25 ton of mobile crane will be staged on the De Longpre for hoisting material and equipment until new two (2) elevators are available approximately 10 months after the beginning of the build-out phase.

An assessment of air pollutant emissions was prepared utilizing the construction schedule in **Table 8**. It was assumed that all heavy-duty diesel equipment engines would meet minimum Tier 3 standards in accordance with CARB fleet requirements. It was assumed that all construction activities have adhered or would adhere to SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings).

Table 8
Project Construction Schedule

Construction Activity	Start Date	End Date	Duration (Days)	Description
Steel Structure	9/1/2021	11/1/2021	44	Addition of steel structure to existing parking structure
Exterior Framing and Roofing	11/2/2021	7/5/2022	176	Fire proofing, concrete decking, exterior cladding, and roofing work
Build-Out	7/6/2022	9/8/2023	308	Mechanical, electrical, plumbing, elevator, and interior finishing work

Note: Refer to Attachment A.1 (Proposed Summer) and Attachment A.2 (Proposed Winter), Section 3.0: Construction Detail.

Maximum daily emissions of air pollutants during construction and operation of the Project were calculated using CalEEMod. **Table 9: Maximum Construction Emissions** identifies daily emissions that are estimated for peak construction days for each construction year. Based on the modeling, construction of the Project would not exceed regional VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} concentration thresholds. All criteria air pollutants have been or would be below SCAQMD construction thresholds. Construction of the Project has not generated and would not generate any significant environmental impacts associated with air quality compliance.

Operation

The results presented in **Table 10: Maximum Operational Emissions** are compared to the SCAQMD-established operational significance thresholds. Operational emissions will result primarily from passenger vehicles traveling to and from the Project site. As shown in **Table 10**, the operational emissions would not exceed the regional VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} concentration thresholds.

Table 9
Maximum Construction Emissions

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Unmitigated Year 2021	1	7	7	<1	1	<1
Unmitigated Year 2022	1	4	5	<1	1	<1
Unmitigated Year 2023	1	4	5	<1	1	<1
Unmitigated Maximum	1	7	7	<1	1	<1
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes:

CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to **Attachment A.1 (Proposed Summer)** and **Attachment A.2 (Proposed Winter)**, Sections 3.2 through 3.7, for maximum on-site plus off-site emissions during both the summer and winter seasons.

Table 10
Maximum Operational Emissions

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Area	2	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	4	19	50	<1	13	4
Total	6	19	50	<1	13	4
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.

CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to **Attachment A.1 (Proposed Summer)** and **Attachment A.2 (Proposed Winter)**, Section 2.2, for maximum operational emissions during both the summer and winter seasons.

Localized Significance Thresholds

The result of the LST analysis are provided in **Table 11: Localized Construction and Operational Emissions**. These estimates assume the maximum area that would be disturbed during construction on any given day

during Project buildout. Construction would comply with the SCAQMD’s Rule 403 (Fugitive Dust), which requires watering of the site during dust-generating construction activities, stabilizing disturbed areas with water or chemical stabilizers, and preventing track-out dust from construction vehicles. As shown in **Table 11**, emissions would not exceed the localized significance construction and operational thresholds.

Table 11
Localized Construction and Operational Emissions

Source	NOx	CO	PM10	PM2.5
	On-Site Emissions (pounds/day)			
Construction				
Total maximum emissions	5	4	<1	<1
LST threshold	74	680	5	3
Threshold Exceeded?	No	No	No	No
Operational				
Project area/energy emissions	<1	<1	<1	<1
LST threshold	74	680	2	1
Threshold Exceeded?	No	No	No	No

Notes:

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

*Refer to **Attachment A.1 (Proposed Summer)** and **Attachment A.2 (Proposed Winter)**, Sections 3.2 through 3.7, for maximum on-site emissions during both the summer and winter seasons.*

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Sensitive receptors are located adjacent to the Project, as shown in **Figure 2**. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in **Table 11**. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area.

Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or cleaning products. As a result, toxic or

carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance.

Odors

As shown in **Table 11**, the construction of the Project would result in emissions below the localized significance thresholds. Mandatory compliance with SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. According to the SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Project does not contain any active manufacturing activities and would not convert current agricultural land to residential or commercial land uses. Therefore, objectionable odors would not be emitted by the Project.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402. As previously noted, Rule 402 prohibits the discharge of air contaminants that harm, endanger, or annoy individuals or the public; endanger the comfort, health or safety of individuals or the public; or cause injury or damage to business or property. Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

Consistency with AQMP

The Basin is designated nonattainment at the federal and State level for ozone and PM_{2.5}. SCAQMD developed regional emissions thresholds, as shown in **Table 5** and **Table 7**, to determine whether a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin.

As shown in **Table 9**, temporary emissions associated with construction of the Project would fall below SCAQMD thresholds for VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

As shown in **Table 10**, long-term emissions associated with operation of the Project would not exceed SCAQMD thresholds for VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

The Project's maximum potential NO_x, CO, PM₁₀, and PM_{2.5} daily emissions during construction and operation were analyzed to determine potential effects on localized concentrations and to determine if

the potential exists for such emissions to cause or affect a violation of an applicable AAQS. As shown in **Table 11**, NO_x, CO, PM₁₀, and PM_{2.5} emissions would not exceed the SCAQMD localized significance thresholds.

The Project is also located in an urban area, which would reduce vehicle trips and vehicle miles traveled due to the Project's urban infill characteristic and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce air emissions.

Cumulative

Development of the Project in conjunction with the related projects near the Project would result in an increase in construction and operational emissions in an already urbanized area of the City. However, cumulative air quality impacts from construction, based on SCAQMD guidelines, are not analyzed in a manner similar to project-specific air quality impacts. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. According to the SCAQMD, individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily regional or localized thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

With the implementation of regulatory compliance measures such as Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coating), the Project's construction and operational emissions are not expected to significantly contribute to cumulative emissions for CO, NO_x, PM₁₀, and PM_{2.5}. As such, the Project's contribution to cumulative air quality emissions in combination with the related projects would not be cumulatively considerable.

As discussed previously, the Project would not jeopardize the attainment of air quality standards in the 2016 AQMP for the South Coast Air Basin and the Los Angeles County portion of the South Coast Air Basin. As such, the Project would not have a cumulatively considerable contribution to a potential conflict with or obstruction of the implementation of the AQMP regional reduction plans.

Attachment A

CalEEMod Air Quality Emission Output Files

Attachment A.1

Proposed Summer

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

Virgil Medical Office Building
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	102.78	1000sqft	1.02	102,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Project site is 1.02 acres.

Construction Phase - Schedule per applicant.

Off-road Equipment - Assumed one 25-ton mobile crane.

Off-road Equipment - Assumed one 25-ton mobile crane.

Off-road Equipment - Assumed one 100-ton mobile crane.

Trips and VMT - Maximum of 80 workers anticipated in the peak time.

Vehicle Trips - Weekday trip rates adjusted per traffic study. Weekend trip rates adjusted per CalEEMod default weekday/weekend ratios.

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emissions standards.

Area Mitigation - Compliant with SCAQMD Rule 1113 - Architectural Coating (<50gms/liter).

Energy Mitigation -

Water Mitigation -

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	200.00	44.00
tblConstructionPhase	NumDays	200.00	176.00
tblConstructionPhase	NumDays	200.00	308.00
tblLandUse	LotAcreage	2.36	1.02
tblOffRoadEquipment	HorsePower	231.00	375.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblVehicleTrips	ST_TR	8.96	5.71
tblVehicleTrips	SU_TR	1.55	0.99
tblVehicleTrips	WD_TR	36.13	23.04

2.0 Emissions Summary

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8195	6.8384	7.1756	0.0205	1.0031	0.2099	1.2129	0.2685	0.1932	0.4617	0.0000	2,057.9476	2,057.9476	0.2742	0.0000	2,064.8021
2022	0.5975	4.0849	5.1142	0.0156	1.0031	0.1327	1.1358	0.2685	0.1222	0.3907	0.0000	1,578.8664	1,578.8664	0.1274	0.0000	1,582.0511
2023	0.5487	3.4890	4.8233	0.0151	1.0031	0.1197	1.1228	0.2685	0.1102	0.3787	0.0000	1,532.1020	1,532.1020	0.1220	0.0000	1,535.1513
Maximum	0.8195	6.8384	7.1756	0.0205	1.0031	0.2099	1.2129	0.2685	0.1932	0.4617	0.0000	2,057.9476	2,057.9476	0.2742	0.0000	2,064.8021

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.5672	5.2236	7.3938	0.0205	1.0031	0.1372	1.1402	0.2685	0.1365	0.4050	0.0000	2,057.9476	2,057.9476	0.2742	0.0000	2,064.8021
2022	0.4296	2.9395	5.2262	0.0156	1.0031	0.0658	1.0689	0.2685	0.0651	0.3336	0.0000	1,578.8664	1,578.8664	0.1274	0.0000	1,582.0511
2023	0.3975	2.5405	4.9516	0.0151	1.0031	0.0640	1.0671	0.2685	0.0634	0.3319	0.0000	1,532.1020	1,532.1020	0.1220	0.0000	1,535.1513
Maximum	0.5672	5.2236	7.3938	0.0205	1.0031	0.1372	1.1402	0.2685	0.1365	0.4050	0.0000	2,057.9476	2,057.9476	0.2742	0.0000	2,064.8021

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	29.07	25.73	-2.68	0.00	0.00	42.24	5.63	0.00	37.73	13.04	0.00	0.00	0.00	0.00	0.00	0.00

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	4.0891	18.4817	50.0045	0.1678	13.0613	0.1394	13.2007	3.4956	0.1302	3.6257		17,067.0196	17,067.0196	0.9106		17,089.7845
Total	6.4177	18.7692	50.2564	0.1695	13.0613	0.1613	13.2226	3.4956	0.1520	3.6476		17,411.9059	17,411.9059	0.9173	6.3200e-003	17,436.7216

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	4.0891	18.4817	50.0045	0.1678	13.0613	0.1394	13.2007	3.4956	0.1302	3.6257		17,067.0196	17,067.0196	0.9106		17,089.7845
Total	6.2872	18.7692	50.2564	0.1695	13.0613	0.1613	13.2226	3.4956	0.1520	3.6476		17,411.9059	17,411.9059	0.9173	6.3200e-003	17,436.7216

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Steel Structure	Building Construction	9/1/2021	11/1/2021	5	44	
2	Exterior Framing and Roofing	Building Construction	11/2/2021	7/5/2022	5	176	
3	Build-Out	Building Construction	7/6/2022	9/8/2023	5	308	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Steel Structure	Cranes	1	6.00	375	0.29
Exterior Framing and Roofing	Cranes	1	6.00	130	0.29
Build-Out	Cranes	1	6.00	130	0.29

Trips and VMT

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Steel Structure	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Framing and Roofing	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Build-Out	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Steel Structure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4249	4.9521	3.5220	7.0200e-003		0.1993	0.1993		0.1833	0.1833		679.6347	679.6347	0.2198		685.1298
Total	0.4249	4.9521	3.5220	7.0200e-003		0.1993	0.1993		0.1833	0.1833		679.6347	679.6347	0.2198		685.1298

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.2 Steel Structure - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1726	3.3374	3.7401	7.0200e-003		0.1266	0.1266		0.1266	0.1266	0.0000	679.6347	679.6347	0.2198		685.1298
Total	0.1726	3.3374	3.7401	7.0200e-003		0.1266	0.1266		0.1266	0.1266	0.0000	679.6347	679.6347	0.2198		685.1298

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.2 Steel Structure - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

3.3 Exterior Framing and Roofing - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2486	2.5495	1.7536	2.4400e-003		0.1361	0.1361		0.1252	0.1252		236.6492	236.6492	0.0765		238.5626
Total	0.2486	2.5495	1.7536	2.4400e-003		0.1361	0.1361		0.1252	0.1252		236.6492	236.6492	0.0765		238.5626

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.3 Exterior Framing and Roofing - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6492	236.6492	0.0765		238.5626
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6492	236.6492	0.0765		238.5626

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.3 Exterior Framing and Roofing - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

3.3 Exterior Framing and Roofing - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842
Total	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.3 Exterior Framing and Roofing - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.3 Exterior Framing and Roofing - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

3.4 Build-Out - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842
Total	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

3.4 Build-Out - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2111	2.1054	1.7169	2.4400e-003		0.1115	0.1115		0.1026	0.1026		236.6737	236.6737	0.0766		238.5874
Total	0.2111	2.1054	1.7169	2.4400e-003		0.1115	0.1115		0.1026	0.1026		236.6737	236.6737	0.0766		238.5874

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1910	0.3687	4.1900e-003	0.1088	1.3800e-003	0.1102	0.0313	1.3100e-003	0.0327		448.6426	448.6426	0.0236		449.2315
Worker	0.3017	0.1926	2.7377	8.5000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		846.7856	846.7856	0.0219		847.3324
Total	0.3376	1.3836	3.1064	0.0127	1.0031	8.1800e-003	1.0112	0.2685	7.5700e-003	0.2761		1,295.4282	1,295.4282	0.0454		1,296.5640

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6737	236.6737	0.0766		238.5874
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6737	236.6737	0.0766		238.5874

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1910	0.3687	4.1900e-003	0.1088	1.3800e-003	0.1102	0.0313	1.3100e-003	0.0327		448.6426	448.6426	0.0236		449.2315
Worker	0.3017	0.1926	2.7377	8.5000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		846.7856	846.7856	0.0219		847.3324
Total	0.3376	1.3836	3.1064	0.0127	1.0031	8.1800e-003	1.0112	0.2685	7.5700e-003	0.2761		1,295.4282	1,295.4282	0.0454		1,296.5640

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0891	18.4817	50.0045	0.1678	13.0613	0.1394	13.2007	3.4956	0.1302	3.6257		17,067.01 96	17,067.01 96	0.9106		17,089.78 45
Unmitigated	4.0891	18.4817	50.0045	0.1678	13.0613	0.1394	13.2007	3.4956	0.1302	3.6257		17,067.01 96	17,067.01 96	0.9106		17,089.78 45

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	2,368.05	586.87	101.75	4,642,593	4,642,593
Total	2,368.05	586.87	101.75	4,642,593	4,642,593

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
NaturalGas Unmitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2931.34	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2.93134	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Unmitigated	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Virgil Medical Office Building - Los Angeles-South Coast County, Summer

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

Virgil Medical Office Building
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	102.78	1000sqft	1.02	102,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Project site is 1.02 acres.

Construction Phase - Schedule per applicant.

Off-road Equipment - Assumed one 25-ton mobile crane.

Off-road Equipment - Assumed one 25-ton mobile crane.

Off-road Equipment - Assumed one 100-ton mobile crane.

Trips and VMT - Maximum of 80 workers anticipated in the peak time.

Vehicle Trips - Weekday trip rates adjusted per traffic study. Weekend trip rates adjusted per CalEEMod default weekday/weekend ratios.

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emissions standards.

Area Mitigation - Compliant with SCAQMD Rule 1113 - Architectural Coating (<50gms/liter).

Energy Mitigation -

Water Mitigation -

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	200.00	44.00
tblConstructionPhase	NumDays	200.00	176.00
tblConstructionPhase	NumDays	200.00	308.00
tblLandUse	LotAcreage	2.36	1.02
tblOffRoadEquipment	HorsePower	231.00	375.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblVehicleTrips	ST_TR	8.96	5.71
tblVehicleTrips	SU_TR	1.55	0.99
tblVehicleTrips	WD_TR	36.13	23.04

2.0 Emissions Summary

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8606	6.8602	6.9453	0.0199	1.0031	0.2100	1.2130	0.2685	0.1933	0.4618	0.0000	1,991.9229	1,991.9229	0.2744	0.0000	1,998.7827
2022	0.6370	4.1034	4.8983	0.0150	1.0031	0.1328	1.1359	0.2685	0.1223	0.3908	0.0000	1,514.7756	1,514.7756	0.1276	0.0000	1,517.9667
2023	0.5864	3.5041	4.6125	0.0145	1.0031	0.1198	1.1228	0.2685	0.1103	0.3787	0.0000	1,470.5104	1,470.5104	0.1220	0.0000	1,473.5601
Maximum	0.8606	6.8602	6.9453	0.0199	1.0031	0.2100	1.2130	0.2685	0.1933	0.4618	0.0000	1,991.9229	1,991.9229	0.2744	0.0000	1,998.7827

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.6083	5.2454	7.1635	0.0199	1.0031	0.1373	1.1404	0.2685	0.1366	0.4051	0.0000	1,991.9229	1,991.9229	0.2744	0.0000	1,998.7827
2022	0.4690	2.9579	5.0104	0.0150	1.0031	0.0659	1.0690	0.2685	0.0652	0.3337	0.0000	1,514.7756	1,514.7756	0.1276	0.0000	1,517.9667
2023	0.4352	2.5556	4.7407	0.0145	1.0031	0.0641	1.0672	0.2685	0.0635	0.3320	0.0000	1,470.5104	1,470.5104	0.1220	0.0000	1,473.5601
Maximum	0.6083	5.2454	7.1635	0.0199	1.0031	0.1373	1.1404	0.2685	0.1366	0.4051	0.0000	1,991.9229	1,991.9229	0.2744	0.0000	1,998.7827

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	27.42	25.63	-2.79	0.00	0.00	42.21	5.62	0.00	37.70	13.04	0.00	0.00	0.00	0.00	0.00	0.00

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.9715	18.8670	47.9945	0.1595	13.0613	0.1403	13.2017	3.4956	0.1310	3.6266		16,228.9552	16,228.9552	0.9118		16,251.7499
Total	6.3002	19.1545	48.2464	0.1612	13.0613	0.1622	13.2235	3.4956	0.1529	3.6485		16,573.8414	16,573.8414	0.9185	6.3200e-003	16,598.6870

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.9715	18.8670	47.9945	0.1595	13.0613	0.1403	13.2017	3.4956	0.1310	3.6266		16,228.9552	16,228.9552	0.9118		16,251.7499
Total	6.1697	19.1545	48.2464	0.1612	13.0613	0.1622	13.2235	3.4956	0.1529	3.6485		16,573.8414	16,573.8414	0.9185	6.3200e-003	16,598.6870

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Steel Structure	Building Construction	9/1/2021	11/1/2021	5	44	
2	Exterior Framing and Roofing	Building Construction	11/2/2021	7/5/2022	5	176	
3	Build-Out	Building Construction	7/6/2022	9/8/2023	5	308	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Steel Structure	Cranes	1	6.00	375	0.29
Exterior Framing and Roofing	Cranes	1	6.00	130	0.29
Build-Out	Cranes	1	6.00	130	0.29

Trips and VMT

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Steel Structure	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Framing and Roofing	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Build-Out	1	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Steel Structure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4249	4.9521	3.5220	7.0200e-003		0.1993	0.1993		0.1833	0.1833		679.6347	679.6347	0.2198		685.1298
Total	0.4249	4.9521	3.5220	7.0200e-003		0.1993	0.1993		0.1833	0.1833		679.6347	679.6347	0.2198		685.1298

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.2 Steel Structure - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1726	3.3374	3.7401	7.0200e-003		0.1266	0.1266		0.1266	0.1266	0.0000	679.6347	679.6347	0.2198		685.1298
Total	0.1726	3.3374	3.7401	7.0200e-003		0.1266	0.1266		0.1266	0.1266	0.0000	679.6347	679.6347	0.2198		685.1298

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.2 Steel Structure - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

3.3 Exterior Framing and Roofing - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2486	2.5495	1.7536	2.4400e-003		0.1361	0.1361		0.1252	0.1252		236.6492	236.6492	0.0765		238.5626
Total	0.2486	2.5495	1.7536	2.4400e-003		0.1361	0.1361		0.1252	0.1252		236.6492	236.6492	0.0765		238.5626

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.3 Exterior Framing and Roofing - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6492	236.6492	0.0765		238.5626
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6492	236.6492	0.0765		238.5626

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.3 Exterior Framing and Roofing - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

3.3 Exterior Framing and Roofing - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842
Total	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.3 Exterior Framing and Roofing - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.3 Exterior Framing and Roofing - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

3.4 Build-Out - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842
Total	0.2278	2.3024	1.7331	2.4400e-003		0.1228	0.1228		0.1130	0.1130		236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6706	236.6706	0.0765		238.5842

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

3.4 Build-Out - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2111	2.1054	1.7169	2.4400e-003		0.1115	0.1115		0.1026	0.1026		236.6737	236.6737	0.0766		238.5874
Total	0.2111	2.1054	1.7169	2.4400e-003		0.1115	0.1115		0.1026	0.1026		236.6737	236.6737	0.0766		238.5874

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0378	1.1856	0.4015	4.0800e-003	0.1088	1.4500e-003	0.1103	0.0313	1.3800e-003	0.0327		436.4602	436.4602	0.0249		437.0833
Worker	0.3375	0.2131	2.4941	8.0000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		797.3765	797.3765	0.0205		797.8895
Total	0.3754	1.3987	2.8956	0.0121	1.0031	8.2500e-003	1.0113	0.2685	7.6400e-003	0.2761		1,233.8367	1,233.8367	0.0454		1,234.9727

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6737	236.6737	0.0766		238.5874
Total	0.0598	1.1570	1.8451	2.4400e-003		0.0559	0.0559		0.0559	0.0559	0.0000	236.6737	236.6737	0.0766		238.5874

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0378	1.1856	0.4015	4.0800e-003	0.1088	1.4500e-003	0.1103	0.0313	1.3800e-003	0.0327		436.4602	436.4602	0.0249		437.0833
Worker	0.3375	0.2131	2.4941	8.0000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		797.3765	797.3765	0.0205		797.8895
Total	0.3754	1.3987	2.8956	0.0121	1.0031	8.2500e-003	1.0113	0.2685	7.6400e-003	0.2761		1,233.8367	1,233.8367	0.0454		1,234.9727

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9715	18.8670	47.9945	0.1595	13.0613	0.1403	13.2017	3.4956	0.1310	3.6266		16,228.9552	16,228.9552	0.9118		16,251.7499
Unmitigated	3.9715	18.8670	47.9945	0.1595	13.0613	0.1403	13.2017	3.4956	0.1310	3.6266		16,228.9552	16,228.9552	0.9118		16,251.7499

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	2,368.05	586.87	101.75	4,642,593	4,642,593
Total	2,368.05	586.87	101.75	4,642,593	4,642,593

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
NaturalGas Unmitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2931.34	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2.93134	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Unmitigated	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Virgil Medical Office Building - Los Angeles-South Coast County, Winter

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B

Noise Study

Noise Study
for the
HPMC Building Project
1318 N. Lyman Place, Los Angeles, CA 90027

PREPARED FOR:

CHA Property Holdings LP
3731 Wilshire Blvd Suite 850
Los Angeles, CA 90010

PREPARED BY:

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361



Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

December 2020

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EXECUTIVE SUMMARY

This Noise Study assesses and discusses the potential noise and vibration impacts that may occur with the HPMC Building Project (Project), located in the City of Los Angeles (City), California. The analysis describes the existing environment in the Project area; estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project; and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. The study summarizes the potential for the Project to conflict with applicable noise and vibration regulations, standards, and thresholds. The findings of the analyses are as follows:

- Construction activities would potentially result in short-term and temporary noise impacts to nearby noise-sensitive receptors due to on-site construction equipment and activities. Implementation of noise-attenuation techniques and placement of the construction-staging area and earthmoving equipment away from noise-sensitive sites would lower construction noise levels.
- Construction of the Project would generate sporadic, temporary vibration effects adjacent to the Project area but would not be expected to exceed the significance thresholds.
- Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed recommended measures for each individual project and compliance with locally adopted and enforced noise ordinances. Given that construction activities would be required to comply with the City's allowable hours and would be temporary, construction-related noise would not be significant.
- Noise associated with cumulative operational sources would not be significant.
- Due to the rapid attenuation characteristics of ground-borne vibration and the distance of the cumulative projects to the Project site, no potential exists for cumulative construction- or operational-related impacts with respect to ground-borne vibration.

INTRODUCTION

The purpose of this Noise Study is to assess and discuss the impact of potential noise impacts that may occur with the HPMC Building Project, located in Los Angeles, California. The noise report analyzes short-term noise and ground-borne vibration impacts associated with the Project. The report also discusses the applicable federal, State, and local noise and vibration regulations; the applicable noise and vibration thresholds; the methodology used to analyze potential noise and vibration impacts; and the modeled roadway noise.

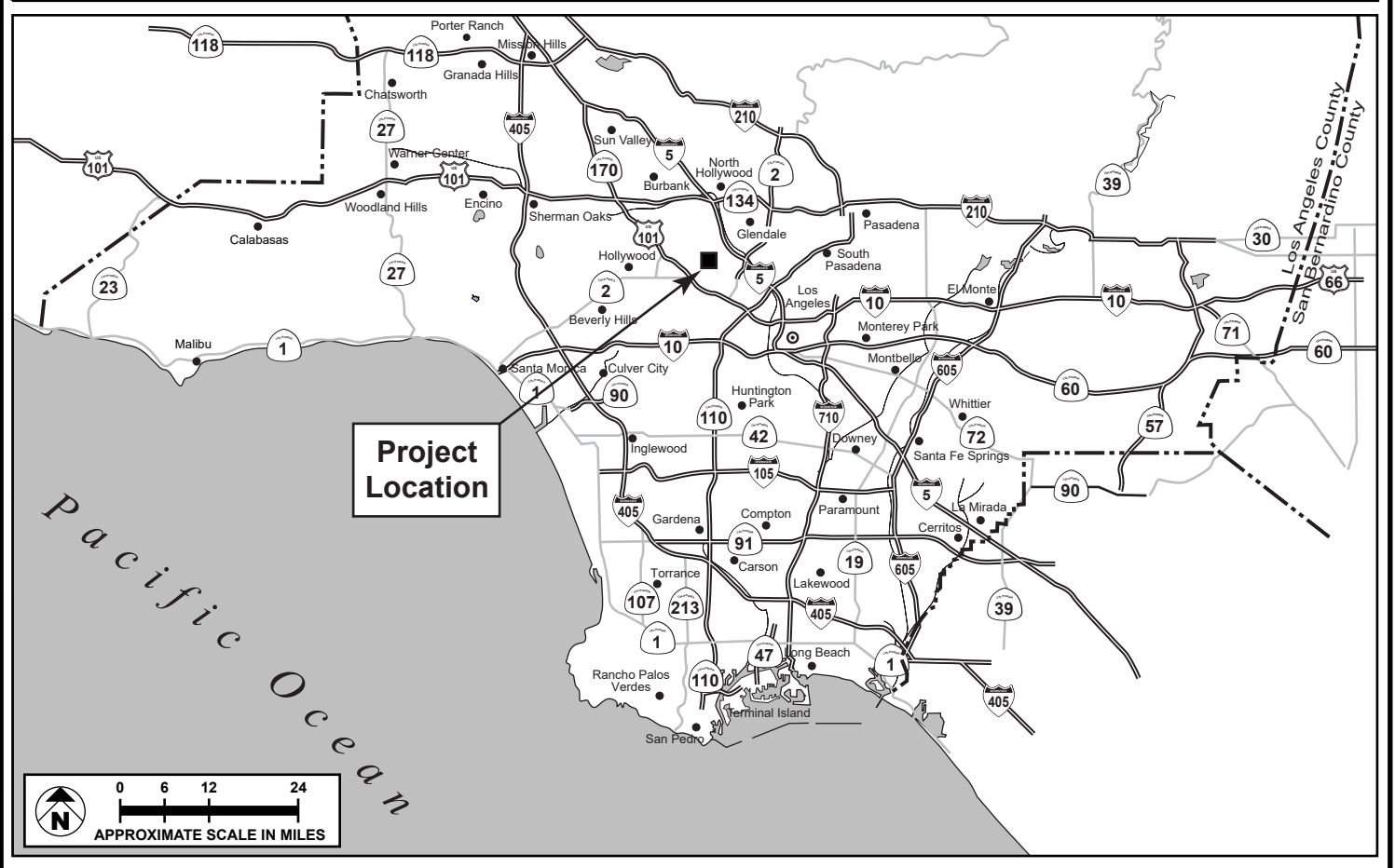
Project Description

An Initial Study/Mitigated Negative Declaration (IS/MND) was previously prepared and adopted by the City of Los Angeles which assessed the property located at 1318 N. Lyman Place (refer to **Figure 1: Regional and Local Vicinity Map**). The Project included demolition of two maintenance facilities, a single-family residence and a surface parking lot for construction of a parking structure containing 654 automobile parking spaces in 7 levels, consisting of 3 subterranean parking levels and 4 aboveground levels, with an additional level of parking on the roof deck (“Approved Project”). As built the parking structure contains 562 automobile parking spaces in 7 levels, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck. This Project (“Revised Project”) includes three levels of medical office space, containing approximately 95,995 square feet of floor space, on top of the parking structure. The Revised Project would increase the height of the building to approximately 94 feet above ground level. Construction of the Revised Project would begin in September 2021 and is expected to be completed by August 2023.

NOISE DESCRIPTORS

Fundamentals of Sound

Because the human ear does not respond uniformly to sounds at all frequencies, sound-pressure level alone is not a reliable indicator of loudness. For example, the human ear is less sensitive to low and high frequencies than to the medium frequencies that more closely correspond to human speech. In response to the sensitivity of the human ear to certain sound frequencies, the A-weighted noise level, referenced in units of dBA, was developed to better correspond with people’s subjective judgment of sound levels. To support assessing a community reaction to noise, scales have been developed that average sound-pressure levels over time and quantify the result in terms of a single numerical descriptor. Several scales have been developed that address community noise levels. The equivalent sound level (Leq) is the average A-weighted sound level measured over a given time interval. Leq can be measured over any period but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.



SOURCE: Google Earth - 2020; Meridian Consultants, LLC - 2020

FIGURE 1

Table 1: Noise Descriptors identifies various noise descriptors developed to measure sound levels over different periods of time.

Table 1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measure sound to a reference pressure.
A-weighted decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Hertz (Hz)	The frequency of the pressure vibration, which is measured in cycles per second.
Kilo hertz (kHz)	One thousand cycles per second.
Equivalent sound level (Leq)	The sound level containing the same total energy as a time varying signal over a given time period. The Leq is the value that expresses the time averaged total energy of a fluctuating sound level. Leq can be measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.
Community noise equivalent level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments add 5 dBA for the evening, 7:00 PM to 10:00 PM, and add 10 dBA for the night, 10:00 PM to 7:00 AM. The 5- and 10-dB penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour Leq measurements typically results in a CNEL measurement that is within approximately 3 dBA of the peak-hour Leq. ^a
Nighttime (Lnight)	Lnight is the average noise exposure during the hourly periods from 10:00 PM to 7:00 AM.
Sound pressure level	The sound pressure is the force of sound on a surface area perpendicular to the direction of the sound. The sound pressure level is expressed in dB.
Ambient noise	The level of noise that is all encompassing within a given environment, being usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient environment.

^a California Department of Transportation, Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol, (Sacramento, California: November 2009), pp. N51–N54.

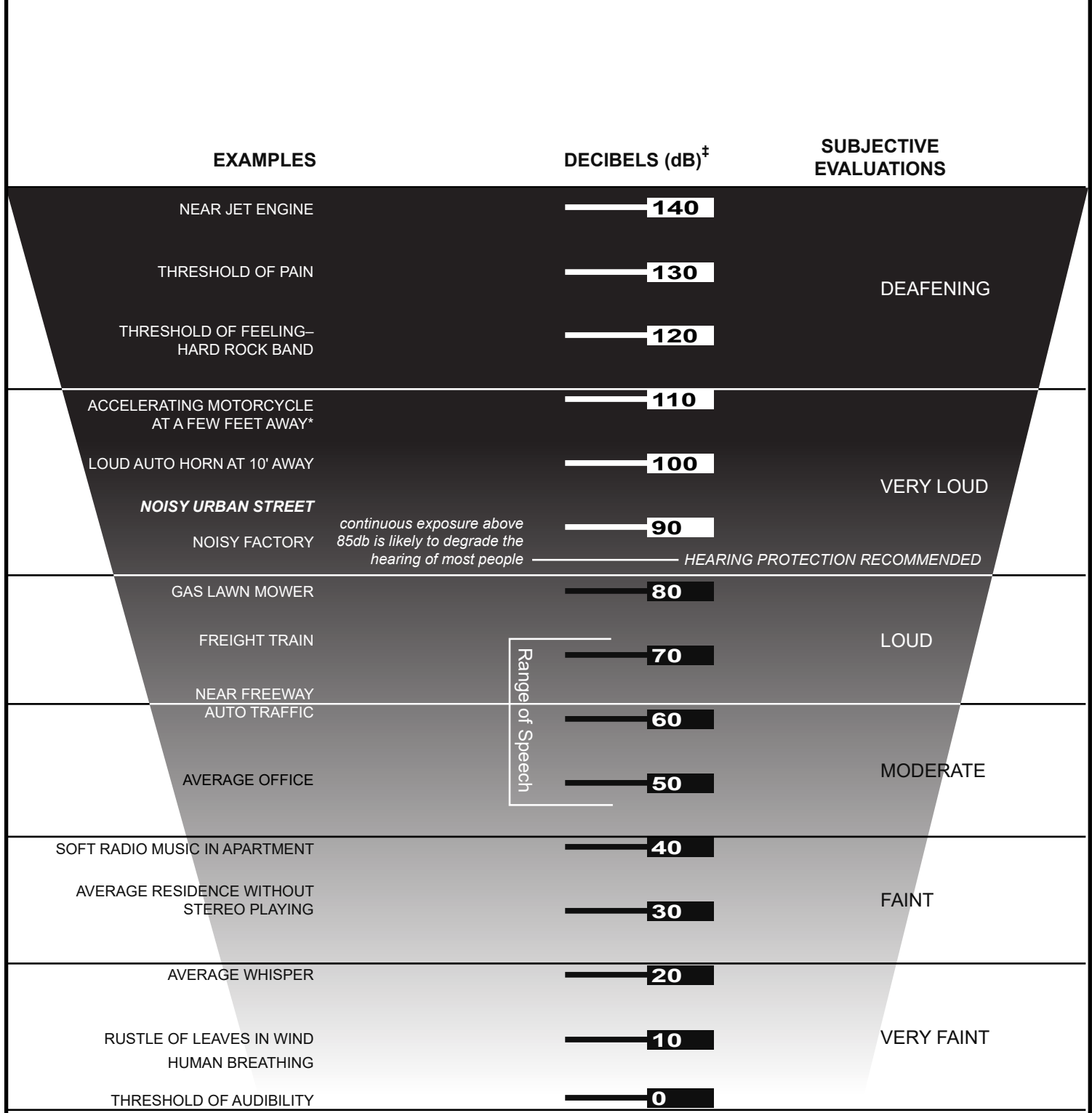
A doubling of sound energy results in a 3 dBA increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. In general, changes in a noise level of less than 3 dBA are not noticed by the human ear.¹ Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. An increase of greater than 5 dBA is readily noticeable, while the human ear perceives a 10 dBA increase in sound level to be a doubling of sound volume.

Noise sources can generally be categorized in two types: (1) point sources, such as stationary equipment; and (2) line sources, such as a roadway. Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically hard sites, and at a rate of 7.5 dBA at acoustically soft sites.² A hard, or reflective, site consists of asphalt, concrete, or very hard-packed soil, which does not provide any excess ground-effect attenuation. An acoustically soft or absorptive site is characteristic of normal earth and most ground with vegetation. As an example, a 60-dBA noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dBA at 100 feet from the source and 48 dBA at 200 feet from the source. Noise from the same point source at an acoustically soft site would be 52.5 dBA at 100 feet and 45 dBA at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for hard and soft sites, respectively.³ Noise levels generated by a variety of activities are shown in **Figure 2: Common Noise Levels**. Man-made or natural barriers can also attenuate sound levels, as illustrated in **Figure 3: Noise Attenuation by Barriers**.

Fundamentals of Vibration

Vibration is commonly defined as an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or root-mean-square (RMS) velocity is typically used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response to ground-borne vibration. The RMS vibration velocity level can be presented in inches per second (ips) or in VdB (a decibel unit referenced to 1 microinch per second). Commonly, ground-borne vibration generated by man-made activities (i.e., road traffic, construction) attenuates rapidly with distance from the source of the vibration.

-
- 1 US Department of Transportation, Federal Highway Administration (USDOT FHWA), *Fundamentals and Abatement of Highway Traffic Noise* (Springfield, VA: Author, September 1980), 81.
 - 2 USDOT FHWA, *Fundamentals and Abatement*, 97.
 - 3 USDOT FHWA, *Fundamentals and Abatement*, 97.

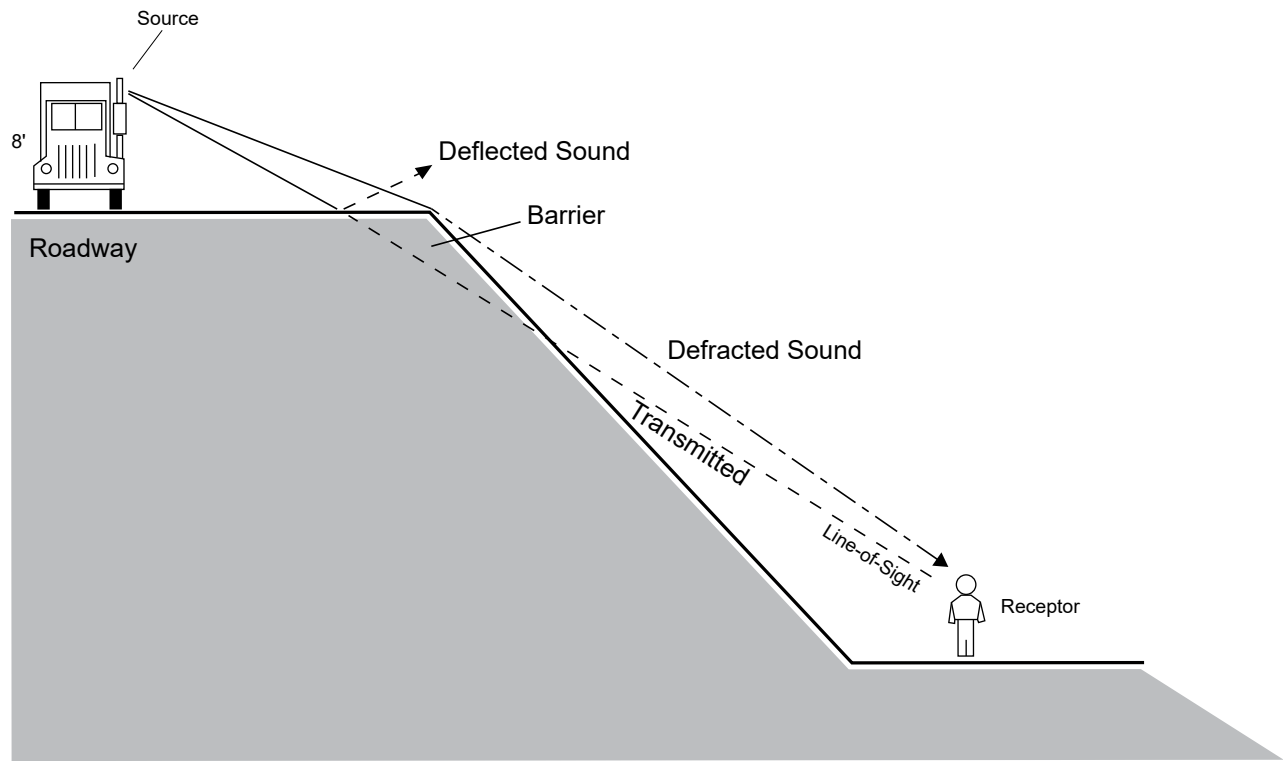


Range of Speech

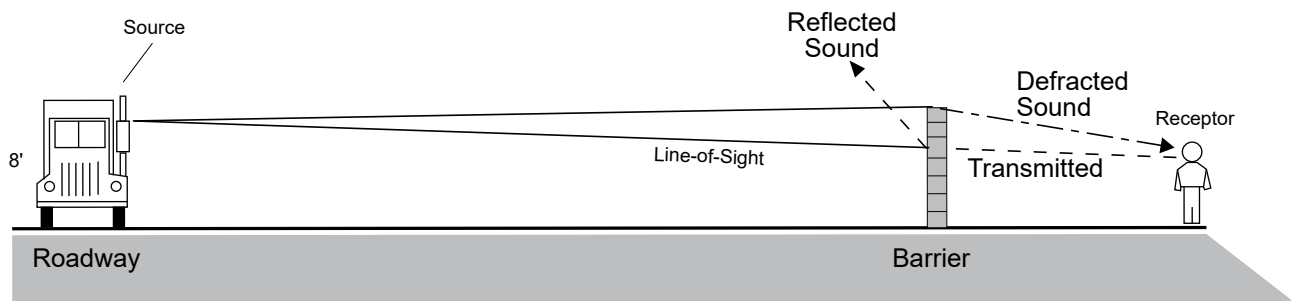
* NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.
[‡] NOTE: dB are "average" values as measured on the A-scale of a sound-level meter.

SOURCE: Meridian Consultants, LLC - 2019

FIGURE 2



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Meridian Consultants, LLC - 2019

FIGURE 3

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as the operation of mechanical equipment, the movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

SIGNIFICANCE THRESHOLDS

Construction Noise

Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) of the LAMC specifies the maximum noise level of powered equipment or powered hand tools. Any powered equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited. Operation Noise

Operational noise impacts are evaluated for Project-related off-site roadway traffic noise impacts and on-site stationary source noise from on-site activities and equipment.

- The Project would cause any ambient noise levels to increase by 5 dBA CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either “normally acceptable” or “conditionally acceptable” (see **Table 2: City of Los Angeles Land Use Compatibility for Community Noise** for description of these categories); or cause ambient noise levels to increase by 3 dBA CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either “normally acceptable” or “clearly unacceptable.”
- Project-related operational (i.e., nonroadway) noise sources such as outdoor activities, building mechanical/electrical equipment, etc., increase ambient noise level by 5 dBA, causing a violation of the City Noise Ordinance.

Table 2
City of Los Angeles Land Use Compatibility for Community Noise

Land Use	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Community Noise Exposure CNEL (dBA)			
Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	Above 70
Multi-Family Homes	50–65	60–70	70–75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	Above 80
Transient Lodging—Motels, Hotels	50–65	60–70	70–80	Above 80

Land Use	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Community Noise Exposure CNEL (dBA)			
Auditoriums, Concert Halls, Amphitheaters	—	50–70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50–75	—	Above 70
Playgrounds, Neighborhood Parks	50–70	—	67–75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	—	70–80	Above 80
Office Buildings, Business and Professional Commercial	50–70	67–77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	Above 75	—

Source: City of Los Angeles, City General Plan Noise Element.

Notes:

Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise-insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise-insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise-reduction requirements must be made and needed noise-insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Ground-Borne Vibration

The City has not adopted a significance threshold to assess vibration impacts during construction. Thus, the Caltrans *Transportation and Construction Vibration Guidance Manual*⁴ is used as a screening tool to assess the potential for adverse vibration effects related to structural damage.

- **Potential Building Damage.** Project construction activities cause ground-borne vibration levels to exceed 0.5 ips PPV at the nearest off-site residential buildings.

METHODOLOGY

Ambient Noise Measurements

Noise-level monitoring was conducted by Meridian Consultants on February 13, 2020, at four (4) locations within the Project area vicinity, as shown in **Figure 4: Noise Monitoring Locations**. Noise-level monitoring was conducted for 15-minute intervals at each location using a Larson Davis Model 831 sound-level meter. This meter satisfies the American National Standards Institute (ANSI) standard for general environmental noise measurement instrumentation. The ANSI specifies several types of sound-level meters according to their precision. Types 1, 2, and 3 are referred to as “precision,” “general-purpose,” and “survey” meters,

4 Caltrans, *Transportation and Construction Vibration Guidance Manual* (September 2013), accessed February 2020, <https://cityofdavis.org/home/showdocument?id=4521>.

respectively. Most measurements carefully taken with a Type 1 sound-level meter will have a margin of error not exceeding 1 dB.

The Larson Davis Model 831 is a Type 1 precision sound-level meter. This meter meets all requirements of ANSI S1.4-1983 and ANSI1.43-1997 Type 1 standards, as well as International Electrotechnical Commission (IEC) IEC61672-1 Ed. 1.0, IEC60651 Ed 1.2, and IEC60804 Type 1, Group X standards.

The sound-level meter was located approximately 5 feet above ground and was covered with a Larson Davis windscreen. The sound-level meter was field calibrated with an external calibrator prior to operation.

Construction Scenario

Project construction would begin in September 2021 and is expected to last until August 2023. Construction would be undertaken in the following sequence: (1) steel structure; (2) building dry-in including exterior framing and roofing; and (3) interior build out.

The additional three floors would be built up with a steel structure in order to minimize the impact to operation of the existing parking structure and any potential to neighboring properties. It will approximately take one (1) month to prepare the anchor bolts for retrieval of the steel columns and another one (1) month to complete the erection of the steel and welding. A 100-ton mobile crane will be utilized for steel erections, which is contingent upon the size of the heaviest piece of steel structure.

After the completion of the steel structure, the fire proofing, concrete decking, exterior cladding, and roofing works will be followed in order to make dry-in of the building. A 25-ton mobile crane and the concrete truck will be staged on De Longpre for material hoisting and concrete decking work. This phase is anticipated to be completed in eight (8) months.

The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finishing work, as well as medical imaging equipment installation, which will last for approximately 14 months. 25 ton of mobile crane will be staged on the De Longpre for hoisting material and equipment until new two (2) elevators are available approximately 10 months after the beginning of the build-out phase.

Ground-Borne Vibration

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, estimating the distance between vibration sources and surrounding structure locations and surrounding structure locations and vibration sensitive receptors, and making a significance determination based on the significance thresholds.

City of Los Angeles General Plan Noise Element

The City's General Plan Noise Element identifies sources of noise and provides objectives and policies to ensure that noise from various sources does not create an unacceptable noise environment. The following Noise Element policies and objectives are applicable to the Project:⁵

Objective 2 (Nonairport): reduce or eliminate nonairport related intrusive noise, especially relative to noise sensitive uses.

Policy 2.2: Enforce and/or implement applicable city, State and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.

Objective 3 (Land Use Development): reduce or eliminate noise impacts associated with proposed development of land and changes in land use.

Policy 3.1: Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

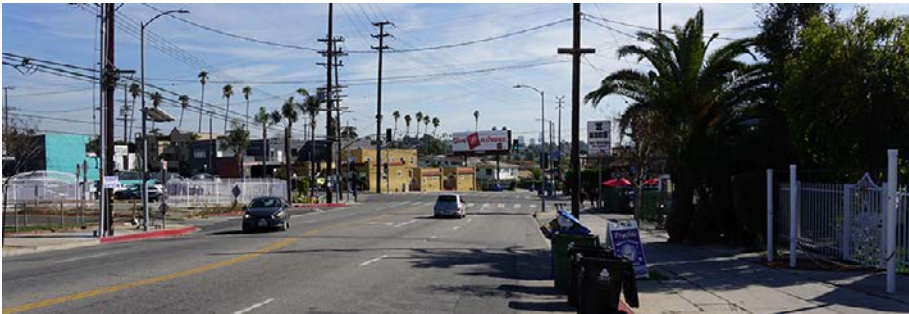
5 City of Los Angeles, *General Plan, "Noise Element"* (adopted February 3, 1999).



North



West



South



SOURCE: Google Earth - 2020

FIGURE 4a



North



West



South



East



SOURCE: Google Earth - 2020

FIGURE 4b



North



West



South



East



SOURCE: Google Earth - 2020

FIGURE 4c



North



South



SOURCE: Google Earth - 2020

FIGURE 4d

Guidelines for Noise-Compatible Land Uses

The City has adopted local guidelines based in part on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels.⁶ CNEL guidelines for specific land uses are classified into four categories: (1) normally acceptable; (2) conditionally acceptable; (3) normally unacceptable; and (4) clearly unacceptable. As shown in **Table 2** above, a CNEL value of 70 dBA is the upper limit of what is considered a conditionally acceptable noise environment for multifamily homes, although the upper limit of what is considered “normally acceptable” for these uses are 65 dBA CNEL. New development should generally be discouraged within the “normally unacceptable” or “clearly unacceptable” categories. However, if new development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

City of Los Angeles General Noise Ordinance

The Los Angeles Municipal Code (LAMC) indicates that in cases where the actual ambient conditions are not known, the City’s presumed daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) minimum ambient noise levels as defined in Section 111.02 of the LAMC should be used. The presumed ambient noise levels for these areas set forth in the LAMC Sections 111.02 and 112.05 are provided in **Table 3: City of Los Angeles Presumed Ambient Noise Levels.**

Table 3
City of Los Angeles Presumed Ambient Noise Levels

Zone	Daytime Hours (7:00 AM to 10:00 PM) dBA (Leq)	Nighttime Hours (10:00 PM to 7:00 AM) dBA (Leq)
Residential	50	40
Commercial	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

Source: Los Angeles Municipal Code, sec. 111.03.

Section 41.40 of the LAMC regulates noise from demolition and construction activities. More specifically, Section 41.40 prohibits construction activity and repair work where the use of any power tool, device, or equipment would disturb persons occupying sleeping quarters in any dwelling hotel, apartment, or other

⁶ City of Los Angeles, Noise Element of the Los Angeles City General (1999); Exhibit I.

place of residence between the hours of 9:00 PM to 7:00 AM Monday through Friday, and between 6:00 PM and 8:00 AM on Saturday. All such activities are prohibited on Sundays and all federal holidays.

Section 112.05 of the LAMC also specifies the maximum noise level of construction machinery that can be generated in any residential zone of the City or within 500 feet thereof. Specifically, any construction machinery may not generate a maximum noise level exceeding 75 dBA at 50 feet from the equipment. However, the above noise limitation does not apply where compliance is technically infeasible. LAMC Section 112.05 defines technical infeasibility to mean that “said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.”

EXISTING CONDITIONS

Ambient Noise Levels

Short-term (15-minute) noise monitoring was conducted at four (4) locations to measure the ambient sound environment in the Project vicinity as indicated in **Table 4: Ambient Noise Measurements**. **Figure 4** depicts locations where ambient noise measurements were conducted. As shown in **Table 4**, ambient noise levels ranged from a low of 59.7 dBA south of the Project site along Lyman Place (Site 4) to a high of 67.9 dBA at the northwest corner of the De Longpre Avenue and Lyman Place intersection (Site 3).

Table 4
Ambient Noise Measurements

Location Number/Description	Nearest Use	Time Period	Noise Source	dBA Leq
1 Southeast corner of the Project site along Virgil Avenue	Residential	2:17 PM–2:33 PM	Heavy traffic along Virgil Avenue	66.8
2 South of the Project site along Fountain Avenue	Residential/ Commercial	2:44 PM–2:59 PM	Heavy traffic along Fountain Avenue.	64.6
3 Northwest corner of the De Longpre Avenue and Lyman Place intersection.	Residential	3:17 PM–3:32 PM	Heavy construction noise, medium traffic along Lyman Place.	67.9
4 South of the Project site along Lyman Place	Residential	3:01 PM–3:16 PM	Light traffic along Lyman Place.	59.7

Source: Refer to **Attachment A** for noise monitoring data sheets.

Notes: dBA = A-weighted decibels; Leq = average equivalent sound level.

Measurements taken between 2:17 PM and 3:32 PM on February 13, 2020.

Vibration Conditions

Based on field observations, the primary source of existing ground-borne vibration in the vicinity of the Project site is vehicle traffic on local roadways. According to the Federal Transit Administration,⁷ typical road traffic–induced vibration levels are unlikely to be perceptible by people. Trucks and buses typically generate ground-borne vibration velocity levels of approximately 63 VdB (at a 50-foot distance), and these levels could reach 72 VdB when trucks and buses pass over bumps in the road. A vibration level of 72 VdB is above the 60 VdB level of perceptibility.

NOISE ANALYSIS

Construction

On-Site Construction Noise

Construction activities that would occur during the construction phases (steel structure, building dry-in including exterior framing and roofing, and interior build out) would generate noise due to the use of the 100 ton of mobile crane utilized for steel erections and 25 ton of mobile crane utilized for material hoisting and concrete decking work. The build-out phase consists of mechanical, electrical, plumbing, elevator, interior finish works as well as medical imaging equipment installation and would not generate noise at the exterior of the site. The Revised Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required.

As mentioned previously, sound generated by a construction noise source typically diminishes at a rate of 6 dBA over hard surfaces, such as asphalt, and 7.5 dBA over soft surfaces, such as vegetation, for each doubling of distance. Barriers—such as walls, berms, or buildings, and elevation differences—can also reduce sound levels by up to 20 dBA.⁸

The potential noise impact generated during construction depends on the phase of construction and the percentage of time the equipment operates over the workday. The noise levels at the sensitive receptors from construction activity are shown in **Table 5: Construction Maximum Noise Estimates**. It is important to note, one lane of De Longpre Avenue would be closed for the entire construction period for equipment hoisting from a crane. As such, construction noise levels are estimated from De Longpre Avenue where the crane would be operating. As shown, construction noise levels would result in a maximum increase at

7 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, FTA report no. 0123 (September 2018), accessed February 2020, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

8 Caltrans, *Technical Noise Supplement* (1998), 33–40, 123–131.

the nearest residential uses of less than 6 dBA above ambient and would not exceed 75dBA the significance threshold without implementation of regulatory compliance measures.

Table 5
Construction Maximum Noise Estimates

Nearest Off-Site Building Structures	Distance from Project Site (feet)	Max Leq	Ambient Noise Leq (dBA)
Residential to the south across Fountain Avenue	385	54.9	64.8
Hospital to the west across Lyman Place	115	65.4	67.9
Adjacent residential to the south along Lyman Place	110	65.7	59.8
Residential to the east across Virgil Avenue	80	68.5	66.8

Pursuant to Section 41.40 of the LAMC, construction would be limited to the hours between 7:00 AM and 9:00 PM, Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. No construction activities would occur on Sundays or federal holidays. All construction related noise would be required to comply with the provisions of Section 112.05 of the LAMC. Pursuant to Section 112.05, the operation of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from the source of the noise between the hours of 7:00 AM to 9:00 PM when the source is located within 500 feet of a residential zone. Compliance with Section 112.05 of the LAMC includes the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques. Other noise reduction techniques include a construction management plan which specifies that all construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices; identify the maximum distance between construction equipment staging areas and occupied residential areas; and require the use of electric air compressors and similar power tools. Optimal muffler systems for all equipment and the break in line of sight to a sensitive receptor would reduce construction noise levels by approximately 10 dB or more.⁹ Temporary abatement techniques include the use of temporary and/or movable shielding for both specific and nonspecific operations. An example of such a barrier utilizes noise curtains in conjunction with trailers

⁹ FHWA, *Special Report—Measurement, Prediction, and Mitigation*, updated June 2017, accessed February 2020, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm.

to create an easily movable, temporary noise barrier system. A noise barrier can achieve a 5 dB noise level reduction when it is tall enough to break the line-of-sight to the receiver. After it breaks the line-of-sight, it can achieve approximately 1.5 dB of additional noise level reduction for each one (1) meter (3.3 feet) of barrier height.¹⁰ Therefore, an approximately 15-foot tall construction noise barrier would reduce construction noise levels by a minimum 7 dB. Compliance with Section 112.05, construction noise levels would be reduced by a minimum of 10 dB, dependent on the construction activity and height of the temporary noise barrier used.

A sign, legible at a distance of 50 feet, will be posted at the project construction site providing a contact name and a telephone number where residents can inquire about the construction process and register complaints. This sign will indicate the dates and duration of construction activities. In conjunction with this required posting, a noise disturbance coordinator will be identified to address construction noise concerns received. The contact name and the telephone number for the noise disturbance coordinator will be posted on the sign. The coordinator will be responsible for responding to any local complaints about construction noise and will notify the City to determine the cause and implement reasonable measures to the complaint, as deemed acceptable by the City. The Revised Project would comply with the City's Noise Ordinance as it relates to construction equipment by limiting activities to occur between 7:00 AM to 7:00 PM. Compliance with the City's Noise Ordinance would ensure construction noise levels would be reduced to the extent feasible; thus construction noise levels would not be considered significant.

Off-Site Construction Noise

Construction of the Revised Project would require approximately 80 worker trips per day and 17 vendor truck trips per day to and from the site to deliver supplies. Noise associated with construction worker trips were estimated using the Caltrans FHWA Traffic Noise Model based on the maximum number of trips in a day. Project worker and vendor trips, which includes medium- and heavy-duty trucks would generate noise levels of approximately 47.2 dBA to 54.1 dBA, respectively, measured at a distance of 25 feet along Virgil Avenue, Fountain Avenue, and Lyman Place. As shown in **Table 4**, existing noise levels at the Project site ranged from 59.8 dBA to 67.9. dBA. The noise level increases from truck trips would be below the significance threshold of 5 dBA.

Construction Vibration

As mentioned previously, the Revised Project would utilize a 100-ton mobile crane for steel frame construction and a 25-ton mobile crane for material hoisting and concrete decking work. The build-out phase consists of mechanical, electrical, plumbing, elevator, interior finishing work, as well as medical

10 FHWA, *Special Report – Measurement, Prediction, and Mitigation*, updated June 2017, accessed February 2020, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm

imaging equipment installation, and would not generate any construction vibration. Furthermore, the Revised Project includes the construction of medical office uses above an existing parking structure and would not require vibration inducing equipment such as pile driving, rollers, bulldozers, caisson drills, loaded trucks, or jackhammers. As such, vibration levels would not exceed the significance threshold of 0.5 PPV ips.

Operation

Fixed Mechanical Equipment Noise

The Revised Project would introduce various stationary noise sources, including heating, ventilation, and air conditioning systems, which would be located either on the roof, the side of a structure, or on the ground. All Project mechanical equipment would be required to be designed with appropriate noise-control devices, such as sound attenuators, acoustics louvers, or sound screens/parapet walls, to comply with noise-limitation requirements provided in LAMC Section 112.02, which prohibits the noise from such equipment from causing an increase in the ambient noise level of more than 5 dB. Therefore, operation of mechanical equipment on the Project building would not exceed the City's threshold of significance.

CUMULATIVE NOISE

For purposes of this analysis, development of the related projects will be considered to contribute to cumulative noise impacts. Noise, by definition, is a localized phenomenon and drastically reduces as distance from the source increases. As a result, only related projects and growth in the general area of the Project site would contribute to cumulative noise impacts. Cumulative construction-noise impacts have the potential to occur when multiple construction projects in the local area generate noise within the same time frame and contribute to the local ambient noise environment. It is expected that, as with the Revised Project, the related projects would implement best management practices, which would minimize any noise-related nuisances during construction. Therefore, the combined construction-noise impacts of the related projects and the Revised Project's contribution would not cause a significant cumulative impact.

With regard to stationary sources, cumulative significant noise impacts may result from cumulative development. Stationary sources of noise that could be introduced in the area by cumulative projects could include mechanical equipment, loading docks, and parking lots. Given that these projects would be required to adhere to the City's noise standards, all stationary sources would be required to have shielding or other noise-abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple cumulative projects would interact to create a significant combined noise impact. As such, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur.

DRAFT

**TRANSPORTATION ASSESSMENT
FOR THE
HOLLYWOOD PRESBYTERIAN MEDICAL CENTER
BUILDING PROJECT**

LOS ANGELES, CALIFORNIA

APRIL 2020

PREPARED FOR

CHA PROPERTY HOLDINGS, LP

PREPARED BY



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April 2020

Prepared for:

CHA PROPERTY HOLDINGS, LP

Prepared by:

GIBSON TRANSPORTATION CONSULTING, INC.

555 W. 5th Street, Suite 3375
Los Angeles, California 90013
(213) 683-0088

Ref: J1284b

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Chapter 1

Introduction

This study presents the Transportation Assessment for the Hollywood Presbyterian Medical Center (HPMC) Building Project (Project) proposed at 1318 North Lyman Place (Project Site) in the East Hollywood community of the City of Los Angeles (City). The methodology and base assumptions used in the analysis were established by the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

The Project proposes the construction of approximately 95,995 square feet (sf) (102,780 gross sf) of medical office and clinic uses on top of an existing parking structure on the HPMC campus. Pedestrian access to the Project would be provided along on Lyman Place. Parking for the Project would be provided in the existing parking structure, which was completed in 2018. Access to the parking garage is provided on Lyman Place and Virgil Avenue. The Project will provide a reduced parking supply to account for proximity to transit and will charge at least 50% of employees a minimum of \$1.00 per day for parking.

The Project is anticipated to be completed in Year 2023. The conceptual Project Site plan is illustrated in Figure 1.

PROJECT LOCATION AND TRANSPORTATION ANALYSIS STUDY AREA

The Project Site is located within City Council District 13 and consists of five conjoined lots identified as Assessor Parcel Numbers 5542-012-028, 5542-012-029, 5542-012-034, 5542-012-035, and 5542-012-036. The Project is bounded by De Longpre Avenue to the north, Virgil Avenue to the east, adjacent residential development to the south, and Lyman Place to the west. The Project Site is currently occupied by a parking garage for HPMC.

As shown in Figure 2, the transportation analysis Study Area includes a geographic area generally bounded by Hollywood Boulevard to the north, Virgil Avenue to the east, Fountain Avenue to the south, and Vermont Avenue to the west.

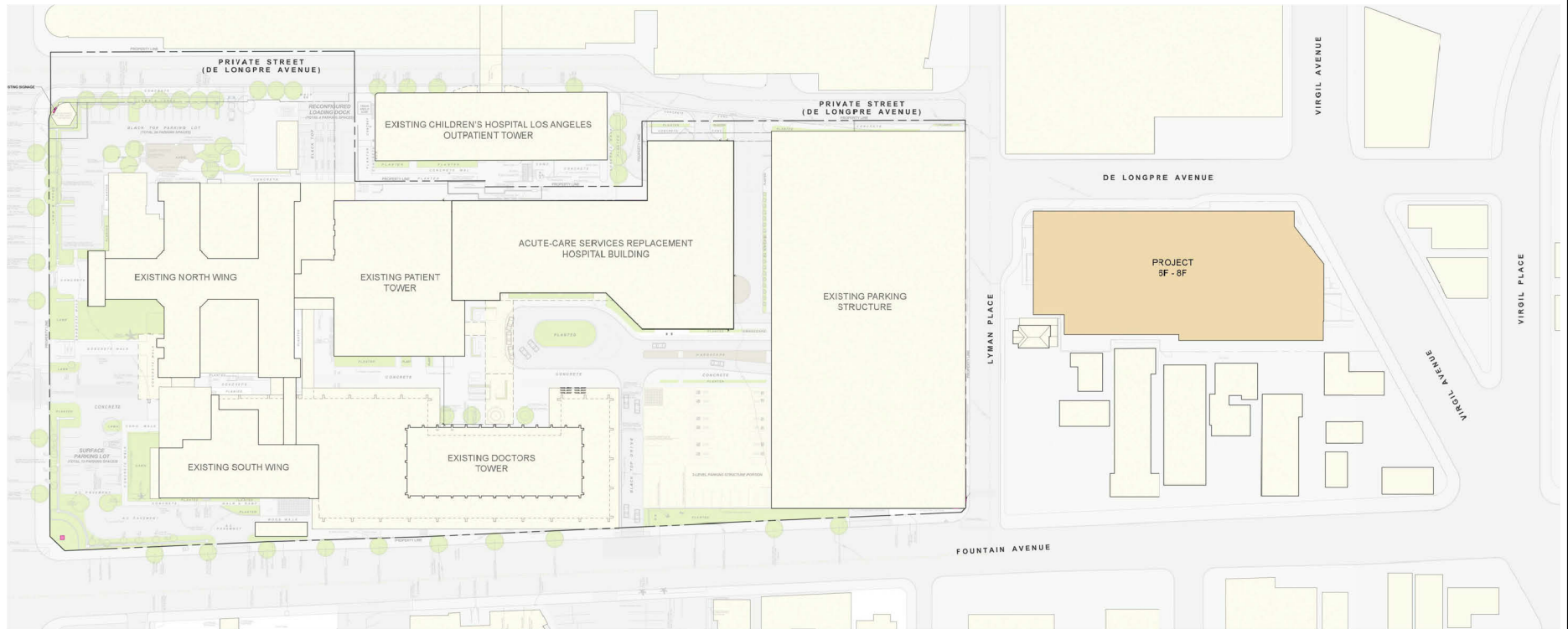
The Project is located approximately 1.3 miles east of US 101 and 0.25 miles southeast of the Los Angeles County Metropolitan Transportation Authority (Metro) B Line (Red Line) Vermont/Sunset Station. The Project is served by multiple bus lines along Hollywood Boulevard operated by Metro and LADOT Downtown Area Shuttle (DASH).

STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, July 2019) (TAG) and in compliance with California Environmental Quality Act (CEQA) guidelines. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) that was reviewed and approved by LADOT in January 2020. The MOU is provided in Appendix A.

ORGANIZATION OF REPORT

This report is divided into five chapters, including this Introduction. Chapter 2 describes the Project context including the existing and future circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 presents the CEQA analysis of transportation impacts. Chapter 4 details the non-CEQA transportation analyses. Chapter 5 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.

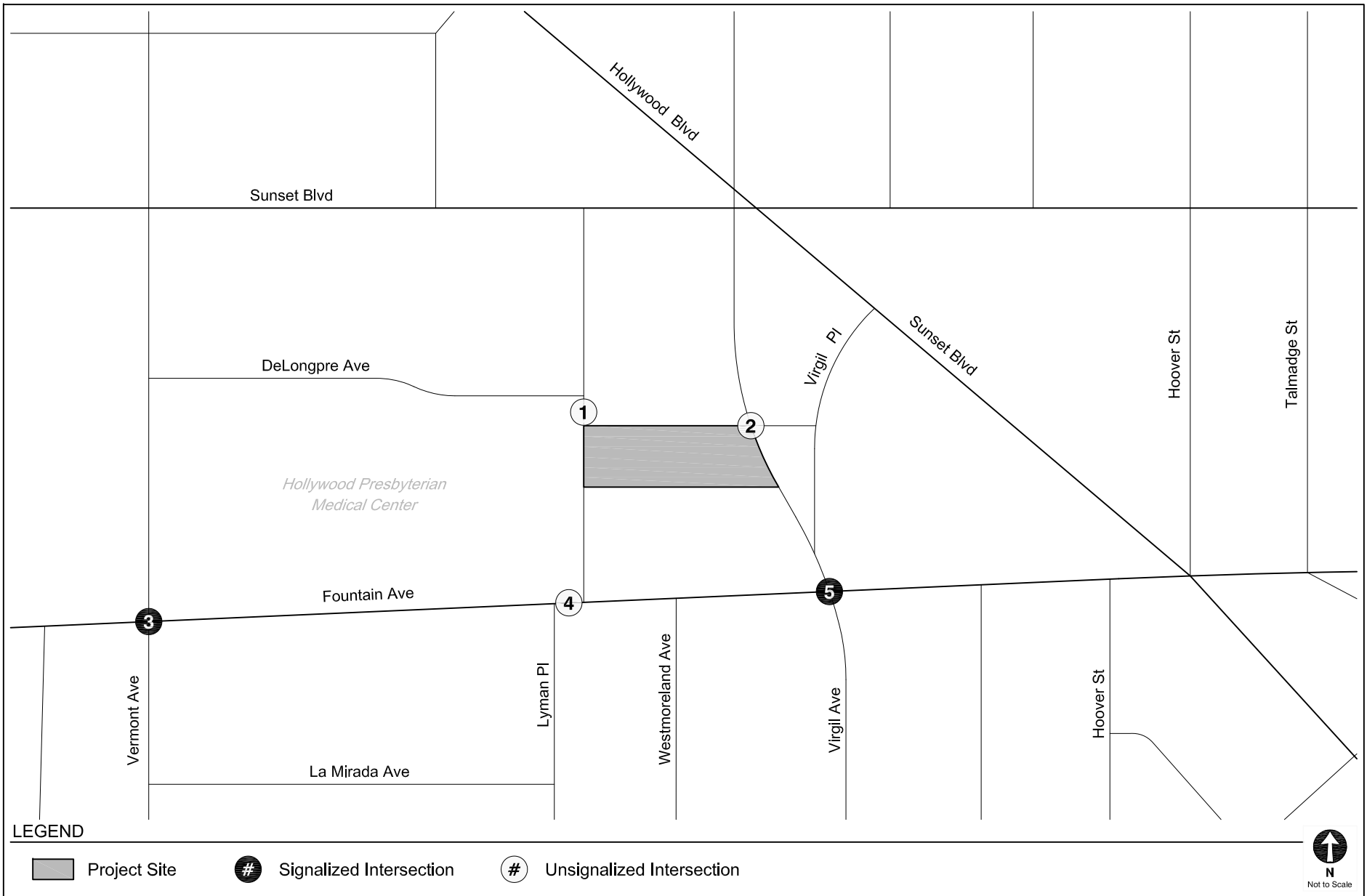


Source: KMD Architects. February, 2020.



PROJECT SITE PLAN

FIGURE
1



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 2

Chapter 2

Project Context

A comprehensive data collection effort was undertaken to develop a detailed description of existing and future conditions in the Project Study Area.

The Existing Conditions analysis includes an assessment of the existing transportation infrastructure and conditions of the Study Area including freeway and street systems, transit service, and pedestrian and bicycle circulation at the time the MOU was approved in January 2020. Fieldwork (lane configurations, signal phasing, parking restrictions, etc.) for the analyzed intersections was collected in Year 2019. Traffic count worksheets are provided in Appendix B and level of service (LOS) and delay worksheets are provided in Appendix C.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project conditions in Year 2023, which corresponds to projected occupancy of the Project.

STUDY AREA

As noted, the Study Area includes a geographic area generally bounded by Hollywood Boulevard to the north, Hoover Street to the east, Fountain Avenue to the south, and Vermont Avenue to the west. This Study Area was established in consultation with LADOT based on the following factors identified in the TAG:

1. Primary driveway(s)
2. Intersections at either end of the block on which the Project is located or up to 600 feet from the primary Project driveway(s)
3. Unsignalized intersections adjacent to the Project Site that are integral to the Project's site access and circulation plan

-
4. Signalized intersections in proximity to the Project Site where 100 or more Project trips would be added

As listed in Table 1, a total of five intersections, three signalized and two unsignalized, were identified for detailed analysis during the MOU process. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and the five study intersections. The existing lane configurations at the analyzed intersections are provided in Figure 3.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including Arterials and Local Streets that provide regional, sub-regional, or local access and circulation within the Study Area. These transportation facilities generally provide two to four travel lanes and usually allow parking on one or both sides of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and 55 mph on the freeways surrounding Hollywood.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning [LADCP], September 2016) (the Mobility Plan). The Mobility Plan has revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Street classifications are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
 - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:
 - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph

-
- Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph
 - Avenues pass through both residential and commercial areas and include three categories:
 - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph
 - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph
 - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph
 - Collector Streets are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
 - Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local Streets include two categories:
 - Continuous Local Streets connect to other streets at both ends
 - Non-continuous Local Streets lead to a dead-end

Primary regional access to the Project Site is provided by US 101. In proximity to the Project Site, the Study Area is served by Avenues such as Sunset Boulevard and Virgil Avenue. The following is a brief description of the roadways in the Study Area, including their classifications under the Mobility Plan:

Freeways

- US 101 – US 101 generally runs in the northwest-southeast direction and is located 1.30 miles west of the Project Site. In the vicinity of the Project Site, US 101 provides eight travel lanes, four in each direction. Access to and from US 101 is available via interchanges at Cahuenga Boulevard, Vine Street, Argyle Avenue, and Gower Street.

Roadways

- Sunset Boulevard – Sunset Boulevard is a designated Avenue I in the Mobility Plan. It travels in the east-west direction and is located north of the Project Site. It provides four

travel lanes, two in each direction. One hour metered parking is generally provided from 8:00 AM to 8:00 PM on both sides of the street within the Study Area. Inside lane widths are generally 10 feet and the total paved width is generally 70 feet.

- De Longpre Avenue – De Longpre Avenue is a designated Local Street in the Mobility Plan. It travels in the east-west direction and is located adjacent to the northern boundary of the Project Site. It provides two unmarked lanes, one in each direction. Unmetered parking is generally provided on both sides of the street, with overnight parking restrictions between 2:00 AM and 6:00 AM within the Study Area. The total paved width is generally 30 feet.
- Fountain Avenue – Fountain Avenue is a designated Avenue III in the Mobility Plan. It travels in the east-west direction and is located south of the Project Site. It provides three lanes, one in each direction and one two-way left-turn lane. Two-hour metered parking is generally provided from 8:00 AM to 8:00 PM on both sides of the street within the Study Area. Inside lane widths are generally 10 feet and the total paved width of the street is generally 48 feet.
- Vermont Avenue – Vermont Avenue is a designated Avenue I in the Mobility Plan. It travels in the north-south direction and is located west of the Project Site. It provides four travel lanes, two in each direction, during off peak periods and six lanes, three in each direction, during the afternoon peak hour, 4:00 PM to 7:00 PM. Two-hour metered parking is generally provided from 8:00 AM to 4:00 PM on both sides of the street within the Study Area. Inside lane widths are generally 10 feet and the total paved width of the street is generally 70 feet.
- Lyman Place – Lyman Place is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located adjacent to the western boundary of the Project Site. It provides two unmarked travel lanes, one in each direction. Unmetered street parking is generally provided on the east side of the street within the Study Area. The total paved width of the street is generally 30 feet.
- Virgil Avenue – Virgil Avenue is a designated Modified Avenue II in the Mobility Plan. It travels in the north-south direction and is located east of the Project Site. It provides four travel lanes, two in each direction. Unmetered street parking is generally provided on both sides of the street within the Study Area. Inside lane widths are generally 10 feet and the total paved width of the street is generally 56 feet.
- Virgil Place – Virgil Place is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located east of the Project Site. It provides two unmarked travel lanes, one in each direction. Unmetered street parking is generally provided on both sides of the street within the Study Area. The total paved width of the street is generally 40 feet.
- Hoover Street – Hoover Street is a designated Local Street in the Mobility Plan. It travels in the north-south direction and is located east of the Project Site. It provides two unmarked travel lanes, one in each direction. Unmetered street parking is generally provided on both sides of the street within the Study Area. The total paved width of the street is generally 30 feet.

The existing lane configurations at the study intersections are provided in Figure 3. The existing intersection mobility facilities are shown in Figure 4 and the transportation facilities are shown in Figure 5.

Existing Transit System

The Study Area is served by bus lines operated by Metro and DASH. In addition to the bus lines that provide service within the Project Site vicinity, the Metro B (Red) Line operates northwest of the Project Site. The Metro B (Red) Line runs between North Hollywood and downtown Los Angeles, connecting with the Metro G (Orange) Line in North Hollywood, the Metro D (Purple) Line at Wilshire Boulevard, the Metro A (Blue) Line and Metro E (Expo) Line in downtown Los Angeles, and the Metro L (Gold) Line at Union Station. The Metro B (Red) Line provides a stop at the Vermont / Sunset Station, approximately 0.25 miles northwest of the Project Site.

Figure 6 illustrates the existing transit service in the Study Area. Table 2 summarizes the various transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average headways during the peak hour were estimated using detailed trip and ridership data from April 2019 provided by Metro, as well as schedule information from each respective transit provider.

Tables 3A and 3B summarize the total capacity of the Metro and DASH transit system during the morning and afternoon peak hours based on the frequency of service of each line and the maximum seated and standing capacity of each bus or train. As shown in Tables 3A and 3B, the transit lines within 0.25 miles walking distance of the Project Site currently provide additional capacity for 7,618 transit trips during the morning peak hour and 6,726 transit trips during the afternoon peak hour. No data was available for DASH services. Bus lines with stop locations located more than 0.25 miles from the Project Site were not included.

Existing Bicycle System

Based on the Mobility Plan and *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (LADCP, 2010) (2010 Bicycle Plan), the existing bicycle system in the

Study Area is limited. The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan.

The Mobility Plan consists of a Low-Stress Bikeway System and a Bicycle Lane Network. The Low-Stress Bikeway System is comprised of the Bicycle Enhanced Network, the Neighborhood Enhanced Network, and Bike Paths. The Bicycle Enhanced Network includes protected bicycle lanes (Class IV), which provide bicycling infrastructure including cycle tracks, bicycle signals, and demarcated areas to facilitate turns at intersections and neighborhood streets. These typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. Once implemented, these facilities would offer a safer environment for both cyclists and motorists.

Currently, bicycle lanes are provided on Sunset Boulevard south of Fountain Avenue and bicycle routes with shared lane markings, or “sharrows”, are provided on Fountain Avenue west of Vermont Avenue within the Study Area.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by Walk Score and assigned a score out of 100 points. With the various commercial businesses and cultural centers adjacent to the residential neighborhoods of the Study Area, the walkability of the Study Area is approximately 96 points¹.

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at intersections within the Study Area. At signalized intersections, pedestrian phases, continental crosswalk striping, and Americans with Disabilities Act (ADA) wheelchair ramps are provided, as shown in Figure 4. Adjacent to the Project Site, the unsignalized

¹ Walk Score (www.walkscore.com) rates the Project Site (4480 DeLongpre Avenue) with a score of 96 of 100 possible points (scores assessed on February 12, 2020 for the Hollywood neighborhood). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

intersections of Lyman Place & De Longpre Avenue, Virgil Avenue & De Longpre Avenue, and Lyman Place & Fountain Avenue also provide ADA wheelchair ramps. A continental crosswalk is provided across Fountain Avenue at its intersection with Lyman Place.

Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments would have the biggest impact in reducing death and severe injury. Within the Study Area, Hollywood Boulevard, Sunset Boulevard, Fountain Avenue, and Vermont Avenue are identified in the High Injury Network.

Existing Traffic Volumes

Intersection turning movement counts for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods were collected in December 2018 and November 2019 while schools were in session. The existing intersection peak hour traffic volumes are illustrated in Figure 7.

FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

Although the evaluation of a project's impact on the transportation system in Los Angeles is now measured by vehicle miles traveled (VMT), LADOT still wants to evaluate the operational effects of each project on the street system. To accomplish this non-CEQA evaluation, the forecast of Future without Project traffic conditions is necessary. The forecast of Future without Project conditions was prepared in accordance with procedures outlined in the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 and following). Specifically, two options are available for developing the cumulative traffic volume forecast:

“(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or

“(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.”

As described in detail below, this analysis includes traffic growth both from future projects (option “A” above, the “Related Projects”) and from regional growth projections (option “B” above, or ambient growth). The ambient growth factor discussed below likely includes some traffic growth resulting from the Related Projects. Therefore, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

The Future without Project traffic projections reflect growth in traffic over existing conditions from ambient growth, which reflects increases in traffic due to regional growth and development outside the Study Area and traffic generated by ongoing or entitled projects in, or in the vicinity of, the Study Area.

Ambient Traffic Growth

Traffic levels are expected to increase over time as a result of regional growth and development in and around the Study Area. Based on discussions with LADOT through the MOU process, an ambient growth factor of 1% per year compounded annually was applied to remain conservative by adjusting the existing traffic volumes to reflect the effects of the regional growth and development by Year 2023. The total adjustment applied over the four-year period was 4.06%. These growth factors account for increases in traffic due to potential projects not yet proposed or projects outside the Study Area.

Related Projects

This Study also considered the effects of the Project in relation to other developments either proposed, approved, or under construction (collectively, the Related Projects). With this information, the potential impact of the Project was, therefore, evaluated within the context of the cumulative impact of past, present, and probable future developments capable of producing related or cumulative impacts.

The list of Related Projects is based on information provided by LADCP and LADOT in November 2019, as well as recent studies of projects in the area. The Related Projects are detailed in Table 4 and shown in Figure 8. Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this Transportation Assessment and conservatively assumed to be completed by the Project buildout year of 2023. The traffic growth due to the development of Related Projects considered in this analysis is highly conservative and likely substantially overestimates the actual traffic volume growth in the area that would likely occur prior to Project buildout years. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project cumulative condition is even more conservative.

Using these conservative assumptions, the potential traffic impacts of the Project were evaluated. The development of estimated traffic volumes added to the study intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Trip Generation. Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates summarized in Table 4 are very conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (e.g., transit, bus, bicycling, walking, carpool, etc.) Further, they do not account for the internal capture trips within a multi-use development or for the interaction of trips between multiple Related Projects, in which one Related Project serves as the origin for a trip destined for another Related Project.

Trip Distribution. The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees/residents and potential patrons of the proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Traffic Assignment. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 9 shows the peak hour traffic volumes associated with these Related Projects at the study intersections.

Future without Project Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after addition of ambient growth through the projected Project completion year of 2023. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) for Year 2023 and are shown in Figure 10 for the five study intersections.

Future Roadway Improvements

The analysis of Future Conditions accounted for roadway improvements that were funded and expected to be implemented prior to the buildout of the proposed Project. These roadway improvements would result in changes to the physical configuration at the study intersections. Other proposed roadway improvement projects that are not funded and traffic/trip reduction strategies such as Transportation Demand Management (TDM) programs for individual buildings and developments were conservatively omitted from the Future Conditions analyses.

Mobility Plan. In the Mobility Plan, the City identifies key corridors as components of various “mobility-enhanced networks.” Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and

vehicles. The specific improvements that may be implemented in those networks have not yet been identified, and there is no schedule for implementation and, therefore, no changes to vehicular lane configurations were made as a result of the Mobility Plan. However, the following mobility-enhanced networks included corridors within or near the Study Area:

- Transit Enhanced Network: Hollywood Boulevard and Vermont Avenue are identified as a Transit-Enhanced street.
- Bicycle Network: Hollywood Boulevard, Sunset Boulevard, Vermont Avenue and Virgil Avenue are identified as part of the Bicycle Network.
- Pedestrian Enhanced Network: Hollywood Boulevard, Virgil Avenue, Sunset Boulevard, Vermont Avenue, and Fountain Avenue are identified as part of the Pedestrian Enhanced Network.

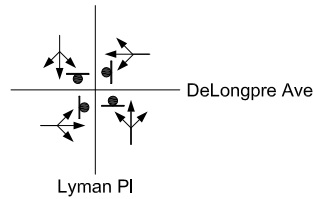
LEGEND

- Traffic Signal
- Stop Sign

**EXISTING CONDITIONS
(YEAR 2019)**

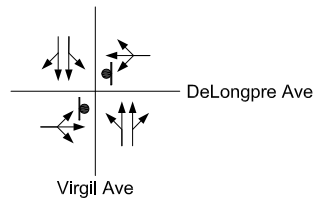
**FUTURE CONDITIONS
(YEAR 2023)**

1. Lyman Place & DeLongpre Avenue



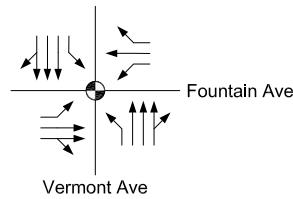
Same as Existing Conditions

2. Virgil Avenue & DeLongpre Avenue



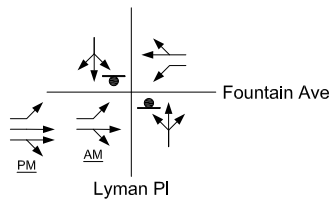
Same as Existing Conditions

3. Vermont Avenue & Fountain Avenue



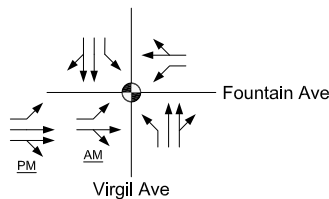
Same as Existing Conditions

4. Lyman Place & Fountain Avenue



Same as Existing Conditions

5. Virgil Avenue & Fountain Avenue



Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

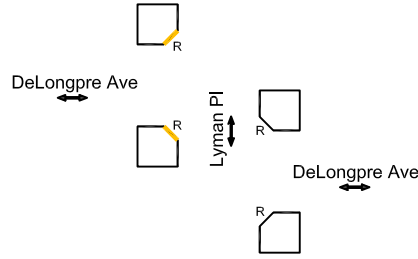
**FIGURE
3**



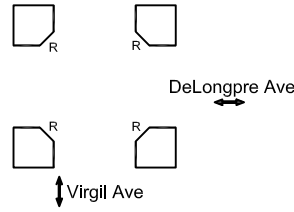
LEGEND

- III Continental Crosswalk
- R Ramp
- Tactile Curb
- Ped Signal
- Ped Call Button
- ☒ Transit Facilities
- ⤴ Begin/End Sharrow

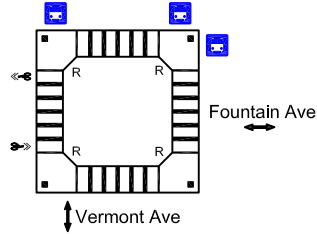
1. Lyman Place & DeLongpre Avenue



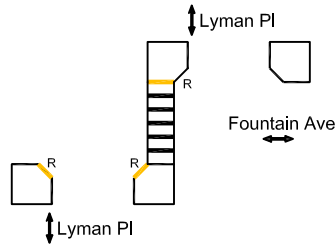
2. Virgil Avenue & DeLongpre Avenue



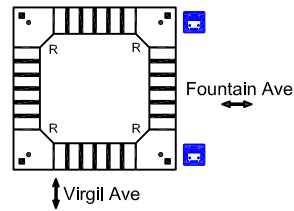
3. Vermont Avenue & Fountain Avenue



4. Lyman Place & Fountain Avenue

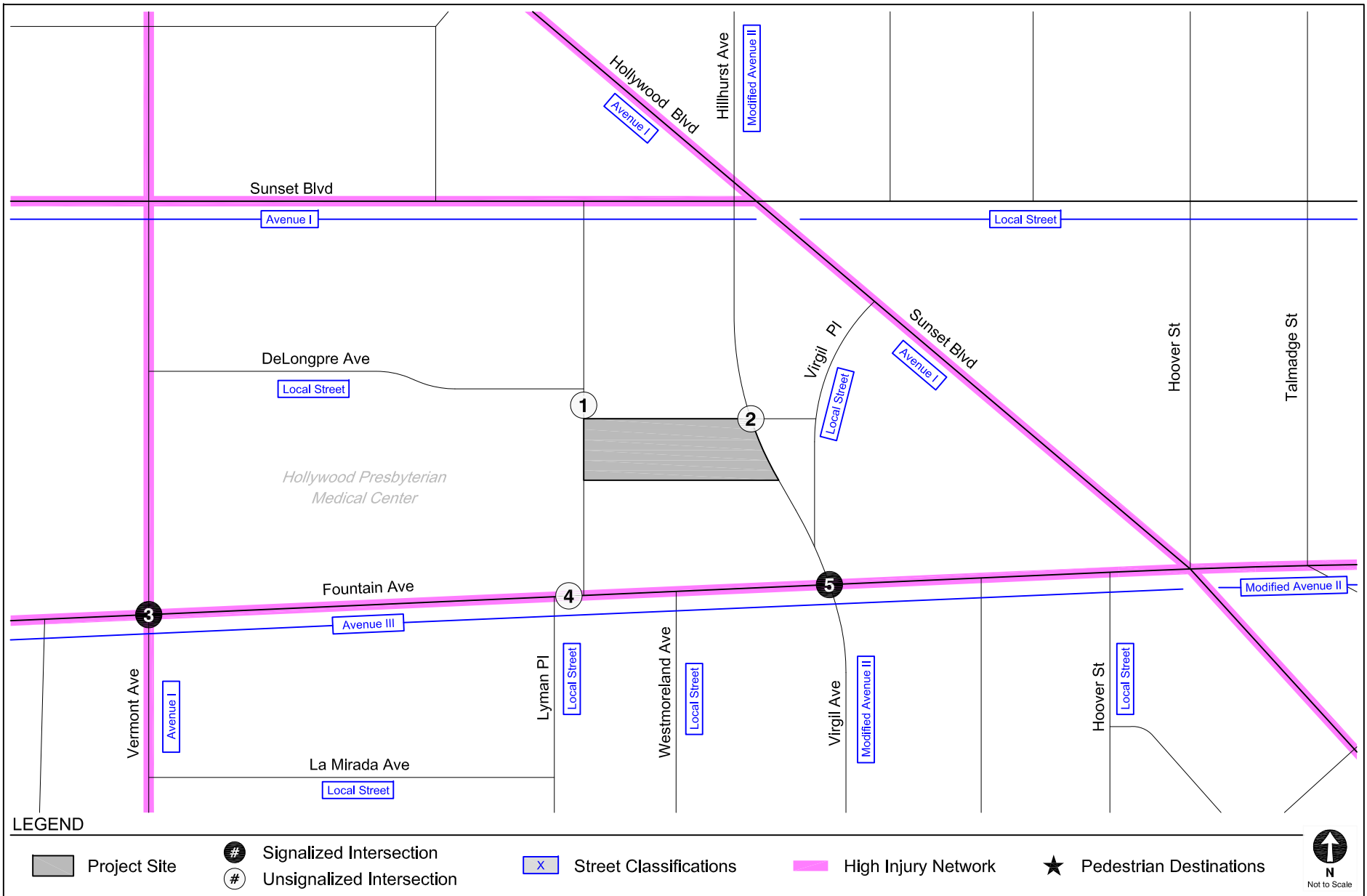


5. Virgil Avenue & Fountain Avenue



INTERSECTION MOBILITY FACILITIES

FIGURE
4



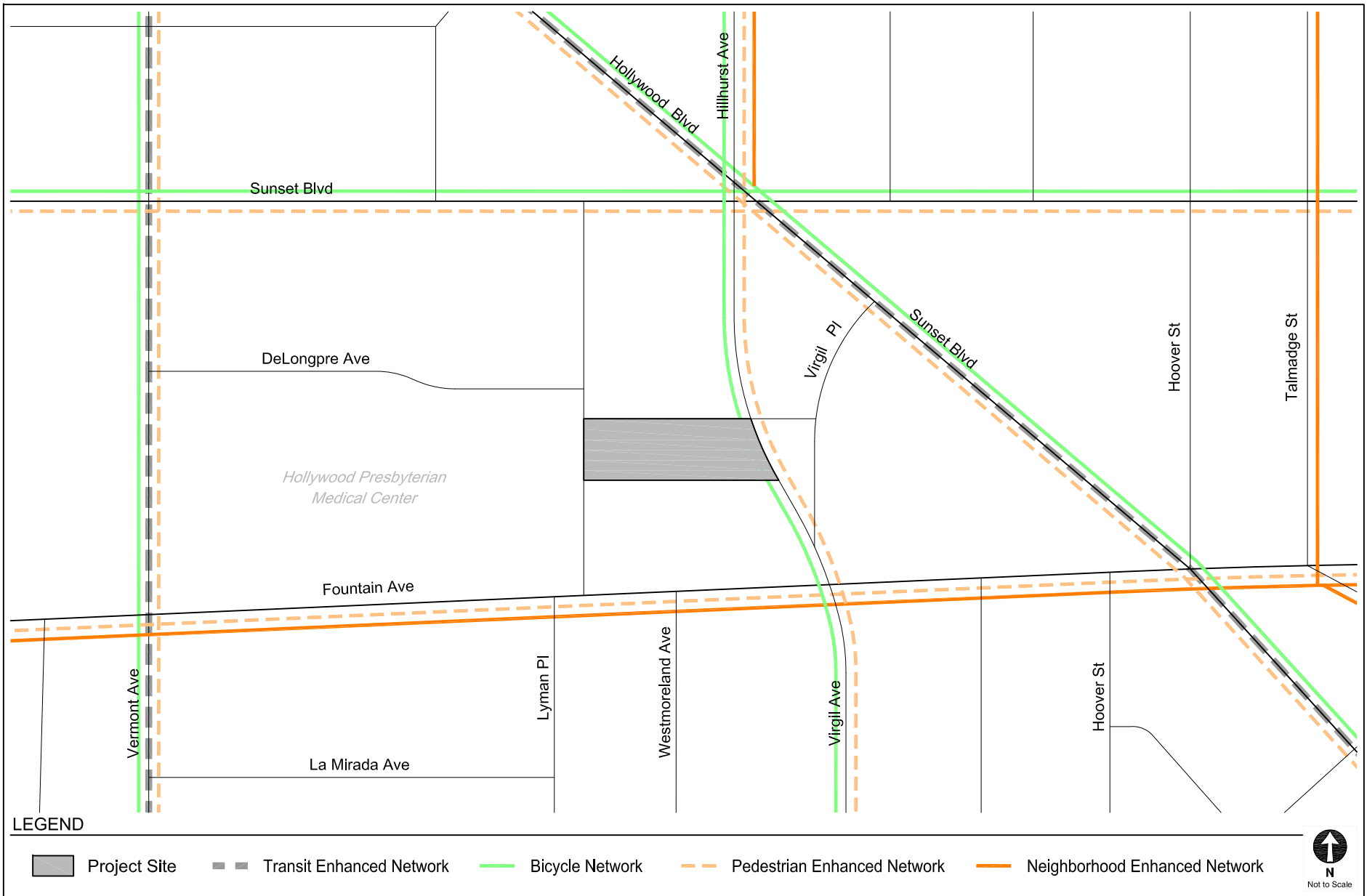
LEGEND

- Project Site
- # Signalized Intersection
- # Unsignalized Intersection
- Street Classifications
- High Injury Network
- Pedestrian Destinations



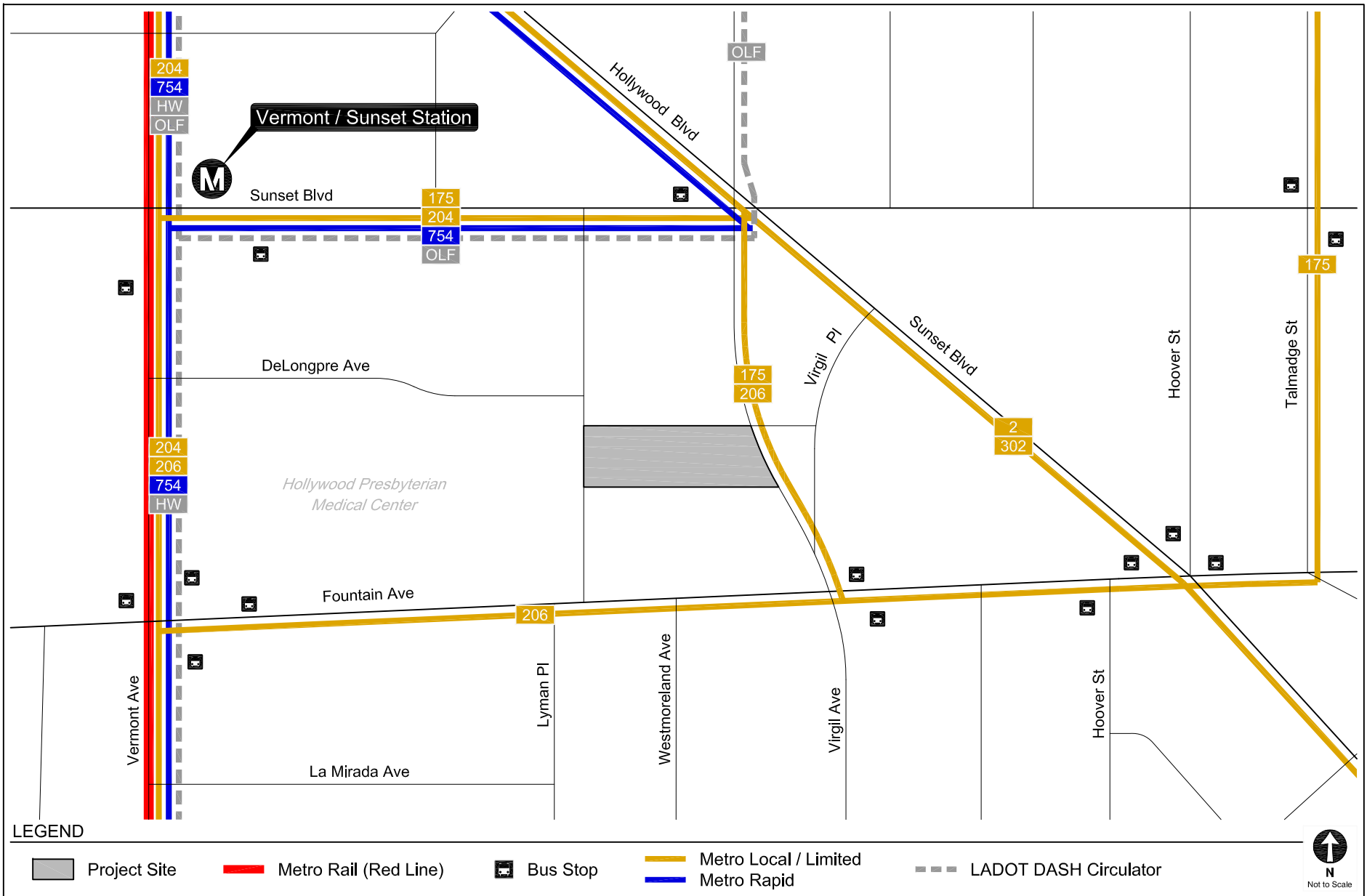
EXISTING TRANSPORTATION FACILITIES

FIGURE 5A



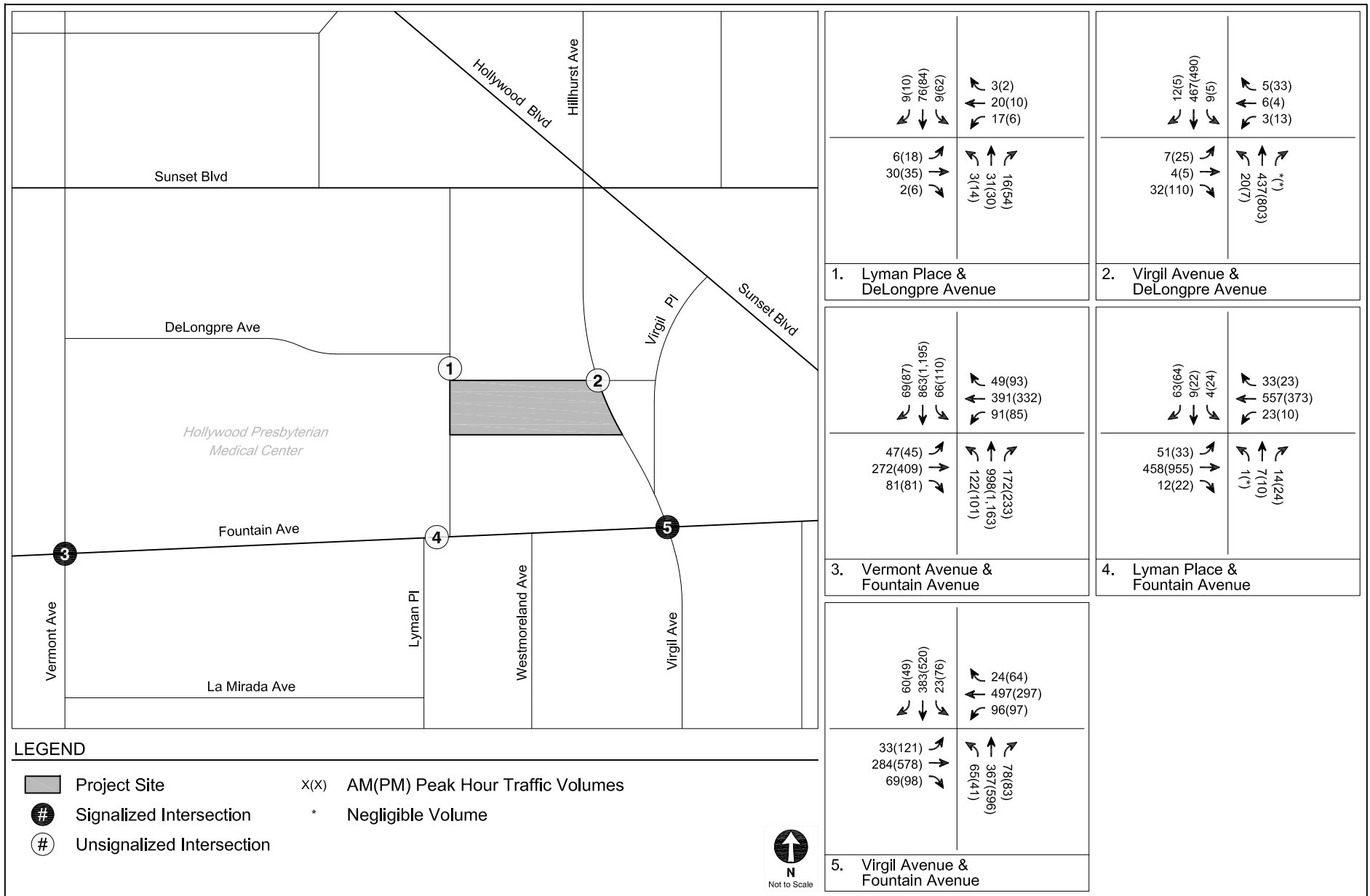
FUTURE TRANSPORTATION FACILITIES

FIGURE 5B



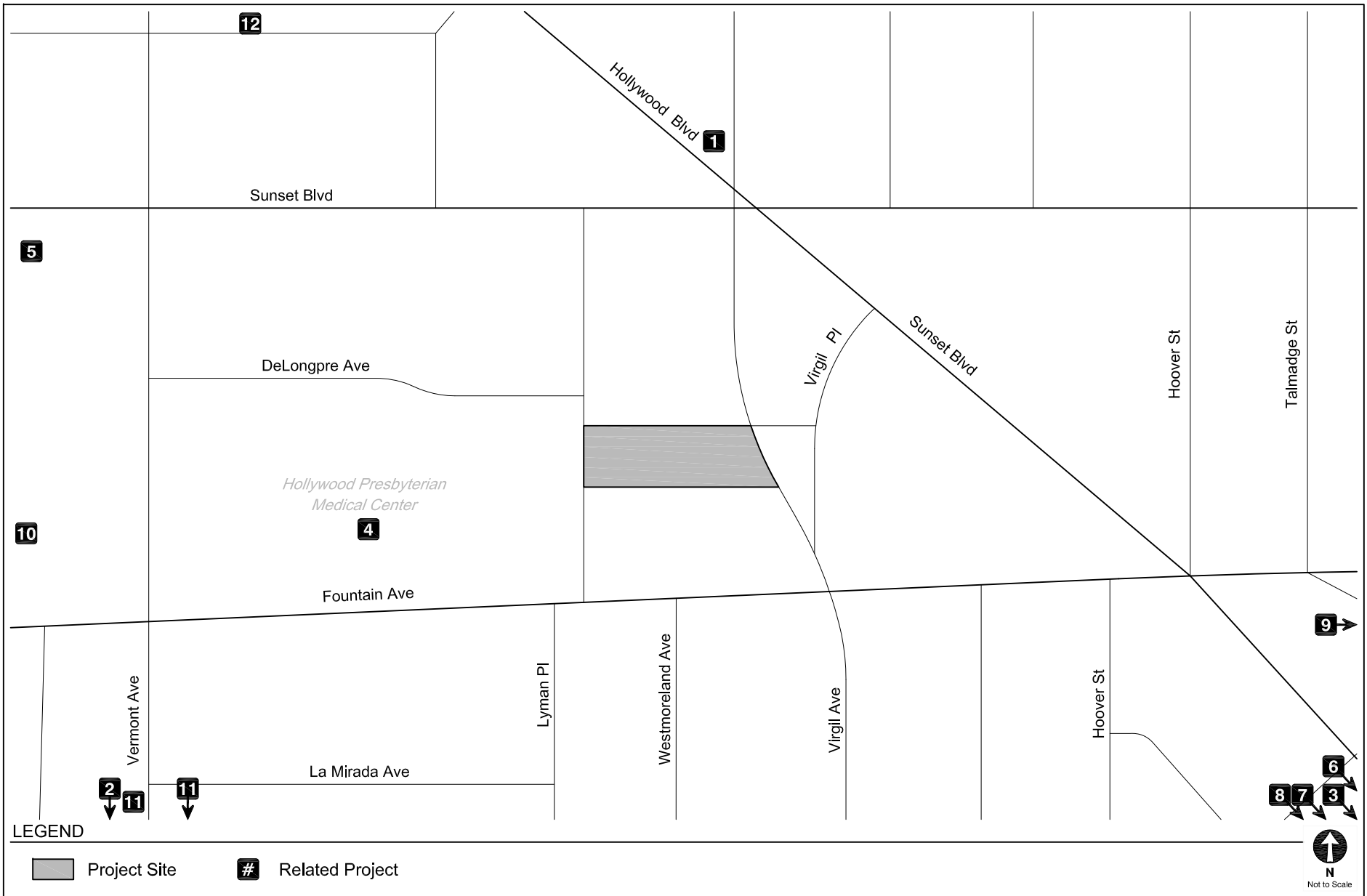
EXISTING TRANSIT SERVICE

FIGURE 6



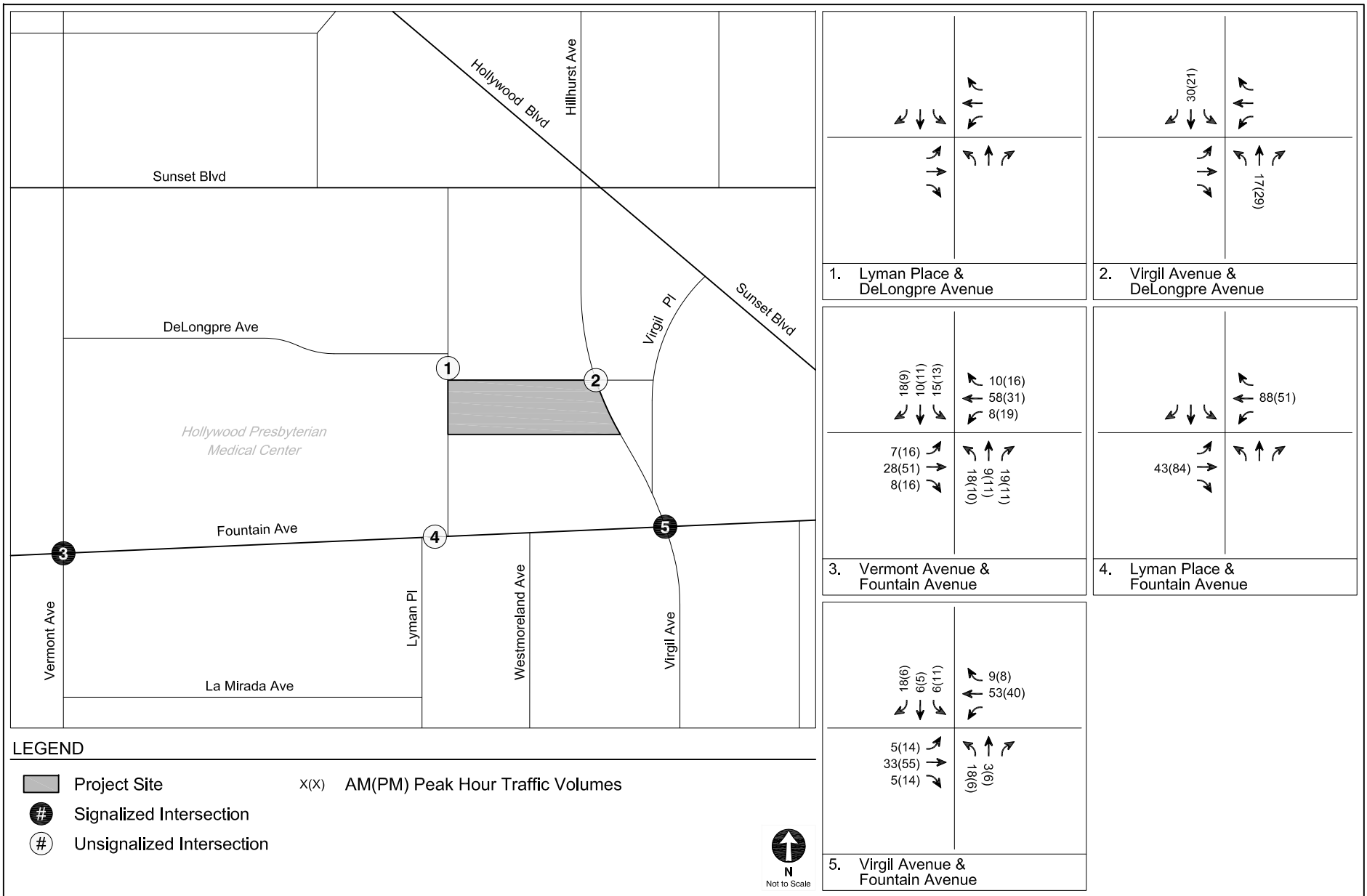
EXISTING CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
7



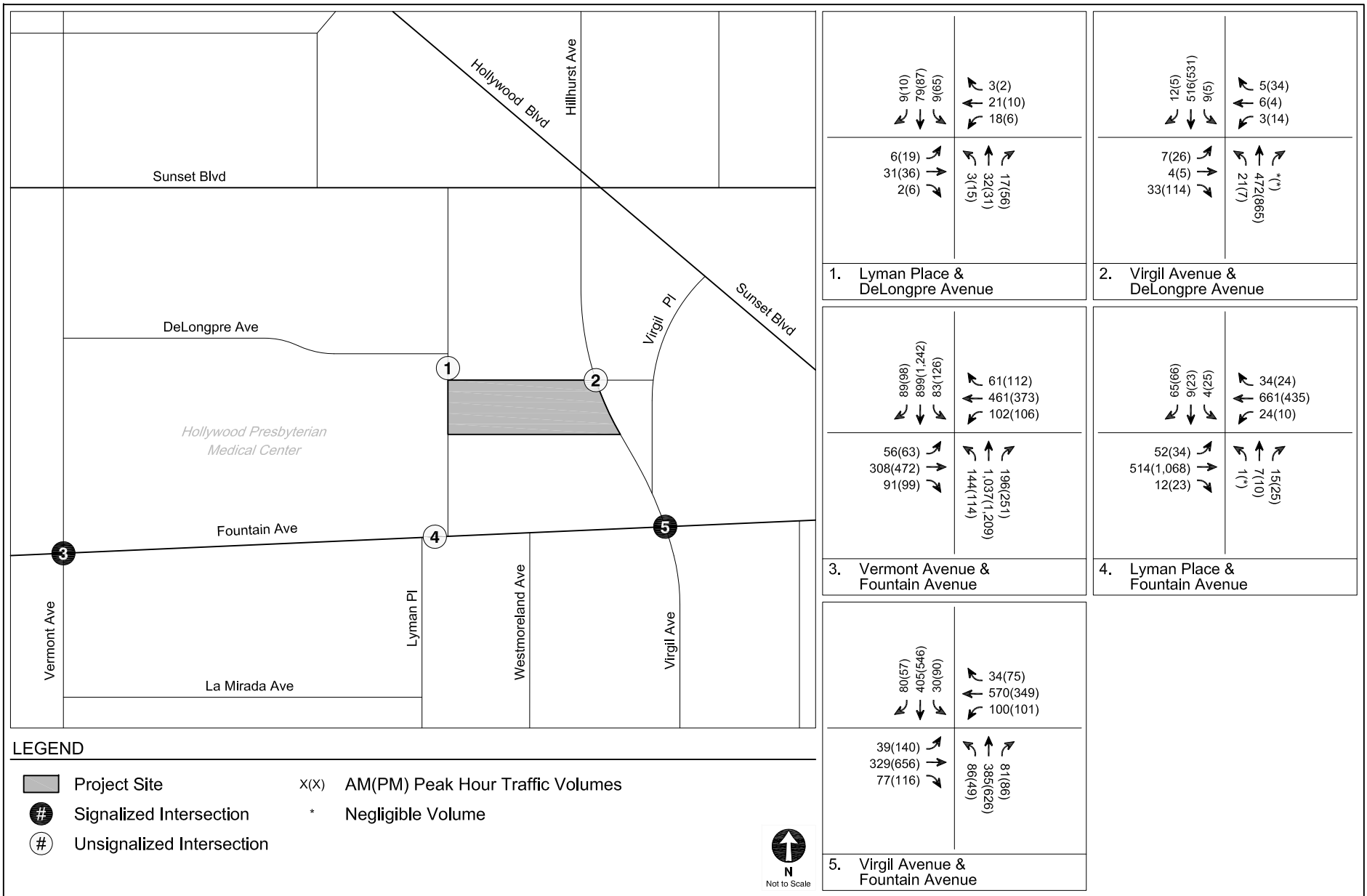
LOCATIONS OF RELATED PROJECTS

FIGURE
8



RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10

**TABLE 1
STUDY INTERSECTION LIST**

No.	N/S Street	E/W Street	1st 10,000 sf	Jurisdiction
1	Lyman Place	DeLongpre Avenue	All-Way Stop	Los Angeles
2	Virgil Avenue	DeLongpre Avenue	Two-Way Stop	Los Angeles
3	Vermont Avenue	Fountain Avenue	Signalized	Los Angeles
4	Lyman Place	Fountain Avenue	Two-Way Stop	Los Angeles
5	Virgil Avenue	Fountain Avenue	Signalized	Los Angeles

**TABLE 2
EXISTING TRANSIT WITHIN STUDY AREA**

Provider, Route, and Service Area	1st 10,000 sf	Hours of Operation in Study Area	Approximate Headway (minutes) [a]				Morning Peak Period Stops		Afternoon Peak Period Stops	
			Morning Peak Hour		Afternoon Peak Hour		NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
2/302 Westwood to Downtown Los Angeles via Sunset Boulevard	Local	24 - Hour	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
175 Silverlake to East Hollywood via Hyperion Avenue and Sunset Boulevard	Local	6:30 A.M. - 12:00 A.M.	15		8	12	16	34	29	20
204 Athens to Los Feliz via Vermont Avenue	Local	24 - Hour	23	48	60	48	8	5	3	5
206 Athens to Los Feliz via Normandie Avenue	Local	24 - Hour	12	12	11	10	20	20	22	23
206 Athens to Los Feliz via Normandie Avenue	Local	5:00 A.M. - 12:30 A.M.	12	13	13	12	20	18	19	20
754 Athens to Los Feliz via Vermont Avenue	Local	4:30 A.M. - 1:00 A.M.	8	9	8	8	29	28	29	30
LADOT DASH Bus Service										
HW Hollywood	Local	7:00 A.M. - 7:00 P.M.	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
OLF Observatory / Los Feliz	Local	6:00 A.M. - 10:00 P.M.	30	30	30	30	8	8	8	8
			N/A	20	N/A	15	N/A	12	N/A	16
Metro Rail Service										
Red North Hollywood to Downtown Los Angeles	Rail	7:00 A.M. - 7:00 P.M.	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
			10	10	10	10	24	24	24	24

Notes

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT DASH: Los Angeles Department of Transportation

[a] Headway information based on operating and ridership data from Metro for April 2019 and from LADOT for 2019.

**TABLE 3A
TRANSIT SYSTEM CAPACITY SERVING PROJECT SITE - MORNING PEAK HOUR**

Provider, Route, and Stop Location	Capacity	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Above 10,000 sf		
		Peak Load		Average Load		NB/EB	SB/WB	NB/EB	SB/WB	
		NB/EB	SB/WB	NB/EB	SB/WB					
Metro Bus Service										
2/302 Sunset / Fountain	50	19	26	11	13	39	37	157	315	
175 Fountain / Virgil	50	39	8	19	4	31	46	83	58	
204 Vermont / Fountain	50	16	13	9	6	41	44	204	220	
206 Fountain / Sunset	50	3	3	1	2	49	49	244	218	
754 Vermont / Sunset	50	10	12	6	5	44	45	322	316	
LADOT DASH Bus Service										
HW Vermont / Fountain	30	<i>no data provided</i>								
OLF Vermont / Sunset	30	N/A	3	N/A	1	N/A	29	N/A	87	
Metro Rail Service										
Red Vermont / Sunset	750	<i>no data provided</i>		357	244	393	506	2,358	3,036	
Total Bus Service Capacity								2,224		
Total Rail Transit Capacity								5,394		
Total Transit Service Capacity								7,618		

Notes

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle

[a] Capacity assumptions:

Metro Regular Bus - 40 seated / 50 standing.

Metro Articulated Bus - 66 seated / 75 standing.

Metro Red Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.

LADOT DASH - 25 seated / 30 standing.

[b] Ridership information based on data from Metro for April 2019 and LADOT for 2018.

**TABLE 3B
TRANSIT SYSTEM CAPACITY SERVING PROJECT SITE - AFTERNOON PEAK HOUR**

Provider, Route, and Stop Location	Capacity	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Above 10,000 sf		
		Peak Load		Average Load		NB/EB	SB/WB	NB/EB	SB/WB	
		NB/EB	SB/WB	NB/EB	SB/WB					
Metro Bus Service										
2/302 Sunset / Fountain	50	26	30	14	16	36	34	259	170	
175 Fountain / Virgil	50	3	35	3	19	47	31	47	38	
204 Vermont / Fountain	50	16	24	7	17	43	33	237	192	
206 Fountain / Sunset	50	1	12	1	5	49	45	233	227	
754 Vermont / Sunset	50	7	22	4	14	46	36	332	272	
LADOT DASH Bus Service										
HW Vermont / Fountain	30	<i>no data provided</i>								
OLF Vermont / Sunset	30	N/A	5	N/A	2	N/A	28	N/A	112	
Metro Rail Service										
Red Vermont / Sunset	750	<i>no data provided</i>		319	413	431	337	2,586	2,022	
Total Bus Service Capacity								2,118		
Total Rail Transit Capacity								4,608		
Total Transit Service Capacity								6,726		

Notes

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle

[a] Capacity assumptions:

Metro Regular Bus - 40 seated / 50 standing.

Metro Articulated Bus - 66 seated / 75 standing.

Metro Red Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.

LADOT DASH - 25 seated / 30 standing.

[b] Ridership information based on data from Metro for April 2019 and LADOT for 2018.

**TABLE 4
RELATED PROJECTS LIST**

No.	Project Title	Address	1st 10,000 sf	Trip Generation						
				Daily Trips	Morning Peak Hour			Afternoon Peak Hour		
					In	Out	Total	In	Out	Total
1	City Lights Mixed Use	1515 Hillhurst Avenue	202 apartment units, 5,350 sf retail, 5,050 sf restaurant and 3,025 sf coffee/donut shop	1,664	43		134	111	73	183
2	Vermont/Santa Monica TOD	4718 Santa Monica Boulevard	196 apartment units, 14,000 sf pharmacy, 3,500 sf restaurant, 5,000 sf medical office, 1,000 sf retail	1,553	54	51	105	72	72	144
3	4121 Santa Monica Shopping	4121 Santa Monica Boulevard	14,378 sf retail	344	4	2	6	14	16	30
4	Hospital Seismic Retrofit	1300 N Vermont Ave	Replace existing hospital and ancillary uses with 30,933 sf office	290	36	5	41	6	30	36
5	Kaiser Permanente Los Angeles Medical Center	4760 W Sunset Blvd	179,688 medical office and 2,300 sf retail	4,506	233	61	294	71	179	250
6	Sunset-Junction	4000-4301 Sunset Blvd	199 apartment units, 4,500 sf health club, 15,000 restaurant	2,922	91	130	227	149	94	243
7	4121 Santa Monica Shopping Center	4121 W Santa Monica Blvd	14,322 sf shopping center	344	4	2	6	14	16	30
8	4141 Santa Monica Blvd Hotel Project	4141 Santa Monica Blvd	54 hotel rooms and 1,863 sf restaurant	490	20	15	35	20	17	37
9	Mixed-Use	1201 Myra Avenue	100 apartment units, 2,000 sf retail	425	(1)	30	29	30	26	37
10	New Hampshire Residential	1317 New Hampshire Avenue	81 apartment units, 11 affordable units	448	9	23	32	21	15	36
11	Mixed-Use	4632 Santa Monica Boulevard	177 apartment units, 5,500 sf retail	785	10	51	61	39	13	52
12	Residential	4649 Maubert Avenue	153 apartment units	620	11	31	42	13	19	50
13	Mixed-Use	1225 Vermont Avenue	58 apartment units	429	10	19	29	19	16	35

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in November 2019, Department of City Planning, and recent traffic studies prepared in the area.

Chapter 3

CEQA Analysis of Transportation Impacts

This chapter presents an analysis of CEQA-related transportation impacts. The analysis identifies any potential conflicts the Project may have with adopted City plans and policies and the improvements associated with the potential conflicts as well as the results of a Project VMT analysis compliant with State requirements under *State of California Senate Bill 743* (Steinberg, 2013) (SB 743).

METHODOLOGY

SB 743 required the Governor's Office of Planning and Research to change the CEQA Guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifts from driver delay, described through LOS, to VMT, with the intent to reduce greenhouse gas emissions (GHG), create multimodal networks, and promote mixed-use developments.

On July 30, 2019, the Los Angeles City Council approved revisions to the City's transportation guidelines to include new transportation analysis screening procedures and significance thresholds, compliant with SB 743. The TAG provides the methodology of analyzing a project's transportation impacts in accordance with SB 743.

Per the TAG, the CEQA transportation analysis contains the following thresholds for identifying significant impacts:

- *Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies*
- *Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)*
- *Threshold T-2.2: Substantially Inducing Additional Automobile Travel*
- *Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use*

-
- *Threshold T-4: Resulting in Inadequate Emergency Access*

These thresholds are reviewed and analyzed in the following Sections 3A-3D.

Section 3A: Threshold T-1

Conflicting with Plans, Programs, Ordinances, or Policies Analysis

Threshold T-1 states that a project would result in an impact if it conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

PLANS, PROGRAMS, ORDINANCES, AND POLICIES

Table 2.1-1 of the TAG provides the City plans, policies, programs, ordinances and standards relevant in determining project consistency. Table 2.1-2 of the TAG provides a list of questions to help guide whether a project conflicts with the City's plans, programs, ordinances, or policies. As summarized below, the Project is consistent with the City documents listed in Table 2.1-1 of the TAG; therefore, the Project would not result in a significant impact under Threshold T-1. Detailed discussion of the plans, programs, ordinances, or policies related are provided below.

Mobility Plan

As noted in the TAG, Mobility 2035 offers a comprehensive vision and set of policies and programs the City aims to achieve to provide streets that are safe and convenient for all users. The Mobility Plan combines "complete street" principles with the following five goals that define the City's mobility priorities:

1. Safety First: Design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode of choice.
2. World Class Infrastructure: A well-maintained and connected network of streets, paths, bikeways, trails, and more provides Angelenos with the optimum variety of mode choices.
3. Access for All Angelenos: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.

-
4. Collaboration, Communication, and Informed Choices: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the future. The amount of information made available by new technologies must be managed responsibly in the future.
 5. Clean Environments and Healthy Communities: Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

Safety First. Adjacent to the Project Site, Lyman Place provides two travel lanes, one in each direction, and parking along the east side of the street. The existing driveway along Lyman Place safely accommodates both left-turn and right-turn ingress and egress maneuvers, as vehicles are on a low-volume, low-speed Local Street with no visibility issues. Adjacent to the Project Site, Virgil Avenue provides four travel lanes, two in each direction, and parking on both sides of the street. The existing driveway on Virgil Avenue provides full access to Virgil Avenue and has been in operation for two years without experiencing any safety issues. The Project would utilize only the existing driveways and does not propose any new curb cuts or modifications to the street. With the development of the Project, Lyman Place, De Longpre Avenue, and Virgil Avenue along the Project frontage would have improved sidewalk access in order to meet the long-term mobility goals of the Mobility Plan. No changes would be made to the existing parking structure access with the Project; therefore, no new conflicts would be created with pedestrian or bicycle access to the Project. Thus, the Project would be consistent with the Safety First goal.

World Class Infrastructure. The Project is not proposing any new driveways or curb cuts along Lyman Place, De Longpre Avenue, or Virgil Avenue, designated, respectively, as a Local Street, Local Street, and Modified Avenue II in the Mobility Plan. Lyman Place and De Longpre Avenue require a 60-foot right-of-way width and 36-foot roadway width. Virgil Avenue requires an 80-foot right-of-way width and 56-foot roadway width. The Project would maintain the designated roadway width requirements, as indicated in the Mobility Plan, without alteration. Parking access would be continue to be provided on Virgil Avenue and Lyman Place. None of the three streets were identified as part of the Mobility Plan's Transit Enhanced Network or Neighborhood Enhanced Network. Virgil Avenue was identified as part of the Mobility Plan's Bicycle Enhanced Network and Pedestrian Enhanced District. The Project would not preclude any subsequent transit, bicycle, or pedestrian enhancements along Virgil Avenue. Thus, the Project would be consistent with the World Class Infrastructure goal.

Access for all Angelenos. The Project does not propose repurposing existing curb space, nor does it propose narrowing or shifting existing sidewalk placement or paving, narrowing, shifting, or removing an existing parkway. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project is not proposing a new driveway along a street with a bicycle facility. In addition, the Project would offer jobs and access to medical services adjacent to transit and within easy walking distance of the Metro B (Red) Line Vermont / Sunset station. Thus, the Project would be consistent with the Access for All Angelenos goal.

Collaboration, Communication, and Informed Choices. The Project would provide information to employees about mobility options to promote the benefits of alternative transportation modes. Thus, the Project would be consistent with the Collaboration, Communication, and Informed Choices goal.

Clean Environments and Healthy Communities. As part of the Project, secured bicycle parking facilities and connections within the Project Site to off-site pedestrian facilities would be provided. This would promote active transportation modes such as biking and walking. Thus, the Project would be consistent with the Clean Environments and Healthy Communities goal.

The Project is consistent with all applicable policies of Mobility Plan; therefore, the Project is consistent with the Mobility Plan.

Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (LADCP, March 2015) introduces guidelines for the City to follow to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

The Project prioritizes safety and access for all individuals utilizing the site by providing ADA-accessible pedestrian entrances directly connected to public pedestrian facilities. Further, the Project supports healthy lifestyles by locating jobs adjacent to transit (Metro B Line [Red] and Rapid Bus Lines), providing bicycle amenities, and enhancing the pedestrian environment by providing canopy trees and other landscape elements to provide adequate shade and habitat to

for a more comfortable environment for pedestrians. The Project will support the following specific *Plan for a Healthy Los Angeles* policies:

- Policy 2.3: Access for individuals with disabilities – The Project will provide ADA access from the street level, as well as the required provision of ADA accessible parking spaces.
- Policy 2.4: Aging in place – The Project provides additional health services to serve the aging population that will allow health services to be provided to those within the vicinity of the Project.
- Policy 2.6: Repurpose underutilized spaces for health – The Project is adding medical office and clinic services on top of an existing parking structure that does not currently provide neighborhood amenities.
- Policy 2.7: Access to health services – The Project is constructing additional medical office and clinic space that will serve more of the population than HPMC is currently able to provide.
- Policy 2.11: Foundation for health – The Project includes a health clinic to provide, among other services, prevention and wellness services to improve patients' quality of life.
- Policy 5.7: Land use planning for public health and GHG emission reduction – The Project is located with 1,500 feet of the Metro B (Red) Line Vermont/Sunset station to encourage use of the transit as a transportation option. The Project also provides bike parking spaces to encourage use of bicycles as a means of reaching the Project.

In addition to contributing the policies mentioned above the Project does not conflict with any policies contained in *Plan for a Healthy Los Angeles*. Thus, the Project would be consistent with the goals of *Plan for a Healthy Los Angeles*.

Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. This Project falls within the boundaries of the *Hollywood Community Plan* (LADCP, December 1998) (the Community Plan).

In line with Objective 4.d of the Community Plan, which seeks to “promote economic wellbeing and public convenience” by “[r]ecognizing the existing concentration of medical facilities in East Hollywood as a center serving the medical needs of Los Angeles”, the Project would expand the

medical resources of the area and provide more jobs near the Metro B (Red) Line in the community. Thus, the Project promotes and encourages development standards in line with the goals and objectives of the General Plan.

The City is currently in the process of updating the Community Plan to guide development for the Hollywood area through Year 2040. *Hollywood Community Plan Update Draft Environmental Impact Report* (Terry A. Hayes Associates, Inc., November 2018) was released for public review in October 2019. Although the City has not released a hearing schedule, formal adoption of the Hollywood Community Plan Update is anticipated in the last quarter of Year 2020.

Specific Plans

As defined in LAMC Ordinance No. 173,749 Effective March 1, 2001, the Project is located within the *Vermont/Western Transit Oriented District Specific Plan* (the Specific Plan) area of the City, with boundaries defined by LADCP. The Specific Plan was prepared following the civil unrest of 1992 and construction of the Metro B (Red) Line in the community. The Specific Plan includes goals such as “making the neighborhood more livable, economically viable, as well as pedestrian and transit friendly in an effort to heal the community of the disruptions of the Nineties, mitigate population growth and achieve maximum benefit from the subway stations as a valuable public asset.” The Project will support the following policies of the Specific Plan:

- Policy O: Support the hospital core near the corner of Sunset Boulevard & Vermont Avenue such that this industry will generate jobs and medical services for local residents, give local businesses expanded markets, and provide a coherent architectural presence at that corner.

The Project ensures compliance with the Specific Plan, including its requirements for automobile and bicycle parking as detailed subsequently detailed in Section 4G of this Transportation Assessment, and would further its goals by providing jobs and health care services in close proximity to transit within a neighborhood with adequate pedestrian amenities.

LAMC Section 12.26J (Transportation Demand Management [TDM] Ordinance)

LAMC Section 12.26J details the TDM requirements for non-residential projects in excess of 50,000 sf. The following requirements of the TDM ordinance will be implemented by the Project when applicable:

*“(a) **Development in excess of 25,000 square feet of gross floor area.** The owner shall provide a bulletin board, display case, or kiosk (displaying transportation information) where the greatest number of employees are likely to see it. The transportation information displayed should include, but is not limited to, the following:*

- (1) Current routes and schedules for public transit serving the site;*
- (2) Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operations;*
- (3) Ridesharing promotion material supplied by commuter-oriented organizations;*
- (4) Regional/local bicycle route and facility information; and*
- (5) A listing of on-site services or facilities which are available for carpoolers, vanpoolers, bicyclists, and transit riders.*

*“(b) **Development in excess of 50,000 square feet of gross floor area.** The owner shall comply with Paragraph (a) above and in addition shall provide:*

- (1) A designated parking area for employee carpools and vanpools as close as practical to the main pedestrian entrance(s) of the building(s). This area shall include at least ten percent of the parking spaces required for the site. The spaces shall be signed and striped sufficient to meet the employee demand for such spaces. The carpool/vanpool parking area shall be identified on the driveway and circulation plan upon application for a building permit;*
- (2) One permanent, clearly identified (signed and striped) carpool/vanpool parking space for the first 50,000 to 100,000 square feet of gross floor area and one additional permanent, clearly identified (signed and striped) carpool/vanpool parking space for any development over 100,000 square feet of gross floor area;*
- (3) Parking spaces clearly identified (signed and striped) shall be provided in the designated carpool/vanpool parking area at any time during the building’s occupancy sufficient to meet employee demand for such spaces. Absent such demand, parking spaces within the designated carpool/vanpool parking area may be used by other vehicles;*
- (4) No signed and striped parking spaces for carpool/vanpool parking shall displace any handicapped parking;*
- (5) A statement that preferential carpool/vanpool spaces are available on-site and a description of the method for obtaining permission to use such spaces shall be included on the required transportation information board;*
- (6) A minimum vertical clearance of 7 feet 2 inches shall be provided for all parking spaces and accessways used by vanpool vehicles when located within a parking structure;*
- (7) Bicycle parking shall be provided in conformance with Section [12.21A16](#) of this Code.”*

LAMC Section 12.37 (Waivers of Dedications and Improvement)

LAMC Section 12.37 states that a project must dedicate and improve adjacent streets to half-right-of-way standards consistent with street designations from the Mobility Plan. As part of the construction of the parking structure on the Project Site, the required dedications were either provided to the City or waived by the City; as such, all streets adjacent to the Project site currently meet their designated standards in the Mobility Plan or have been determined by LADOT to be unnecessary. Therefore, the Project would not be required to provide any street dedications or improvements adjacent to the Project Site and the Project would be in compliance with the requirements of LAMC Section 12.37 including waivers.

Vision Zero Corridor / Action Plan

As described, the primary goal of Vision Zero is to eliminate traffic deaths in the City of Los Angeles by 2025 through a number of strategies, including modifying the design of the streets to increase safety. Vision Zero implements projects that are designed to increase safety for the most vulnerable road users, identified as the High Injury Network. The City has also created an Action Plan that identifies the types of improvements to be implemented.

The Project Site is not located adjacent to a street identified on the High Injury Network. However, within the Study Area, Fountain Avenue, Sunset Boulevard, Vermont Boulevard, and Hollywood Boulevard are identified as part of the High Injury Network. As of February 2020, no Vision Zero improvements have been made on these streets within the Study Area.

Because the Project is not located on the high injury network and does not propose modifications for streets designated in the High Injury Network, no conflict with Vision Zero would occur.

Citywide Design Guidelines for Residential, Commercial, and Industrial Development

Citywide Design Guidelines (Los Angeles City Planning Urban Design Studio, October 2019) incorporates urban design principles pertaining to pedestrian-first design that serves to reduce VMT. The Project complies with the following *Citywide Design Guidelines* policies:

-
- Promote a safe, comfortable and accessible pedestrian experience
 - Carefully incorporate vehicular access such that it does not degrade the pedestrian experience
 - Organize and share projects to recognize and respect surrounding context
 - Provide amenities that support community building and provide an inviting, comfortable user experience
 - Carefully arrange design elements and uses to protect site users

The Project does not include a new driveway or loading access along a roadway classified as an Avenue or Boulevard. The Project would utilize the existing parking garage, which has driveways on Virgil Avenue, a designated Modified Avenue II, and Lyman Place, a Local Street. Although the Project is located on a corner lot, the parking structure is situated along Lyman Place and Virgil Avenue in a way that ensures that parking operations would not adversely affect traffic operations at any of the adjacent intersections.

Walkability Checklist

City of Los Angeles Walkability Checklist – Guidance for Entitlement Review (LADCP, November 2008) serves as a guide for creating improved conditions for pedestrians to travel and contribute to the overall walkability of the City and includes the following policies applicable to this Project:

- Sidewalks
 1. Continuous and predominantly straight sidewalk
 2. Buffer between pedestrians and moving vehicles
 3. Adequate sidewalk width
 4. Street furnishing
 5. Planted parkways
- Crosswalks/Street Crossings
 1. Visible pedestrian crossings
 2. Curb extensions/bump-outs
 3. Pedestrian crossing signals and push buttons
 4. Shortest possible crossing distance

-
- On-Street Parking
 1. Provide angled or parallel on-street parking
 2. Eliminate street parking with pedestrian crossings
 - Utilities
 1. Underground utilities
 2. Place utilities in landscape areas and away from pedestrian amenities
 3. buffer equipment with planting
 4. Eliminate conflicts between utilities and building entrances
 - Building Orientation
 1. Grade level pedestrian entrances
 2. Direct path from building entrances to transit stops
 3. Primary entrance visible from street and sidewalk
 6. Comply with ADA guidelines at pedestrian entrances
 9. Direct access to building from sidewalks
 10. Locate buildings at front of property line
 11. Use architectural features to provide continuity at driveways
 - Off-Street Parking and Driveways
 1. Maintain continuity of sidewalk
 3. Side street access whenever possible
 4. Fewest driveways possible
 5. Limit driveway width to minimum required
 6. Architectural facades on parking structures
 9. Illuminate all parking areas and pedestrian paths
 - On-Site Landscaping
 1. Provide canopy trees in addition to street trees
 2. Planting that complements pedestrian movement or views
 3. Planting that complements the character of the built environment
 - Building Façade
 1. Visual interest through architectural features
 2. Articulated massing
 3. Reinforce existing rhythm with architectural elements
 4. Discourage blank walls
 - Building Signage and Lighting
 1. Include identifying signage visible to pedestrians
 2. Adequate lighting levels for pedestrian paths
 3. Glare-free lighting to avoid uneven light distribution
 4. “Dark sky” compliant fixtures

The Project incorporates many of the recommended strategies applicable to office developments, including but not limited to maintaining existing continuous and adequate lighted sidewalks along the Project frontage, maintaining existing direct at-grade primary entrances for pedestrians to be

visible and ADA accessible, and not providing new parking access on a designated Avenue or Boulevard.

LADOT Transportation Technology Strategy – Urban Mobility in a Digital Age

The LADOT transportation technology strategy, based on *Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles* (Ashley Z. Hand, August 2016), is designed to ensure the City stays on top of emerging transportation technologies as both a regulator and a transportation service provider. This strategy document includes the following goals:

- Data as a Service: Providing and receiving real-time data to improve the City's ability to serve transportation needs
- Mobility as a Service: Improving the experience of mobility consumers by encouraging partnerships across different modes and fostering clear communication between transportation service providers
- Infrastructure as a Service: Re-thinking how the City pays for, maintains, and operates public, physical infrastructure to provide more transparency

The Project does not interfere with any of the general policy recommendations and/or pilot proposals set forth by this document.

Mobility Hub Reader's Guide

Mobility Hubs: A Reader's Guide (LADCP, 2016) provides guidance for enhancing transportation connections and multi-modal improvements in proximity to new or existing transit stations. The Project complies with the following policies of this document:

- Increase availability of bike parking
- Increase the use of technology to provide Real-Time transit information
- Increase smart phone connectivity to create awareness of multi-modal options
- Enhance pedestrian connections from surrounding to the Mobility Hub

The Project adopts several of these components, including bicycle parking required by the Specific Plan, which will facilitate and encourage bicycling in and around the Project. Additionally, the Project would encourage first-last mile connections to the nearby Metro B (Red) Line Vermont / Sunset Station by providing adequate sidewalks, crossings, and connections to the surrounding neighborhood.

LADOT Manual of Policies and Procedures (Design Standards)

Manual of Policies and Procedures (LADOT, December 2008) provides plans and requirements for traffic infrastructure features in the City, including driveway design and placement guidelines.

The Project driveways, which were constructed as part of the existing parking structure, were designed in accordance with this policy. No additional modifications to existing streets, sidewalks, or curbs would be required.

The Project does not interfere with the guidelines in *Manual of Policies and Procedures* and will comply with all design requirements contained within. Thus, the Project does not conflict with this document.

CONSISTENCY

The Project is consistent with the City documents listed in Table 2.1-1 of the TAG along with the described documents above; therefore, the Project would not result in a significant impact under Threshold T-1.

CUMULATIVE ANALYSIS

Similar to the Project, the Related Projects would be individually responsible for complying with relevant plans, programs, ordinances, or policies addressing the circulation system. Thus, the Project, together with the Related Projects, would not result in cumulative impacts with respect to

consistency with each of the plans, ordinances, or policies reviewed. The Project and the Related Projects do not interfere with any of the general policy recommendations and/or pilot proposals and, therefore, there would be no significant Project impact or cumulative impact.

Section 3B: Threshold T-2.1 Causing Substantial VMT Analysis

Threshold T-2.1 states that a residential project would result in a significant VMT impact if it would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which a project is located. Similarly, a commercial project would result in a significant VMT impact if it would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which the project is located.

The VMT analysis presented below was conducted in accordance with the TAG and in compliance with State requirements under SB 743.

VMT METHODOLOGY

The following describes the methodology by which vehicle trips and VMT are calculated in *City of Los Angeles VMT Calculator Version 1.2* (November 2019) (VMT Calculator), as detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, November 2019). LADOT developed the VMT Calculator in accordance with SB 743 to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: trips to a workplace destination originating from a residential use
- Home-Based Other Production: trips to a non-workplace destination (e.g., retail, restaurant, etc.) originating from a residential use
- Home-Based Work Attraction: trips to a workplace destination originating from a residential use

As detailed in *City of Los Angeles VMT Calculator Documentation*, the household VMT per capita threshold applies to Home-Based Work Production and Home-Based Other Production trips, and

the work VMT per employee threshold applies to home-based work attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor’s Office of Planning and Research, December 2018). As noted in the TAG, small-scale retail/restaurant components less than 50,000 sf of larger mixed-use development projects are not considered for the purposes of identifying significant work VMT impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT.

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for the City’s APC areas:

APC	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Source: TAG (LADOT, July 2019)

Other types of trips generated in the VMT Calculator include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use), Home-Based Other Attraction (trips to a non-workplace destination originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination originating from a non-residential use). These trip types are not factored into the VMT per capita and VMT per employee thresholds, as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips are factored into the calculation of total project VMT for screening purposes when determining that VMT analysis would be required.

Travel Behavior Zone (TBZ)

The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles VMT Calculator Documentation*, the effectiveness of TDM depends on the location efficiency of a proposed project's site, which is determined by the surrounding built environment and demographic context. The City developed a TBZ categorization to help establish VMT and single-occupant vehicle trip reductions of TDM. Development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each Census tract in the City and are categorized as follows:

1. *Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network.*
2. *Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density.*
3. *Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets.*
4. *Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network.*

The VMT Calculator determines a project's TBZ category based on the latitude and longitude of a project address.

Mixed-Use Development Methodology

As detailed in *City of Los Angeles VMT Calculator Documentation*, the VMT Calculator accounts for the interaction of land uses within a mixed-use development and considers the following sociodemographic, land use, and built environment factors for a project area:

- The project's jobs/housing balance
- Land use density of the project
- Transportation network connectivity
- Availability of and proximity to transit
- Proximity to retail and other destinations

-
- Vehicle ownership rates
 - Household size

VMT

The VMT Calculator determines a project's VMT based on trip length information from the City's Travel Demand Forecasting Model, which considers the traffic analysis zone where a project is located to determine the trip length and trip type, which factor into the calculation of a project's VMT.

Population and Employment Assumptions

As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on Census data for the City and employment assumptions derived from multiple data sources, including *2012 Developer Fee Justification Study* (Los Angeles Unified School District, 2012), the San Diego Association of Governments Activity Based Model, *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012), the US Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of *City of Los Angeles VMT Calculator Documentation*.

TDM Measures

Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

1. Parking
2. Transit
3. Education and Encouragement
4. Commute Trip Reductions
5. Shared Mobility

-
6. Bicycle Infrastructure
 7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

PROJECT VMT ANALYSIS

The City's VMT Calculator was used to evaluate Project VMT for comparison to the VMT impact criteria. Based on guidance from the City, the VMT Calculator was modeled for the Project's land uses and their respective sizes as the primary input.

The following assumptions were identified in the VMT Calculator:

- Resident Population: 0
- Total Employees: 308
- APC: Central
 - Household VMT Impact Threshold: N/A
 - Work VMT Impact Threshold: 7.6 VMT per employee
- TBZ: Urban
 - Maximum VMT Reduction: 75%

The VMT analysis results based on the VMT Calculator are summarized in Table 5. Detailed output from the VMT Calculator is provided in Appendix D. The Project proposes no residential units. Therefore, per *City of Los Angeles VMT Calculator User Guide* (LADOT and LADCP, November 2019), the Project would not generate any household VMT per capita and would not result in a significant household VMT impact.

Project VMT

The Project proposes to provide the following project design features strategies to help improve overall Project VMT:

1. In accordance with Section 6.M of the Specific Plan, reduce parking supply from 192 LAMC-required parking spaces to 164 spaces
2. Price workplace parking at \$1 per day for 50% of employees

As shown in Table 5, with the project design features included, the VMT Calculator estimates that the Project described above would generate a daily VMT of 15,739 and an average work VMT per employee of 7.6. The overall work VMT per employee of 7.6 would not exceed the Central APC significant work VMT impact threshold of 7.6 and, therefore, no mitigations would be required.

The detailed output from the VMT Calculator is provided in Appendix D.

CUMULATIVE ANALYSIS

Cumulative effects of development projects are determined based on the consistency with the air quality and GHG reduction goals of *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (Southern California Association of Governments, Adopted April 2016) (RTP/SCS) in terms of development location, density, and intensity. The RTP/SCS presents a long-term vision for the region's transportation system through Year 2040 and balances the region's future mobility and housing needs with economic, environmental, and public health goals. In addition, as stated in the TAG, for projects that do not demonstrate a project impact when applying an efficiency-based impact threshold (i.e., household VMT per capita, work VMT per employee) in the impact analysis, a less than significant impact conclusion is sufficient in demonstrating there is no cumulative VMT impact, as those projects are already shown to align with the long-term VMT and greenhouse gas goals of the RTP/SCS.

The Project would not result in a significant VMT impact, as detailed above. Therefore, the Project is not anticipated to result in a cumulative VMT impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

Furthermore, the Project Site is located within 0.25 miles of the Metro B (Red) Line Hollywood/Vine Station and is also well-served by various bus lines and would provide LAMC-required bicycle parking.

Thus, the Project encourages a variety of transportation options and is consistent with the RTP/SCS goal of maximizing mobility and accessibility in the region. The Project would also contribute to the productivity and use of the regional transportation system by providing employment near transit and encourage active transportation by providing new bicycle parking infrastructure and active street frontages, consistent with RTP/SCS goals.

**TABLE 5
VMT ANALYSIS SUMMARY**

Project Information	
Land Use	Size
Office Medical Office	102,780 sf
Project Analysis [a]	
Resident Population	0
Employee Population	308
Project Area Planning Commission	Central Los Angeles
Travel Behavior Zone	Urban
Maximum VMT Reduction	75%
VMT Proposed Project Analysis [b]	
Daily Vehicle Trips	2,368
Daily VMT	15,739
Household VMT per Capita [c]	0.0
Impact Threshold	6.0
Significant Impact	-
Work VMT per Employee [d]	7.6
Impact Threshold	7.6
Significant Impact	NO

Notes

[a] Project Analysis based on the *City of Los Angeles VMT Calculator Version 1.2* (November 2019).

[b] Project design features include:

1. Reduce Parking Supply from 192 spaces to 164 spaces
2. Price workplace parking at \$1 per day for 50% of employees

[c] Based on home-based production trips only (see Appendix D, Report 4).

[d] Based on home-based work attraction trips only (see Appendix D, Report 4).

Section 3C: Threshold T-2.2

Substantially Inducing Additional Automobile Travel Analysis

The intent of Threshold T-2.2 is to assess whether a transportation project would induce substantial VMT, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

The Project does not propose a transportation project that would induce substantial automobile travel and does not propose additional travel lanes. Therefore, the Project is not anticipated to result in a cumulative VMT impact under Threshold T-2.1 and no further evaluation or mitigation measures would be required.

Section 3D: Threshold T-3

***Substantially Increasing Hazards Due to a
Geometric Design Feature or Incompatible Use Analysis***

Further evaluation is required for projects that propose new access points or modifications along the public right-of-way (i.e., street dedications) under Threshold T-3. A review of Project access points, internal circulation, and parking access would determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

As previously detailed, parking for and access to the Project has already been constructed in the parking structure on the existing site. No additional access points or driveway widening are proposed. No unusual or new obstacles are presented in the design that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians.

The parking structure does not present significant safety issues regarding traffic/pedestrian conflicts and operates in accordance with LADOT standards. No exceptional horizontal or vertical curvatures exist along Virgil Avenue or Lyman Place that would create sight distance issues for traffic utilizing the structure. No street dedications on Lyman Place, De Longpre Avenue, or Virgil Avenue along the Project frontage would be required to meet City standards, as the existing parking structure has already been completed and street dedications have been provided or waived.

Based on the site plan review and design, the Project does not present any geometric design features that would substantially increase hazards related to traffic movement, mobility, or pedestrian accessibility and, thus, Project impacts are considered less than significant.

CUMULATIVE ANALYSIS

None of the Related Projects provide access along the same block as the Project. Thus, the Project and Related Projects would not result in a cumulative impact under Threshold T-3.

Section 3E: Threshold T-4 Resulting in Inadequate Emergency Access

Vehicular access to the Project Site would be maintained from Lyman Place and Virgil Avenue. The Project's driveways and internal circulation have already been designed to meet all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access. Compliance with these code requirements would be confirmed as part of the Los Angeles Fire Department (LAFD) fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, as set forth in Section 57.118 of the LAMC, and which are required prior to the issuance of a building permit.

Drivers of emergency vehicles are trained to utilize center turn lanes or travel in opposing lanes to pass through crowded intersections or streets. This, along with the requirement for other drivers to yield to emergency vehicles, allows them to negotiate through typical street conditions in urban areas.

As such, emergency access to the Project Site and surrounding area would be maintained. Therefore, the Project would not result in inadequate emergency access during operation and impacts to emergency access during operation of the Project would be less than significant.

Chapter 4

Non-CEQA Transportation Analysis

This chapter summarizes the non-CEQA transportation analysis of the Project. It includes Project traffic, access, safety, and circulation operations of both the Project and the nearby pedestrian, bicycle, and transit facilities. This chapter also summarizes the evaluation of the Project's operational conditions, parking supply and requirements, and effects due to Project construction.

NON-CEQA TRANSPORTATION ANALYSIS METHODOLOGY

The non-CEQA transportation analysis includes an assessment of (i) the Project's potential effect on pedestrian, bicycle, and transit facilities, (ii) the Project's potential effect on access, safety, and circulation, and (iii) the effect of Project construction on the surrounding street network. Intersection operations were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of five intersections, two signalized and three unsignalized, in the vicinity of the Project Site were selected for detailed transportation analysis and are shown in Figure 2.

The following traffic conditions were developed and analyzed as part of this study:

- Existing with Project Conditions: This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built under existing conditions.
- Future with Project Conditions (Year 2023): This analysis condition projects the potential intersection operating conditions that could be expected if the Project were occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2023).

Operational Evaluation

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the City to analyze intersection operating conditions. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections, while the HCM unsignalized methodology calculates the control delay, in seconds, for individual approaches of an intersection. Table 6 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized and unsignalized intersections. The queue lengths were estimated using Synchro, which reports the 95th percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

LOS and queuing worksheets for each scenario are provided in Appendix C.

Section 4A

Project Traffic

Trip generation estimates, trip distribution patterns and trip assignments were prepared for the proposed Project. These components form the basis of the Project's traffic analysis.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the Medical Office/Clinic components of the Project was estimated using rates published in *Trip Generation, 10th Edition*. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Site to the size of development of each land use.

Appropriate trip generation reductions to account for public transit usage, internal capture, and pass-by trips were made in consultation with LADOT. The Project is located within 0.25 miles walking distance of the Metro B (Red) Line Vermont/Sunset Station; therefore, in accordance with the TAG, a 15% transit/walk-in adjustment was made to Project trips to account for transit usage and walking arrivals from the surrounding neighborhoods and adjacent commercial developments. A 10% internal capture credit was taken to account for person trips made within the larger medical center adjacent to the Project.

As shown in Table 7, after accounting for the adjustments above, the Project is expected to generate 286 morning peak hour trips (226 inbound trips, 60 outbound trips) and 271 afternoon peak hour trips (76 inbound trips, 195 outbound trips).

PROJECT TRIP DISTRIBUTION

Similar to the trip distribution of traffic for the Related Projects described in Chapter 2, the geographic distribution of trips generated by the Project is dependent on the location of employment, residential, and commercial centers to and from which patrons of the Project would be drawn, characteristics of the street system serving the Project Site, access to Project, and existing traffic conditions.

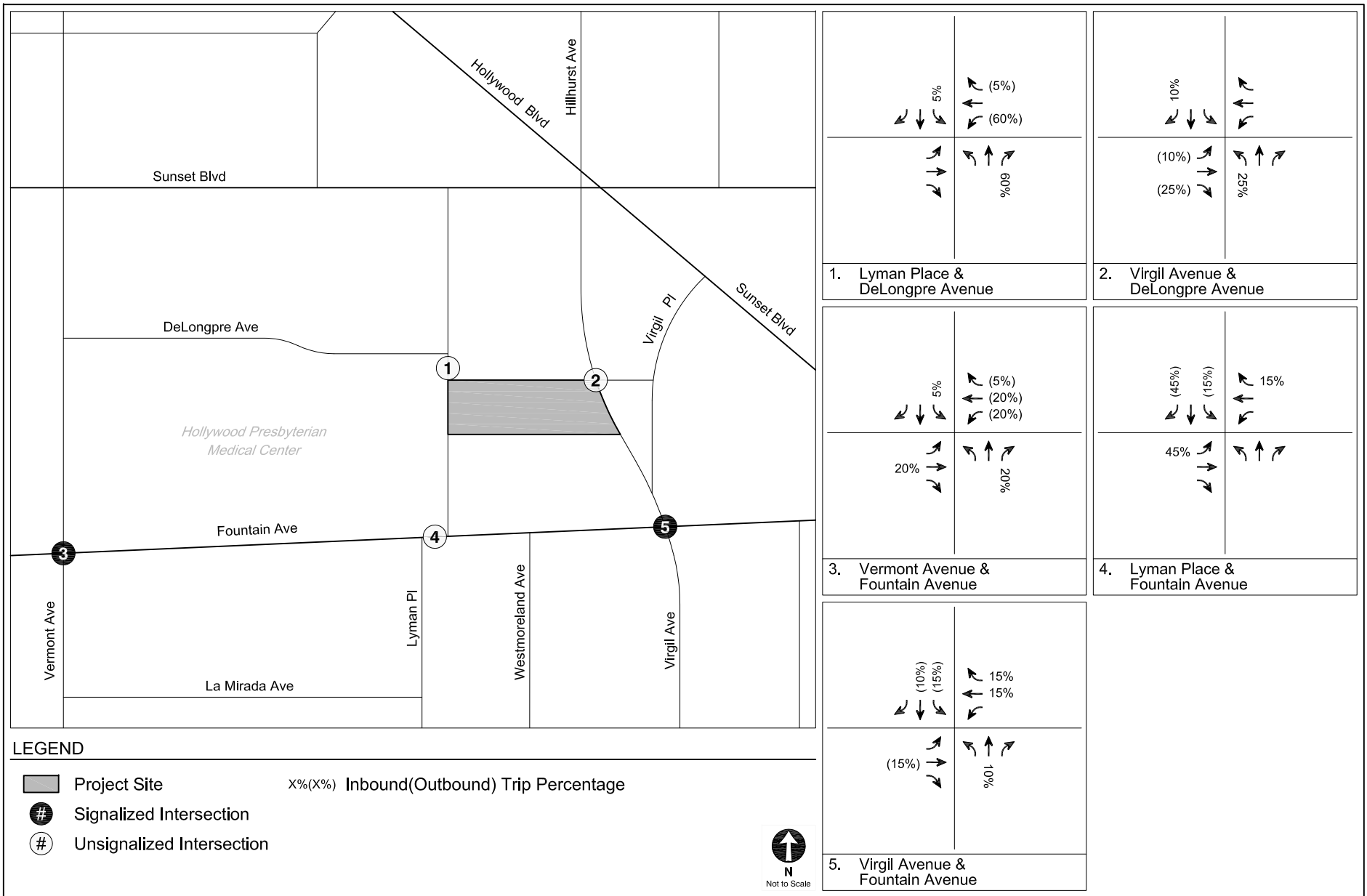
Based on these considerations, traffic entering and exiting the Project was assigned to the surrounding street system. Figure 11 shows the intersection-level trip distribution pattern.

Generally, the pattern is as follows:

- 20% to/from the north
- 25% to/from the east
- 30% to/from the south
- 25% to/from the west

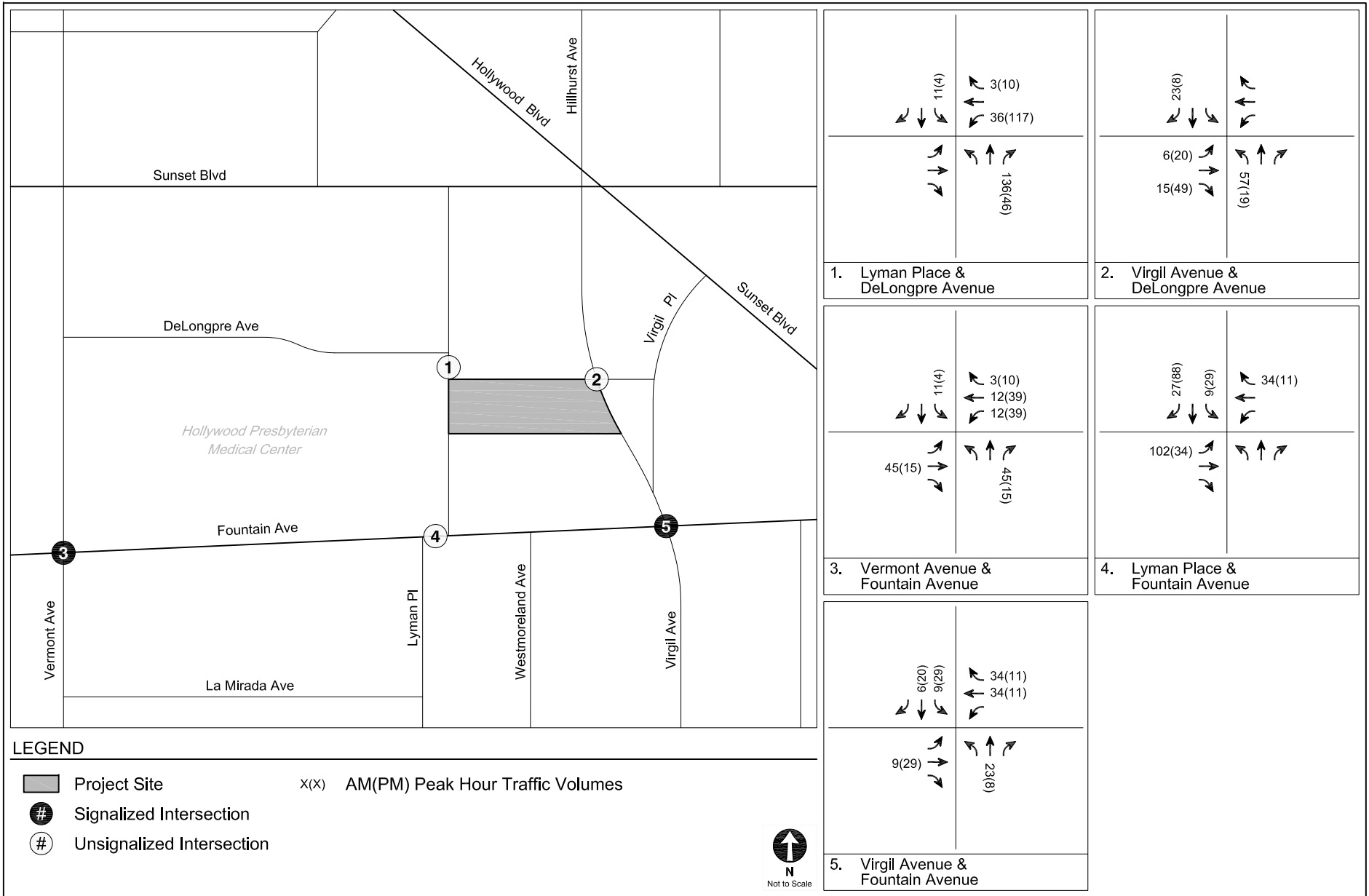
PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 7 and the trip distribution pattern shown in Figure 11 were used to assign the Project-generated traffic through the study intersections. Figure 12 illustrates the net Project-only traffic volumes for the Project at the study intersections during typical weekday morning and afternoon peak hours.



PROJECT TRIP DISTRIBUTION

FIGURE 11



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
12

**TABLE 6
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS**

Level of Service	Definition	Delay [a]	
		Signalized Intersections	Unsignalized Intersections
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	0.0 - 10.0	0.0 - 10.0
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	10.1 - 20.0	10.1 - 15.0
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	20.1 - 35.0	15.1 - 25.0
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	35.1 - 55.0	25.1 - 35.0
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	55.1 - 80.0	35.1 - 50.0
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80.0	> 50.0

Notes

Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).

[a] Measured in seconds.

**TABLE 7
TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES								
Land Use	ITE Land Use Code	Rate	Weekday [a]					
			Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Medical Office Clinic	720	per 1,000 sf	78%	22%	2.78	28%	72%	3.46
	630	per 1,000 sf	78%	22%	3.69	29%	71%	3.28
TRIP GENERATION ESTIMATES								
Land Use	ITE Land Use Code	Size	Weekday					
			Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
<u>Proposed Project Conditions</u>								
Virgil MOB/Clinic Project [b]	720/	102,780 sf	296	83	379	100	256	356
<i>Internal Capture Adjustment - 10% [c]</i>	630		(30)	(12)	(42)	(10)	(26)	(36)
<i>Transit/Walk-In Adjustment - 15% [d]</i>			(40)	(11)	(51)	(14)	(35)	(49)
TOTAL - PROJECT CONDITIONS			226	60	286	76	195	271

Notes:

sf - square feet

[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.

[b] Project trip generation includes Daily and AM peak hour trips from clinic use and PM peak hour trips from MOB use to provide for worst-case analysis

[c] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system.

[d] The Project Site is located less than 1/4 mile from the Metro B Line (Red Line) Vermont/Sunset Station, therefore a 15% adjustment was applied to account for transit/walk-in trips.

Section 4B

Project Access, Safety, and Circulation Assessment

This section summarizes the site access, safety, and circulation of the Project Site. It includes an evaluation of the expected access and circulation operations of the Project.

VEHICLES

The proposed circulation plan for the Project includes two full access driveways, one each on Virgil Avenue and Lyman Place, along the eastern and western Project boundaries, respectively. As previously described, the driveways have already been constructed as part of the existing parking structure on the site and conform to LADOT's standards for driveways. The circulation aisle widths of the parking areas are designed to allow adequate and safe circulation of vehicles without significant conflicts and conform to LADOT parking aisle width standards.

The vehicular access system is adequate to serve the site and no points of congestion are anticipated that would affect traffic flow on the adjacent public streets. It should be noted that the current driveways have been in operation serving the existing parking structure for the past two years without any safety or capacity impacts.

PEDESTRIANS AND BICYCLES

Pedestrian access to the Project would be maintained along Lyman Place, De Longpre Avenue, and Virgil Avenue. The Project access locations, which would not be altered, are designed to provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. All roadways and driveways intersect at right angles and street trees and other potential impediments to adequate driver and pedestrian visibility would be set back and, thus, be minimal. Pedestrian entrances will continue to provide access from the adjacent streets to the Project lobby and to parking facilities.

Visitors, residents and employees arriving by bicycle would have the same access opportunities as pedestrian visitors. In order to facilitate bicycle use, bicycle parking spaces would be provided, consistent with Section 9.E.2 of the Specific Plan.

Section 4C

Pedestrian, Bicycle, and Transit Assessment

This section assesses the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site.

Factors to consider when assessing a project's potential effect on pedestrian, bicycle, and transit facilities, include the following:

- Would the project directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian, bicycle, or transit facilities?
- Would a project intensify use of existing pedestrian, bicycle, or transit facilities?

PEDESTRIANS AND BICYCLES

The Project would not directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian or bicycle facilities. Although the Project may intensify use of existing pedestrian and bicycle facilities, the Project would provide adequate measures to ensure the safety of those accessing the site and utilizing the street system surrounding it.

TRANSIT

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. The Project is served by multiple bus lines along Hollywood Boulevard operated by Metro and DASH. Additionally, the Metro B (Red) Line Vermont/Sunset Station is within 0.25 miles of the Project Site.

Although the Project (and other Related Projects) will cumulatively add transit ridership, the Project Site and the Study Area are served by a vast amount of transit service, as detailed above.

As shown in Tables 3A and 3B, the total residual capacity of the bus and rail lines within the Study Area during the morning and afternoon peak hours is approximately 7,618 and 6,726 transit trips, respectively. The total Project morning and afternoon peak hour trips are projected to be 71 trips each, or approximately 1% of the total residual capacity of the transit lines within the Study Area during the morning and afternoon peak hours. Overall, the total transit capacity along the routes of those lines can accommodate the Project's transit trips.

Section 4D

Operational Evaluation

This section provides a quantitative evaluation of the Project's access and circulation operations, including the anticipated LOS at the study intersections and anticipated traffic queues.

LOS ANALYSIS

The intersection analysis was conducted based on the HCM methodologies to identify delay and LOS at each of the study intersections with development of the Project. Detailed LOS calculation worksheets are provided in Appendix C.

Existing with Project Conditions

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 2 and shown in Figure 12 were added to the existing morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 13 and represent Existing with Project Conditions, assuming Project operation under Existing Conditions.

Intersection LOS. Table 8 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing and Existing with Project Conditions. As shown in Table 8, all five study intersections operate at LOS D or better during both the morning and afternoon peak hours under both Existing Conditions and Existing with Project Conditions.

Future with Project Conditions

All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 3 are incorporated into this analysis.

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 12 were added to the Future without Project (Year 2023) morning and afternoon peak hour traffic volumes shown in Figure 10. The resulting volumes are illustrated in Figure 14 and represent Future with Project Conditions after development of the Project in Year 2023.

Intersection LOS. Table 9 summarizes the results of the Future without Project (Year 2023) and Future with Project Conditions during the weekday morning and afternoon peak hours for the three study intersections. As shown in Table 9, all five study intersections are anticipated to operate at LOS D or better during both the morning and afternoon peak hours under both Future without Project and Future with Project Conditions.

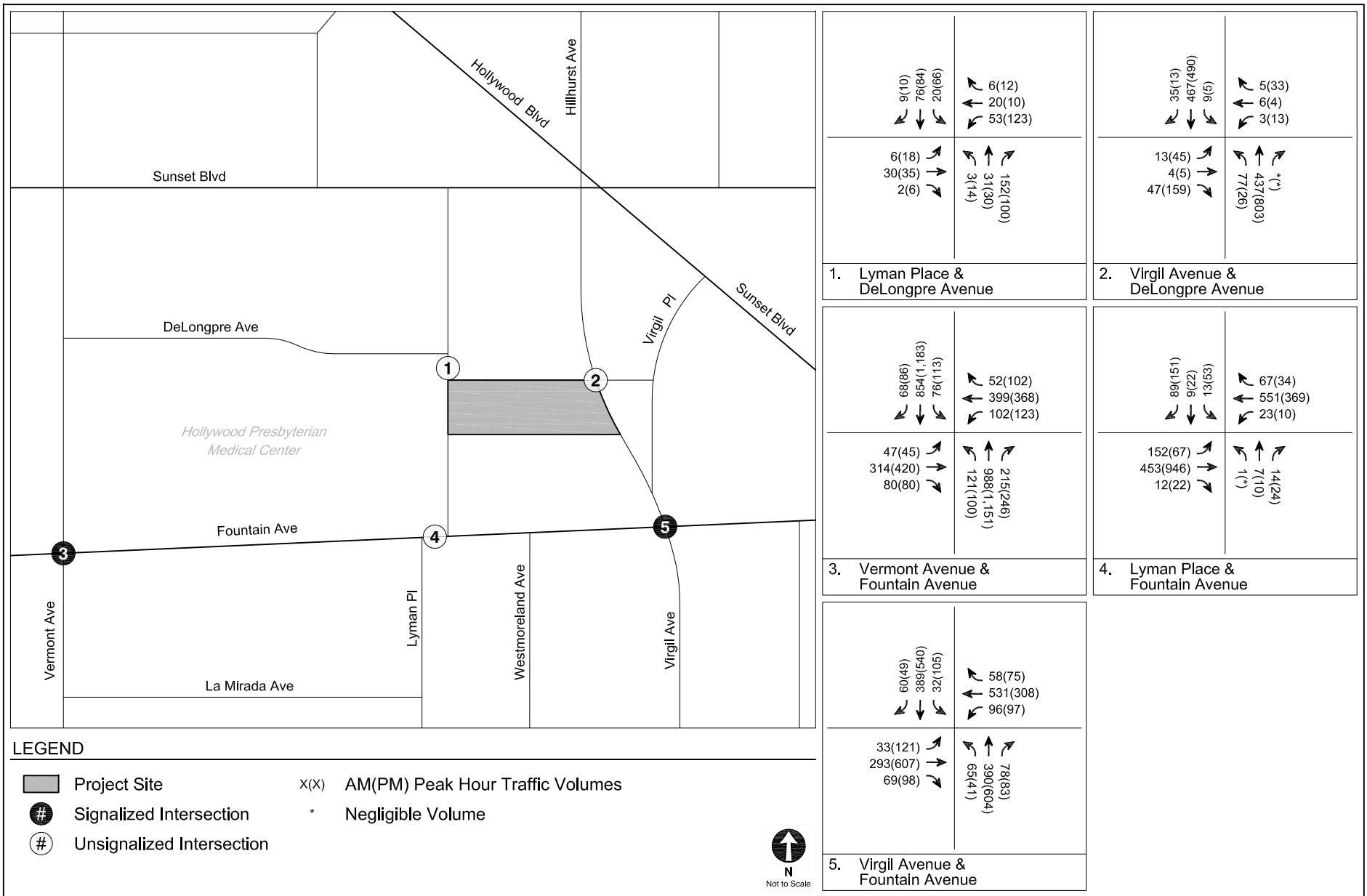
INTERSECTION QUEUING ANALYSIS

The intersections adjacent to the Project site were analyzed to determine whether the lengths of intersection turning lanes were enough to accommodate vehicle queue lengths. The intersections include two signalized intersections (Intersections #3 and #5) and three unsignalized intersections (Intersections #1, #2, and #4).

The queue lengths were estimated using Synchro software, which reports the 95th percentile queue length, in feet, for each approach lane. The reported queues were calculated using the HCM signalized and unsignalized intersection methodology.

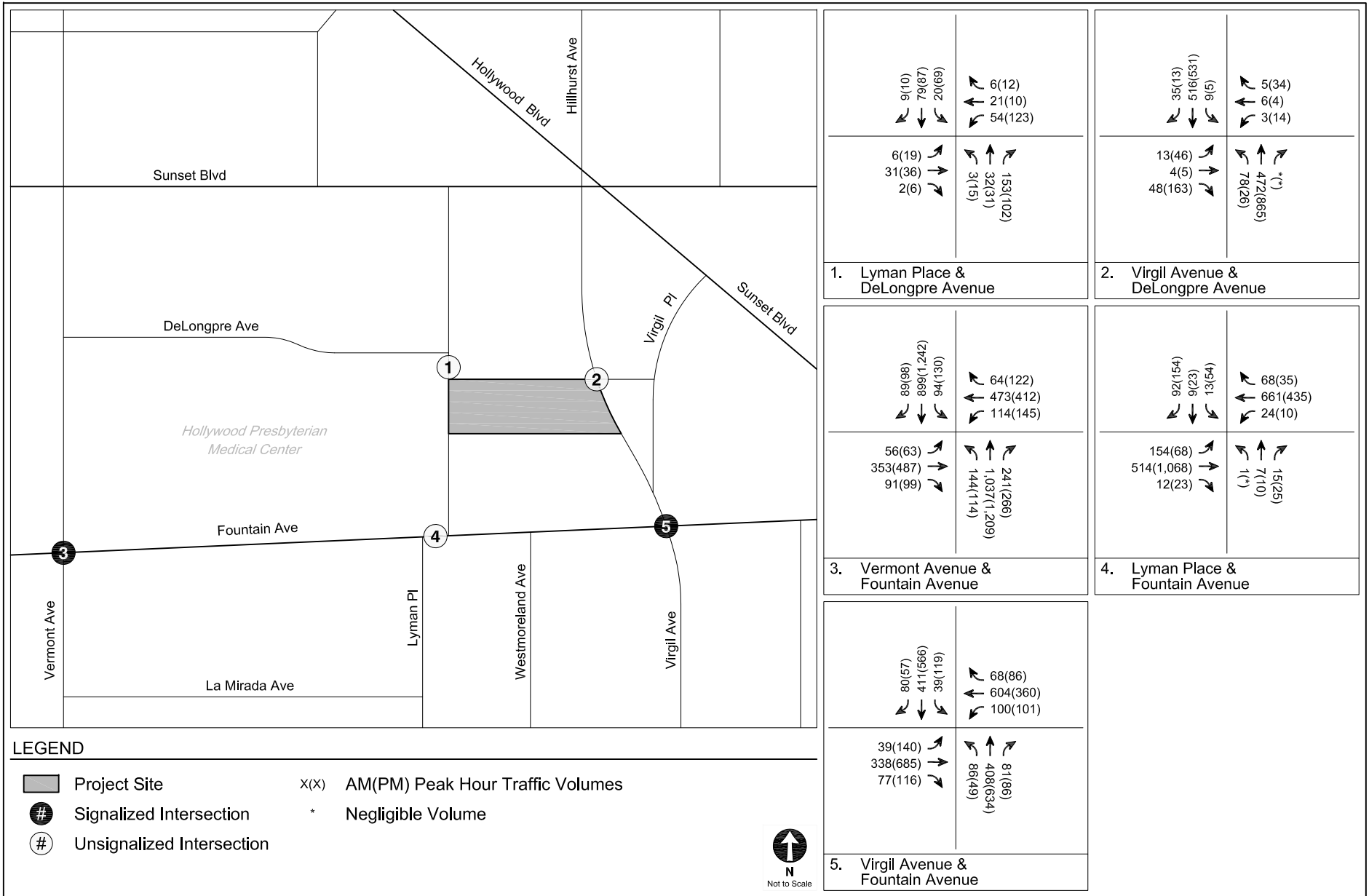
Project traffic would not cause vehicle queues in turn lanes to extend into the adjacent through lanes.

Detailed queuing analysis worksheets are provided in Appendix C.



EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
13



FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
14

**TABLE 8
EXISTING WITH PROJECT CONDITIONS (YEAR 2019)
INTERSECTION LEVELS OF SERVICE**

No	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions	
			Delay	LOS	Delay	LOS
1.	Lyman Place & DeLongpre Avenue	AM	7.6	A	8.1	A
		PM	8.0	A	8.8	A
2. [a]	Virgil Avenue & DeLongpre Avenue	AM	1.1	A	2.1	A
		PM	2.6	A	4.7	A
3.	Vermont Boulevard & Fountain Avenue	AM	17.5	B	18.0	B
		PM	17.8	B	19.8	B
4. [a]	Lyman Place & Fountain Avenue	AM	2.0	A	4.3	A
		PM	3.2	A	11.4	B
5.	Virgil Avenue & Fountain Avenue	AM	15.8	B	16.8	B
		PM	15.0	B	15.4	B

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 10 (HCM 6th Edition methodology)

[a] Worst-case approach delay is reported for two-way stop-controlled intersections.

**TABLE 9
FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
INTERSECTION LEVELS OF SERVICE**

No	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions	
			Delay	LOS	Delay	LOS
1.	Lyman Place & DeLongpre Avenue	AM	7.6	A	8.1	A
		PM	8.1	A	8.9	A
2. [a]	Virgil Avenue & DeLongpre Avenue	AM	1.1	A	2.1	A
		PM	2.9	A	5.6	A
3.	Vermont Boulevard & Fountain Avenue	AM	19.7	B	20.3	C
		PM	21.0	C	27.1	C
4. [a]	Lyman Place & Fountain Avenue	AM	2.2	A	5.6	A
		PM	4.3	A	22.3	C
5.	Virgil Avenue & Fountain Avenue	AM	17.0	B	18.3	B
		PM	16.1	B	16.6	B

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 10 (HCM 6th Edition methodology)

[a] Worst-case approach delay is reported for two-way stop-controlled intersections.

Section 4E

Residential Street Cut-Through Analysis

This section summarizes the residential street cut-through analysis for the Project, which determines potential increases in average daily traffic volumes on designated Local Streets, as classified in the Mobility Plan, that can be identified as cut-through trips generated by the Project and that can adversely affect the character and function of those streets.

Section 3.5.2 of the TAG provides a list of questions to assess whether the Project would negatively affect residential streets. Based on the Project's anticipated trip distribution patterns and driveway placement, Project trips would likely utilize the major thoroughfares such as Virgil Avenue and Sunset Boulevard to access the Project Site. As described in the TAG, it is the City's policy to locate new driveways on lower-volume side streets. Therefore, Project trips utilizing Lyman Place would not be considered "cut-through" traffic.

Therefore, residential Local Streets would not be affected by Project traffic and a residential street cut-through analysis would not be required.

Section 4F

Construction Impact Analysis

This section summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities associated with the Project and was performed in accordance with Section 3.4, Project Construction, of the TAG.

CONSTRUCTION EVALUATION CRITERIA

Section 3.4.3 of the TAG identifies three types of in-street construction impacts that require further analysis to assess the effects of Project construction on the existing pedestrian, bicycle, transit, or vehicle circulation. The three types of impacts and related populations are:

1. Temporary transportation constraints – potential impacts on the transportation system
2. Temporary loss of access – potential impacts on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential impacts on bus travelers

The factors used to determine the significance of a project's impacts involve the likelihood and extent to which an impact might occur, the potential inconvenience caused to users of the transportation system, and consideration for public safety. Construction activities could potentially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. As detailed in Section 3.4.4 of the TAG, the proposed construction plans should be reviewed to determine whether construction activities would require any of the following actions:

- Street, sidewalk, or lane closures
- Blockage of existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street
- Modification of access to transit stations, stops, or facilities during revenue hours

-
- Closure or movement of an existing bus stop or rerouting of an existing bus line
 - Creation of transportation hazards

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of approximately 24 months anticipated to be complete in the Year 2023. The construction period would include sub-phases of site foundations and building construction. There is neither excavation of the soil nor hauling in this Project, so no peak haul truck activity would occur. Peak worker activity occurs during building construction, so this sub-phase of construction was studied in greater detail.

With the implementation of the Construction Management Plan, which is described in more detail below, it is anticipated that, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during construction.

BUILDING CONSTRUCTION PHASE

The estimated number of construction workers each day depends on the phase of construction. According to construction projections prepared for the Project, the building subphase of construction would employ the most construction workers, with a maximum of approximately 80 workers per day for all components of building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 80 workers per day used for the purposes of this analysis represents a very conservative estimate.

Assuming an average vehicle occupancy of 1.135 persons per vehicle, 80 workers would result in a total of 71 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 142 (71 inbound

and 71 outbound trips), but all of those trips would occur outside of the peak hours, as described above. As such, the building phase of Project construction is not expected to cause a significant traffic impact at any of the study intersections.

During construction, adequate parking for construction workers would be provided in the existing parking structure on site. Restrictions on workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site would be identified as part of the Construction Management Plan. All construction materials storage and truck staging would be contained on-site and along De Longpre Avenue.

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) have been incorporated into the Construction Management Plan. The construction-related impacts associated with access and transit are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

Access

Construction activities are expected to be primarily occur along De Longpre Avenue and within the Project Site boundaries. Adjacent to the Project Site, De Longpre Avenue would be reduced to one westbound travel lane and pedestrian access would be closed on the southern side of the street throughout the construction period. Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction Management Plan. De Longpre Avenue is a Local Street that experiences minimal traffic, so queues due to construction activities are not anticipated to impact the surrounding street network. Emergency access in the area would also not be impeded.

The use of the public right-of-way along De Longpre Avenue would require temporary re-routing of pedestrian and bicycle traffic as the sidewalks fronting the Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

Transit

There are currently no bus stop locations along the Project frontages on De Longpre Avenue. Bus stop relocation or bus rerouting is not required; therefore, no temporary impacts to transit are expected.

Parking

Parking is allowed on De Longpre Avenue, adjacent to Project Site, so construction would result in a temporary loss of on-street parking spaces. This would result in the temporary loss of approximately eight unmetered on-street parking spaces on the south side of De Longpre Avenue. Google Map street view photos taken in February 2017 during the construction of the existing parking garage immediately under the Project showed that there were enough curb parking spaces available along Virgil Avenue, Fountain Avenue, and Lyman Place to accommodate the spaces lost due to construction.

The loss of parking spaces during construction would be a temporary impact and would, therefore, not rise to level of significance.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval, prior to commencing construction. The Construction Management Plan would formalize how

construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate:

- Advance, bilingual notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation.
- Prohibition of construction worker or equipment parking on adjacent streets
- Temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to De Longpre Avenue, to ensure traffic safety on public rights of way
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag men)
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding arterial streets
- Construction-related vehicles/equipment shall not park on surrounding public streets with the exception of De Longpre Avenue in the work zone area
- Coordination with LADOT to address temporary loss of unmetered parking spaces
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate

Section 4G

Parking

This section provides an analysis of the proposed parking and the potential parking impacts of the Project.

PROJECT PARKING

Vehicular parking for the Project would be provided on-site within the existing parking structure located under the proposed building. Bicycle parking would be provided on-site pursuant to Section 9.E.2 of the Specific Plan. Access to the parking structure is provided via Virgil Avenue and Lyman Place.

VEHICLE PARKING CODE REQUIREMENTS

For parking calculation purposes, the Project uses gross leasable area of the medical office, which is 95,995 sf pursuant to Section 12.21.A4(b) of the LAMC. As no specific requirement for non-hospital medical office and clinic uses exists in Subarea C of the Specific Plan and the Project is located in a State Enterprise Zone, required parking is two spaces per 1000 sf of floor area pursuant to LAMC 12.21 A.4(x)(3), As shown in Table 10, with allowable reductions, including a 15% reduction pursuant to Section 6.M of the Specific Plan, the total LAMC requirement for parking is 164 spaces. As previously detailed, 164 spaces in the existing parking structure will be dedicated for the Project.

BICYCLE PARKING CODE REQUIREMENTS

Section 9.E.2 of *Vermont/Western Transit Oriented District Specific Plan* (LADCP, January 23, 2001) (SNAP) details the bicycle parking requirements for new developments in the Specific Plan

area. As summarized in Table 11, the Project's proposed 95,995 sf of medical office would require a total of 19 bicycle parking spaces. In addition to the 21 existing bicycle parking spaces on the ground floor of the existing parking garage, which will be maintained without alteration, the Project will also provide 20 new bicycle parking spaces distributed between the three new levels for a total of 41 bicycle parking spaces .

**TABLE 10
VEHICLE PARKING CODE REQUIREMENTS**

Land Use	Size	Code Parking Rate [a]	Parking Required
Medical Office	95,995 sf	2.0 spaces / 1,000 sf	192 spaces
		<i>15% SNAP Reduction</i>	<i>-28 spaces</i>
Total Code Required Parking			164 spaces
Total Parking Provided			164 spaces

Notes

sf: square feet

[a] Parking rates per Los Angeles Municipal Code (LAMC) Section 12.21.A4(b).

**TABLE 11
BICYCLE PARKING CODE REQUIREMENTS**

Land Use	Size	1st 10,000 sf		Above 10,000 sf	
		Rate [a]	Requirement	Rate [a]	Requirement
Medical Office	95,995 sf	1.0 sp / 1,000 sf	10 sp	1.0 sp / 10,000 sf	9 sp
Bicycle Parking Requirements			10 sp		9 sp
Total Code Bicycle Parking Required					19 sp

Notes

sp - space

[a] Bicycle requirements as based on SNAP Section 9.E.2

Chapter 5

Summary and Conclusions

This Study analyzed the potential transportation impacts of the Project on the local transportation network. The following summarizes the results of this analysis:

- The Project proposes to construct a 95,995 sf (102,780 gross sf) medical office/clinic building on top of an existing parking structure. The Project is anticipated to be complete in Year 2023.
- The Project is consistent with the City's plans, programs, ordinances, and policies and does not create geometric design hazard impacts.
- The Project would not create a significant work VMT impact when the following two project design features are included:
 - Reducing required parking in accordance with the SNAP
 - Pricing workplace parking at a minimum of \$1 per day for at least 50% of Project employees.
- After application of appropriate trip reduction credits, the Project is estimated to generate 286 morning peak hour trips and 271 afternoon peak hour trips.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project will incorporate pedestrian and bicycle-friendly designs by providing additional bicycle parking and maintaining the existing adequate sidewalks.
- All construction worker traffic will occur outside of the commuter morning and afternoon peak hours and will not result in significant transportation impacts. A Construction Management Plan would ensure that construction impacts would be less than significant.
- The Project would have exclusive use of 164 vehicle parking spaces within the existing parking garage on site. Bicycle parking that meets the SNAP requirements would also be provided on site.

References

2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element, Los Angeles Department of City Planning, 2010.

2012 Developer Fee Justification Study, Los Angeles Unified School District, 2012.

The 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy, Southern California Association of Governments, April 2016.

CEQA Guidelines, California Code of Regulations, Title 14, Section 15000 and following

City of Los Angeles VMT Calculator Version 1.2, Los Angeles Department of Transportation and Los Angeles Department of City Planning, November 2019.

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City of Los Angeles Walkability Checklist – Guidance for Entitlement Review, City of Los Angeles Department of City Planning, November 2008.

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Hollywood Community Plan, Los Angeles Department of City Planning, December 1988.

Hollywood Community Plan Update Draft Environmental Impact Report, Terry A. Hayes Associates, Inc., November 2018.

Los Angeles Municipal Code, City of Los Angeles.

Manual of Policies and Procedures, Los Angeles Department of Transportation, December 2008.

Mobility Hubs: A Reader's Guide (Draft), Los Angeles Department of City Planning and City Planning Commission, Summer 2016.

Mobility Plan 2035, An Element of the General Plan, Los Angeles Department of City Planning, September 2016.

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan, Los Angeles Department of City Planning, March 2015.

References, cont.

Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, 2010.

State of California Senate Bill 743, Steinberg, 2013.

Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, December 2018.

Transportation Assessment Guidelines, Los Angeles Department of Transportation, July 2019.

Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles, Ashley Z. Hand, August 2016.

Vermont/Western Transit Oriented District Specific Plan, Los Angeles Department of City Planning, January 23, 2001.

Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025, City of Los Angeles, August 2015.

Appendix A

Memorandum of Understanding



Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: Virgil MOB Project

Project Address: 1318 Lyman Place, Los Angeles, CA 90027

Project Description: The Project includes up to 102,780 sf of medical office and clinic uses in three new floors on top of an existing parking garage.

LADOT Project Case Number: _____ Project Site Plan attached? (Required) Yes No

II. TRIP GENERATION

Geographic Distribution: N 20 % S 30 % E 25 % W 25 %

Illustration of Project trip distribution percentages at Study intersections attached? (Required) Yes No

Trip Generation Rate(s): ITE 10th Edition / Other ITE 10th Edition

Trip Generation Adjustment <i>(Exact amount of credit subject to approval by LADOT)</i>	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Existing Active Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Internal Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? (Required) Yes No

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>	Daily Trips <u>2564</u> (From VMT Calculator)
AM Trips	<u>227</u>	<u>64</u>	<u>290</u>	
PM Trips	<u>76</u>	<u>196</u>	<u>273</u>	

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient Growth Rate: 1 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? (Required) Yes No

Map of Study Intersections/Segments attached? Yes No

STUDY INTERSECTIONS (May be subject to LADOT revision after access, safety and circulation analysis)

- 1 See Table 1 4 _____
- 2 _____ 5 _____
- 3 _____ 6 _____

Is this Project located on a street within the High Injury Network? Yes No

IV. ACCESS ASSESSMENT


Is the project on a lot that is 0.5-acre or more in total gross area? Yes No

Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? Yes No

Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? Yes No

V. CONTACT INFORMATION

	<u>CONSULTANT</u>	<u>DEVELOPER</u>
Name:	<u>Gibson Transportation Consulting, Inc.</u>	_____
Address:	<u>555 W. 5th St., Suite 3375, Los Angeles, CA 90013</u>	_____
Phone Number:	<u>(213) 683-0088</u>	_____
E-Mail:	<u>rgibson@gibsontrans.com</u>	_____

Approved by: x _____	_____	x 	<u>1/22/2020</u>
Consultant's Representative	Date	LADOT Representative	*Date

*MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

Appendix B
Traffic Volume Data

Turning Movement Count Report AM

Location ID: 1
 North/South: Lyman Place
 East/West: DeLongpre Avenue (North)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	1	14	0	0	0	0	0	6	3	3	0	2	29
7:15	4	17	0	0	0	0	0	9	5	8	0	1	44
7:30	1	20	0	0	0	0	0	10	4	9	0	1	45
7:45	2	22	0	0	0	0	0	4	4	10	0	2	44
8:00	2	21	0	0	0	0	0	14	7	5	0	2	51
8:15	2	14	0	0	0	0	0	14	5	2	0	3	40
8:30	1	22	0	0	0	0	0	7	4	9	0	0	43
8:45	4	20	0	0	0	0	0	8	3	8	0	2	45
9:00	0	15	0	0	0	0	0	11	6	8	0	3	43
9:15	1	13	1	0	0	0	0	10	6	3	0	2	36
9:30	3	22	0	0	0	0	0	8	0	5	0	3	41
9:45	3	18	0	0	0	0	0	8	1	10	0	1	41

Total Volume:	24	218	1	0	0	0	0	109	48	80	0	22	502
Approach %	10%	90%	0%	0%	0%	0%	0%	69%	31%	78%	0%	22%	

Peak Hr Begin:	7:15												
PHV	9	80	0	0	0	0	0	37	20	32	0	6	184
PHF	0.927			0.000			0.679			0.792			0.902

Turning Movement Count Report PM

Location ID: 1
 North/South: Lyman Place
 East/West: DeLongpre Avenue (North)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	5	34	0	0	0	0	0	10	3	2	0	2	56
15:15	5	26	0	0	0	0	0	12	6	5	0	1	55
15:30	3	40	0	0	0	0	0	12	9	12	0	3	79
15:45	3	33	0	0	0	0	0	10	6	7	0	4	63
16:00	3	27	1	0	0	0	0	7	4	4	0	4	50
16:15	2	25	0	0	0	0	0	8	7	9	0	4	55
16:30	3	30	0	0	0	0	0	16	10	8	0	3	70
16:45	3	42	0	0	0	0	0	10	4	9	0	7	75
17:00	2	34	0	0	0	0	0	11	6	9	0	5	67
17:15	2	32	0	0	0	0	0	3	4	15	0	3	59
17:30	4	34	0	0	0	0	0	14	5	3	0	2	62
17:45	4	29	0	0	0	0	0	12	3	5	0	4	57

Total Volume:	39	386	1	0	0	0	0	125	67	88	0	42	748
Approach %	9%	91%	0%	0%	0%	0%	0%	65%	35%	68%	0%	32%	

Peak Hr Begin:	16:30												
PHV	10	138	0	0	0	0	0	40	24	41	0	18	271
PHF	0.822			0.000			0.615			0.819			0.903

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	0	0	11	0	14	0
7:15	0	0	0	0	17	0	4	0
7:30	2	0	0	0	7	0	16	0
7:45	2	0	0	0	11	0	14	1
8:00	5	0	0	0	8	0	11	0
8:15	4	0	0	0	12	0	16	1
8:30	4	0	0	0	10	0	8	0
8:45	2	0	0	0	15	0	12	0
9:00	4	0	0	0	11	0	12	0
9:15	3	1	0	0	7	0	7	0
9:30	5	0	0	0	7	0	21	0
9:45	5	0	0	0	9	0	7	1

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	3	0	0	0	4	0	14	1
15:15	3	0	0	0	2	0	7	1
15:30	4	0	0	0	10	0	17	0
15:45	6	0	0	0	5	0	5	0
16:00	3	0	0	0	0	0	12	0
16:15	9	0	0	0	0	0	14	0
16:30	0	0	0	0	8	0	8	1
16:45	2	0	0	0	0	0	7	1
17:00	4	0	0	0	15	0	14	1
17:15	1	0	0	0	9	0	7	0
17:30	2	1	0	0	10	0	8	1
17:45	1	0	0	0	7	0	7	0

Turning Movement Count Report AM

Location ID: 2
 North/South: Lyman Place
 East/West: DeLongpre Avenue (South)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	16	1	2	0	3	1	8	0	0	0	0	31
7:15	0	21	5	4	0	4	6	11	0	0	0	0	51
7:30	0	17	12	6	0	5	4	6	1	0	0	0	51
7:45	0	21	11	3	0	4	3	5	0	0	0	0	47
8:00	0	17	11	10	0	4	3	9	0	0	0	0	54
8:15	0	10	5	8	0	3	3	12	0	0	0	0	41
8:30	0	23	7	5	0	2	5	5	0	0	0	0	47
8:45	0	22	8	3	0	2	3	7	0	0	0	0	45
9:00	0	16	7	7	0	0	6	9	0	0	0	0	45
9:15	0	7	9	4	0	1	2	11	0	0	0	0	34
9:30	0	16	9	3	0	1	4	6	0	0	0	0	39
9:45	0	19	12	1	0	4	2	8	1	0	0	0	47

Total Volume:	0	205	97	56	0	33	42	97	2	0	0	0	532
Approach %	0%	68%	32%	63%	0%	37%	30%	69%	1%	0%	0%	0%	

Peak Hr Begin:	7:15												
PHV	0	76	39	23	0	17	16	31	1	0	0	0	203
PHF	0.898			0.714			0.706			0.000			0.940

Turning Movement Count Report PM

Location ID: 2
 North/South: Lyman Place
 East/West: DeLongpre Avenue (South)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	20	17	5	0	2	10	8	0	0	0	0	62
15:15	0	17	14	8	0	5	5	12	0	0	0	0	61
15:30	0	29	27	6	0	4	18	14	0	0	0	0	98
15:45	0	18	21	5	0	0	2	11	0	0	0	0	57
16:00	0	18	13	2	0	2	13	10	0	0	0	0	58
16:15	0	18	17	3	0	0	11	11	0	0	0	0	60
16:30	0	15	26	2	0	2	19	22	0	0	0	0	86
16:45	0	28	23	1	0	2	13	13	2	0	0	0	82
17:00	0	18	23	7	0	1	12	10	0	0	0	0	71
17:15	0	23	25	2	0	1	10	5	0	0	0	0	66
17:30	0	19	19	1	0	2	10	19	0	0	0	0	70
17:45	0	16	18	3	0	1	13	11	0	0	0	0	62

Total Volume:	0	239	243	45	0	22	136	146	2	0	0	0	833
Approach %	0%	50%	50%	67%	0%	33%	48%	51%	1%	0%	0%	0%	

Peak Hr Begin:	16:30												
PHV	0	84	97	12	0	6	54	50	2	0	0	0	305
PHF	0.887			0.563			0.646			0.000			0.887

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	11	0	1	0	14	0	0	0
7:15	17	0	5	0	18	0	0	0
7:30	7	0	2	0	15	0	0	0
7:45	11	0	3	0	28	0	0	0
8:00	8	0	8	0	22	0	0	0
8:15	12	0	4	0	16	0	0	0
8:30	10	0	10	0	14	0	0	0
8:45	15	0	12	0	18	0	0	0
9:00	11	0	6	0	10	0	0	0
9:15	7	0	9	0	7	0	0	0
9:30	7	0	7	0	13	0	0	0
9:45	9	0	6	0	4	0	0	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	0	5	0	19	0	0	0
15:15	2	0	3	0	12	0	0	0
15:30	10	0	9	0	16	0	0	0
15:45	5	0	2	0	6	0	0	0
16:00	0	0	10	0	15	0	0	0
16:15	0	0	22	0	9	0	0	0
16:30	8	0	5	0	11	0	0	0
16:45	0	0	3	0	8	0	0	0
17:00	15	0	4	0	14	0	0	0
17:15	9	0	10	0	10	0	0	0
17:30	10	0	4	0	15	0	0	0
17:45	7	0	3	0	8	0	0	0

Turning Movement Count Report AM

Location ID: 3
 North/South: Virgil Avenue
 East/West: DeLongpre Avenue (South)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	3	73	0	0	0	1	1	72	2	1	0	0	153
7:15	5	86	0	3	1	1	1	87	1	10	0	1	196
7:30	5	89	0	3	1	4	0	117	2	11	1	0	233
7:45	3	115	2	2	0	0	0	105	3	13	0	2	245
8:00	3	140	0	0	3	1	0	112	9	6	2	3	279
8:15	5	97	4	2	2	1	0	112	4	7	0	1	235
8:30	1	115	3	1	1	1	0	108	4	6	2	1	243
8:45	3	68	2	2	1	3	1	128	1	11	1	0	221
9:00	3	94	0	3	1	1	0	130	3	9	2	1	247
9:15	1	102	4	5	0	1	0	118	3	4	1	4	243
9:30	0	93	2	1	0	0	0	106	4	10	2	1	219
9:45	4	102	2	2	0	1	1	107	2	14	3	2	240

Total Volume:	36	1174	19	24	10	15	4	1302	38	102	14	16	2754
Approach %	3%	96%	2%	49%	20%	31%	0%	97%	3%	77%	11%	12%	

Peak Hr Begin:	7:45												
PHV	12	467	9	5	6	3	0	437	20	32	4	7	1002
PHF	0.853			0.700			0.944			0.717			0.898

Turning Movement Count Report PM

Location ID: 3
 North/South: Virgil Avenue
 East/West: DeLongpre Avenue (South)

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	2	108	2	3	0	1	0	131	5	21	1	3	277
15:15	7	135	1	7	3	1	1	157	4	16	0	2	334
15:30	4	127	2	5	2	1	0	130	2	35	1	5	314
15:45	0	108	1	7	0	2	0	133	4	22	0	5	282
16:00	3	110	0	2	0	1	0	143	2	18	0	5	284
16:15	2	120	2	4	1	4	0	145	0	25	0	5	308
16:30	1	126	1	8	0	4	0	171	2	35	0	8	356
16:45	1	122	1	6	0	3	0	229	1	28	1	9	401
17:00	2	117	0	9	3	4	0	212	3	23	1	4	378
17:15	1	125	3	10	1	2	0	191	1	24	3	4	365
17:30	1	111	3	9	0	0	0	165	2	22	1	1	315
17:45	0	114	2	6	1	2	0	181	1	28	2	4	341

Total Volume:	24	1423	18	76	11	25	1	1988	27	297	10	55	3955
Approach %	2%	97%	1%	68%	10%	22%	0%	99%	1%	82%	3%	15%	

Peak Hr Begin:	16:30												
PHV	5	490	5	33	4	13	0	803	7	110	5	25	1500
PHF	0.969			0.781			0.880			0.814			0.935

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	10	0	2	0	0	0	5	0
7:15	12	0	2	1	0	0	6	0
7:30	10	0	1	0	2	0	5	0
7:45	12	0	5	0	0	0	11	0
8:00	8	0	4	0	0	0	5	0
8:15	9	0	5	1	1	0	8	2
8:30	6	0	2	0	0	0	10	0
8:45	8	0	2	0	0	0	2	0
9:00	5	0	2	0	0	0	9	0
9:15	3	0	4	0	0	0	5	0
9:30	1	0	2	0	1	0	3	0
9:45	7	0	2	1	0	0	14	1

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	5	0	3	0	1	0	2	0
15:15	2	0	3	0	0	0	9	0
15:30	3	0	6	0	0	0	9	0
15:45	7	0	1	0	0	0	11	1
16:00	4	0	0	1	0	0	8	0
16:15	4	0	5	0	1	0	10	1
16:30	11	0	5	0	3	0	9	0
16:45	7	0	8	2	0	0	10	1
17:00	10	0	1	0	4	0	16	0
17:15	3	0	3	0	0	0	14	0
17:30	3	0	4	1	2	0	9	1
17:45	5	0	6	0	0	0	8	0

Turning Movement Count Report AM

Location ID: 10
 North/South: Vermont Avenue
 East/West: Fountain Avenue

Date: 12/11/18
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	6	134	13	16	75	9	26	198	20	12	54	10	573
7:15	9	163	6	18	101	28	39	223	21	17	65	6	696
7:30	11	199	12	11	79	27	33	272	26	18	63	12	763
7:45	14	212	10	16	90	22	59	256	30	22	71	17	819
8:00	26	223	24	10	102	17	39	226	32	19	71	11	800
8:15	17	220	19	12	116	24	39	234	33	21	64	7	806
8:30	15	170	20	17	95	13	44	225	41	18	68	11	737
8:45	17	197	14	16	99	24	32	256	36	18	54	13	776
9:00	20	195	11	10	91	13	30	218	22	14	43	14	681
9:15	11	173	11	13	107	14	21	228	26	18	58	6	686
9:30	13	158	14	15	94	17	30	218	27	18	50	14	668
9:45	24	153	27	21	88	28	34	223	27	19	51	15	710

Total Volume:	183	2197	181	175	1137	236	426	2777	341	214	712	136	8715
Approach %	7%	86%	7%	11%	73%	15%	12%	78%	10%	20%	67%	13%	

Peak Hr Begin:	7:30												
PHV	68	854	65	49	387	90	170	988	121	80	269	47	3188
PHF	0.904			0.865			0.927			0.900			0.973

Turning Movement Count Report PM

Location ID: 10
 North/South: Vermont Avenue
 East/West: Fountain Avenue

Date: 12/11/18
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	19	255	26	28	72	22	45	254	23	36	99	15	894
15:15	26	276	23	28	83	24	30	251	26	23	71	9	870
15:30	18	267	29	30	66	22	41	231	28	18	91	14	855
15:45	26	260	32	17	73	17	46	282	35	19	104	14	925
16:00	18	267	26	31	75	24	47	235	17	36	84	11	871
16:15	22	309	38	28	75	19	58	251	21	12	105	3	941
16:30	17	304	27	33	73	19	54	279	24	21	98	5	954
16:45	26	274	21	21	83	22	58	309	28	22	100	11	975
17:00	21	311	31	15	94	21	58	292	22	20	102	16	1003
17:15	22	294	30	23	79	22	61	271	26	17	105	13	963
17:30	25	284	34	27	85	21	64	264	19	17	93	15	948
17:45	22	263	26	13	69	23	63	317	33	14	95	15	953

Total Volume:	262	3364	343	294	927	256	625	3236	302	255	1147	141	11152
Approach %	7%	85%	9%	20%	63%	17%	15%	78%	7%	17%	74%	9%	

Peak Hr Begin:	16:30												
PHV	86	1183	109	92	329	84	231	1151	100	80	405	45	3895
PHF	0.949			0.971			0.938			0.960			0.971

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	5	0	5	0	5	1	2	1
7:15	4	0	9	0	5	0	4	1
7:30	12	0	8	0	4	0	12	1
7:45	7	0	14	0	10	0	8	1
8:00	6	0	19	0	15	0	13	0
8:15	3	0	13	0	4	0	8	1
8:30	9	0	19	2	6	1	10	1
8:45	9	0	13	0	7	0	13	0
9:00	16	0	20	1	11	1	14	3
9:15	7	0	12	0	11	0	15	0
9:30	7	0	13	1	9	1	10	1
9:45	10	0	15	0	4	0	13	0

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	13	1	13	0	2	0	17	0
15:15	11	0	13	0	5	0	19	0
15:30	23	0	14	0	11	0	14	0
15:45	10	0	11	0	14	0	2	0
16:00	10	0	20	0	9	0	24	0
16:15	4	0	16	0	8	0	26	1
16:30	18	0	16	0	7	0	13	1
16:45	18	0	22	0	17	0	33	0
17:00	8	0	10	0	3	0	13	1
17:15	6	0	12	0	9	0	13	0
17:30	13	1	11	1	6	0	13	0
17:45	3	0	11	0	4	0	8	0

Turning Movement Count Report AM

Location ID: 4
 North/South: Lyman Place
 East/West: Fountain Avenue

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	14	0	1	5	128	5	7	1	1	2	70	14	248
7:15	22	1	1	13	118	4	6	2	0	3	118	10	298
7:30	14	2	1	7	119	6	5	1	0	1	127	7	290
7:45	16	4	1	6	149	5	3	2	0	5	119	17	327
8:00	10	2	1	7	165	8	0	2	1	3	89	16	304
8:15	9	4	0	6	136	9	0	1	1	4	103	17	290
8:30	16	3	1	10	140	7	5	1	0	4	80	7	274
8:45	15	6	1	8	122	13	2	1	1	4	95	11	279
9:00	12	2	0	9	159	11	6	2	4	4	81	7	297
9:15	8	2	1	6	174	5	8	3	0	4	92	8	311
9:30	13	3	1	5	121	0	6	1	3	3	87	7	250
9:45	17	0	3	4	112	3	5	0	3	0	98	13	258

Total Volume:	166	29	12	86	1643	76	53	17	14	37	1159	134	3426
Approach %	80%	14%	6%	5%	91%	4%	63%	20%	17%	3%	87%	10%	

Peak Hr Begin:	7:15												
PHV	62	9	4	33	551	23	14	7	1	12	453	50	1219
PHF	0.781			0.843			0.688			0.913			0.932

Turning Movement Count Report PM

Location ID: 4
 North/South: Lyman Place
 East/West: Fountain Avenue

Date: 11/07/19
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	16	2	5	3	97	4	5	1	0	4	136	11	284
15:15	14	6	10	6	121	8	3	1	1	4	152	7	333
15:30	29	7	7	2	75	9	2	1	1	4	134	10	281
15:45	19	5	5	5	86	9	8	1	0	2	174	6	320
16:00	20	4	10	6	88	3	11	1	2	1	200	3	349
16:15	13	6	4	1	86	2	8	1	0	4	224	6	355
16:30	21	5	6	5	83	7	8	1	1	6	215	13	371
16:45	34	5	4	6	103	2	2	4	0	2	201	7	370
17:00	16	4	5	6	91	1	8	3	0	3	246	7	390
17:15	19	4	10	1	109	4	5	0	0	3	248	10	413
17:30	18	4	6	8	81	3	5	4	0	10	214	9	362
17:45	10	10	3	8	88	2	6	3	0	6	238	7	381

Total Volume:	229	62	75	57	1108	54	71	21	5	49	2382	96	4209
Approach %	63%	17%	20%	5%	91%	4%	73%	22%	5%	2%	94%	4%	

Peak Hr Begin:	17:00												
PHV	63	22	24	23	369	10	24	10	0	22	946	33	1546
PHF	0.826			0.882			0.773			0.959			0.936

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	2	4	0	0	10	0	15	0
7:15	5	1	0	0	3	0	7	0
7:30	7	3	2	0	8	3	8	1
7:45	6	2	1	0	8	0	12	0
8:00	8	1	2	0	2	0	7	0
8:15	6	2	2	0	5	1	10	0
8:30	4	1	0	0	11	0	14	0
8:45	4	4	0	0	7	0	14	0
9:00	5	4	1	0	6	0	9	0
9:15	5	1	3	0	12	0	12	0
9:30	5	2	1	0	8	0	11	0
9:45	4	2	0	0	8	0	9	1

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	2	0	0	7	0	14	0
15:15	11	0	0	0	16	1	15	0
15:30	8	2	0	0	17	1	20	0
15:45	4	1	1	0	8	1	13	0
16:00	11	2	0	0	5	0	15	0
16:15	4	1	0	0	8	0	23	0
16:30	7	2	0	0	3	0	13	0
16:45	1	1	0	0	5	1	8	1
17:00	10	1	0	0	2	1	7	0
17:15	7	1	0	0	4	1	5	0
17:30	2	3	0	0	4	1	24	0
17:45	0	1	0	0	6	1	16	0

Location ID: 15
 North/South: Virgil Avenue/Virgil Place
 East/West: Fountain Avenue

Date: 12/11/18
 City: Los Angeles, CA

	Southbound			Westbound				Northbound				Eastbound				SB (Virgil Pl)	Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Movements:	R	T	L	R - (Vir Pl)	R - (Vir Av)	T	L	R	T - (Vir Pl)	T - (Vir Av)	L	R	T	L - (Vir Pl)	L - (Vir Av)	R - (Vir Av)	
7:00	5	68	9	2	3	93	24	26	74	5	14	12	75	7	1	0	418
7:15	13	79	5	3	2	112	36	41	89	5	19	14	85	8	1	2	514
7:30	17	94	12	0	12	98	44	42	113	2	16	15	85	7	2	0	559
7:45	15	99	7	8	6	110	29	35	97	9	12	7	85	13	1	1	534
8:00	16	90	6	2	7	140	38	27	87	5	15	20	76	4	4	1	538
8:15	11	99	7	1	5	125	18	17	82	7	17	15	79	7	1	2	493
8:30	14	101	7	3	3	112	22	16	87	7	20	22	66	8	0	3	491
8:45	19	93	3	1	2	120	18	18	83	9	13	12	63	9	0	1	464
9:00	14	102	7	0	8	113	25	24	79	4	12	13	56	7	2	4	470
9:15	11	101	6	0	16	101	23	24	82	2	11	10	58	2	1	2	450
9:30	10	101	7	1	8	100	19	29	99	2	11	13	67	7	0	1	475
9:45	9	77	14	1	13	102	18	24	111	3	17	14	69	9	1	0	482

Total Volume:	154	1104	90	22	85	1326	314	323	1083	60	177	167	864	88	14	17	5888
Approach %	11%	82%	7%	1%	5%	76%	18%	20%	66%	4%	11%	15%	76%	8%	1%	100%	

Peak Hr Begin:	8:00																
PHV	60	383	23	7	17	497	96	78	339	28	65	69	284	28	5	7	1986
PHF	0.955			0.825				0.951				0.928				0.583	0.997

	Southbound			Westbound				Northbound				Eastbound				SB (Virgil Pl)	Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Movements:	R	T	L - (Foun)	R - (Hoov)	R - (Sun)	T	L	R	T - (Hoov)	T - (Sun)	L	R	T	L - (Sun)	L - (Foun)	R - (Sun)	
15:00	16	106	15	3	12	70	22	27	104	3	15	21	114	21	0	2	551
15:15	12	118	16	0	11	70	18	19	103	1	9	25	104	10	1	5	522
15:30	15	114	19	0	10	59	22	22	113	3	10	22	133	12	0	3	557
15:45	19	106	10	0	9	75	24	17	130	0	9	23	146	19	0	5	592
16:00	10	123	27	1	6	74	24	25	126	4	18	24	156	21	0	3	642
16:15	10	116	24	1	11	68	19	31	123	1	9	23	151	19	1	2	609
16:30	13	138	14	3	13	70	24	16	153	3	15	21	165	23	1	4	676
16:45	10	127	18	2	10	84	25	22	159	4	10	23	109	26	0	8	637
17:00	16	131	23	0	19	74	27	24	134	1	9	31	163	39	1	4	696
17:15	10	124	21	1	16	69	21	21	140	2	7	23	141	30	1	7	634
17:30	13	90	15	1	17	80	26	31	138	2	12	32	142	27	0	6	632
17:45	9	96	23	2	10	74	22	20	138	1	8	13	157	20	1	6	600

Total Volume:	153	1389	225	14	144	867	274	275	1561	25	131	281	1681	267	6	55	7348
Approach %	9%	79%	13%	1%	11%	67%	21%	14%	78%	1%	7%	13%	75%	12%	0%	100%	

Peak Hr Begin:	16:30																
PHV	49	520	76	6	58	297	97	83	586	10	41	98	578	118	3	23	2643
PHF	0.949			0.946				0.923				0.851				0.719	0.949

Location ID: 15
 North/South: Virgil Avenue/Virgil Place
 East/West: Fountain Avenue

Date: 12/11/18
 City: Los Angeles, CA

Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	2	0	0	0	4	0	2	0
7:15	19	1	0	0	9	0	6	0
7:30	11	0	2	0	5	1	1	0
7:45	4	0	4	0	14	1	2	0
8:00	4	0	1	0	1	0	3	0
8:15	4	0	4	0	4	0	4	1
8:30	3	0	2	0	7	0	4	1
8:45	7	1	2	0	3	0	2	0
9:00	0	0	1	0	3	0	3	0
9:15	3	0	3	0	8	0	1	0
9:30	2	0	0	0	3	1	0	0
9:45	7	0	4	0	4	1	4	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	7	0	2	0	11	0	6	0
15:15	13	0	5	0	6	1	3	0
15:30	4	0	2	0	7	1	2	0
15:45	4	0	5	0	4	0	1	1
16:00	7	0	1	0	8	0	10	0
16:15	5	0	1	0	10	0	4	0
16:30	10	1	8	1	8	0	13	0
16:45	7	0	3	0	5	0	6	0
17:00	12	0	7	0	6	0	7	0
17:15	12	0	6	0	13	0	5	0
17:30	8	1	6	0	5	0	2	0
17:45	10	1	6	0	6	0	2	0

Appendix C

HCM Analysis Worksheets

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	30	2	17	20	3	3	31	16	9	76	9
Future Vol, veh/h	6	30	2	17	20	3	3	31	16	9	76	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	33	2	18	22	3	3	34	17	10	83	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.3	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	16%	42%	10%
Vol Thru, %	62%	79%	50%	81%
Vol Right, %	32%	5%	7%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	38	40	94
LT Vol	3	6	17	9
Through Vol	31	30	20	76
RT Vol	16	2	3	9
Lane Flow Rate	54	41	43	102
Geometry Grp	1	1	1	1
Degree of Util (X)	0.06	0.049	0.052	0.116
Departure Headway (Hd)	3.981	4.238	4.277	4.085
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	889	834	827	871
Service Time	2.052	2.322	2.359	2.145
HCM Lane V/C Ratio	0.061	0.049	0.052	0.117
HCM Control Delay	7.3	7.5	7.6	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.4

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	4	32	3	6	5	20	437	0	9	467	12
Future Vol, veh/h	7	4	32	3	6	5	20	437	0	9	467	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	4	35	3	7	5	22	475	0	10	508	13

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	820	1054	261	795	1060	238	521	0	0	475	0	0
Stage 1	535	535	-	519	519	-	-	-	-	-	-	-
Stage 2	285	519	-	276	541	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	267	225	738	278	223	763	1041	-	-	1083	-	-
Stage 1	497	522	-	508	531	-	-	-	-	-	-	-
Stage 2	698	531	-	707	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	251	216	738	253	214	763	1041	-	-	1083	-	-
Mov Cap-2 Maneuver	251	216	-	253	214	-	-	-	-	-	-	-
Stage 1	483	515	-	493	516	-	-	-	-	-	-	-
Stage 2	664	516	-	659	512	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB			
HCM Control Delay, s	13.3		17.6			0.5		0.2			
HCM LOS	B		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	479	301	1083	-	-
HCM Lane V/C Ratio	0.021	-	-	0.098	0.051	0.009	-	-
HCM Control Delay (s)	8.5	0.1	-	13.3	17.6	8.4	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	47	272	81	91	391	49	122	998	172	66	863	69
Future Volume (veh/h)	47	272	81	91	391	49	122	998	172	66	863	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	296	88	99	425	53	133	1085	187	72	938	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	800	233	287	551	467	394	2619	451	282	2458	196
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.60	0.60	0.51	0.51	0.51
Sat Flow, veh/h	916	2713	792	999	1870	1585	1781	4384	755	435	4821	385
Grp Volume(v), veh/h	51	192	192	99	425	53	133	842	430	72	662	351
Grp Sat Flow(s),veh/h/ln	916	1777	1728	999	1870	1585	1781	1702	1734	435	1702	1801
Q Serve(g_s), s	4.8	7.7	7.9	7.9	18.7	2.2	3.0	11.9	11.9	9.5	10.6	10.7
Cycle Q Clear(g_c), s	23.5	7.7	7.9	15.8	18.7	2.2	3.0	11.9	11.9	13.6	10.6	10.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.44	1.00		0.21
Lane Grp Cap(c), veh/h	160	524	509	287	551	467	394	2033	1036	282	1735	918
V/C Ratio(X)	0.32	0.37	0.38	0.35	0.77	0.11	0.34	0.41	0.41	0.26	0.38	0.38
Avail Cap(c_a), veh/h	195	592	576	325	623	528	436	2033	1036	282	1735	918
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	25.1	25.2	31.4	29.0	23.1	9.5	9.7	9.7	15.4	13.4	13.4
Incr Delay (d2), s/veh	1.1	0.4	0.5	0.7	5.2	0.1	0.5	0.6	1.2	2.2	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.0	5.1	5.1	3.4	12.0	1.5	2.0	6.3	6.7	1.9	6.1	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	25.5	25.6	32.1	34.2	23.3	10.0	10.3	10.9	17.6	14.1	14.6
LnGrp LOS	D	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		435			577			1405			1085	
Approach Delay, s/veh		27.4			32.8			10.5			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.9	50.6		31.5		58.5		31.5				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	7.0	* 40		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s	5.0	15.6		20.7		13.9		25.5				
Green Ext Time (p_c), s	0.1	8.8		2.3		11.5		1.0				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	51	458	12	23	557	33	1	7	14	4	9	63
Future Vol, veh/h	51	458	12	23	557	33	1	7	14	4	9	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	498	13	25	605	36	1	8	15	4	10	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	641	0	0	511	0	0	1327	1306	505	1299	1294	623
Stage 1	-	-	-	-	-	-	615	615	-	673	673	-
Stage 2	-	-	-	-	-	-	712	691	-	626	621	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	943	-	-	1054	-	-	132	160	567	138	163	486
Stage 1	-	-	-	-	-	-	479	482	-	445	454	-
Stage 2	-	-	-	-	-	-	423	446	-	472	479	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	943	-	-	1054	-	-	101	147	567	121	150	486
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	147	-	121	150	-
Stage 1	-	-	-	-	-	-	451	454	-	419	443	-
Stage 2	-	-	-	-	-	-	347	435	-	425	451	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			19.7			18.9		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	268	943	-	-	1054	-	-	341
HCM Lane V/C Ratio	0.089	0.059	-	-	0.024	-	-	0.242
HCM Control Delay (s)	19.7	9.1	-	-	8.5	-	-	18.9
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-	-	0.9

HCM 6th Signalized Intersection Summary

5: Virgil Avenue & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	33	284	69	96	497	24	65	367	78	23	383	60
Future Volume (veh/h)	33	284	69	96	497	24	65	367	78	23	383	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	309	75	104	540	26	71	399	85	25	416	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	544	132	325	662	32	450	1307	276	448	1380	214
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	845	1454	353	999	1770	85	914	2920	616	911	3083	478
Grp Volume(v), veh/h	36	0	384	104	0	566	71	241	243	25	239	242
Grp Sat Flow(s),veh/h/ln	845	0	1807	999	0	1855	914	1777	1759	911	1777	1784
Q Serve(g_s), s	2.4	0.0	10.1	5.5	0.0	16.5	3.2	5.2	5.3	1.1	5.1	5.2
Cycle Q Clear(g_c), s	18.9	0.0	10.1	15.7	0.0	16.5	8.4	5.2	5.3	6.4	5.1	5.2
Prop In Lane	1.00		0.20	1.00		0.05	1.00		0.35	1.00		0.27
Lane Grp Cap(c), veh/h	204	0	676	325	0	694	450	796	788	448	796	799
V/C Ratio(X)	0.18	0.00	0.57	0.32	0.00	0.82	0.16	0.30	0.31	0.06	0.30	0.30
Avail Cap(c_a), veh/h	288	0	855	424	0	878	450	796	788	448	796	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	0.0	14.9	21.2	0.0	16.9	13.3	10.6	10.6	12.7	10.6	10.6
Incr Delay (d2), s/veh	0.4	0.0	0.8	0.6	0.0	4.8	0.7	1.0	1.0	0.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.9	0.0	5.9	2.3	0.0	9.8	1.2	3.4	3.4	0.4	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	15.7	21.7	0.0	21.7	14.0	11.6	11.6	12.9	11.5	11.6
LnGrp LOS	C	A	B	C	A	C	B	B	B	B	B	B
Approach Vol, veh/h		420			670			555			506	
Approach Delay, s/veh		16.6			21.7			11.9			11.6	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		28.0		32.0		28.0				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		20.9		* 28		20.9		* 28				
Max Q Clear Time (g_c+I1), s		8.4		18.5		10.4		20.9				
Green Ext Time (p_c), s		2.3		3.0		2.4		1.5				

Intersection Summary

HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	35	6	6	10	2	14	30	54	62	84	10
Future Vol, veh/h	18	35	6	6	10	2	14	30	54	62	84	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	38	7	7	11	2	15	33	59	67	91	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.7	7.6	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %		14%	31%	33%
Vol Thru, %		31%	59%	56%
Vol Right, %		55%	10%	11%
Sign Control		Stop	Stop	Stop
Traffic Vol by Lane		98	59	18
LT Vol		14	18	6
Through Vol		30	35	10
RT Vol		54	6	2
Lane Flow Rate		107	64	20
Geometry Grp		1	1	1
Degree of Util (X)		0.119	0.081	0.025
Departure Headway (Hd)		4.006	4.558	4.612
Convergence, Y/N		Yes	Yes	Yes
Cap		899	789	779
Service Time		2.012	2.564	2.62
HCM Lane V/C Ratio		0.119	0.081	0.026
HCM Control Delay		7.6	8	7.7
HCM Lane LOS		A	A	A
HCM 95th-tile Q		0.4	0.3	0.1

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	5	110	13	4	33	7	803	0	5	490	5
Future Vol, veh/h	25	5	110	13	4	33	7	803	0	5	490	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	5	120	14	4	36	8	873	0	5	533	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1001	1435	269	1168	1437	437	538	0	0	873	0	0
Stage 1	546	546	-	889	889	-	-	-	-	-	-	-
Stage 2	455	889	-	279	548	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	197	133	729	149	132	567	1026	-	-	768	-	-
Stage 1	490	516	-	304	360	-	-	-	-	-	-	-
Stage 2	554	360	-	704	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	177	130	729	118	129	567	1026	-	-	768	-	-
Mov Cap-2 Maneuver	177	130	-	118	129	-	-	-	-	-	-	-
Stage 1	483	511	-	299	355	-	-	-	-	-	-	-
Stage 2	505	355	-	577	510	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.2		23.3		0.2		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	423	251	768	-	-
HCM Lane V/C Ratio	0.007	-	-	0.36	0.217	0.007	-	-
HCM Control Delay (s)	8.5	0.1	-	18.2	23.3	9.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.6	0.8	0	-	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	45	409	81	85	332	93	101	1163	233	110	1195	87
Future Volume (veh/h)	45	409	81	85	332	93	101	1163	233	110	1195	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	445	88	92	361	101	110	1264	253	120	1299	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	724	142	176	457	387	329	2764	553	252	2731	200
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.65	0.65	0.56	0.56	0.56
Sat Flow, veh/h	930	2961	582	871	1870	1585	1781	4267	854	344	4855	355
Grp Volume(v), veh/h	49	266	267	92	361	101	110	1008	509	120	911	483
Grp Sat Flow(s),veh/h/ln	930	1777	1766	871	1870	1585	1781	1702	1717	344	1702	1806
Q Serve(g_s), s	4.7	12.0	12.1	9.5	16.3	4.6	2.2	13.3	13.3	24.1	14.4	14.4
Cycle Q Clear(g_c), s	20.9	12.0	12.1	21.6	16.3	4.6	2.2	13.3	13.3	29.8	14.4	14.4
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.50	1.00		0.20
Lane Grp Cap(c), veh/h	139	434	432	176	457	387	329	2205	1112	252	1915	1016
V/C Ratio(X)	0.35	0.61	0.62	0.52	0.79	0.26	0.33	0.46	0.46	0.48	0.48	0.48
Avail Cap(c_a), veh/h	139	434	432	176	457	387	365	2205	1112	252	1915	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	30.2	30.3	39.9	31.8	27.4	8.4	7.9	7.9	17.3	11.8	11.8
Incr Delay (d2), s/veh	1.5	2.5	2.7	2.8	9.0	0.4	0.6	0.7	1.4	6.3	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.0	7.7	7.8	3.6	11.3	3.1	1.4	6.6	6.9	3.8	7.6	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	32.7	33.0	42.7	40.9	27.8	9.0	8.6	9.3	23.6	12.6	13.4
LnGrp LOS	D	C	C	D	D	C	A	A	A	C	B	B
Approach Vol, veh/h		582			554			1627			1514	
Approach Delay, s/veh		33.7			38.8			8.9			13.7	
Approach LOS		C			D			A			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.7	55.3		27.0		63.0		27.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	6.5	* 49		* 22		* 58		* 22				
Max Q Clear Time (g_c+I1), s	4.2	31.8		23.6		15.3		22.9				
Green Ext Time (p_c), s	0.1	10.8		0.0		15.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↕			↕	
Traffic Vol, veh/h	33	955	22	10	373	23	0	10	24	24	22	64
Future Vol, veh/h	33	955	22	10	373	23	0	10	24	24	22	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	1038	24	11	405	25	0	11	26	26	24	70






















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	430	0	0	1062	0	0	1609	1574	531	1037	1574	418
Stage 1	-	-	-	-	-	-	1122	1122	-	440	440	-
Stage 2	-	-	-	-	-	-	487	452	-	597	1134	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1128	-	-	654	-	-	77	109	494	197	109	634
Stage 1	-	-	-	-	-	-	220	280	-	595	577	-
Stage 2	-	-	-	-	-	-	561	570	-	457	277	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1128	-	-	654	-	-	54	104	494	165	104	634
Mov Cap-2 Maneuver	-	-	-	-	-	-	54	104	-	165	104	-
Stage 1	-	-	-	-	-	-	213	271	-	576	567	-
Stage 2	-	-	-	-	-	-	470	560	-	402	268	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			23.2			34		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	235	1128	-	-	654	-	-	240
HCM Lane V/C Ratio	0.157	0.032	-	-	0.017	-	-	0.498
HCM Control Delay (s)	23.2	8.3	-	-	10.6	-	-	34
HCM Lane LOS	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	2.5

HCM 6th Signalized Intersection Summary
5: Virgil Avenue & Fountain Avenue

02/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	578	98	97	297	64	41	596	83	76	520	49
Future Volume (veh/h)	121	578	98	97	297	64	41	596	83	76	520	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	628	107	105	323	70	45	648	90	83	565	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	1150	196	276	564	122	383	1388	193	334	1455	136
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	991	3038	517	722	1489	323	805	3134	435	720	3284	307
Grp Volume(v), veh/h	132	367	368	105	0	393	45	367	371	83	305	313
Grp Sat Flow(s),veh/h/ln	991	1777	1777	722	0	1812	805	1777	1792	720	1777	1815
Q Serve(g_s), s	7.3	9.7	9.7	8.0	0.0	10.3	2.4	8.7	8.7	5.5	6.9	7.0
Cycle Q Clear(g_c), s	17.6	9.7	9.7	17.7	0.0	10.3	9.4	8.7	8.7	14.2	6.9	7.0
Prop In Lane	1.00		0.29	1.00		0.18	1.00		0.24	1.00		0.17
Lane Grp Cap(c), veh/h	325	673	673	276	0	686	383	787	794	334	787	804
V/C Ratio(X)	0.41	0.55	0.55	0.38	0.00	0.57	0.12	0.47	0.47	0.25	0.39	0.39
Avail Cap(c_a), veh/h	395	800	800	328	0	816	383	787	794	334	787	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	14.6	14.6	21.6	0.0	14.8	14.4	11.7	11.7	16.7	11.2	11.2
Incr Delay (d2), s/veh	0.8	0.7	0.7	0.9	0.0	0.8	0.6	2.0	2.0	1.8	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.0	5.6	5.6	2.4	0.0	5.9	0.8	5.2	5.2	1.7	4.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	15.3	15.3	22.4	0.0	15.5	15.0	13.7	13.7	18.5	12.7	12.7
LnGrp LOS	C	B	B	C	A	B	B	B	B	B	B	B
Approach Vol, veh/h		867			498			783			701	
Approach Delay, s/veh		16.4			17.0			13.8			13.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.7		28.3		31.7		28.3				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		22.3		* 27		22.3		* 27				
Max Q Clear Time (g_c+I1), s		16.2		19.7		11.4		19.6				
Green Ext Time (p_c), s		2.2		1.9		3.6		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	30	2	53	20	6	3	31	152	20	76	9
Future Vol, veh/h	6	30	2	53	20	6	3	31	152	20	76	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	33	2	58	22	7	3	34	165	22	83	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.4	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	16%	67%	19%
Vol Thru, %	17%	79%	25%	72%
Vol Right, %	82%	5%	8%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	186	38	79	105
LT Vol	3	6	53	20
Through Vol	31	30	20	76
RT Vol	152	2	6	9
Lane Flow Rate	202	41	86	114
Geometry Grp	1	1	1	1
Degree of Util (X)	0.218	0.054	0.113	0.14
Departure Headway (Hd)	3.882	4.706	4.736	4.426
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	928	762	757	811
Service Time	1.896	2.73	2.759	2.443
HCM Lane V/C Ratio	0.218	0.054	0.114	0.141
HCM Control Delay	8	8	8.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.2	0.4	0.5

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	4	47	3	6	5	77	437	0	9	467	35
Future Vol, veh/h	13	4	47	3	6	5	77	437	0	9	467	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	4	51	3	7	5	84	475	0	10	508	38

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	956	1190	273	919	1209	238	546	0	0	475	0	0
Stage 1	547	547	-	643	643	-	-	-	-	-	-	-
Stage 2	409	643	-	276	566	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	213	186	725	226	182	763	1019	-	-	1083	-	-
Stage 1	489	516	-	428	467	-	-	-	-	-	-	-
Stage 2	590	467	-	707	506	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	186	163	725	186	159	763	1019	-	-	1083	-	-
Mov Cap-2 Maneuver	186	163	-	186	159	-	-	-	-	-	-	-
Stage 1	434	509	-	380	415	-	-	-	-	-	-	-
Stage 2	512	415	-	643	499	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.8		21.6		1.7		0.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1019	-	-	402	232	1083	-	-
HCM Lane V/C Ratio	0.082	-	-	0.173	0.066	0.009	-	-
HCM Control Delay (s)	8.8	0.4	-	15.8	21.6	8.4	0.1	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0.2	0	-	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕	↗	↖	↕		↗	↕	↖
Traffic Volume (veh/h)	47	314	80	102	399	52	121	988	215	76	854	68
Future Volume (veh/h)	47	314	80	102	399	52	121	988	215	76	854	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	341	87	111	434	57	132	1074	234	83	928	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	844	212	274	561	476	394	2485	541	270	2433	194
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.59	0.59	0.50	0.50	0.50
Sat Flow, veh/h	906	2812	708	960	1870	1585	1781	4196	914	421	4822	384
Grp Volume(v), veh/h	51	214	214	111	434	57	132	871	437	83	654	348
Grp Sat Flow(s),veh/h/ln	906	1777	1743	960	1870	1585	1781	1702	1706	421	1702	1801
Q Serve(g_s), s	4.9	8.6	8.8	9.4	19.0	2.4	3.0	12.6	12.6	12.1	10.6	10.7
Cycle Q Clear(g_c), s	23.9	8.6	8.8	18.2	19.0	2.4	3.0	12.6	12.6	16.9	10.6	10.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.54	1.00		0.21
Lane Grp Cap(c), veh/h	160	533	523	274	561	476	394	2016	1010	270	1718	909
V/C Ratio(X)	0.32	0.40	0.41	0.41	0.77	0.12	0.34	0.43	0.43	0.31	0.38	0.38
Avail Cap(c_a), veh/h	190	592	581	306	623	528	436	2016	1010	270	1718	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	25.1	25.1	32.4	28.7	22.9	9.7	10.1	10.1	16.8	13.7	13.7
Incr Delay (d2), s/veh	1.1	0.5	0.5	1.0	5.4	0.1	0.5	0.7	1.4	2.9	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.0	5.6	5.6	3.8	12.2	1.6	2.0	6.7	6.9	2.4	6.1	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	25.6	25.7	33.4	34.2	23.0	10.2	10.7	11.4	19.8	14.3	14.9
LnGrp LOS	D	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		479			602			1440			1085	
Approach Delay, s/veh		27.2			33.0			10.9			14.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.9	50.1		32.0		58.0		32.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	7.0	* 40		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s	5.0	18.9		21.0		14.6		25.9				
Green Ext Time (p_c), s	0.1	8.4		2.4		11.9		1.1				

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	152	453	12	23	551	67	1	7	14	13	9	89
Future Vol, veh/h	152	453	12	23	551	67	1	7	14	13	9	89
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	165	492	13	25	599	73	1	8	15	14	10	97























Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	672	0	0	505	0	0	1568	1551	499	1526	1521	636
Stage 1	-	-	-	-	-	-	829	829	-	686	686	-
Stage 2	-	-	-	-	-	-	739	722	-	840	835	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	1060	-	-	90	114	572	96	118	478
Stage 1	-	-	-	-	-	-	365	385	-	438	448	-
Stage 2	-	-	-	-	-	-	409	431	-	360	383	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	919	-	-	1060	-	-	56	91	572	74	94	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	91	-	74	94	-
Stage 1	-	-	-	-	-	-	299	316	-	359	437	-
Stage 2	-	-	-	-	-	-	311	421	-	281	314	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0.3			27.5			33.6		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	919	-	-	1060	-	-	243
HCM Lane V/C Ratio	0.13	0.18	-	-	0.024	-	-	0.497
HCM Control Delay (s)	27.5	9.8	-	-	8.5	-	-	33.6
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.4	0.7	-	-	0.1	-	-	2.5

HCM 6th Signalized Intersection Summary
5: Virgil Avenue & Fountain Avenue

02/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	293	69	96	531	58	65	390	78	32	389	60
Future Volume (veh/h)	33	293	69	96	531	58	65	390	78	32	389	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	318	75	104	577	63	71	424	85	35	423	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	601	142	365	681	74	408	1214	241	397	1270	194
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	789	1463	345	991	1657	181	908	2954	588	891	3090	472
Grp Volume(v), veh/h	36	0	393	104	0	640	71	254	255	35	242	246
Grp Sat Flow(s),veh/h/ln	789	0	1808	991	0	1838	908	1777	1765	891	1777	1785
Q Serve(g_s), s	2.6	0.0	9.8	5.3	0.0	18.9	3.5	5.9	6.0	1.7	5.6	5.6
Cycle Q Clear(g_c), s	21.5	0.0	9.8	15.1	0.0	18.9	9.1	5.9	6.0	7.7	5.6	5.6
Prop In Lane	1.00		0.19	1.00		0.10	1.00		0.33	1.00		0.26
Lane Grp Cap(c), veh/h	196	0	743	365	0	755	408	730	725	397	730	734
V/C Ratio(X)	0.18	0.00	0.53	0.28	0.00	0.85	0.17	0.35	0.35	0.09	0.33	0.34
Avail Cap(c_a), veh/h	245	0	856	427	0	870	408	730	725	397	730	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	13.3	19.0	0.0	16.0	15.2	12.1	12.2	14.8	12.1	12.1
Incr Delay (d2), s/veh	0.4	0.0	0.6	0.4	0.0	7.1	0.9	1.3	1.3	0.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	0.9	0.0	5.6	2.1	0.0	11.3	1.3	3.8	3.8	0.6	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	0.0	13.9	19.4	0.0	23.0	16.1	13.5	13.5	15.2	13.3	13.3
LnGrp LOS	C	A	B	B	A	C	B	B	B	B	B	B
Approach Vol, veh/h		429			744			580			523	
Approach Delay, s/veh		14.9			22.5			13.8			13.4	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.8		30.2		29.8		30.2				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		20.9		* 28		20.9		* 28				
Max Q Clear Time (g_c+I1), s		9.7		20.9		11.1		23.5				
Green Ext Time (p_c), s		2.3		2.9		2.4		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	35	6	123	10	12	14	30	100	66	84	10
Future Vol, veh/h	18	35	6	123	10	12	14	30	100	66	84	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	38	7	134	11	13	15	33	109	72	91	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	9.3	8.3	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	31%	85%	41%
Vol Thru, %	21%	59%	7%	53%
Vol Right, %	69%	10%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	59	145	160
LT Vol	14	18	123	66
Through Vol	30	35	10	84
RT Vol	100	6	12	10
Lane Flow Rate	157	64	158	174
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.087	0.214	0.227
Departure Headway (Hd)	4.298	4.892	4.885	4.704
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	729	733	762
Service Time	2.334	2.942	2.929	2.74
HCM Lane V/C Ratio	0.188	0.088	0.216	0.228
HCM Control Delay	8.3	8.4	9.3	9.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.8	0.9

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	5	159	13	4	33	26	803	0	5	490	13
Future Vol, veh/h	45	5	159	13	4	33	26	803	0	5	490	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	5	173	14	4	36	28	873	0	5	533	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1045	1479	274	1208	1486	437	547	0	0	873	0	0
Stage 1	550	550	-	929	929	-	-	-	-	-	-	-
Stage 2	495	929	-	279	557	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	183	125	724	139	123	567	1018	-	-	768	-	-
Stage 1	487	514	-	288	344	-	-	-	-	-	-	-
Stage 2	525	344	-	704	510	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	159	117	724	97	115	567	1018	-	-	768	-	-
Mov Cap-2 Maneuver	159	117	-	97	115	-	-	-	-	-	-	-
Stage 1	461	509	-	273	326	-	-	-	-	-	-	-
Stage 2	460	326	-	525	505	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.2	26.7	0.5	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1018	-	-	383	220	768	-	-
HCM Lane V/C Ratio	0.028	-	-	0.593	0.247	0.007	-	-
HCM Control Delay (s)	8.6	0.2	-	27.2	26.7	9.7	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.7	0.9	0	-	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖	↕		↖	↕	↗
Traffic Volume (veh/h)	45	420	80	123	368	102	100	1151	246	113	1183	86
Future Volume (veh/h)	45	420	80	123	368	102	100	1151	246	113	1183	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	457	87	134	400	111	109	1251	267	123	1286	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	729	138	172	457	387	332	2729	582	252	2734	198
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.65	0.65	0.56	0.56	0.56
Sat Flow, veh/h	889	2982	564	862	1870	1585	1781	4213	899	344	4860	351
Grp Volume(v), veh/h	49	271	273	134	400	111	109	1011	507	123	901	478
Grp Sat Flow(s),veh/h/ln	889	1777	1769	862	1870	1585	1781	1702	1709	344	1702	1807
Q Serve(g_s), s	3.5	12.2	12.4	9.6	18.5	5.1	2.1	13.4	13.4	25.1	14.2	14.2
Cycle Q Clear(g_c), s	22.0	12.2	12.4	22.0	18.5	5.1	2.1	13.4	13.4	30.8	14.2	14.2
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.53	1.00		0.19
Lane Grp Cap(c), veh/h	115	434	432	172	457	387	332	2205	1107	252	1915	1017
V/C Ratio(X)	0.43	0.62	0.63	0.78	0.87	0.29	0.33	0.46	0.46	0.49	0.47	0.47
Avail Cap(c_a), veh/h	115	434	432	172	457	387	368	2205	1107	252	1915	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	30.3	30.4	41.7	32.7	27.6	8.3	7.9	7.9	17.6	11.7	11.7
Incr Delay (d2), s/veh	2.5	2.8	2.9	20.1	17.0	0.4	0.6	0.7	1.4	6.6	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.1	7.9	8.0	6.0	13.6	3.4	1.4	6.6	6.9	3.9	7.5	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	33.1	33.3	61.8	49.7	28.0	8.9	8.6	9.3	24.2	12.5	13.3
LnGrp LOS	D	C	C	E	D	C	A	A	A	C	B	B
Approach Vol, veh/h		593			645			1627			1502	
Approach Delay, s/veh		34.3			48.5			8.9			13.7	
Approach LOS		C			D			A			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.7	55.3		27.0		63.0		27.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	6.5	* 49		* 22		* 58		* 22				
Max Q Clear Time (g_c+I1), s	4.1	32.8		24.0		15.4		24.0				
Green Ext Time (p_c), s	0.1	10.3		0.0		15.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	11.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↕			↕	
Traffic Vol, veh/h	67	946	22	10	369	34	0	10	24	53	22	151
Future Vol, veh/h	67	946	22	10	369	34	0	10	24	53	22	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	1028	24	11	401	37	0	11	26	58	24	164






















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	438	0	0	1052	0	0	1722	1646	526	1108	1640	420
Stage 1	-	-	-	-	-	-	1186	1186	-	442	442	-
Stage 2	-	-	-	-	-	-	536	460	-	666	1198	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1120	-	-	660	-	-	63	99	497	175	100	632
Stage 1	-	-	-	-	-	-	201	261	-	594	576	-
Stage 2	-	-	-	-	-	-	528	565	-	416	258	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1120	-	-	660	-	-	35	91	497	142	92	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	91	-	142	92	-
Stage 1	-	-	-	-	-	-	188	244	-	555	566	-
Stage 2	-	-	-	-	-	-	368	555	-	352	241	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.3			25.2			79.2		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	1120	-	-	660	-	-	265
HCM Lane V/C Ratio	0.172	0.065	-	-	0.016	-	-	0.927
HCM Control Delay (s)	25.2	8.4	-	-	10.5	-	-	79.2
HCM Lane LOS	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0.1	-	-	8.5

HCM 6th Signalized Intersection Summary
 5: Virgil Avenue & Fountain Avenue

02/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	607	98	97	308	75	41	604	83	105	540	49
Future Volume (veh/h)	121	607	98	97	308	75	41	604	83	105	540	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	660	107	105	335	82	45	657	90	114	587	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	321	1195	194	276	566	139	363	1355	185	320	1422	128
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	969	3062	496	701	1451	355	789	3140	430	714	3297	297
Grp Volume(v), veh/h	132	383	384	105	0	417	45	371	376	114	316	324
Grp Sat Flow(s),veh/h/ln	969	1777	1781	701	0	1806	789	1777	1793	714	1777	1817
Q Serve(g_s), s	7.5	10.0	10.1	8.2	0.0	11.0	2.5	9.0	9.0	8.2	7.4	7.4
Cycle Q Clear(g_c), s	18.5	10.0	10.1	18.3	0.0	11.0	9.9	9.0	9.0	17.2	7.4	7.4
Prop In Lane	1.00		0.28	1.00		0.20	1.00		0.24	1.00		0.16
Lane Grp Cap(c), veh/h	321	694	695	276	0	705	363	766	773	320	766	784
V/C Ratio(X)	0.41	0.55	0.55	0.38	0.00	0.59	0.12	0.48	0.49	0.36	0.41	0.41
Avail Cap(c_a), veh/h	379	800	802	318	0	813	363	766	773	320	766	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	14.2	14.2	21.3	0.0	14.5	15.2	12.3	12.3	18.5	11.8	11.8
Incr Delay (d2), s/veh	0.8	0.7	0.7	0.9	0.0	0.9	0.7	2.2	2.2	3.1	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.0	5.7	5.7	2.4	0.0	6.2	0.9	5.4	5.4	2.7	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	14.9	14.9	22.2	0.0	15.4	15.9	14.5	14.4	21.5	13.4	13.4
LnGrp LOS	C	B	B	C	A	B	B	B	B	C	B	B
Approach Vol, veh/h		899			522			792			754	
Approach Delay, s/veh		16.0			16.7			14.5			14.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		22.3		* 27		22.3		* 27				
Max Q Clear Time (g_c+I1), s		19.2		20.3		11.9		20.5				
Green Ext Time (p_c), s		1.4		1.9		3.5		2.9				
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	31	2	18	21	3	3	32	17	9	79	9
Future Vol, veh/h	6	31	2	18	21	3	3	32	17	9	79	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	34	2	20	23	3	3	35	18	10	86	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.3	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	15%	43%	9%
Vol Thru, %	62%	79%	50%	81%
Vol Right, %	33%	5%	7%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	39	42	97
LT Vol	3	6	18	9
Through Vol	32	31	21	79
RT Vol	17	2	3	9
Lane Flow Rate	57	42	46	105
Geometry Grp	1	1	1	1
Degree of Util (X)	0.063	0.05	0.054	0.12
Departure Headway (Hd)	3.984	4.25	4.29	4.094
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	888	831	823	868
Service Time	2.057	2.337	2.377	2.154
HCM Lane V/C Ratio	0.064	0.051	0.056	0.121
HCM Control Delay	7.3	7.6	7.6	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.4

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	4	33	3	6	5	21	472	0	9	516	12
Future Vol, veh/h	7	4	33	3	6	5	21	472	0	9	516	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	4	36	3	7	5	23	513	0	10	561	13

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	894	1147	287	862	1153	257	574	0	0	513	0	0
Stage 1	588	588	-	559	559	-	-	-	-	-	-	-
Stage 2	306	559	-	303	594	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	236	198	710	249	196	742	995	-	-	1049	-	-
Stage 1	462	494	-	481	509	-	-	-	-	-	-	-
Stage 2	679	509	-	681	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	220	189	710	224	187	742	995	-	-	1049	-	-
Mov Cap-2 Maneuver	220	189	-	224	187	-	-	-	-	-	-	-
Stage 1	447	487	-	466	493	-	-	-	-	-	-	-
Stage 2	644	493	-	632	484	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	14.1		19.2			0.5			0.2		
HCM LOS	B		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	995	-	-	442	268	1049	-	-
HCM Lane V/C Ratio	0.023	-	-	0.108	0.057	0.009	-	-
HCM Control Delay (s)	8.7	0.1	-	14.1	19.2	8.5	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0	-	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖	↕	↕	↖	↕	↕
Traffic Volume (veh/h)	56	308	91	102	461	61	144	1037	196	83	899	89
Future Volume (veh/h)	56	308	91	102	461	61	144	1037	196	83	899	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	335	99	111	501	66	157	1127	213	90	977	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	905	263	307	623	528	364	2410	455	244	2175	215
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.07	0.56	0.56	0.46	0.46	0.46
Sat Flow, veh/h	844	2715	790	954	1870	1585	1781	4313	815	408	4722	468
Grp Volume(v), veh/h	61	217	217	111	501	66	157	889	451	90	704	370
Grp Sat Flow(s),veh/h/ln	844	1777	1728	954	1870	1585	1781	1702	1724	408	1702	1786
Q Serve(g_s), s	6.4	8.4	8.6	9.0	22.0	2.6	3.9	14.0	14.1	15.2	12.7	12.7
Cycle Q Clear(g_c), s	28.3	8.4	8.6	17.6	22.0	2.6	3.9	14.0	14.1	20.4	12.7	12.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.47	1.00		0.26
Lane Grp Cap(c), veh/h	155	592	576	307	623	528	364	1902	963	244	1567	822
V/C Ratio(X)	0.39	0.37	0.38	0.36	0.80	0.12	0.43	0.47	0.47	0.37	0.45	0.45
Avail Cap(c_a), veh/h	155	592	576	307	623	528	386	1902	963	244	1567	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	22.8	22.9	29.6	27.3	20.9	11.8	11.9	11.9	20.6	16.5	16.5
Incr Delay (d2), s/veh	1.6	0.4	0.4	0.7	7.5	0.1	0.8	0.8	1.6	4.2	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.5	5.4	5.4	3.6	14.1	1.7	2.7	7.5	7.8	3.0	7.2	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	23.2	23.3	30.3	34.9	21.0	12.6	12.7	13.5	24.8	17.4	18.3
LnGrp LOS	D	C	C	C	C	C	B	B	B	C	B	B
Approach Vol, veh/h		495			678			1497			1164	
Approach Delay, s/veh		25.5			32.8			12.9			18.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	46.1		35.0		55.0		35.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	7.0	* 40		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s	5.9	22.4		24.0		16.1		30.3				
Green Ext Time (p_c), s	0.0	8.3		2.1		12.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	52	514	12	24	661	34	1	7	15	4	9	65
Future Vol, veh/h	52	514	12	24	661	34	1	7	15	4	9	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	559	13	26	718	37	1	8	16	4	10	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	755	0	0	572	0	0	1509	1487	566	1481	1475	737
Stage 1	-	-	-	-	-	-	680	680	-	789	789	-
Stage 2	-	-	-	-	-	-	829	807	-	692	686	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	855	-	-	1001	-	-	99	124	524	103	126	418
Stage 1	-	-	-	-	-	-	441	451	-	384	402	-
Stage 2	-	-	-	-	-	-	365	394	-	434	448	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	855	-	-	1001	-	-	72	113	524	88	115	418
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	113	-	88	115	-
Stage 1	-	-	-	-	-	-	411	421	-	358	392	-
Stage 2	-	-	-	-	-	-	288	384	-	385	418	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			23.5			23.4		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	855	-	-	1001	-	-	279
HCM Lane V/C Ratio	0.114	0.066	-	-	0.026	-	-	0.304
HCM Control Delay (s)	23.5	9.5	-	-	8.7	-	-	23.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0.1	-	-	1.2

HCM 6th Signalized Intersection Summary

5: Virgil Avenue & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	39	329	77	100	570	34	86	385	81	30	405	80
Future Volume (veh/h)	39	329	77	100	570	34	86	385	81	30	405	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	358	84	109	620	37	93	418	88	33	440	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	619	145	343	738	44	377	1169	244	386	1183	232
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	777	1465	344	947	1747	104	876	2926	611	893	2961	581
Grp Volume(v), veh/h	42	0	442	109	0	657	93	252	254	33	263	264
Grp Sat Flow(s),veh/h/ln	777	0	1808	947	0	1852	876	1777	1760	893	1777	1766
Q Serve(g_s), s	3.1	0.0	11.2	6.0	0.0	19.1	5.0	6.0	6.1	1.6	6.3	6.3
Cycle Q Clear(g_c), s	22.1	0.0	11.2	17.2	0.0	19.1	11.4	6.0	6.1	7.7	6.3	6.3
Prop In Lane	1.00		0.19	1.00		0.06	1.00		0.35	1.00		0.33
Lane Grp Cap(c), veh/h	201	0	764	343	0	782	377	710	703	386	710	705
V/C Ratio(X)	0.21	0.00	0.58	0.32	0.00	0.84	0.25	0.36	0.36	0.09	0.37	0.37
Avail Cap(c_a), veh/h	241	0	856	391	0	876	377	710	703	386	710	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	0.0	13.3	19.8	0.0	15.5	16.7	12.6	12.6	15.3	12.7	12.7
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.5	0.0	6.7	1.6	1.4	1.4	0.4	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	0.0	6.2	2.3	0.0	11.3	1.9	3.9	3.9	0.6	4.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	14.0	20.3	0.0	22.2	18.3	14.0	14.1	15.8	14.2	14.2
LnGrp LOS	C	A	B	C	A	C	B	B	B	B	B	B
Approach Vol, veh/h		484			766			599			560	
Approach Delay, s/veh		15.1			22.0			14.7			14.3	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.1		30.9		29.1		30.9				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		20.9		* 28		20.9		* 28				
Max Q Clear Time (g_c+I1), s		9.7		21.1		13.4		24.1				
Green Ext Time (p_c), s		2.5		2.9		2.1		1.2				

Intersection Summary

HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	36	6	6	10	2	15	31	56	65	87	10
Future Vol, veh/h	19	36	6	6	10	2	15	31	56	65	87	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	39	7	7	11	2	16	34	61	71	95	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.8	7.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	31%	33%	40%
Vol Thru, %	30%	59%	56%	54%
Vol Right, %	55%	10%	11%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	61	18	162
LT Vol	15	19	6	65
Through Vol	31	36	10	87
RT Vol	56	6	2	10
Lane Flow Rate	111	66	20	176
Geometry Grp	1	1	1	1
Degree of Util (X)	0.124	0.084	0.025	0.206
Departure Headway (Hd)	4.021	4.585	4.64	4.211
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	896	785	775	840
Service Time	2.027	2.592	2.647	2.299
HCM Lane V/C Ratio	0.124	0.084	0.026	0.21
HCM Control Delay	7.6	8	7.8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.1	0.8

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	26	5	114	14	4	34	7	865	0	5	531	5
Future Vol, veh/h	26	5	114	14	4	34	7	865	0	5	531	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	5	124	15	4	37	8	940	0	5	577	5

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1078	1546	291	1257	1548	470	582	0	0	940	0	0
Stage 1	590	590	-	956	956	-	-	-	-	-	-	-
Stage 2	488	956	-	301	592	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	173	113	706	128	113	540	988	-	-	725	-	-
Stage 1	461	493	-	277	335	-	-	-	-	-	-	-
Stage 2	530	335	-	683	492	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	153	110	706	99	110	540	988	-	-	725	-	-
Mov Cap-2 Maneuver	153	110	-	99	110	-	-	-	-	-	-	-
Stage 1	453	488	-	272	329	-	-	-	-	-	-	-
Stage 2	479	329	-	551	487	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	20.7		27.5			0.2		0.1		
HCM LOS	C		D							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	988	-	-	385	216	725	-	-
HCM Lane V/C Ratio	0.008	-	-	0.409	0.262	0.007	-	-
HCM Control Delay (s)	8.7	0.1	-	20.7	27.5	10	0	-
HCM Lane LOS	A	A	-	C	D	B	A	-
HCM 95th %tile Q(veh)	0	-	-	1.9	1	0	-	-

HCM 6th Signalized Intersection Summary
 3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	63	472	99	106	373	112	114	1209	251	126	1242	98
Future Volume (veh/h)	63	472	99	106	373	112	114	1209	251	126	1242	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	513	108	115	405	122	124	1314	273	137	1350	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	715	150	146	457	387	317	2744	570	237	2708	215
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.65	0.65	0.56	0.56	0.56
Sat Flow, veh/h	876	2924	613	803	1870	1585	1781	4236	880	322	4823	382
Grp Volume(v), veh/h	68	311	310	115	405	122	124	1056	531	137	953	504
Grp Sat Flow(s),veh/h/ln	876	1777	1760	803	1870	1585	1781	1702	1712	322	1702	1802
Q Serve(g_s), s	3.2	14.4	14.6	7.4	18.8	5.7	2.4	14.3	14.3	34.1	15.3	15.3
Cycle Q Clear(g_c), s	22.0	14.4	14.6	22.0	18.8	5.7	2.4	14.3	14.3	40.6	15.3	15.3
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.51	1.00		0.21
Lane Grp Cap(c), veh/h	111	434	430	146	457	387	317	2205	1109	237	1911	1011
V/C Ratio(X)	0.61	0.72	0.72	0.79	0.89	0.31	0.39	0.48	0.48	0.58	0.50	0.50
Avail Cap(c_a), veh/h	111	434	430	146	457	387	351	2205	1109	237	1911	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	31.1	31.2	42.8	32.8	27.8	8.9	8.1	8.1	20.4	12.0	12.0
Incr Delay (d2), s/veh	9.4	5.5	5.8	23.9	18.5	0.5	0.8	0.7	1.5	9.8	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.2	9.4	9.4	5.5	14.0	3.7	1.6	7.0	7.3	4.8	8.1	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	36.7	37.0	66.7	51.2	28.3	9.7	8.8	9.6	30.3	13.0	13.8
LnGrp LOS	D	D	D	E	D	C	A	A	A	C	B	B
Approach Vol, veh/h		689			642			1711			1594	
Approach Delay, s/veh		38.5			49.7			9.1			14.7	
Approach LOS		D			D			A			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.8	55.2		27.0		63.0		27.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	6.5	* 49		* 22		* 58		* 22				
Max Q Clear Time (g_c+I1), s	4.4	42.6		24.0		16.3		24.0				
Green Ext Time (p_c), s	0.1	5.0		0.0		16.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	34	1068	23	10	435	24	0	10	25	25	23	66
Future Vol, veh/h	34	1068	23	10	435	24	0	10	25	25	23	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	1161	25	11	473	26	0	11	27	27	25	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	499	0	0	1186	0	0	1805	1769	593	1168	1768	486
Stage 1	-	-	-	-	-	-	1248	1248	-	508	508	-
Stage 2	-	-	-	-	-	-	557	521	-	660	1260	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1063	-	-	587	-	-	55	83	450	159	83	580
Stage 1	-	-	-	-	-	-	184	244	-	546	538	-
Stage 2	-	-	-	-	-	-	514	531	-	419	241	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1063	-	-	587	-	-	35	79	450	128	79	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	79	-	128	79	-
Stage 1	-	-	-	-	-	-	178	235	-	527	528	-
Stage 2	-	-	-	-	-	-	421	521	-	362	233	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.2			28.3			53.8		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	192	1063	-	-	587	-	-	190
HCM Lane V/C Ratio	0.198	0.035	-	-	0.019	-	-	0.652
HCM Control Delay (s)	28.3	8.5	-	-	11.2	-	-	53.8
HCM Lane LOS	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	3.8

HCM 6th Signalized Intersection Summary
 5: Virgil Avenue & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	140	656	116	101	349	75	49	626	86	90	546	57
Future Volume (veh/h)	140	656	116	101	349	75	49	626	86	90	546	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	713	126	110	379	82	53	680	93	98	593	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1267	224	277	625	135	329	1262	172	285	1305	136
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	931	3018	533	655	1490	322	778	3141	429	697	3247	339
Grp Volume(v), veh/h	152	420	419	110	0	461	53	384	389	98	324	331
Grp Sat Flow(s),veh/h/ln	931	1777	1774	655	0	1812	778	1777	1793	697	1777	1809
Q Serve(g_s), s	9.1	10.8	10.8	9.2	0.0	11.9	3.2	9.9	9.9	7.5	8.0	8.0
Cycle Q Clear(g_c), s	21.0	10.8	10.8	20.0	0.0	11.9	11.2	9.9	9.9	17.4	8.0	8.0
Prop In Lane	1.00		0.30	1.00		0.18	1.00		0.24	1.00		0.19
Lane Grp Cap(c), veh/h	326	746	745	277	0	761	329	714	721	285	714	727
V/C Ratio(X)	0.47	0.56	0.56	0.40	0.00	0.61	0.16	0.54	0.54	0.34	0.45	0.46
Avail Cap(c_a), veh/h	355	800	798	297	0	816	329	714	721	285	714	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	13.2	13.2	20.8	0.0	13.5	17.2	13.7	13.7	20.4	13.1	13.1
Incr Delay (d2), s/veh	1.0	0.8	0.8	0.9	0.0	1.2	1.1	2.9	2.9	3.3	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.4	5.9	5.9	2.5	0.0	6.6	1.1	6.0	6.1	2.4	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	14.0	14.0	21.7	0.0	14.7	18.3	16.6	16.6	23.6	15.2	15.2
LnGrp LOS	C	B	B	C	A	B	B	B	B	C	B	B
Approach Vol, veh/h		991			571			826			753	
Approach Delay, s/veh		15.4			16.1			16.7			16.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.2		30.8		29.2		30.8				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		22.3		* 27		22.3		* 27				
Max Q Clear Time (g_c+I1), s		19.4		22.0		13.2		23.0				
Green Ext Time (p_c), s		1.3		1.7		3.4		2.2				

Intersection Summary

HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th AWSC
1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	31	2	54	21	6	3	32	153	20	79	9
Future Vol, veh/h	6	31	2	54	21	6	3	32	153	20	79	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	34	2	59	23	7	3	35	166	22	86	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.4	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	15%	67%	19%
Vol Thru, %	17%	79%	26%	73%
Vol Right, %	81%	5%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	39	81	108
LT Vol	3	6	54	20
Through Vol	32	31	21	79
RT Vol	153	2	6	9
Lane Flow Rate	204	42	88	117
Geometry Grp	1	1	1	1
Degree of Util (X)	0.221	0.056	0.116	0.145
Departure Headway (Hd)	3.898	4.722	4.752	4.439
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	924	759	755	810
Service Time	1.912	2.748	2.776	2.456
HCM Lane V/C Ratio	0.221	0.055	0.117	0.144
HCM Control Delay	8	8	8.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.2	0.4	0.5

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	4	48	3	6	5	78	472	0	9	516	35
Future Vol, veh/h	13	4	48	3	6	5	78	472	0	9	516	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	4	52	3	7	5	85	513	0	10	561	38

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1030	1283	300	986	1302	257	599	0	0	513	0	0
Stage 1	600	600	-	683	683	-	-	-	-	-	-	-
Stage 2	430	683	-	303	619	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	188	164	696	202	160	742	974	-	-	1049	-	-
Stage 1	455	488	-	405	447	-	-	-	-	-	-	-
Stage 2	574	447	-	681	478	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	161	142	696	164	139	742	974	-	-	1049	-	-
Mov Cap-2 Maneuver	161	142	-	164	139	-	-	-	-	-	-	-
Stage 1	399	481	-	356	392	-	-	-	-	-	-	-
Stage 2	492	392	-	616	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	24	1.6	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	974	-	-	365	205	1049	-
HCM Lane V/C Ratio	0.087	-	-	0.194	0.074	0.009	-
HCM Control Delay (s)	9	0.4	-	17.2	24	8.5	0.1
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.7	0.2	0	-

HCM 6th Signalized Intersection Summary

3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	56	353	91	114	473	64	144	1037	241	94	899	89
Future Volume (veh/h)	56	353	91	114	473	64	144	1037	241	94	899	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	384	99	124	514	70	157	1127	262	102	977	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	935	238	286	623	528	364	2313	538	233	2175	215
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.07	0.56	0.56	0.46	0.46	0.46
Sat Flow, veh/h	831	2804	715	912	1870	1585	1781	4139	962	389	4722	468
Grp Volume(v), veh/h	61	242	241	124	514	70	157	927	462	102	704	370
Grp Sat Flow(s),veh/h/ln	831	1777	1742	912	1870	1585	1781	1702	1697	389	1702	1786
Q Serve(g_s), s	6.6	9.5	9.6	11.0	22.7	2.8	3.9	14.9	14.9	19.4	12.7	12.7
Cycle Q Clear(g_c), s	29.3	9.5	9.6	20.6	22.7	2.8	3.9	14.9	14.9	25.4	12.7	12.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.57	1.00		0.26
Lane Grp Cap(c), veh/h	147	592	581	286	623	528	364	1902	949	233	1567	822
V/C Ratio(X)	0.41	0.41	0.42	0.43	0.82	0.13	0.43	0.49	0.49	0.44	0.45	0.45
Avail Cap(c_a), veh/h	147	592	581	286	623	528	386	1902	949	233	1567	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	23.2	23.2	31.2	27.6	20.9	11.8	12.0	12.0	22.4	16.5	16.5
Incr Delay (d2), s/veh	1.9	0.5	0.5	1.0	8.8	0.1	0.8	0.9	1.8	5.9	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	2.5	6.0	6.0	4.1	14.8	1.8	2.7	7.8	8.1	3.6	7.2	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	23.6	23.7	32.2	36.4	21.0	12.6	12.9	13.8	28.3	17.4	18.3
LnGrp LOS	D	C	C	C	D	C	B	B	B	C	B	B
Approach Vol, veh/h		544			708			1546			1176	
Approach Delay, s/veh		25.8			34.2			13.2			18.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	46.1		35.0		55.0		35.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	7.0	* 40		* 30		* 50		* 30				
Max Q Clear Time (g_c+I1), s	5.9	27.4		24.7		16.9		31.3				
Green Ext Time (p_c), s	0.0	7.0		2.0		12.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	154	514	12	24	661	68	1	7	15	13	9	92
Future Vol, veh/h	154	514	12	24	661	68	1	7	15	13	9	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	167	559	13	26	718	74	1	8	16	14	10	100

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	792	0	0	572	0	0	1762	1744	566	1719	1713	755
Stage 1	-	-	-	-	-	-	900	900	-	807	807	-
Stage 2	-	-	-	-	-	-	862	844	-	912	906	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	829	-	-	1001	-	-	66	86	524	71	90	409
Stage 1	-	-	-	-	-	-	333	357	-	375	394	-
Stage 2	-	-	-	-	-	-	350	379	-	328	355	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	829	-	-	1001	-	-	37	67	524	52	70	409
Mov Cap-2 Maneuver	-	-	-	-	-	-	37	67	-	52	70	-
Stage 1	-	-	-	-	-	-	266	285	-	300	384	-
Stage 2	-	-	-	-	-	-	251	369	-	247	284	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0.3			35.2			54.4		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	829	-	-	1001	-	-	189
HCM Lane V/C Ratio	0.174	0.202	-	-	0.026	-	-	0.656
HCM Control Delay (s)	35.2	10.4	-	-	8.7	-	-	54.4
HCM Lane LOS	E	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.6	0.8	-	-	0.1	-	-	3.9

HCM 6th Signalized Intersection Summary
5: Virgil Avenue & Fountain Avenue

02/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	338	77	100	604	68	86	408	81	39	411	80
Future Volume (veh/h)	39	338	77	100	604	68	86	408	81	39	411	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	367	84	109	657	74	93	443	88	42	447	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	672	154	379	754	85	339	1081	213	340	1085	210
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	725	1473	337	940	1651	186	870	2959	584	873	2970	574
Grp Volume(v), veh/h	42	0	451	109	0	731	93	265	266	42	266	268
Grp Sat Flow(s),veh/h/ln	725	0	1810	940	0	1837	870	1777	1765	873	1777	1767
Q Serve(g_s), s	3.3	0.0	10.8	5.7	0.0	21.6	5.4	6.7	6.8	2.3	6.7	6.8
Cycle Q Clear(g_c), s	24.9	0.0	10.8	16.5	0.0	21.6	12.2	6.7	6.8	9.0	6.7	6.8
Prop In Lane	1.00		0.19	1.00		0.10	1.00		0.33	1.00		0.32
Lane Grp Cap(c), veh/h	190	0	826	379	0	838	339	649	645	340	649	645
V/C Ratio(X)	0.22	0.00	0.55	0.29	0.00	0.87	0.27	0.41	0.41	0.12	0.41	0.41
Avail Cap(c_a), veh/h	203	0	857	395	0	869	339	649	645	340	649	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	11.8	17.8	0.0	14.7	18.8	14.2	14.2	17.6	14.2	14.2
Incr Delay (d2), s/veh	0.6	0.0	0.7	0.4	0.0	9.4	2.0	1.9	1.9	0.7	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	0.0	5.9	2.1	0.0	12.9	2.1	4.4	4.4	0.9	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	12.5	18.2	0.0	24.1	20.8	16.1	16.2	18.4	16.1	16.2
LnGrp LOS	C	A	B	B	A	C	C	B	B	B	B	B
Approach Vol, veh/h		493			840			624			576	
Approach Delay, s/veh		13.7			23.4			16.8			16.3	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		33.0		27.0		33.0				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		20.9		* 28		20.9		* 28				
Max Q Clear Time (g_c+I1), s		11.0		23.6		14.2		26.9				
Green Ext Time (p_c), s		2.4		2.4		2.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th AWSC
 1: Lyman Place & DeLongpre Avenue

02/24/2020

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	36	6	123	10	12	15	31	102	69	87	10
Future Vol, veh/h	19	36	6	123	10	12	15	31	102	69	87	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	39	7	134	11	13	16	34	111	75	95	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9.3	8.4	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	31%	85%	42%
Vol Thru, %	21%	59%	7%	52%
Vol Right, %	69%	10%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	61	145	166
LT Vol	15	19	123	69
Through Vol	31	36	10	87
RT Vol	102	6	12	10
Lane Flow Rate	161	66	158	180
Geometry Grp	1	1	1	1
Degree of Util (X)	0.193	0.091	0.215	0.236
Departure Headway (Hd)	4.316	4.922	4.915	4.717
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	725	728	760
Service Time	2.357	2.976	2.961	2.758
HCM Lane V/C Ratio	0.194	0.091	0.217	0.237
HCM Control Delay	8.4	8.5	9.3	9.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.8	0.9

HCM 6th TWSC
2: Virgil Avenue & DeLongpre Avenue

02/24/2020

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	5	163	14	4	34	26	865	0	5	531	13
Future Vol, veh/h	46	5	163	14	4	34	26	865	0	5	531	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	5	177	15	4	37	28	940	0	5	577	14

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1122	1590	296	1297	1597	470	591	0	0	940	0	0
Stage 1	594	594	-	996	996	-	-	-	-	-	-	-
Stage 2	528	996	-	301	601	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	161	107	700	119	105	540	981	-	-	725	-	-
Stage 1	458	491	-	262	320	-	-	-	-	-	-	-
Stage 2	502	320	-	683	488	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	137	100	700	81	98	540	981	-	-	725	-	-
Mov Cap-2 Maneuver	137	100	-	81	98	-	-	-	-	-	-	-
Stage 1	431	486	-	246	301	-	-	-	-	-	-	-
Stage 2	433	301	-	499	483	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	34.3		32.2		0.5		0.1	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	981	-	-	346	188	725	-	-
HCM Lane V/C Ratio	0.029	-	-	0.672	0.301	0.007	-	-
HCM Control Delay (s)	8.8	0.2	-	34.3	32.2	10	0	-
HCM Lane LOS	A	A	-	D	D	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.6	1.2	0	-	-

HCM 6th Signalized Intersection Summary
 3: Vermont Boulevard & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	63	487	99	145	412	122	114	1209	266	130	1242	98
Future Volume (veh/h)	63	487	99	145	412	122	114	1209	266	130	1242	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	529	108	158	448	133	124	1314	289	141	1350	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	719	146	142	457	387	317	2713	596	234	2708	215
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.65	0.65	0.56	0.56	0.56
Sat Flow, veh/h	833	2942	598	791	1870	1585	1781	4188	921	317	4823	382
Grp Volume(v), veh/h	68	319	318	158	448	133	124	1068	535	141	953	504
Grp Sat Flow(s),veh/h/ln	833	1777	1763	791	1870	1585	1781	1702	1705	317	1702	1802
Q Serve(g_s), s	0.6	14.9	15.0	7.0	21.4	6.2	2.4	14.5	14.5	37.1	15.3	15.3
Cycle Q Clear(g_c), s	22.0	14.9	15.0	22.0	21.4	6.2	2.4	14.5	14.5	43.8	15.3	15.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.54	1.00		0.21
Lane Grp Cap(c), veh/h	85	434	431	142	457	387	317	2205	1104	234	1911	1011
V/C Ratio(X)	0.80	0.73	0.74	1.12	0.98	0.34	0.39	0.48	0.48	0.60	0.50	0.50
Avail Cap(c_a), veh/h	85	434	431	142	457	387	351	2205	1104	234	1911	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	31.3	31.4	43.5	33.8	28.0	8.9	8.1	8.1	21.4	12.0	12.0
Incr Delay (d2), s/veh	39.3	6.3	6.6	109.9	36.7	0.5	0.8	0.8	1.5	11.0	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.1	9.7	9.7	10.9	18.0	4.0	1.6	7.1	7.4	5.1	8.1	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	37.6	38.0	153.4	70.5	28.6	9.7	8.9	9.7	32.3	13.0	13.8
LnGrp LOS	F	D	D	F	E	C	A	A	A	C	B	B
Approach Vol, veh/h		705			739			1727			1598	
Approach Delay, s/veh		42.3			80.7			9.2			14.9	
Approach LOS		D			F			A			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.8	55.2		27.0		63.0		27.0				
Change Period (Y+Rc), s	3.0	* 4.7		* 5		* 4.7		* 5				
Max Green Setting (Gmax), s	6.5	* 49		* 22		* 58		* 22				
Max Q Clear Time (g_c+I1), s	4.4	45.8		24.0		16.5		24.0				
Green Ext Time (p_c), s	0.1	2.6		0.0		16.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
4: Lyman Place & Fountain Avenue

02/24/2020

Intersection												
Int Delay, s/veh	22.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↕			↕	
Traffic Vol, veh/h	68	1068	23	10	435	35	0	10	25	54	23	154
Future Vol, veh/h	68	1068	23	10	435	35	0	10	25	54	23	154
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	110	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	1161	25	11	473	38	0	11	27	59	25	167

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	511	0	0	1186	0	0	1932	1855	593	1248	1848	492
Stage 1	-	-	-	-	-	-	1322	1322	-	514	514	-
Stage 2	-	-	-	-	-	-	610	533	-	734	1334	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1052	-	-	587	-	-	45	73	450	140	74	576
Stage 1	-	-	-	-	-	-	166	225	-	542	534	-
Stage 2	-	-	-	-	-	-	481	524	-	379	222	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1052	-	-	587	-	-	21	67	450	108	67	576
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	67	-	108	67	-
Stage 1	-	-	-	-	-	-	154	209	-	504	524	-
Stage 2	-	-	-	-	-	-	319	514	-	314	206	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.2			32			176.5		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	171	1052	-	-	587	-	-	208
HCM Lane V/C Ratio	0.222	0.07	-	-	0.019	-	-	1.207
HCM Control Delay (s)	32	8.7	-	-	11.2	-	-	176.5
HCM Lane LOS	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0.1	-	-	12.8

HCM 6th Signalized Intersection Summary
 5: Virgil Avenue & Fountain Avenue

02/24/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	
Traffic Volume (veh/h)	140	685	116	101	360	86	49	634	86	119	566	57
Future Volume (veh/h)	140	685	116	101	360	86	49	634	86	119	566	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	745	126	110	391	93	53	689	93	129	615	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	1303	220	275	626	149	312	1237	167	274	1282	129
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	911	3041	514	636	1460	347	762	3146	424	691	3260	328
Grp Volume(v), veh/h	152	435	436	110	0	484	53	389	393	129	335	342
Grp Sat Flow(s),veh/h/ln	911	1777	1778	636	0	1808	762	1777	1794	691	1777	1811
Q Serve(g_s), s	9.4	11.1	11.1	9.5	0.0	12.5	3.4	10.2	10.2	10.7	8.5	8.5
Cycle Q Clear(g_c), s	21.9	11.1	11.1	20.6	0.0	12.5	11.8	10.2	10.2	20.9	8.5	8.5
Prop In Lane	1.00		0.29	1.00		0.19	1.00		0.24	1.00		0.18
Lane Grp Cap(c), veh/h	320	761	762	275	0	775	312	698	705	274	698	712
V/C Ratio(X)	0.47	0.57	0.57	0.40	0.00	0.62	0.17	0.56	0.56	0.47	0.48	0.48
Avail Cap(c_a), veh/h	340	800	800	288	0	814	312	698	705	274	698	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	13.0	13.0	20.8	0.0	13.4	18.1	14.1	14.2	22.3	13.6	13.6
Incr Delay (d2), s/veh	1.1	0.9	0.9	0.9	0.0	1.4	1.2	3.2	3.2	5.7	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	3.4	6.1	6.1	2.5	0.0	6.9	1.1	6.2	6.3	3.5	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	13.9	13.9	21.7	0.0	14.8	19.2	17.3	17.3	28.0	16.0	15.9
LnGrp LOS	C	B	B	C	A	B	B	B	B	C	B	B
Approach Vol, veh/h		1023			594			835			806	
Approach Delay, s/veh		15.2			16.1			17.4			17.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.7		31.3		28.7		31.3				
Change Period (Y+Rc), s		5.1		* 5.6		5.1		* 5.6				
Max Green Setting (Gmax), s		22.3		* 27		22.3		* 27				
Max Q Clear Time (g_c+I1), s		22.9		22.6		13.8		23.9				
Green Ext Time (p_c), s		0.0		1.6		3.3		1.8				
Intersection Summary												
HCM 6th Ctrl Delay				16.6								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Appendix D

VMT Analysis Worksheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2



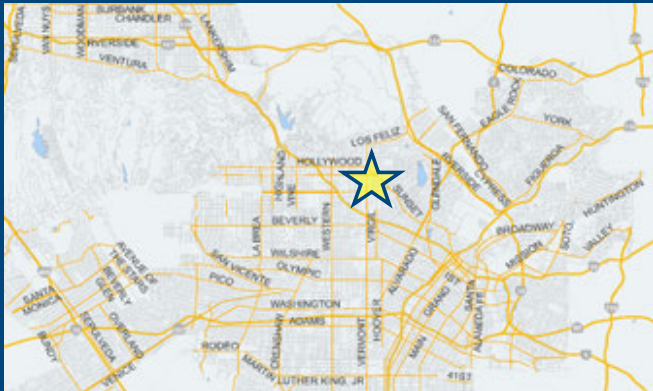
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project:

Scenario: [WWW](#)

Address: [Q](#)



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

Yes No

Existing Land Use

Land Use Type	Value	Unit
Housing Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Proposed Project Land Use

Land Use Type	Value	Unit
Office Medical Office	102.78	ksf
Office Medical Office	102.78	ksf

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	2,564 Daily Vehicle Trips
0 Daily VMT	17,068 Daily VMT
Tier 1 Screening Criteria	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
Tier 2 Screening Criteria	
The net increase in daily trips < 250 trips	2,564 Net Daily Trips
The net increase in daily VMT ≤ 0	17,068 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf
The proposed project is required to perform VMT analysis.	



CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

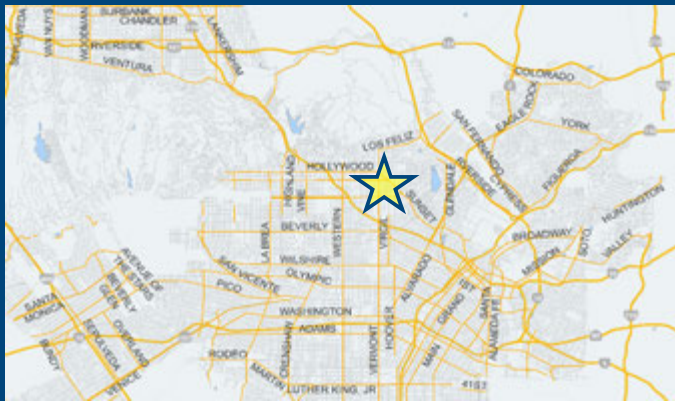


Project Information

Project:

Scenario:

Address:



Proposed Project Land Use Type	Value	Unit
Office Medical Office	102.78	ksf

TDM Strategies

Select each section to show individual strategies
Use to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A **Parking**

Reduce Parking Supply city code parking provision for the project site

Proposed Prj Mitigation actual parking provision for the project site

Unbundle Parking Proposed Prj Mitigation monthly parking cost (dollar) for the project site

Parking Cash-Out Proposed Prj Mitigation percent of employees eligible

Price Workplace Parking daily parking charge (dollar)

Proposed Prj Mitigation percent of employees subject to priced parking

Residential Area Parking Permits cost (dollar) of annual permit

Proposed Prj Mitigation

- B** Transit
- C** Education & Encouragement
- D** Commute Trip Reductions
- E** Shared Mobility
- F** Bicycle Infrastructure
- G** Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
2,368 Daily Vehicle Trips	2,368 Daily Vehicle Trips
15,739 Daily VMT	15,739 Daily VMT
0.0 Household VMT per Capita	0.0 Household VMT per Capita
7.6 Work VMT per Employee	7.6 Work VMT per Employee

Significant VMT Impact?	
Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	Work: No Threshold = 7.6 15% Below APC



CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 10, 2020

Project Name: Hollywood Presbyterian Medical Center

Project Scenario:

Project Address: 1318 N LYMAN PL, 90027



Version 1.2

Project Information			
Land Use Type		Value	Units
Housing	Single Family	0	DU
	Multi Family	0	DU
	Townhouse	0	DU
	Hotel	0	Rooms
	Motel	0	Rooms
Affordable Housing	Family	0	DU
	Senior	0	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
Retail	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
	High-Turnover Sit-Down	0.000	ksf
	Restaurant		
	Fast-Food Restaurant	0.000	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement	0.000	ksf
	Free-Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	0.000	ksf
	Medical Office	102.780	ksf
Industrial	Light Industrial	0.000	ksf
	Manufacturing	0.000	ksf
	Warehousing/Self-Storage	0.000	ksf
School	University	0	Students
	High School	0	Students
	Middle School	0	Students
	Elementary	0	Students
	Private School (K-12)	0	Students
Other		0	Trips

Analysis Results			
Total Employees: 308			
Total Population: 0			
Proposed Project		With Mitigation	
2,368	Daily Vehicle Trips	2,368	Daily Vehicle Trips
15,739	Daily VMT	15,739	Daily VMT
0	Household VMT per Capita	0	Household VMT per Capita
7.6	Work VMT per Employee	7.6	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No



Report 2: TDM Inputs

TDM Strategy Inputs			
Strategy Type	Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces) Actual parking provision (spaces)	192 164
	Unbundle parking	Priority cost for parking (\$) / Employees eligible (%)	50 / 0%
	Parking cash-out	Daily parking charge (\$)	\$1.00
	Price workplace parking	Employees subject to priced parking (%)	50%
	Residential area parking permits	Cost of on-street permit (\$)	50

(cont. on following page)

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Transit	Reduce transit headways	Reduction in headways (increase in frequency) (%) Existing transit mode share (as a percent of total daily trips) (%) Lines within project site improved (<20%, >=40%) Degree of implementation (low, medium, high)	0% 0% 0
	Implement neighborhood shuttle	Employees and residents eligible (%)	0%
	Transit subsidies	Employees and residents eligible (%) Amount of transit subsidy per passenger (daily equivalent) (\$)	0% \$0.00
	Education & Encouragement	Voluntary travel behavior change program	Employees and residents participating (%)
Promotions and marketing		Employees and residents participating (%)	0%

(cont. on following page)

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Commuter Trip Reductions	Required commute trip reduction program	Employees participating (%)	0%
	Alternative Work Schedules and Telecommute	Employees participating (%) Type of program Degree of implementation (low, medium, high)	0% 0
	Employer sponsored vanpool or shuttle	Employees eligible (%) Employer size (small, medium, large)	0% 0
	Car share	Employees eligible (%)	0%
	Shared Mobility	Bike share	Car share project setting (Urban, Suburban, All Other) Within 500 feet of existing bike share station - CAR implementing new bike share station (Yes/No)
School carpool program		Level of implementation (Low, Medium, High)	0

(cont. on following page)

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/improve on-street bicycle facility	Provide bicycle facility along site (Yes/No) Meets City Bike Parking Code (Yes/No)	0
	Include secure bike parking and showers	Includes indoor bike parking/showers, & repair station (Yes/No)	0
	Neighborhood Enhancement	Traffic calming improvements	Streets with traffic calming improvements (%) Interactions with traffic calming improvements (%)
Pedestrian network improvements		Included within project and connecting off-site within project only	0

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: April 10, 2020
 Project Name: Hollywood Presbyterian Medical Center
 Project Scenario:
 Project Address: 1318 N LYMAN PL, 90027



Version 1.2

TDM Adjustments by Trip Purpose & Strategy														
Place type: Urban														
		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commuter Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commuter Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.														
Place type: Urban														
		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect														
		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
COMBINED TOTAL		7%	7%	10%	10%	7%	7%	7%	7%	7%	7%	7%	7%	
MAX. TDM EFFECT		7%	7%	10%	10%	7%	7%	7%	7%	7%	7%	7%	7%	

= Minimum (X%, 1-[(1-A)*(1-B)...])
 where X%=

PLACE	urban	75%
TYPE	compact infill	40%
MAX:	suburban center	20%
	suburban	15%

Note: [1-[(1-A)*(1-B)...]] reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: April 10, 2020

Project Name: Hollywood Presbyterian Medical Center

Project Scenario:

Project Address: 1318 N LYMAN PL, 90027



Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	8.2	0	0
Home Based Other Production	0	0.0%	0	5.2	0	0
Non-Home Based Other Production	676	-14.5%	578	7.5	5,070	4,335
Home-Based Work Attraction	447	-31.5%	306	8.6	3,844	2,632
Home-Based Other Attraction	1,915	-42.5%	1,102	5.6	10,724	6,171
Non-Home Based Other Attraction	676	-14.5%	578	6.8	4,597	3,930

MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-7.3%	0	0	-7.3%	0	0
Home Based Other Production	-7.3%	0	0	-7.3%	0	0
Non-Home Based Other Production	-7.3%	536	4,019	-7.3%	536	4,019
Home-Based Work Attraction	-10.5%	274	2,356	-10.5%	274	2,356
Home-Based Other Attraction	-7.3%	1,022	5,721	-7.3%	1,022	5,721
Non-Home Based Other Attraction	-7.3%	536	3,643	-7.3%	536	3,643

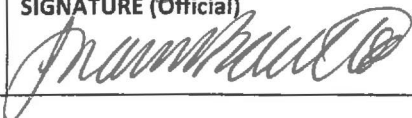
MXD VMT Methodology Per Capita & Per Employee

Total Population: 0

Total Employees: 308

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	0	0
<i>Total Home Based Work Attraction VMT</i>	2,356	2,356
<i>Total Home Based VMT Per Capita</i>	0.0	0.0
<i>Total Work Based VMT Per Employee</i>	7.6	7.6

CITY OF LOS ANGELES OFFICE OF THE CITY CLERK ROOM 395, CITY HALL LOS ANGELES, CA 90012 CALIFORNIA ENVIRONMENTAL QUALITY ACT PROPOSED MITIGATED NEGATIVE DECLARATION		
LEAD CITY AGENCY: City of Los Angeles		COUNCIL DISTRICT: 13
PROJECT TITLE: Virgil Avenue Parking Structure Project	ENVIRONMENTAL CASE:	CASE NO: ENV-2015-310-MND
PROJECT LOCATION: 4470-4494 De Longpre Avenue, Los Angeles, California.		
<p>PROJECT DESCRIPTION: The Proposed Project would involve the demolition of two 1-story Hollywood Presbyterian Medical Center (HPMC) maintenance buildings; an adjacent 1-story, single-family home; and surface parking lots; and construction of a new parking structure that would include 654 parking spaces for HPMC patients, visitors, and employees. The parking structure will vary in height from 42 to 56 feet aboveground and would be constructed on a 1.02-acre (44,500-square-foot) site located within the Vermont/Western SNAP, Subarea C, and C4-1D, [T][Q]C2-1, and R4-1D Zones located at North Virgil Avenue, Los Angeles, California (Project Site).</p> <p>The Project Applicant requests a Project Permit Compliance Review Approval, pursuant to the provisions of LAMC Section 11.5.7.C, to allow the Proposed Project located within the geographic boundaries of the Vermont/Western SNAP to proceed.</p> <p>The Project Applicant requests a Project Permit Adjustment, pursuant to the provisions of LAMC Section 11.5.7.E, to allow the Proposed Project to reduce pedestrian path minimum horizontal clearance from 10 feet to 5 feet, and minimum vertical clearance from 12 feet to an approximate range of 8–9 feet.</p> <p>The Project Applicant would also request approvals and permits from the Department of Building and Safety (and other municipal agencies) for Project construction activities including, but not limited to the following: demolition, excavation, shoring, grading, foundation, haul routes, and building improvements for each site.</p>		
NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY CHA Reproductive Managing Group & CHS Property Holdings, LP C/O John Lee 1300 Vermont Ave., Los Angeles, California 90027		
FINDING: The Department of City Planning of the City of Los Angeles has proposed that a Mitigated Negative Declaration be adopted for this project. The mitigation measures outlined on the attached pages will reduce any potentially significant adverse effects to a level of significance.		
SEE ATTACHED SHEET(S) FOR ANY MITIGATION MEASURES IMPOSED		
Any written comments received during the public review period are attached together with the response of the Lead City Agency. The project decision maker may adopt the mitigated negative declaration, amend it, or require preparation of an EIR. Any changes made should be supported by substantial evidence in the record and appropriate findings made.		
THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED		
NAME OF PERSON PREPARING FORM Blake Lamb	TITLE City Planner	TELEPHONE NUMBER 213 978 1167
ADDRESS 200 N Spring St. LA CA 90039	SIGNATURE (Official) 	DATE 6/15/15

CITY OF LOS ANGELES
 OFFICE OF THE CITY CLERK
 ROOM 395, CITY HALL
 LOS ANGELES, CA 90012

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY and CHECKLIST (CEQA Guidelines Section 15063)

LEAD CITY AGENCY: City of Los Angeles	COUNCIL DISTRICT:	DATE:
RESPONSIBLE AGENCIES: Department of City Planning		
ENVIRONMENTAL CASE: ENV-2015-310 -MND	RELATED CASES: DIR-2015-309-SPPA-SPP	
PREVIOUS ACTIONS CASE NO.	<input type="checkbox"/> DOES have significant changes from previous actions. <input type="checkbox"/> DOES NOT have significant changes from previous actions.	
<p>PROJECT DESCRIPTION: The Proposed Project would involve the demolition of two 1-story Hollywood Presbyterian Medical Center (HPMC) maintenance buildings; an adjacent 1-story, single-family home; and surface parking lots; and construction of a new parking structure that would include 654 parking spaces for HPMC patients, visitors, and employees. The parking structure will vary in height from 42-56 feet above ground and would be constructed on a 1.02-acre (44,500-square-foot) site located within Vermont/Western SNAP, Subarea C, and C4-1D, [T][Q]C2-1, and R4-1D Zones located at North Virgil Avenue, Los Angeles, California (Project Site).</p> <p>The Project Applicant requests a Project Permit Compliance Review Approval, pursuant to the provisions of LAMC Section 11.5.7.C, to allow the Proposed Project located within the geographic boundaries of the Vermont/Western SNAP to proceed.</p> <p>The Project Applicant requests a Project Permit Adjustment, pursuant to the provisions of LAMC Section 11.5.7.E, to allow the Proposed Project to reduce pedestrian path minimum horizontal clearance from 10 feet to 5 feet, and minimum vertical clearance from 12 feet to an approximate range of 8-9 feet.</p> <p>The Project Applicant would also request approvals and permits from the Department of Building and Safety (and other municipal agencies) for Project construction activities including, but not limited to the following: demolition, excavation, shoring, grading, foundation, haul routes, and building improvements for each site.</p>		
PROJECT DESCRIPTION (Continued) : See above and supporting exhibits and tables in the attached Initial Study prepared by Meridian Consultants, dated June 2015.		
<p>ENVIRONMENTAL SETTING: The Project Site is located within Subarea C of the SNAP and within the boundaries of the Hollywood Community Plan. The Project Site includes approximately 44,500 square feet of lot area (1.02 acres) and is currently occupied by two 1-story HPMC maintenance buildings; an adjacent 1-story, single-family home; and surface parking lots.</p> <p>Further details and photographs of the existing Project Site and surrounding area are provided in the Initial Study (IS) prepared by Meridian Consultants dated June 2015.</p>		

PROJECT LOCATION:		
COMMUNITY PLAN AREA: Hollywood Community Plan STATUS: <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Does Conform to Plan <input type="checkbox"/> Proposed <input type="checkbox"/> Does NOT Conform to Plan <input checked="" type="checkbox"/> ADOPTED in 2001	AREA PLANNING COMMISSION: Central	CERTIFIED NEIGHBORHOOD COUNCIL: Los Feliz Neighborhood Council
EXISTING ZONING: C4-1D, [T][Q]C2-1, R4-1D	MAX DENSITY ZONING: 6:1	LA River Adjacent: No
GENERAL PLAN LAND USE: Neighborhood Office Commercial	MAX. DENSITY PLAN: 6:1	PROPOSED PROJECT DENSITY: Does Not Apply

Determination (To be completed by Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature
Title
Phone

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of a mitigation measure has reduced an effect from “Potentially Significant Impact” to “Less than Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analysis,” as described in (5) below, may be cross-referenced).
5. Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significant.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> AESTHETICS <input type="checkbox"/> AGRICULTURE AND FOREST RESOURCES <input type="checkbox"/> AIR QUALITY <input type="checkbox"/> BIOLOGICAL RESOURCES <input type="checkbox"/> CULTURAL RESOURCES <input type="checkbox"/> GEOLOGY AND SOILS	<input type="checkbox"/> GREENHOUSE GAS EMISSIONS <input type="checkbox"/> HAZARDS AND HAZARDOUS MATERIALS <input type="checkbox"/> HYDROLOGY AND WATER QUALITY <input type="checkbox"/> LAND USE AND PLANNING <input type="checkbox"/> MINERAL RESOURCES <input type="checkbox"/> NOISE	<input type="checkbox"/> POPULATION AND HOUSING <input type="checkbox"/> PUBLIC SERVICES <input type="checkbox"/> RECREATION <input type="checkbox"/> TRANSPORTATION AND TRAFFIC <input type="checkbox"/> UTILITIES <input type="checkbox"/> MANDATORY FINDINGS OF SIGNIFICANCE
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INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

Background

PROPONENT NAME: CHA Reproductive Managing Group & CHS Property Holdings, LP, C/O John Lee

PHONE NUMBER: 213-487-3211

APPLICANT ADDRESS: 1300 Vermont Ave, Los Angeles, California 90027

AGENCY REQUIRING CHECKLIST: City of Los Angeles **DATE SUBMITTED:**
 Department of City Planning

PROPOSAL NAME (if Applicable): Virgil Avenue Parking Structure Project

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
PLEASE NOTE THAT EACH AND EVERY RESPONSE IN THE CITY OF LOS ANGELES INITIAL STUDY AND CHECKLIST IS SUMMARIZED FROM AND BASED UPON THE ENVIRONMENTAL ANALYSIS CONTAINED IN ATTACHEMENT B, EXPLANATION OF CHECKLIST DETERMINATIONS. PLEASE REFER TO THE APPLICABLE RESPONSE IN ATTACHMENT B FOR A DETAILED DISCUSSION OF CHECKLIST DETERMINATIONS.					
4.1. AESTHETICS					
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.2. AGRICULTURE AND FOREST RESOURCES					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.3 AIR QUALITY					
a.	Conflict with or obstruct implementation of the SCAQMD or congestion management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
d.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4 BIOLOGICAL RESOURCES					
a.	Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by The California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the city or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.5 CULTURAL RESOURCES					
a.	Cause a substantial adverse change in significance of a historical resource as defined in State CEQA Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
4.6 GEOLOGY AND SOILS					
<i>Would the project:</i>					
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to division of mines and geology special publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii.	Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii.	Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv.	Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v.	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vi.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vii.	Be located on expansive soil, as defined in table 18-1-b of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
viii.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.7 GREENHOUSE GAS EMISSIONS					
<i>Would the project:</i>					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.8 HAZARDS AND HAZARDOUS MATERIALS					
<i>Would the project:</i>					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.9 HYDROLOGY AND WATER QUALITY					
<i>Would the project:</i>					
a.	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Place housing within a 100-year flood plain as mapped on federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Place within a 100-year flood plain structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, inquiry or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j.	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.10 LAND USE AND PLANNING					
<i>Would the project:</i>					
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.11 MINERAL RESOURCES					
<i>Would the project:</i>					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.12 NOISE					
<i>Would the project:</i>					
a.	Exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.13 POPULATION AND HOUSING					
<i>Would the project:</i>					
a.	Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.14 PUBLIC SERVICES					
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i.	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii.	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii.	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv.	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v.	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
4.15 RECREATION					
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.16 TRANSPORTATION AND TRAFFIC					
<i>Would the project:</i>					
a.	Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.17 UTILITIES & SERVICE SYSTEMS					
<i>Would the project:</i>					
a.	Exceed wastewater treatment requirements of the applicable regional water quality control board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mitigated Negative Declaration

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h.	Require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.18 MANDATORY FINDINGS OF SIGNIFICANCE					
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF THE ENVIRONMENTAL EVALUATION (ATTACH ADDITIONAL SHEETS IF NECESSARY)

The Environmental Impact Assessment includes the use of official City of Los Angeles and other government source reference materials related to various environmental impact categories (e.g., Hydrology, Air Quality, Biology, Cultural Resources, etc.). The State of California, Department of Conservation, Division of Mines and Geology—Seismic Hazard Maps and reports are used to identify potential future significant seismic events, including probable magnitudes, liquefaction, and landslide hazards. Based on Applicant information provided in the Master Land Use Application and Environmental Assessment Form, impact evaluations were based on stated facts contained therein, including but not limited to reference materials indicated above, field investigation of the Project Site, and other reliable reference materials known at the time.

Project-specific impacts were evaluated based on all relevant facts indicated in the Environmental Assessment Form and expressed through the Applicant's project description and supportive materials. Both the Initial Study Checklist and Checklist Explanations, in conjunction with the *City of Los Angeles's Adopted Thresholds Guide* and *CEQA Guidelines*, were used to reach reasonable conclusions on environmental impacts as mandated under the California Environmental Quality Act (CEQA).

The Project as identified in the project description may cause potentially significant impacts on the environment without mitigation. Therefore, this environmental analysis concludes that a Mitigated Negative Declaration shall be issued to avoid and mitigate all potential adverse impacts on the environment by the imposition of mitigation measures and/or conditions contained and expressed in this document; the environmental case file known as **ENV-2015-310-MND** and the associated case(s), and **DIR-2015-309-SPPA-SPP**. Finally, based on the fact that these impacts can be feasibly mitigated to a less than significant level, and based on the findings and thresholds for Mandatory Findings of Significance as described in State *CEQA Guidelines*, section 15065, the overall project impacts(s) on the environment (after mitigation) will not:

- Substantially degrade environmental quality
- Substantially reduce fish or wildlife habitat
- Cause a fish or wildlife habitat to drop below self-sustaining levels
- Threaten to eliminate a plant or animal community
- Reduce the number or restrict the range of a rare, threatened, or endangered species

- Eliminate important examples of major periods of California history or prehistory
- Achieve short-term goals to the disadvantage of long-term goals
- Result in environmental effects that are individually limited but cumulatively considerable
- Result in environmental effects that will cause substantial adverse effects on human beings

ADDITIONAL INFORMATION:

All supporting documents and references are contained in the Environmental Case File referenced previously and may be viewed in the EIR Unit, Room 763, City Hall.

For City information, addresses, and phone numbers, visit the City's website at <http://www.lacity.org>; "City Planning and Zoning Information Mapping Automated System (ZIMAS)" at <http://zimas.lacity.org/> or EIR Unit, City Hall, 200 N Spring Street, Room 763; "Seismic Hazard Maps" at [http://gmw.consrv.ca.gov/shmp/Engineering/Infrastructure/Topographic Maps/](http://gmw.consrv.ca.gov/shmp/Engineering/Infrastructure/Topographic%20Maps/); "Parcel Information" at <http://boemaps.eng.ci.la.ca.us/index0.1htm>; or the City's main website under the heading "Navigate LA."

PREPARED BY:	TITLE:	TELEPHONE NO.:	DATE:
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Environmental Analysis Explanation Table

Impact	Explanation	Mitigation Measures
4.1 AESTHETICS		
a. Less than Significant Impact	See environmental analysis provided in the Initial Study (IS) prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.2 AGRICULTURAL RESOURCES		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.3 AIR QUALITY		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.

Impact	Explanation	Mitigation Measures
e. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.4 BIOLOGICAL RESOURCES		
a. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM-IV-20
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
f. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.5 CULTURAL RESOURCES		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
d. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
4.6 GEOLOGY AND SOILS		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b.. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required

Impact	Explanation	Mitigation Measures
d. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
e. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
f. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
g. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
h. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.7 GREENHOUSE GAS EMISSIONS		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.8 HAZARDS AND HAZARDOUS MATERIALS		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
f. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
g. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required

Impact	Explanation	Mitigation Measures
h. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.9 HYDROLOGY AND WATER QUALITY		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
e. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
f. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
g. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
h. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
i. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
j. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.10 LAND USE AND PLANNING		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. Less than Significant	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
c. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.

Impact	Explanation	Mitigation Measures
4.11 MINERAL RESOURCES		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.12 NOISE		
a. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM XII-30 MM XII-40
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM XII-30 MM XII-40
d. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM XII-30 MM XII-40
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
f. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.13 POPULATION AND HOUSING		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.14 PUBLIC SERVICES		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. No Impact	See environmental analysis provided in	No mitigation measures are

Impact	Explanation	Mitigation Measures
	the IS prepared by Meridian Consultants dated June 2015.	required.
d. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.15 RECREATION		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.16 TRANSPORTATION AND TRAFFIC		
a. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM XVI-30
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM XVI-40
e. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	MM VIII-80
f. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.17 UTILITIES		
a. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
d. Less than Significant	See environmental analysis provided in	No mitigation measures are

Impact	Explanation	Mitigation Measures
	the IS prepared by Meridian Consultants dated June 2015.	required.
e. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
f. Less than Significant	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
g. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
h. No Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
4.18 MANDATORY FINDINGS OF SIGNIFICANCE		
a. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
b. Less than Significant Impact	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	No mitigation measures are required.
c. Less than Significant with Project Mitigation	See environmental analysis provided in the IS prepared by Meridian Consultants dated June 2015.	Applicable mitigation measures stated from Section 4.1 to Section 4.17.

MITIGATION MEASURES

4.1 Aesthetics

No mitigation measures are required.

4.2 Agriculture and Forestry Resources

No mitigation measures are required.

4.3 Air Quality

No mitigation measures are required..

4.4 Biological Resources

MM IV-20

Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

- Proposed Project activities (including disturbances to native and non-native vegetation, structures, and substrates) should take place outside of the breeding season for birds which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (California Fish and Wildlife Code Section 86).
- If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Applicant shall:
 - a. Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a Qualified Biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
 - b. If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.

- c. Alternatively, the Qualified Biologist could continue the surveys in order to locate any nests. If an active nest is located, clearing and construction (within 300 feet of the nest or as determined by a qualified biological monitor) shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area.
- d. The Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the project.

4.5 Cultural Resources

No mitigation measures are required.

4.6 Geology and Soils

No mitigation measures are required.

4.7 Greenhouse Gas Emissions

No mitigation measures are required.

4.8 Hazards and Hazardous Materials

No mitigation measures are required.

4.9 Hydrology and Water Quality

No mitigation measures are required.

4.10 Land Use and Planning

No mitigation measures are required.

4.11 Mineral Resources

No mitigation measures are required.

4.12 Noise

MM XII-30 Increased Noise Levels (Parking Wall)

- A 6-foot-high solid decorative masonry wall adjacent to residential use and/or zones shall be constructed if no such wall exists.

MM XII-40 Increased Noise Levels (Parking Structure Ramps)

- Concrete, not metal, shall be used for construction of parking ramps.

The interior ramps shall be textured to prevent tire squeal at turning areas. 4.13 Population and Housing

No mitigation measures are required.

4.14 Public Services

No mitigation measures are required.

4.15 Recreation

No mitigation measures are required.

4.16 Transportation and Traffic

MM XVI-30 Transportation (Haul Route)

- The developer shall install traffic signs in accordance with the LAMC around the site to ensure pedestrian and vehicle safety.

MM XVI-40 Safety Hazards

- The developer shall install appropriate traffic signs around the site to ensure pedestrian and vehicle safety.
- The Applicant shall submit a parking and driveway plan that incorporates design features that reduce accidents, to the Bureau of Engineering and the Department of Transportation for approval.

4.17 Utilities and Service Systems

No mitigation measures are required.

4.18 Mandatory Findings of Significance

Applicable mitigation measures stated from **Section 4.1** to **Section 4.17** would be required.

Final Initial Study
Virgil Avenue Parking Structure Project

ENV-2015-310-MND

4470 DeLongpre Avenue

City of Los Angeles

Prepared by:

City of Los Angeles
Department of City Planning
200 N. Spring Street, Room 721
Los Angeles, CA 90012

With information provided by:

Meridian Consultants LLC
910 Hampshire Road, Suite V
Westlake Village, CA 91361

June 2015

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1.0 PROJECT INFORMATION

Project Title:	Virgil Avenue Parking Structure Project
Project Location:	4470-4494 De Longpre Avenue, Los Angeles, California
Project Applicant	CHA Reproductive Managing Group & CHS Property Holdings, LP
Lead Agency:	City of Los Angeles Department of City Planning 200 N. Spring Street, Room 721 Los Angeles, CA 90012

PROJECT SUMMARY

The subject of this Initial Study Analysis is the Virgil Avenue Parking Structure Project (“Proposed Project”). The Proposed Project is a parking garage located in the Vermont/Western Transit Oriented District Specific Plan Area (“Station Neighborhood Area Plan” or “SNAP”) within the boundaries of the Hollywood Community Plan (“Community Plan”) area in Central Los Angeles.

The Proposed Project would involve the demolition of two 1-story Hollywood Presbyterian Medical Center (HPMC) maintenance buildings, an adjacent 1-story single-family home, surface parking lot, and the construction of a new parking structure that would include 654 parking spaces for HPMC patients, visitors, and employees. The parking structure will vary in height from 42 feet to 56 feet above ground and would be constructed on a 1.02-acre (44,500 square-foot) site located within Vermont/Western SNAP, Subarea C, and the C4-1D, [T][Q]C2-1, and R4-1D Zones located at Virgil Avenue, Los Angeles, California (“Project Site”).

ORGANIZATION OF INITIAL STUDY ANALYSIS

This Initial Study is organized into six sections as follows:

Section 1.0, Introduction, provides introductory information such as the Proposed Project title, the Project Applicant, and the lead agency for the Proposed Project.

Section 2.0, Existing Conditions, describes the existing conditions, surrounding land use, general plan, and existing zoning in the Project Site.

Section 3.0, Project Description, provides a detailed description of the Proposed Project including the environmental setting, project characteristics, project objectives, and environmental clearance requirements.

Section 4.0, Environmental Analysis, includes an analysis for reach resource topic and identifies impacts of implementing the Proposed Project. It also identifies mitigation measures, if applicable.

Section 5.0, References, identifies all printed references and individuals cited in this Initial Study.

Section 6.0, List of Preparers, identifies the individuals who prepared this report and their areas of technical specialty.

The following appendices present data supporting the analysis or contents of this Initial Study.

- Appendix A, Air Quality and Greenhouse Gas Background and Modeling Data
- Appendix B, Historic Resource Assessment
- Appendix C, Geotechnical Investigation
- Appendix D, Noise Background and Modeling Data
- Appendix E, Traffic Study

This Initial Study is a preliminary analysis prepared by and for the City of Los Angeles as the Lead Agency to determine whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) must be prepared for a proposed project. A MND is prepared for a project when the Initial Study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made, or agreed to by the applicant before the proposed Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur; and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

Implementation of the Proposed Project could cause some potentially significant impacts on the environment, but as shown in the environmental analysis contained in this Initial Study, all of the Proposed Project's potentially significant impacts would be reduced to less than significant levels through the implementation of mitigation measures. Consequently, the analysis contained herein concludes that a MND shall be prepared for the Proposed Project.

2.0 EXISTING CONDITIONS

PROJECT LOCATION

The Proposed Project is located within Subarea C of the SNAP and within the boundaries of the Hollywood Community Plan. The SNAP is generally bound by Franklin Avenue, the Hollywood Freeway, Hillhurst and Virgil Avenues, Heliotrope Drive, and Sunset Boulevard. The location of the Project Site is shown in **Figure 2.0-1, Project Location Map**.

The Project Site includes approximately 44,500 square feet of lot area (1.02 acres) and is bound by De Longpre Avenue to the north; by Virgil Avenue to the east; by automotive services business and 2-story multifamily residential buildings to the south; and by HPMC and Lyman Place to the west.

The Project Site's Assessor's Parcel Numbers (APNs), property addresses, and lot areas are summarized in **Table 2.0-1, Project Site Summary**.

**Table 2.0-1
Project Site Summary**

APN	Address	Lot Area (sq. ft.)
5542012005	1318 N. Lyman Place	1,870
5542012010	4474 W. De Longpre Avenue	7,500
5542012028	4480, 4480 1/2, 4482, 4484, 4490, 4494 West De Longpre Avenue	23,690
5542012029	4470, 4472 W. De Longpre Avenue	5,500
5542012030	1321, 1323 N. Virgil Avenue	5,940
Total Site Area		44,500 sq. ft. ^a

Source: City of Los Angeles Department of City Planning, City of Los Angeles Zone Information and Map Access System (ZIMAS), December 2014.

Note:

*^a Due to rounding and slight measurement differences, the lot area according to ZIMAS does not exactly match the lot area per architectural plans.
sq. ft. = square feet*

REGIONAL AND LOCAL ACCESS

Regional Access

Primary regional access to the Hollywood Community Plan area is provided by the Hollywood Freeway (US 101), which runs in a north-south direction to the west of the Project Site. Primary access to and from the US 101 is via an interchange at Sunset Boulevard. Regional access is also provided by the Los Angeles County Metropolitan Transportation Authority (Metro) Red Line. In addition, SR 134 is located to the

north, the I-5 is located to the east, and the Harbor/Pasadena Freeway (I-110/SR 110) is located to the south.

Local Street Access

The major arterials providing regional and subregional access to the Proposed Project include Vermont Avenue and Fountain Avenue. The following is a brief description of the major roadways near the Proposed Project.

Vermont Avenue: Vermont Avenue is a designated Major Highway Class II that travels in the north–south direction. It is located west of the Project Site, and provides four travel lanes.

Fountain Avenue: Fountain Avenue is a designated Secondary Highway that travels in the east–west direction. It is located south of the Project Site and provides two travel lanes.

De Longpre Avenue: De Longpre Avenue is a designated Collector Street that travels in the east-west direction. It is located adjacent to and north of the Project Site and provides two travel lanes.

Virgil Avenue: Virgil Avenue is designated as a Secondary Highway. Virgil Avenue travels in the north–south direction. It is located immediately adjacent to and east of the Project Site and provides four travel lanes.

Lyman Place: Lyman Place is a designated Collector Street that travels in the north–south direction. It is located immediately adjacent to and west of the Project Site and provides two travel lanes.

Sunset Boulevard: Sunset Boulevard is a designated Major Highway Class II that travels in the east-west direction. It is located north of the Project site, and provides four travel lanes.

Figure 2.0-1, Project Location Map

Public Transit

The Project area is currently served by several local and intercity transit operators. The Project Site is approximately 0.25 miles from the Metro Red Line station at Sunset Boulevard and Vermont Avenue. This station serves the Metro Red Line, which runs between North Hollywood and Downtown Los Angeles, connecting with the Metro Orange Line in North Hollywood, the Metro Purple Line at Wilshire Boulevard, the Metro Blue Line and Metro Expo Line in Downtown Los Angeles, and the Metro Gold Line at Union Station.

In addition, the Project Site is served by bus lines operated by Metro and Los Angeles Department of Transportation (LADOT). Metro Rapid Bus Line 780 runs along Hollywood Boulevard, within 0.5 miles of the Project Site; the closest station to the Project Site is located at Hollywood Boulevard and New Hampshire Avenue. Metro Rapid Bus Line 757 runs along N. Western Avenue to Crenshaw Boulevard, with the closest stop to the Project Site located at Sunset Boulevard and N. Western Avenue. A number of MTA bus lines (2, 175, 204, 302, and 754) run along Sunset Boulevard. The closest stop to the Project Site—for MTA line 175—is located at Fountain Avenue and N. Virgil Avenue, less than 300 feet from the Project Site. Finally, the LADOT DASH Hollywood Bus line travels along Sunset Boulevard near the Project Site. The LADOT DASH Los Feliz travels along Vermont Avenue, Sunset Boulevard, and Virgil Avenue near the Project Site.

LAND USE AND ZONING

The Project Site is located within the SNAP, which is located within the Hollywood Community Plan (“Community Plan”) area in the City of Los Angeles. The Project Site is also located within several planning policy areas that have been adopted for the purposes of incentivizing development and/or providing specific development standards that are appropriate for the Project area. These planning policy areas include the Los Angeles State Enterprise Zone.

Hollywood Community Plan

The stated intent of the Hollywood Community Plan is to allow Hollywood to continue to be a major center of population, employment, retail services, and entertainment; and to provide housing to satisfy the varying needs and desires of all economic segments of the Community, maximizing the opportunity for individual choice. The Hollywood Community Plan designates the Project Site as a mix of Highway Oriented Commercial and High Density Residential land uses.¹ The Hollywood Community Plan also includes four specific plans, one of which is the Vermont/Western Transit Oriented District Specific Plan, also known as the Vermont/Western Station Neighborhood Area Plan (SNAP).

1 City of Los Angeles, Hollywood Community Plan (1988).

Vermont/Western Station Neighborhood Area Plan

The Project Site is located within the northeastern portion of the *SNAP*. The *SNAP* was adopted to make the neighborhood livable, economically viable, and pedestrian and transit friendly in an effort to achieve the maximum benefit from the subway stations located within the vicinity. In addition, the *SNAP* includes standards and plans to transform neighborhood streets into shared streets to create safer routes to school and transit, with the ultimate goal of creating a transit-friendly area. The Project Site is located within Subarea C: Community Center. The allowed uses and standards of Subarea C are described below.

Subarea C: Community Center

Subarea C (Community Center) permits multiple dwelling residential uses (includes single-family residences, apartment buildings, and childcare), commercial uses (includes limited commercial uses, as well as retail with limited manufacturing, service stations, and garages), and hospital and medical uses. Additionally, within Subarea C, hospital and medical uses are permitted in all areas. The maximum permitted height for hospital and medical uses is 100 feet.

Additionally, Section E.4 specifies the number of parking spaces required for hospital and medical uses. Hospitals must provide a minimum number of one parking space for each patient bed for which the hospital is licensed, and a maximum of two parking spaces for each patient bed for which the hospital is licensed.²

Los Angeles Municipal Code

Consistent with the Hollywood Community Plan, the Project Site is designated as Neighborhood Office Commercial, zoned C4-1D, [T][Q]C2-1, and R4-1D. The C4-1D Commercial zone permits a variety of commercial uses, such as restaurants, florists, catering shops, grocery stores, department stores, theaters, and public parking, in addition to high-density residential uses, churches, schools, and childcare. The [T][Q]C2-1 commercial zone permits a variety of retail uses with limited manufacturing, including parking buildings. [T] stands for tentative zone qualification, and [Q] stands for qualified classification. [Q] includes restrictions on property as a result of a zone change in order to ensure compatibility with surrounding property. The R4-1D zone allows high-density residential uses, churches, schools, museums, and childcare. The LAMC does not place a height restriction for buildings with C4-1, C2-1, and R4-1 zoning designations; however, C4-1D and R4-1D are limited by Development Limitations (D), which indicates that a building or structure may be built to a specific maximum height or floor area ratio (FAR) less than the height or FAR permitted in the Height District classification; buildings may cover only a fixed percentage of the area in a

² City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. E.4, Project Parking Requirements, Hospital and Medical Uses (2001).

lot; or buildings may be set back in addition to setbacks required by zoning code.³ The SNAP places a maximum building height restriction of 100 feet for hospital and medical uses. FAR applies to the habitable structures on a lot and to the buildable area of a lot to determine the maximum allowable square footage of all buildings on the lot, but does not include the area within parking structures. Therefore, FAR standards do not apply to the Proposed Project.

State Enterprise Zones

Enterprise zones are specific geographic areas designated to receive various economic incentives for stimulating local investment and employment, in addition to other State-level incentives. Within the Hollywood Community Plan area, the Enterprise Zone generally includes the Hollywood Hills, in addition to the area bound by Franklin Avenue, Hoover Avenue, Melrose Avenue, and La Brea Avenue.⁴

EXISTING CONDITIONS

As shown in **Figure 2.0-2, Aerial Photograph of the Project Site**, and on **Figures 2.0-3, Existing Conditions** and **Figure 2.0-4, Plot Plan - Existing Conditions**, the Project Site currently consists of two 1-story Hollywood Presbyterian Medical Center (HPMC) maintenance buildings and a 1-story single-family residence, a surface parking lot which consists of a paved surface parking lot in the western portion, and gravel surface parking in the eastern portion, providing a total of 76 parking spaces. Vehicular access to the existing Project Site is currently provided by De Longpre Avenue and Lyman Place. The Project Site contains 7 trees and landscaped areas.

SURROUNDING LAND USES

The properties surrounding the Project Site include residential buildings, the Hollywood Presbyterian Medical Center, a variety of commercial buildings, and surface parking lots. The Hollywood Freeway is also located approximately 1.3 miles west of the Project Site.

North: The Project Site is bounded by De Longpre Avenue. Across De Longpre Avenue is a grocery store. The property is zoned C2-1D (Commercial Zone) and designated as Highway Oriented Commercial.

East: The Project Site is bound by N. Virgil Avenue to the east. Across N. Virgil Avenue is a Bezikians Medical Center, which is a 2-story medical office building. Additionally, a 1-story single-family residence

3 City of Los Angeles Municipal Code, sec. 12.32, Land Use Legislative Actions, Special Zoning Classifications, D Development Limitations.

4 California Department of Housing and Community Development, Map of Los Angeles–Hollywood State Enterprise Zone (2010).

is located adjacent to the medical office building. Properties to the east are zoned C4-1D (Commercial Zone) and designated as Neighborhood Office Commercial.

South: Located south of the Project Site are multifamily residential buildings, an automotive services business, a restaurant, and a single-family home. Properties are zoned R4-1 (Multiple Dwelling Zone) and C4-1D (Commercial Zone) and designated as Neighborhood Office Commercial.

West: Located to the west of the Project Site is Lyman Place, and across is the Hollywood Presbyterian Medical Center, with surface parking lots and a parking structure. Properties to the west are zoned C2-CSA1 (Community Commercial).

Figure 2.0-5, Land Use and Zoning Map, depicts the land use and zoning designation of the Project Site and the surrounding area.

Figure 2.0-2, Aerial Photograph of the Project Site

Figure 2.0-3, Existing Conditions

Figure 2.0-4, Plot Plan - Existing Conditions

Figure 2.0-5, Land Use and Zoning Map

3.0 PROJECT DESCRIPTION

PROPOSED DEVELOPMENT

The Proposed Project involves the demolition of a 1-story single-family residence, two HPMC maintenance buildings, surface parking with 76 parking spaces and the construction of a new parking structure that would contain 654 parking spaces for HPMC patients, visitors, and employees. The parking structure would contain approximately 251,840 square feet of floor area. The Proposed Project would be designed to meet the current Development Standards and Design Guidelines set forth by the Vermont/Western SNAP and to fulfill additional parking supply requirements for HPMC.

The 654 parking spaces would be located in 7 parking levels, which consists of 2.5 to 3 subterranean parking levels and 4 above ground levels, with an additional level of parking on the roof deck. The site slopes down from Virgil Avenue along De Longpre Avenue and continuing along to Lyman Place. Four stories of the structure will be visible above ground along Lyman Place, and three and a half levels will be visible above ground along the majority of De Longpre and Virgil Avenues. The Proposed Project will feature a lobby at the corner of De Longpre Avenue and Lyman Place. Additionally, the Proposed Project would include two elevators, facing the lobby. The parking structure would contain 2 bicycle racks (32 spaces) at grade at the southeast portion of the Project Site.

In compliance with SNAP Development Standards, the Proposed Project will provide a total of three trash receptacles and three public benches. One of each will be provided within the public right-of-way along Virgil Avenue, Lyman Place and De Longpre Avenue. Additionally, a room for trash and recycling storage (with a separate area for recyclable materials), not visible to the public, would be provided.

The site plan for the Proposed Project is illustrated in **Figure 3.0-1, Site Plan**. floor plans for the Proposed Project are shown in **Figures 3.0-2, Basement B-3 and B-2 Floor Plans; Figure 3.0-3, Basement B-1 and Ground Floor Plans, Figure 3.0-4, Second and Third Floor Plans, and Figure 3.0-5, Fourth Floor and Roof Plans**.

Architectural Design

The building materials used for the structure would consist of high performance glass at the lobby, aluminum wall elements, vertical and horizontal metal panel screening elements, concrete with a sustainable slag mixture (light color), and non-squeal coating on drive surfaces.

The parking structure would vary from approximately 42 feet to 56 feet above ground due to the sloping nature of the site. The architectural design incorporates a number of design features to reduce the visual

mass of the building and create visual interest. The architectural design would feature an open-air, permeable scheme to resemble an actual building rather than a parking garage.

The Lyman Place elevation will contain a glass lobby on the corner of Lyman Place and De Longpre Avenue, providing pedestrian access to and from the parking structure. Horizontal bands would be placed along this elevation to screen views of cars parking in the structure.

The De Longpre Elevation includes a combination of horizontal bands and vertical fins that project up to 7 and 15 inches, respectively, out from the wall to create shadow patterns. Accent lights will uplight this elevation at night to create visual interest and a welcoming pedestrian environment along De Longpre Avenue by providing additional lighting. This accent lighting will also screen views of the interior of the structure from De Longpre at night.

The Virgil Avenue elevation is broken up into three planes with two green walls approximately parallel to the street and horizontal bands and vertical fins on both sides of the larger green wall feature. The south elevation will primarily consist of horizontal bands to screen views into the structure with vertical fins on the lower and upper level near Virgil Avenue. The lower portion of the south elevation will be a solid wall with a height no less than 6'-0' high that will incorporate a mix of vertical scoring and horizontal bands in order to provide a decorative design.

Elevations of the structure are illustrated in **Figure 3.0-6, North and South Elevations** and **Figure 3.0-7, East and West Elevations**.

Landscaping

The landscaping proposed for the Proposed Project is illustrated on **Figure 3.0-8, Landscape Plan**. The Proposed Project would provide approximately 5,679 square feet of landscaping. Nineteen street trees will be placed on Virgil Avenue, De Longpre Avenue, and Lyman Place in compliance with the Vermont/Western SNAP Development Standards and Design Guidelines. As mentioned previously, plantings would be provided along the south side of the parking structure to provide a vertical landscape feature to visually buffer the structure from the existing buildings located south of the site. Landscaping consisting of shrubs, flowers and other plants would be provided around the perimeter of the Project Site and blue glass would be installed on the north elevation behind the landscaping to enhance the aesthetics of the structure on De Longpre Avenue.

Lighting

The Proposed Project is required to include on-site lighting along all vehicular access ways and pedestrian walkways to comply with SNAP Development Standards and Guidelines. All on-site lighting is also required

to be directed away from adjacent properties. On-site lighting will be provided along the Lyman Place and Virgil Avenue driveways for vehicles entering the parking garage. Accent lights will be situated in the landscaping near the base of the structure to uplight the building for pedestrian walkways and provide safety lighting along De Longpre Avenue. All lighting used throughout the structure would consist of energy efficient LED light bulbs. Additionally, the Proposed Project is required to shield all sources of illumination for the Project Site from casting light higher than 15 degrees below the horizontal plane as measured from the light source and shall not cast light directly into any adjacent uses. The light sources in the Proposed Project would be mounted at a maximum height of 14 feet to meet this requirement.

Figure 3.0-1, Site Plan

Figure 3.0-2, Basement B-3 and B-2 Floor Plans

Figure 3.0-3, Basement B-1 and Ground Floor Plans

Figure 3.0-4, Second and Third Floor Plans

Figure 3.0-5, Fourth Floor and Roof Plans

Figure 3.0-6, North and South Elevations

Figure 3.0-7, East and West Elevations

Figure 3.0-8, Landscape Plan

Parking and Access

Vehicular access to the structure would be provided from two driveways, one on Lyman Place and Virgil Avenue. The ingress and egress points on Lyman Place and Virgil Avenue will be two lanes, one lane for ingress and one lane for egress. Virgil Avenue access will primarily serve the lower levels of the garage, while the Lyman Place access will primarily serve the ground and upper levels of the facility, although access to all levels are provided at both entrances. Security gates would be provided at both entrances.

The Virgil Avenue entrance will slope down to provide immediate access to the third level, and the Lyman Place entrance will slope upwards for immediate access to the fourth level. Both access points will provide full access to the roadway system. As indicated above, parking would be provided in a 7 level parking structure, including 2.5 to 3 subterranean parking levels, and four above-ground parking levels. The parking structure will also have handicap and pedestrian access. In addition, handicapped and vanpool parking will be included in the parking structure.

Section 9.E.4(i) of the SNAP requires that hospitals provide a minimum of one parking space for each patient bed for which the hospital is licensed, and a maximum of two parking spaces for each patient bed for which the hospital is licensed.

HPMC currently has a total of 1,059 parking spaces, while the maximum amount of parking spaces allowed for HPMC is 1,591 spaces. Construction of the Proposed Project would result in a loss of 76 spaces, bringing the revised total to 983 spaces. Completion of the new parking structure will contain 654 spaces, resulting in a combined total of 1,637 parking spaces throughout HPMC. Therefore, prior to the Proposed Project being operational, a minimum total of 46 spaces will be removed from the current parking area, located east of Lyman Place in order to not exceed the maximum allowed parking count of 1,591. Therefore, vehicle parking would satisfy the requirements of the Vermont/Western SNAP. Although not required, the Proposed Project would contain 2 bicycle racks (32 spaces) at grade of the southeast portion of the Project Site.

Construction

Construction Schedule/Phasing

For purposes of analyzing impacts associated with air quality, this analysis assumes a Project construction schedule of approximately 14 months. Construction activities associated with the Proposed Project would be undertaken in three main steps: (1) demolition and site clearing, (2) grading and soil compaction and (3) building construction. The building construction phase includes the construction of the proposed structure, architectural coatings, and paving the Project Site. A description of the construction phases and timelines are discussed below.

Phase I: Demolition and Site Clearing

There are two existing structures located on the Project Site requiring demolition activities. Site clearing would occur for approximately 1 month and would include the demolition of the existing buildings and scraping of asphalt surfaces from the site. Typical construction equipment includes dump trucks, loaders, auger drills, and backhoes.

Phase II: Grading and Soil Compaction

After the completion of demolition and site clearing, grading and soil compaction activities would occur for approximately 2 months. This phase would involve the shoring and excavation of the site to create the proper base and slope for the building foundations. Typical construction equipment includes excavators, dump trucks, loaders, and graders.

Phase III: Building Construction

The building construction phase consists of below-grade and above-grade building construction and is expected to last for approximately 11 months. Upon completion of the structures, architectural coating, finishing, and paving would occur. It is estimated that paving would occur during the final 2 months of the building construction phase. Typical construction equipment includes cranes, concrete trucks, boom pumps, and air compressors.

Street Closures

Construction activities may necessitate temporary lane closures on De Longpre Avenue adjacent to the Project Site on an intermittent basis for delivery of materials, and other construction activities. However, site deliveries and the staging of all equipment and materials would be organized in the most efficient manner possible on site to mitigate any temporary impacts to the neighborhood and surrounding traffic. Construction equipment would be staged on site for the duration of construction activities. Traffic lane and right-of-way closures, if required, will be properly permitted by the City agencies and will conform to City standards.

Unless stated otherwise, all construction activities will be performed in accordance with all applicable State and federal laws and City codes and policies with respect to building construction and activities. As provided in Section 41.40 of LAMC, the permissible hours of construction within the City are 7:00 AM to 9:00 PM Monday through Friday, and between 8:00 AM and 6:00 PM on any Saturday or national holiday. No construction activities are permitted on Sundays. The Proposed Project would comply with these restrictions.

Haul Routes

All construction and demolition debris would be recycled to the maximum extent feasible. Demolition debris and soil materials from the site that cannot be recycled or diverted would be hauled to the Chiquita Canyon or the Manning Pit landfills, which accept construction and demolition debris and inert waste from areas within the City of Los Angeles. The Chiquita Canyon landfill is approximately 30.5 miles north of the Project Site (approximately 61 miles round-trip). The Manning Pit landfill is approximately 20.6 miles east of the Project Site (approximately 41 miles round-trip). For recycling efforts, the Central Los Angeles Recycling Center and Transfer Station (Browning Ferris Industries), which accepts construction waste for recycling, is located approximately 5 miles southeast from the Project Site (approximately 10 miles round-trip).

For purposes of analyzing the construction-related impacts, it is anticipated that the excavation and soil export would involve 18-wheel bottom-dump trucks with a 14-cubic yard hauling capacity. Approximately 160 daily truck-trips would be required during the peak construction period. All truck staging would occur either on site or at designated off-site locations and radioed into the site to be filled. The local haul route for the Project Site toward the US 101 would utilize Sunset Boulevard and Fountain Avenue. Approximately 40,000 cubic yards of soil would be moved during grading, and approximately 40,000 cubic yards would be exported. The haul route specified above may be modified in compliance with City policies, provided the Los Angeles Department of Transportation (LADOT) and/or City of Los Angeles Bureau of Street Services approves any such modification.

REQUESTED APPROVALS

The application(s) request approval of the following:

Project Permit Compliance Review Approval: Pursuant to the provisions of LAMC Section 1.5.7.C, to allow the Proposed Project located within the geographic boundaries of the Vermont/Western SNAP to proceed.

Project Permit Adjustment: Pursuant to the provisions of LAMC Section 11.5.7.E, to allow the Proposed Project to reduce pedestrian path minimum horizontal clearance from 10' to 5' and minimum vertical clearance from 12' to an approximate range of 8-9'.

Haul Route Approvals: Approvals for Haul Routes for the Project Site to export approximately 40,000 cubic yards of soil.

4.0 ENVIRONMENTAL ANALYSIS

INTRODUCTION

This section of the Initial Study contains an assessment and discussion of impacts associated with the environmental issues and subject areas identified in the Initial Study Checklist Appendix G to the State CEQA Guidelines, (California Code of Regulations, Title 14, Chapter 3, Sections 15000–15387). The thresholds of significance are based on the Los Angeles (LA) *CEQA Thresholds Guide*.

4.1 AESTHETICS

Impact Analysis

a. *Would the project have a substantial adverse effect on a scenic vista?*

Less-Than-Significant Impact. A significant impact would occur if the proposed project would have a substantial adverse effect on a scenic vista. A scenic vista refers to views of focal points or panoramic views of broader geographic areas that have visual interest. A focal point view would consist of a view of a notable object, building, or setting. Diminishment of a scenic vista would occur if the bulk or design of a building or development contrasts enough with a visually interesting view, so that the quality of the view is permanently affected.

The Project Site is located within the Hollywood area of Los Angeles, approximately 1.25 miles east of US 101, and approximately 1.5 miles west of the I-5. When looking north and south, the view is generally urban in character, and defined by mid-rise commercial and residential buildings. Similar views exist when looking to the east, and west.

The Hollywood Community Plan does not identify any scenic vistas, nor is the Project Site located within or along a designated scenic corridor. As shown in **Figures 2.0-3 and 2.0-4 Existing Conditions**, the Project Site currently consists of two 1-story HPMC maintenance buildings, 1-story single-family residence, and a surface parking lot; which would be demolished. Views near the Project Site are largely constrained by adjacent structures and the area's relatively flat topography. No scenic views are provided from or through the Project Site. The Project Site also contains landscaped areas including several trees. The Proposed Project would add 19 new street trees and landscaping along the border of the Project Site. The Proposed Project would alter the existing views and character of the Project Site and immediately surrounding area in a manner that is similar to existing conditions and that is compatible with the urban form of the Hollywood area. Due to the relatively level topography and extent of development within the immediate area, there are no scenic views or vantage points that afford scenic views.

Therefore, although the proposed project would substantially increase the height and massing of development on the project site, project implementation would not obstruct any views of unique scenic vistas or focal points. Therefore, impacts related to scenic vistas would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Based on the LA CEQA Thresholds Guide, a significant impact would occur if scenic resources would be damaged and/or removed by development of a project. The Project Site is currently utilized by two HPMC maintenance buildings, a 1-story single-family residence, and surface parking lot. The Project Site is not located within or along a designated scenic highway and no scenic views exist from or through the currently developed site. The nearest designated State scenic highway is State Route (SR) 2, which runs from 2.7 miles north of SR 210 at La Cañada to the San Bernardino County line.⁵ However, at its nearest point, SR 2 is located approximately 2 miles east of the Project Site. Although there are a variety of ornamental trees and other landscaping within the Project Site, there are no natural scenic resources, such as native California trees or unique geologic features on the Project Site. According to the Historic Resource Assessment (**Appendix B**), the existing on-site 1-story single family residence does not meet the criteria to be eligible for the National Register of Historic Places, the California Register of Historical Resources, or as a City of Los Angeles Historic-Cultural Landmark based on the LA CEQA Thresholds Guide. Therefore, no scenic resources, including State scenic highways, trees, rock outcroppings, and historic structures, would be impacted by the Proposed Project.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. Based on the LA CEQA Thresholds Guide, A significant impact would occur if the proposed project would substantially degrade the existing visual character or quality of the project site and its surroundings. Significant impacts to the visual character of a site and its surroundings are generally based on the removal of features with aesthetic value, the introduction of contrasting urban features into a local area, and the degree to which the elements of the proposed project detract from the visual character of an area.

Building Height and Massing

Within the Hollywood area, there are commercial, retail, office, restaurant, parking, and residential land uses of various heights. An 8-story medical center building is located approximately 460 feet west of the

5 California Department of Transportation, "Officially Designated State Scenic Highways" (October 2013), Accessed January 5, 2015, <http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>.

Project Site, along with a 6-story medical building located approximately 175 feet northwest of the Project Site. In addition, 2-story multifamily residential buildings and a variety of other office and commercial buildings surround the Project Site. The parking structure would be 4 stories in height (a 7 level parking structure including 2.5 to 3 subterranean levels and 4 above-ground levels), and would therefore be consistent with the height of several buildings within the immediate viewshed of the Project Site. The scale, materials and colors of the parking structure would be designed to resemble similar structures surrounding the Project Site. The Proposed Project would provide a unified and complementary look within the Vermont/Sunset hospital core area; this includes hospitals such as Kaiser Permanente and Children's Hospital Los Angeles. The design of the Project complements the architectural style of the Marion and John E. Anderson Pavilion, located within the Children's Hospital and north of the Project Site.

Subarea C of SNAP imposes a 100-foot building height restriction on hospital and medical use buildings. The Proposed Project would be 56 feet above grade at its highest point. Therefore, the height of the proposed building would be within allowable height limitations for SNAP Subarea C. Although the Proposed Project would be slightly taller than some of the existing structures immediate near the Project Site, the Proposed Project would be shorter than the nearby medical center buildings on Vermont Avenue and would not be incompatible with surrounding uses. The parking structure will be within the allowable height of 100 feet (at 56 feet). At 4 stories, corresponding to approximately 56 feet above grade to the top of the roof at its highest point along De Longpre Avenue as illustrated in **Figure 3.0-4** through **Figure 3.0-7**, the parking structure would not conflict with SNAP Subarea C height restrictions.

The Proposed Project takes into consideration the need to use the architecture of the building to soften its massing and blend with its surroundings utilizing several different but compatible materials. The building materials used for the structure would consist of high performance glass at the lobby, concrete, aluminum wall elements, vertical and horizontal metal panel screening elements, and a green wall.

The architectural design incorporates a number of design features to reduce the visual mass of the building and create visual interest. The western elevation includes a glass lobby on the corner of Lyman Place and De Longpre Avenue and horizontal bands to screen views and headlights of cars parked in the structure.

The Lyman Place elevation will contain a glass lobby on the corner of Lyman Place and De Longpre Avenue, providing pedestrian access to and from the parking structure. Horizontal bands would be placed along this elevation to screen views of cars parking in the structure.

The De Longpre Avenue elevation includes a combination of horizontal bands and vertical fins that will project up to fifteen inches out from the wall to create shadow patterns. Accent lights will upright this

elevation at night to create visual interest and create a welcoming pedestrian environment along De Longpre Avenue by providing additional lighting. This accent lighting will also screen views of the interior of the structure from De Longpre Avenue at night.

The Virgil Avenue elevation is broken up into three planes with two green walls approximately parallel to the street and horizontal bands and vertical fins on both sides of the larger green wall feature. The south elevation will primarily consist of horizontal bands to screen views into the structure with vertical fins on the lower and upper levels along Virgil Avenue. The lower portion of the south elevation will be a solid wall with a height no less than 6'-0' high that will incorporate a mix of vertical scoring and horizontal bands in order to provide a decorative design.

The Proposed Project's impacts with respect to building height and massing would be less than significant.

Views

The Proposed Project would have 4 above-ground levels and would not become a prominent part of the existing skyline. The Proposed Project will be visible from the adjacent residences located immediately south of the Proposed Project Site. The views of the mountains are currently obscured from the adjacent residences. Although the building is visible from private viewpoints within nearby residential and office buildings within the surrounding area, it should be noted that private views are not protected by any viewshed protection ordinance, and the alteration of private views would not constitute a significant impact. As such, the Proposed Project's impact upon obstruction of scenic public views would be less than significant.

Landscape Plan

The Proposed Project would provide approximately 5,679 square feet of landscaping. Nineteen street trees would be placed on Virgil Avenue, De Longpre Avenue, and Lyman Place in compliance with the Vermont/Western SNAP Development Standards and Design Guidelines. As mentioned previously, plantings would be provided along the south side of the parking structure to provide a vertical landscape feature to visually buffer the structure from the existing multifamily residential buildings located south of the site. Landscaping consisting of shrubs, flowers and other plants would be provided around the perimeter of the Project Site. Blue glass would be installed behind the landscaping on the north elevation to enhance the aesthetics of the structure on De Longpre Avenue. The landscape plan would not result in impacts to the visual character and aesthetics of the neighborhood. Landscaping would be compatible with the surrounding area.

Shade and Shadow

Shade and shadow impacts may result if direct sunlight to the proposed buildings affects adjacent properties. Shading is an important environmental issue because the users or occupants of certain land uses have some reasonable expectations for direct sunlight and warmth from the sun. Per the LA CEQA *Thresholds Guide*, “facilities and operations sensitive to the effects of shading include: routinely useable outdoor spaces associated with residential, recreational, or institutional (e.g., schools, convalescent homes) land uses; commercial uses such as pedestrian oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors.” These land uses are termed “shadow-sensitive” because sunlight is important to their function. Based on the LA CEQA *Thresholds Guide*, a shading impact would normally be considered significant if the Proposed Project’s structures cast shadows for more than three hours each day between the hours of 9:00 AM and 3:00 PM during winter months, or for more than four hours each day between the hours of 9:00 AM and 5:00 PM during the summer months.

Based on a survey of the buildings within the potential shadow envelope of the Proposed Project, no shade-sensitive land uses were identified within the projected shadow patterns to the immediate north, east, or west. However, shade-sensitive uses were identified immediately south of the Project Site. As shown in **Figure 4.1-1, Winter Solstice Shadows**, the Proposed Project’s winter solstice shadows would not shade surrounding structures for more than 3 hours between 9:00 AM to 3:00 PM. As shown in **Figure 4.1-2, Summer Solstice Shadows**, the Proposed Project’s summer solstice shadows would not shade surrounding structures for more than 4 hours between 9:00 AM to 5:00 PM.

North: De Longpre Avenue is located directly north of the Project Site. A grocery store is located to the north of the Project Site. The shadow of the parking structure would extend northeast across De Longpre Avenue for approximately 2 hours (between 8:00 AM and 11:00 AM) during the winter months and would not extend north of De Longpre Avenue during the summer months. The Proposed Project would not cast shadows for more than three hours each day between the hours of 9:00 AM and 3:00 PM during the winter months or for more than four hours each day between the hours of 9:00 AM and 5:00 PM during the summer months. The Proposed Project would result in less than significant impacts on the commercial property.

South: To the south of the Project Site are 1-story single-family residence, two 2-story multifamily residential buildings, an automotive services business, and a restaurant. The shadow of the parking structure would extend south and shade the multifamily residences for approximately 2 hours (between 8:00 AM and 10:00 AM and again between 4:00 PM and 6:00 PM) during the winter months. The multifamily residences would be shaded during the summer months between 4:00 AM and 6:00 PM. The

Proposed Project would not cast shadows for more than three hours each day between the hours of 9:00 AM and 3:00 PM during the winter months or for more than four hours each day between the hours of 9:00 AM and 5:00 PM during the summer months. The Proposed Project would result in less than significant impacts on these multifamily residential properties.

West: Lyman Place is located directly west of the Project Site. Located to the west of the Project Site across N. Lyman Place is the Hollywood Presbyterian Medical Center (HPMC), with surface parking lots and a parking structure. The shadow of the parking structure would extend west across Lyman Place for approximately 2 hours (between 8:00 AM and 10:00 AM) during the winter months and would extend west across Lyman Place for approximately 2 hours (between 8:00 AM and 10:00 AM) during the summer months. The Proposed Project would not cast shadows for more than three hours each day between the hours of 9:00 AM and 3:00 PM during the winter months or for more than four hours each day between the hours of 9:00 AM and 5:00 PM during the summer months. The Proposed Project would result in less than significant impacts on HPMC properties.

East: N. Virgil Avenue is located directly east of the Project Site. Across N. Virgil Avenue is a 2-story medical office building, along with a 1-story single-family residence located adjacent and south of the medical office building. The shadow of the parking structure would extend east across Virgil Avenue for approximately 2 hours (between 4:00 PM and 6:00 PM) during the winter months and would extend east across Virgil Avenue for approximately 2 hours (between 4:00 PM and 6:00 PM) during the summer months. The Proposed Project would not cast shadows for more than three hours each day between the hours of 9:00 AM and 3:00 PM during the winter months or for more than four hours each day between the hours of 9:00 AM and 5:00 PM during the summer months. The Proposed Project would result in less than significant impacts on the medical office and residential property.

The Proposed Project would be visually compatible with the surrounding neighborhood, and is consistent with several other medical, office and commercial developments in the Hollywood area.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. *Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?*

Less than Significant Impact. A significant impact may occur if the Proposed Project introduces new sources of light or glare on or from the Project Site that would be incompatible with the areas surrounding

the Project Site, or that pose a safety hazard to motorists utilizing adjacent streets or freeways. Based on the *LA CEQA Thresholds Guide*, the determination of whether the Proposed Project results in a significant nighttime illumination impact shall be made considering the following factors: (a) the change in ambient illumination levels as a result of Proposed Project sources; and (b) the extent to which Proposed Project lighting would spill off the Project Site and affect adjacent light-sensitive areas.

Light

Night lighting for the Proposed Project would be provided to illuminate the parking structure entrance, and largely to provide adequate night visibility for parking patrons and to provide a measure of security. Exterior lighting would be included for pedestrian safety, and it would be situated on the ground to prevent light spillage and light impacts.

The existing maintenance buildings contains nighttime security lighting in addition to lights associated with the surface parking lot on the Project Site. The existing nighttime security lighting associated with the surface parking lot on the Project Site would be removed and replaced with new nighttime security lighting for the new parking structure. The Project Site would include nighttime lighting along the parking structure's frontage on Lyman Place. Lighting would also be placed at the parking structure's vehicle driveways. In addition to the exterior parking structure nighttime security lighting, interior lighting associated with the Proposed Project would provide an additional source of nighttime illumination.

Pursuant to SNAP Development Standards and Guidelines, on-site lighting is required along all vehicular access ways and pedestrian walkways. Parking areas are required to have a minimum of $\frac{3}{4}$ foot-candle of flood lighting measured at the pavement. All on-site lighting is also required to be directed away from adjacent properties. On-site lighting will be provided along the driveway off of Lyman Place for vehicles entering the parking garage. Accent lights will be situated in the landscaping near the base of the structure to uplight the building for pedestrian walkways and provide safety lighting along De Longpre Avenue.

All lighting used throughout the structure would consist of energy efficient LED light bulbs and have a minimum of $\frac{3}{4}$ foot-candle of flood lighting measured at the pavement. Additionally, all lighting sources will be shielded from casting light higher than 15 degrees below the horizontal plane as measured from the light source and shall not cast light directly into any adjacent uses.

Glare

Potential reflective surfaces in the Proposed Project vicinity include automobiles traveling along roadways and parked on streets, exterior building windows, and surfaces of brightly painted buildings. Excessive glare not only restricts visibility, but also increases the ambient heat reflectivity in a given area. The glare-resistant building materials used for the Proposed Project would consist of high performance glass at the

lobby, aluminum wall elements, vertical and horizontal metal panel screening elements , concrete with a sustainable slag mixture (light color). Landscaping in the form of street trees would be provided along all street edges of the Proposed Project to buffer and partially screen the building from public view. The design of the Proposed Project would incorporate vertical fins, along the De Longpre elevation, which will also reduce glare. The Proposed Project would install solid panels a minimum of three feet six inches tall at the ramps of the south side of the parking structure to minimize headlight glare. The parking structure would also have barrier walls at each level that will screen car headlights. Additionally, parking bumper barriers would block any additional glare. The Proposed Project would not introduce any new sources of glare that are incompatible with the surrounding areas. The architectural features and design would result in less than significant impacts to glare.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

Figure 4.1-1 Winter Solstice Shadows

Figure 4.1-2 Summer Solstice Shadows

4.2 AGRICULTURE AND FORESTRY RESOURCES

Impact Analysis

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

No Impact. The Project Site is located within a developed and heavily urbanized area of the City of Los Angeles. No farmland or agricultural activity exists on or near the Project Site. According to the California Department of Conservation “Los Angeles County Important Farmland 2010” map, the Project Site is not designated as farmland.⁶ No portion of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

No Impact. The Project Site is located within the jurisdiction of the City of Los Angeles and is subject to the applicable land use and zoning requirements of the LAMC. The Project Site is split between C4-1D, [T][Q]C2-1, and R4-1D zoning designations, and is designated as Neighborhood Office Commercial in the Hollywood Community Plan. The Project Site is not zoned for agricultural production, and there is no farmland at the Project Site. In addition, no Williamson Act Contracts are in effect for the Project Site.⁷

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or***

⁶ California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland Map, Los Angeles County Important Farmland 2010 (January 2011), <http://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf>.

⁷ California Department of Conservation, Division of Land Resource Protection, “The Land Conservation (Williamson) Act” (2013), <http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx>.

timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project Site is zoned C4-1D [T][Q]C2-1, and R4-1D and is designated as Neighborhood Office Commercial in the Hollywood Community Plan. The Project Site is not zoned as forestland or timberland, and there is no timberland production at the Project Site.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project Site is occupied by two 1-story HPMC maintenance buildings, one 1-story single-family residence, and surface parking. Although there is some landscaping on the Project Site in the form of trees and bushes, no designated forested lands exist on or near the Project Site.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact. Neither the Project Site, nor nearby properties, are currently utilized for agricultural or forestry uses. The Project Site is not classified in any “Farmland” category designated by the State of California.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.3. AIR QUALITY

Impact Analysis

a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact. Based on the LA CEQA *Thresholds Guide*, a significant air quality impact could occur if the Proposed Project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. The most recent AQMP was adopted by the Governing Board of the South Coast Air Quality Management District (SCAQMD) on December 7, 2012. The Basin is currently in nonattainment for the following criteria pollutants: ozone (O₃), particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}). SCAQMD developed regional emissions thresholds, as shown in **Table 4.3-1**, to determine whether or not a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin. Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the Regional Comprehensive Plan (RCP) are considered consistent with the AQMP growth projections because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP. As discussed in **Section 4.13, Population and Housing**, the Proposed Project is consistent with the regional growth projections for the Los Angeles Subregion and is consistent with the smart growth policies of the RCP and Compass Vision Report to increase housing density within close proximity to transit stations. The Project Site is located 0.25 miles from the Vermont Avenue/Sunset Boulevard Metro Red Line station and is well served by several Metro bus lines, providing transit opportunities for occupants of the Proposed Project. As discussed in the Project's Traffic Study (see **Appendix E**), the Proposed Project's would result in no additional daily vehicle trips. Thus, the Proposed Project would not conflict with or obstruct implementation of the 2012 AQMP.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less than Significant. Based on the LA CEQA *Thresholds Guide*, a project may have a significant impact where project-related emissions would exceed federal, State, or regional standards or thresholds, or where project-related emissions would substantially contribute to an existing or projected air quality violation. The Proposed Project would not contribute to regional and localized air pollutant emissions

during construction and Project operation within the South Coast Air Basin (Basin). While these emissions may have the potential to exceed SCAQMD emissions thresholds, all projects are mandated to comply with SCAQMD Rule 403 which requires all unpaved demolition and construction areas to be wetted at least three times a day during excavation and construction, and temporary dust covers shall be used to reduce dust emissions. The Construction area must be kept sufficiently dampened to reduce and control dust caused by grading, hauling and wind. All clearing, earth moving or excavation activities shall be discontinued during period of high winds. All dirt/soils load shall be secured by trimming, watering or other appropriate means to prevent spillage and dust. All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amount of dust. General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. Trucks having no current hauling activity shall not idle but be turned off. On-site vehicle traffic will be restricted to 10 mph to minimize fugitive dust. Due to these required practices, the project impact will be less than significant.

Construction Emissions

The proposed development on the Project Site includes the construction of a new parking structure. Parking would be located in a 7-level parking garage, including 2.5 to 3 levels of subterranean garage, in addition to four levels of above-ground parking.

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule of approximately fourteen months. This assumption is conservative and yields the maximum daily impacts. Construction activities associated with the Proposed Project would be undertaken in three main steps: (1) demolition/site clearing; (2) site preparation and excavation; and (3) above-grade building construction.

These construction activities would create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities during demolition/site clearing and site preparation/excavation would primarily generate particle pollution. Particles less than 10 micrometers in diameter (PM10) and particles less than 2.5 micrometers in diameter (PM2.5) would be the primary sources of particle pollution. Mobile sources (such as diesel-fueled equipment on site and traveling to and from the Project Site) would primarily generate nitrogen oxide (NOx) emissions. The Project would not involve the application of architectural coatings and would not result in the release of volatile organic compound (VOC) emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring.

The analysis of daily construction emissions was prepared utilizing the California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD. **Table 4.3-1, Maximum Construction Emissions**, identifies daily emissions that are estimated to occur on peak construction days for each construction phase. Equipment is assumed typical for a parking structure with subterranean and above-ground levels, and would include excavators, dozers, loaders, paving equipment, etc. These calculations assume legal compliance and that code-required dust control measures would be implemented as part of the Proposed Project during each phase of development. Control requirements for SCAQMD Rule 403—Fugitive Dust include but are not limited to applying water in sufficient quantities (at least three times per day) to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel-washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas.

Table 4.3-1
Maximum Construction Emissions (pounds/day)

Source	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum	8.49	17.29	27.31	0.05	2.94	1.68
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes: Refer to Modeling in Appendix A. Construction assumptions (equipment, schedule, etc.) are based on information found in Section 3.0, Project Description.

Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403.

CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; VOC = volatile organic compound; SOx = sulfur oxides.

As shown in **Table 4.3-1**, construction-related daily emissions associated with the Proposed Project would not exceed any regional SCAQMD significance threshold for criteria pollutants during the construction phases. Therefore, construction emissions would also not contribute a considerable increase in emissions of the pollutants for which the Basin is currently in nonattainment (O3, PM10, and PM2.5).

Mitigation Measures: No mitigation measures are required.

Operational Emissions

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities of the Proposed Project. Area source emissions would be generated by the consumption of electricity and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. The analysis of daily operational emissions associated with the

Proposed Project has been prepared utilizing the CalEEMod recommended by the SCAQMD. The results of these calculations are presented in **Table 4.3-2, Maximum Operational Emissions**.

**Table 4.3-2
Maximum Operational Emissions (pounds/day)**

Source	VOC	NOx	CO	SOx	PM10	PM 2.5
Maximum	5.29	--*	0.07	--*	--*	--*
SCAQMD threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes: Refer to Modeling in **Appendix A**. CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; VOC = volatile organic compound; SOx = sulfur oxides.

Construction assumptions (equipment, schedule, etc.) based on information found in **Section 3.0, Project Description**.

*Operational emissions of these compounds are negligible; the Project will not generate any additional vehicle traffic.

As shown in **Table 4.3-2**, the operational emissions generated by the Proposed Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, operational emissions would also not contribute a considerable increase in emissions of the pollutants for which the Basin is currently in nonattainment (O3, PM10, and PM2.5).

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- c. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?***

Less than Significant Impact. Based on the *LA CEQA Thresholds Guide*, a significant impact may occur if the project would add a considerable cumulative contribution to federal or State nonattainment pollutants. As the Basin is currently in State nonattainment for ozone, O3, PM10 and PM2.5, related projects plus the Project could exceed an air quality standard or contribute to an existing or projected air quality exceedance. With respect to determining the significance of the Proposed Project contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple concurrent projects. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an

individual development project generates less than significant construction or operational emissions, then the development project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As discussed before, the Proposed Project would not generate construction or operational emissions that exceed the SCAQMD's recommended regional thresholds of significance. The Proposed Project would not generate a cumulatively considerable increase in emissions of the pollutants for which the Basin is in nonattainment.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less than Significant Impact. Project construction activities and operations, as described above, may increase air emissions above current levels. In addition, concentrations of pollutants may have the potential to impact nearby sensitive receptors. Sensitive receptors are defined as schools, residential homes, hospitals, resident care facilities, daycare centers or other facilities that may house individuals with health conditions who would be adversely impacted by changes in air quality. The 1-story single-family located immediately adjacent to the southwest of the Project Site would be considered the nearest sensitive receptor. Additionally, the 2-story multifamily residential buildings immediately south of the Project Site would also be considered sensitive receptors. Each of these sensitive receptors is within approximately 25 feet of the Project Site boundary.

The SCAQMD has developed localized significance thresholds (LSTs) that are based on the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD,⁸ apply to projects that are less than or equal to 5 acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each Source Receptor Area (SRA). For PM₁₀, the LSTs were derived based on requirements in SCAQMD

8 South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology* (June 2003; rev. October 21, 2009).

Rule 403—Fugitive Dust. For PM_{2.5}, LSTs were derived based on a general ratio of PM_{2.5} to PM₁₀ for both fugitive dust and combustion emissions.

LSTs are provided for each of SCAQMD's 38 SRAs at various distances from the source of emissions. The Project Site is located within SRA 1, which covers the Central Los Angeles area. The nearest sensitive receptors that could potentially be subject to localized air quality impacts associated with construction of the Proposed Project are single-family and multifamily residential uses located immediately adjacent, southwest and south, of the Project Site. Given the proximity of these sensitive receptors to the Project Site, the LSTs with receptors located within 50 feet have been used to address the potential localized air quality impacts associated with the construction-related NO_x, CO, PM₁₀, and PM_{2.5} emissions for each construction phase.

Construction Emissions

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. However, as shown in **Table 4.3-3, Localized Significance Threshold (LST) Emissions (pounds/day)**, peak daily emissions generated within the Project Site during construction activities for each phase would not exceed the applicable construction LSTs for a 1.02-acre site in SRA 1. The closest distance used to determine the mass-rate emissions from the screening tables is 25 meters (81 feet). The allowable mass-rate emissions were compared to the specified thresholds for a 1-acre site, as the Project Site is only marginally larger than this parcel size. It should be noted that LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling along the roadways. Localized air quality impacts from construction activities to the off-site sensitive receptors would be less than significant.

Table 4.3-3
Localized Significance Threshold (LST) Emissions (pounds/day)

Source	NO _x	CO	PM ₁₀	PM _{2.5}
Construction				
Total mitigated maximum emissions	17.29	27.31	2.94	1.68
LST threshold	74	680	5	3
Threshold Exceeded?	No	No	No	No
Operational				
Area/energy emissions	0.00067	0.07	0.00025	0.00025
LST threshold	74	680	2	1
Threshold Exceeded?	No	No	No	No

Note: CO = carbon monoxide; NO_x = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

With regard to localized emissions from motor vehicle travel, traffic congested roadways and intersections have the potential to generate localized high levels of carbon monoxide (CO). The SCAQMD suggests conducting a CO hotspots analysis for any intersection where a project would worsen the Level of Service (LOS) to any level below C, and for any intersection rated D or worse where the project would increase the volume/capacity (V/C) ratio by 2 percent or more. As indicated in the *Traffic Assessment for the Hollywood Presbyterian Medical Center Virgil Avenue Parking Garage Project* (Traffic Study), which may be found in **Appendix E**, implementation of the Project will not generate an increase in traffic volumes. Results of the Traffic Study analyses demonstrate that the Project would not cause an intersection to worsen the LOS below C nor would it increase the V/C ratio by 2 percent or more for an intersection rated D or worse during either the AM or PM peak hour.

Because the Proposed Project would not worsen the LOS of any intersection below C, nor increase the V/C ratio by 2 percent or more for an intersection rated D or worse, the Proposed Project would not have the potential to cause or contribute to an exceedance of the California 1-hour or 8-hour CO standards of 20 parts per million (ppm) or 9.0 ppm, respectively; or generate an incremental increase equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard at any local intersection. Impacts with respect to localized CO concentrations would be less than significant.

Pollutant emissions are considered to have a significant effect on the environment if they result in concentrations that create a violation of an ambient air quality standard, contribute to an existing air quality violation, or expose sensitive receptors to substantive pollutant concentrations. Should ambient air quality already exceed existing standards, the SCAQMD has established significance criteria for selected compounds to account for the continued degradation of local air quality. Background concentrations are based on the highest observed value for the most recent three-year period.

Table 4.3-4, Central Los Angeles Monitoring Summary (Source-Receptor Area 1), shows the pollutant concentrations collected at the Central Los Angeles Monitoring Station (Source-Receptor Area 1) for the last three years of available data, with the applicable California Ambient Air Quality Standards (CAAQS) displayed in the last column. **Table 4.3-5, SCAQMD Air Quality Significance Thresholds**, outlines the relevant significance thresholds for incremental increases in atmospheric concentrations considered to affect local air quality.

**Table 4.3-4
Central Los Angeles Monitoring Summary (Source-Receptor Area 1)**

Pollutant/Averaging Time	Year			Maximum	CAAQS
	2011	2012	2013		
Particulates (PM10) 24-Hour	53.0	80.0	57.0	80.0	>50 µg/m ³
Particulates (PM2.5) 24-Hour	49.3	58.7	43.1	58.7	N/A
Particulates (PM10) Annual	29.0	30.2	29.5	30.2	>20 µg/m ³
Carbon Monoxide (CO) 1-Hour	2.8	2.2	2.5	2.8	>20.0 ppm
8-Hour	2.4	1.9	2.0	2.4	>9.0 ppm
Nitrogen Dioxide (NO ₂) 1-Hour	0.1	0.08	0.09	0.1	>0.18 ppm

Source: South Coast Air Quality Management District, US Environmental Protection Agency, and California Air Resources Board.

Note: PM₁₀ concentrations are expressed in micrograms per cubic meter (µg/m³). All others are expressed in parts per million (ppm).

Table 4.3-5
SCAQMD Air Quality Significance Thresholds

Pollutant	Averaging Time	Pollutant Concentration
Particulates (PM ₁₀) Particulates (PM _{2.5})	24-Hours	2.5 µg/m ³ (operation)
Particulates (PM ₁₀)	Annual	1.0 µg/m ³
Carbon Monoxide (CO)	1/8-Hours	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standards 20 ppm (1-hour) and 9 ppm (8-hour).
Nitrogen Dioxide (NO ₂)	1-Hour	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standard 0.18 ppm.

Source: South Coast Air Quality Management District.

Note: ppm: parts per million; µg/m³: micrograms per cubic meter.

Emissions of the air pollutants shown above from construction and operation of the Proposed Project will not exceed the applicable LSTs, which are designed to prevent incremental increases in air pollution displayed in **Table 4.3-5**. Therefore, impacts would be less than significant with regards to the SCAQMD thresholds.

Diesel exhaust generated by construction equipment contains carcinogenic and noncarcinogenic air pollutants. Construction of the Proposed Project will employ equipment with engines adhering to Tier 3 diesel emission standards. Carcinogenic risks from benzene, formaldehyde, 1,3-butadiene, acetaldehyde, acrolein, and diesel particulates do not exceed thresholds, posing no significant risk for nearby sensitive receptors in the adjacent residences. Noncarcinogenic hazards were also predicted to be within acceptable limits. Short duration exposures associated with both toxic and criteria pollutants (including particulate matter) are within acceptable limits. Impacts would be less than significant.

Toxic Air Contaminants (TAC)

As the Proposed Project consists of an enclosed parking structure, the Proposed Project would not include any land uses that would involve the use, storage, or processing of carcinogenic or noncarcinogenic TACs and no toxic airborne emissions would typically result from Project implementation. In addition, construction activities associated with the Proposed Project would be typical of other development projects in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal levels that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of TACs would be less than significant.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. Create objectionable odors affecting a substantial number of people?

Less than Significant Impact. A significant impact would occur if objectionable odors are generated that would adversely impact sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as in sewage treatment facilities and landfills. Because the Proposed Project involves no elements related to these types of activities, no odors from these types of uses are anticipated. In addition, SCAQMD Rule 402—Nuisance and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts during the Proposed Project's long-term operations phase. Therefore, potential operational odor impacts would be less than significant.

During the construction phase, activities associated with the operation of construction equipment, the application of asphalt, and/or the application of architectural coatings and other interior and exterior finishes may produce discernible odors typical of most construction sites. Although these odors could be a source of nuisance to adjacent receptors, they are temporary and intermittent in nature. As construction-related emissions dissipate from the construction area, the odors associated with these emissions would also decrease, dilute, and become unnoticeable.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

Impact Analysis

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?***

Less than Significant with Project Mitigation. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on biological resources if it could result in (a) the loss of individuals, or the reduction of existing habitat of a State- or federal-listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern; (b) the loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated natural habitat or plant community; or (c) interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise or light) to a degree that may diminish the chances for long-term survival of a sensitive species.

The Project Site currently consists of two 1-story HPMC maintenance buildings, one 1-story single-family residence, and a surface parking lot along with landscaping in the form of ornamental trees and bushes. The Project Site does not contain any critical habitat or support any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or US Fish and Wildlife Service (USFWS). However, there are 7 trees that border the site along De Longpre Avenue, which may be removed, trimmed, or otherwise disturbed during construction. Two of the seven trees are ficus nitida (laurel) and the remaining five trees are podocarpus gracilior (fern pine). These trees may provide shelter and habitat for nesting birds. Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA) and the California Department of Fish and Game Code.^{9,10} In the event that construction activities take place during the breeding season, bird surveys would be conducted to detect any protected native birds 30 days prior to such activities.

Nesting birds are protected under the Federal Migratory Bird Treaty Act (MBTA) (Title 33, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 10) and Section 3503 of the California Department of Fish and Game Code. Thus, the project applicant shall comply with the mitigation measures to ensure that no significant impacts to nesting birds or sensitive biological species or habitat would occur. Therefore, with mitigation, the impacts would be reduced to less than significant.

⁹ United States Code, Title 33, sec. 703 et seq., see also Title 50, Code of Federal Regulations, pt. 10.

¹⁰ California Department of Fish and Game Code, sec. 3503.

Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: The following mitigation measures are proposed.

MM IV-20 Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

- Proposed Project activities (including disturbances to native and non-native vegetation, structures, and substrates) should take place outside of the breeding season for birds which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (California Fish and Wildlife Code Section 86).
- If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Applicant shall:
 - a. Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a Qualified Biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
 - b. If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.
 - c. Alternatively, the Qualified Biologist could continue the surveys in order to locate any nests. If an active nest is located, clearing and construction (within 300 feet of the nest or as determined by a qualified biological monitor) shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area.

- d. The Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the project.

b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

No Impact. As previously indicated, the Project Site is occupied by two 1-story HPMC maintenance buildings, one 1-story single-family residence, and a surface parking lot along with landscaping in the form of ornamental trees and bushes. No riparian or other sensitive natural community is located on or adjacent to the Project Site. Therefore, implementation of the Proposed Project would not result in any adverse impacts to riparian habitat or other sensitive natural communities.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on biological resources if it could result in the alteration of an existing wetland habitat. The Project Site is entirely developed and generally covered with impermeable surfaces, and does not contain any wetlands or natural drainage channels. The Project Site does not have the potential to support any riparian or wetland habitat, as defined by Section 404 of the Clean Water Act.

No impacts would occur.

Regulatory Compliance Measure RC-WQ-5 (Alteration of a State or Federal Watercourse): The project shall comply with the applicable sections of the federal Clean Water Act (CWA) and California's Porter Cologne Water Quality Control Act (Porter Cologne).

Mitigation Measures: No mitigation measures are required.

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors?*

No Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on biological resources if it could result in the interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species. The Project Site is located in an area that has been previously developed in a heavily urbanized area of the City of Los Angeles. Due to the highly urbanized surroundings, there are no wildlife corridors or native wildlife nursery sites in the Proposed Project vicinity.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less than Significant with Project Mitigation. A significant impact would occur if the proposed project would be inconsistent with local regulations pertaining to biological resources. The proposed project would not conflict with any policies or ordinances protecting biological resources, such as the City of Los Angeles Protected Tree Ordinance (No. 177,404). The project site does not contain locally-protected biological resources, such as oak trees, Southern California black walnut, western sycamore, and California bay trees. The proposed project would be required to comply with the provisions of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC). Both the MBTA and CFGC protects migratory birds that may use trees on or adjacent to the project site for nesting, and may be disturbed during construction of the proposed project. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands), and no impacts would occur.

Mitigation Measures: No mitigation measures required.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. A significant impact would occur if the Proposed Project would be inconsistent with mapping or policies in any conservation plans of the types cited. The Project Site is not part of any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.5 CULTURAL RESOURCES

Impact Analysis

The following section summarizes and incorporates by reference information from the *1318 N. Lyman Place, Los Angeles, California, Historic Resource Assessment* dated January 13, 2015, prepared by Historic Resources Group.¹¹ The Historic Resource Assessment is included as **Appendix B** to this Initial Study.

a. *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

No Impact. Based on the criteria established in the *LA CEQA Thresholds Guide*, a significant impact may occur if the Proposed Project would disturb historic resources that presently exist within the Proposed Project Site. The property at 1318 N. Lyman Place was originally built in 1914. However, the Historic Resource Assessment found that the original dwelling was rebuilt in 1986, and the design of the current residence does not appear to date from 1914. The assessment concluded that the property may have been substantially altered because it no longer represents an architectural style from 1914. Additionally, no significant historical events are attributed to this building. The property is not designated by the City of Los Angeles as a historic-cultural monument. In order for a building to qualify for listing in the National Register of Historic Places, the California Register of Historical Resources, or as a local resource, the building must meet one or more identified criteria of significance. The property must retain sufficient architectural integrity to continue to convey the sense of place and time from which it is historically associated.¹² The property is not listed on the National Register of Historic Places or the California Register of Historical Resources as it lacks historical integrity and significance.

There is no concentration of historic buildings in the Project area, and no potential for this building to contribute to a historic district for this reason. The building does not rise to the level of historic significance based on association to historic events or patterns of history, historic persons, architecture, design, or craftsmanship to be designated as Los Angeles Historic-Cultural Monuments.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

11 Historic Resources Group, *1318 North Lyman Place, Los Angeles, California, Historic Resource Assessment* (January 13, 2015). See **Appendix B**.

12 Historic Resources Group, *1318 North Lyman Place, Los Angeles, California, Historic Resource Assessment* (January 13, 2015). See **Appendix B**.

b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less than Significant. Based on the criteria established in the LA CEQA Thresholds Guide, a significant impact may occur if grading or excavation activities associated with the Proposed Project would disturb archaeological resources that presently exist within the Project Site. The Project Site and immediately surrounding areas do not contain any known archaeological sites or archaeological survey areas. The Proposed Project would include 2.5 to 3 levels of subterranean parking, which would require excavation at up to 30 feet below grade. Thus, the potential exists for the discovery of archaeological materials. Because the presence or absence of such materials cannot be determined until the site is excavated, no further evaluation of this issue is warranted at this time. If archaeological resources are discovered during excavation, grading, or construction activities, work shall cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Personnel of the proposed Modified Project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the Project site. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Therefore, the impact would be less than significant. **Mitigation Measures:** No mitigation measures are required.

c. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant. Based on the criteria established in the LA CEQA Thresholds Guide, a significant impact may occur if grading or excavation activities associated with the Proposed Project were to disturb paleontological resources or geologic features that presently exist within the Project Site. The Project Site has been previously graded and is currently developed with two 1-story HPMC maintenance buildings, one 1-story single-family residential home, as well as a parking lot. The Project Site and immediate surrounding areas do not contain any known vertebrate paleontological resources. Although no paleontological resources are known to exist on site, there is a possibility that paleontological resources exist at subsurface levels and may be uncovered during excavation of the proposed basement and foundation levels. California Public Resources Code Section 21083.2 would ensure that if resources were found during construction of the Proposed Project, they would be handled according to the proper regulations. As required by the Municipal Code, the Applicant would submit a letter to the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered, prior to the issuance of a building permit.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less than Significant. A significant impact would occur if previously interred human remains would be disturbed during excavation of the project site. Human remains could be encountered during excavation and grading activities associated with the proposed project. While no formal cemeteries, other places of human internment, or burial grounds or sites are known to occur within the project area, there is always a possibility that human remains can be encountered during construction. If human remains are encountered unexpectedly during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. If human remains of Native American origin are discovered during project construction, compliance with state laws, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (Public Resource Code Section 5097), relating to the disposition of Native American burials will be adhered to. Therefore, the impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.6 GEOLOGY AND SOILS

Impact Analysis

The following section summarizes and incorporates by reference information from the *Report of Geotechnical Investigation, Hollywood Presbyterian Medical Center, 1300 North Vermont Avenue, Los Angeles, California, Dated October 13, 2014* (referred to hereafter as Geotechnical Investigation), prepared by AMEC. The Hollywood Presbyterian Medical Center is located approximately 727 feet from the Project Site. The Geotechnical Investigation is included as **Appendix C** to this Initial Study.

a. *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. Based on the criteria established in the LA CEQA *Thresholds Guide*, a significant impact may occur if the Project Site is located within a State-designated Alquist-Priolo Zone or other designated fault zone. The Project Site is not located within a currently established Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. The closest active fault near the Project Site with the potential for surface fault rupture is the Hollywood Fault located approximately 0.8 miles to the north-northwest of the Project Site.

The Project Site is located in the Peninsular Ranges geomorphic province near the southern boundary of the Transverse Ranges geomorphic province. The Peninsular Ranges province is characterized by northwest-southeast trending alignments of the mountains, hills and intervening basins, reflecting the influence of northwest trending major faults and folds controlling the general geological structure of the region. The Los Angeles Basin is the northernmost part of the Peninsular Ranges province. The Peninsular Range province is bounded on the east by the San Jacinto fault zone. The Transverse Ranges province is characterized by east-west trending mountain ranges that include the Santa Monica Mountains. The southern boundary of the Transverse Ranges province is comprised of the Santa Monica, Hollywood, Raymond, Sierra Madre, and Cucamonga faults.

As of January 8, 2014, the Hollywood fault zone located within the Hollywood 7.5 minute quadrangle has been included as a preliminary Earthquake Fault Zone in the Earthquake Zones of Investigation by the

California Geological Survey (CGS).¹³ The active Hollywood Fault trends east-west along the base of the Santa Monica Mountains. The Hollywood fault zone is located approximately 0.8 miles north of the Project Site. The fault zone is active, based on geomorphic evidence, stratigraphic correlation between exploratory borings, and fault trenching studies. The Hollywood fault zone has not produced any damaging earthquakes during the historical period and has had relatively minor micro-seismic activity.

Fill soils, up to 11 feet thick, were found in borings drilled at a nearby site. Deeper fill may exist between borings. The fill soil generally consists of sand with varying amounts of silt, clay, and gravel.

The fill is underlain by late Pleistocene age alluvial fan deposits, consisting predominantly of massive to crudely stratified sand, silty sand, clayey silt, and clayey sand. The sand is generally medium dense to dense. The silts and clays are generally very stiff to hard. Layers of sediment within the bedrock are highly variable due to localized warping and deformation.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Strong seismic ground shaking?

Less than Significant impact. Based on the criteria established in the LA *CEQA Thresholds Guide*, a significant impact may occur if a project represents an increased risk to public safety or destruction of property by exposing people, property, or infrastructure to seismically induced ground shaking hazards that are greater than the average risk associated with other locations in Southern California. The Project Site is located within a seismically active region, as is all of Southern California. The intensity of ground shaking depends primarily upon the earthquake magnitude, the distance from the source, and the site-response characteristics. However, according to the Safety Element of the City of Los Angeles, the Project Site is not located within an area identified as having a potential for seismic slope instability. The Project Site is not located within a seismic hazard zone for liquefaction or landsliding.¹⁴

Seismically induced settlement is often caused when loose- to medium-dense granular soils are compacted during ground shaking. The Geotechnical Investigation indicated that soils are generally medium dense to dense. The silts and clays are generally very stiff to hard. Additionally, siltstone and clayey siltstone of the Puente formation were encountered between 12.5 and 18.5 feet. Based on the densities and the clayey nature of the soils, as well as the underlying siltstone, the Geotechnical

13 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed December 31, 2014, http://www.consrv.ca.gov/cgs/rghm/ap/Documents/Hollywood_EZRIM.pdf.

14 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 49 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpIn/saftyelt.pdf>.

Investigation found that the potential for liquefaction is low. The Project Site is underlain by alluvial fan deposits consisting primarily of massive to crudely stratified sand, silty sand, clayey silt, and clayey sand. Some seismically induced settlement of the proposed structure should be expected as a result of strong ground shaking. However, excessive differential settlements are not expected to occur. The Proposed Project is designed to the provisions of the most current California Building Code (CBC) and is intended to minimize the potential effects of ground shaking. The proposed project would be required to comply with the California Department of Conservation, Division of Mines and Geology (CDMG) Special Publications 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California (1997), which provides guidance for the evaluation and mitigation of earthquake-related hazards, and with the seismic safety requirements in the Uniform Building Code (UBC) and the LAMC. Compliance with such requirements would reduce seismic ground shaking impacts to the maximum extent practicable with current engineering practices. Therefore, impacts related to strong seismic ground shaking would be less than significant.

Mitigation Measures: No Mitigations measures are required.

c. Seismic-related ground failure, including liquefaction?

Less than Significant impact. Based on the criteria established in the LA CEQA Thresholds Guide, a significant impact may occur if a project site is located within a liquefaction zone. Liquefaction is the loss of soil strength or stiffness due to buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low-density), saturated, fine- to medium-grained, cohesionless soils.

According to the Safety Element of the City of Los Angeles, the Project Site is not located within an area identified as having a potential for liquefaction.¹⁵ Additionally, based on the State of California's "Seismic Hazard Zone Maps, Hollywood Quadrangle," the Project Site is not located within a designated liquefaction hazard zone.¹⁶ The proposed project would be required to implement standard construction practices that would ensure that the integrity of the project site and the proposed structures is maintained. Construction will be required by the Department of Building and Safety to comply with the City of Los Angeles Uniform Building Code (UBC) which is designed to assure safe construction and includes building foundation requirements appropriate to site conditions. With the implementation of the Building Code requirements and the Department of Building and Safety's Soils Report Approval Letter

15 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 49 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

16 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed December 31, 2014, http://www.consrv.ca.gov/cgs/rghm/ap/Documents/Hollywood_EZRIM.pdf.

when issued, the potential for landslide lateral spreading, subsidence, liquefaction or collapse would be less-than-significant.

Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: No mitigation measures are required.

d. Landslides?

No Impact. Based on the criteria established in the LA *CEQA Thresholds Guide*, a project would normally have a significant geologic hazard impact if it would cause or accelerate geologic hazards that would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. A project-related significant adverse effect may occur if the project is located in a hillside area with soil conditions that would suggest a high potential for sliding. Due to the lack of slopes on the site and surrounding areas, the probability of seismically-induced landslides is expected to be minimal. Additionally, based on the State of California's "Seismic Hazard Zone Maps, Hollywood Quadrangle,"¹⁷ the Project Site is not in a designated earthquake-induced landslide hazard zone.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. *Would the project result in substantial soil erosion or the loss of topsoil?*

Less than Significant Impact. Based on the criteria established in the LA *CEQA Thresholds Guide*, a project would normally have significant sedimentation or erosion impacts if it would (a) constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or (b) accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.

Although development of the Proposed Project has the potential to result in the erosion of soils during site preparation and construction activities, erosion would be reduced by implementation of stringent erosion controls imposed by the City of Los Angeles through grading and building permit regulations. Minor amounts of erosion and siltation could occur during grading. The potential for soil erosion during the ongoing operation of the Proposed Project is extremely low given the predominantly level topography

17 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed December 31, 2014, http://www.consrv.ca.gov/cgs/rghm/ap/Documents/Hollywood_EZRIM.pdf.

of the Project Site, and the fact that the Project Site would be predominantly paved over or built upon, so little soil would be exposed.

In addition, all onsite grading and site preparation would comply with applicable provisions of Chapter IX, Division 70 of the LAMC, and conditions imposed by the City of Los Angeles Department of Building and Safety's Soils Report Approval Letter. Therefore, a less than significant impact would occur with respect to erosion or loss of topsoil. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: No mitigation measures are required.

f. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. A significant impact would occur if any unstable geological conditions would result in any type of geological failure, including lateral spreading, off-site landslides, liquefaction, or collapse. Development of the proposed project would not have the potential to expose people and structures to seismic-related ground failure, including liquefaction and landslide. Subsidence and ground collapse generally occur in areas with active groundwater withdrawal or petroleum production. The extraction of groundwater or petroleum from sedimentary source rocks can cause the permanent collapse of the pore space previously occupied by the removed fluid. The project site is not identified as being located in an oil field or within an oil drilling area. The proposed project would be required to implement standard construction practices that would ensure that the integrity of the project site and the proposed structures is maintained. Construction will be required by the Department of Building and Safety to comply with the City of Los Angeles Uniform Building Code (UBC) which is designed to assure safe construction and includes building foundation requirements appropriate to site conditions. With the implementation of the Building Code requirements and the Department of Building and Safety's Soils Report Approval Letter when issued, the potential for landslide lateral spreading, subsidence, liquefaction or collapse would be less-than-significant.

The Geotechnical Investigation concluded that some seismically-induced settlement should be expected as a result of strong ground shaking. However, the relatively dense and uniform nature of the underlying alluvial soils would not cause excessive differential settlements. Additionally, construction of the Proposed Project would comply with the CBC to minimize the potential effects of ground shaking. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: No mitigation measures are required.

g. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Less than Significant Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant geologic hazard impact if it would cause or accelerate geologic hazards that would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. For the purpose of this specific issue, a significant impact may occur if the Proposed Project is built on expansive soils without proper site preparation or design features to provide adequate foundations for buildings, thus posing a hazard to life and property. Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

The on-site geologic materials have medium to very high expansion potential. As discussed previously, fill materials underlying the Project Site consist of alluvial deposits, consisting predominantly of massive to crudely stratified sand. Based on the State of California's "Seismic Hazards Zone Maps, Hollywood Quadrangle," the Project Site is not located in an area subject to liquefaction.¹⁸ This determination is based on groundwater depth records, soil type, and distance to a fault capable of producing a substantial earthquake. The nearest active fault to the Project Site is the Hollywood Fault, at a distance of approximately 0.8 miles. Construction of the Proposed Project would be required to comply with the CBC, which includes building foundation requirements appropriate to site-specific conditions. Impacts would be less than significant.

Mitigation Measures: No mitigation measures required.

h. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. A project would cause a significant impact if adequate wastewater disposal is not available. The project site is located in a highly urbanized area, where wastewater infrastructure is currently in place. The proposed project would connect to existing sewer lines that serve the project site and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur. No impacts would occur.

18 California Geological Survey, Earthquake Fault Zones, Hollywood Quadrangle, Preliminary Review Map (January 8, 2014), Accessed December 31, 2014, http://www.consrv.ca.gov/cgs/rghm/ap/Documents/Hollywood_EZRIM.pdf.

Mitigation Measures: No mitigation measures are required.

4.7 GREENHOUSE GAS EMISSIONS

Impact Analysis

a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less than Significant Impact. A significant impact would occur if the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. The City of Los Angeles has not adopted specific Citywide significance thresholds for greenhouse gas (GHG) impacts. GHG emissions refer to a group of emissions that have the potential to trap heat in the atmosphere and consequently affect global climate conditions. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between increased emission of GHGs and rising long-term global temperature.

The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). CO₂ is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e).

In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the CARB, the State agency charged with regulating Statewide air quality, to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to Statewide levels in 1990 by 2020.

As a central requirement of AB 32, the CARB was assigned the task of developing a Scoping Plan that outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan, which was developed by CARB in coordination with the Cap-and-Trade program, was published in October 2008. The Scoping Plan proposed a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce the State's dependence on oil, diversify the State's energy sources, save energy, create new jobs, and enhance public health. As required by AB 32, CARB must update its Scoping Plan every five years to ensure that California remains on the path toward a low-carbon future.

CARB updated the Scoping Plan in May 2014 through a Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED or 2014 Scoping Plan). CARB's updated projected "business as usual" (BAU) emissions in the 2014 Scoping Plan are based on current economic forecasts (i.e., as influenced by the economic downturn) and certain GHG reduction measures already in place. The BAU projection for 2020 GHG emissions in California was originally estimated to be 596 metric tons CO₂ equivalent (MMTCO₂e). The updated calculation of the 2014 Scoping Plan's estimates for projected emissions in 2020 totals 509 MMTCO₂e. Considering the updated BAU estimate of 509 MMTCO₂e by 2020, CARB estimates that the State would have to reduce GHG emissions by 21.6 percent from BAU without Pavley regulations that reduce GHG emissions in new passenger vehicles and the 33 percent renewable portfolio standard (RPS); or 15.7 percent from the adjusted baseline (i.e., with Pavley regulations and 33 percent RPS) to return to 1990 emission levels (i.e., 427 MMTCO₂e) by 2020, instead of the 28.35 percent BAU reduction previously reported under the Scoping Plan.¹⁹

The Sustainable Communities and Climate Protection Act of 2008, State Bill (SB) 375, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

There are no federal, State, or local adopted thresholds of significance for addressing a parking structure project's GHG emissions. Nonetheless, Section 15064.4 of the *CEQA Guidelines* Amendments serves to assist lead agencies in determining the significance of the impacts of GHGs. Because the City of Los Angeles does not have an adopted quantitative threshold of significance for a parking structure project's generation of greenhouse gas emissions, the following analysis is based on a combination of the requirements outlined in the *CEQA Guidelines*. As required in Section 15604.4 of the *CEQA Guidelines*, this analysis includes an impact determination based on the following: (1) an estimate of the amount of greenhouse gas emissions resulting from the Project; (2) a qualitative analysis or performance-based standards; (3) a quantification of the extent to which the Project increases greenhouse gas emissions as compared to the existing environmental setting; and (4) the extent to which the Project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

In addition, as a central component of the CEQA Guidelines, there is substantial evidence to support that compliance with the LA Green Building Code is qualitatively consistent with Statewide goals and policies in place for the reduction of greenhouse gas emissions, including AB 32 and the corresponding Scoping Plan and 2014 Updated Scoping Plan. Among the many GHG reduction measures outlined later in this section, the LA Green Building Code requires projects to achieve a 20 percent reduction in potable water

19 California Air Resources Board, *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED)* (May 2014), Attachment D, p. 11.

use and wastewater generation, meet and exceed Title 24 Standards updated by the California Energy Commission in 2013, and meet 50 percent construction waste recycling levels. The Scoping Plan and 2014 Scoping Plan encourages communities to adopt building codes that go beyond the State code. Accordingly, a new development Project that can demonstrate it complies with the LA Green Building Code is considered consistent with Statewide GHG-reduction goals and policies, including AB 32, and does not make a cumulatively considerable contribution to global warming.

To reduce GHG emissions from energy usage, the City's Department of Environmental Protection, EnvironmentLA, proposes the following goals: increase the amount of renewable energy provided by the Los Angeles Department of Water and Power (LADWP) to decrease dependence on fossil fuels; present a comprehensive set of green building policies to guide and support private sector development; reduce energy consumed by City facilities and utilize solar heating where applicable; and help citizens to use less energy. Based on the 2012 US Department of Energy Annual Survey, the City's emission reduction programs reduced almost 97,000 tons of greenhouse gas emissions.²⁰

Construction

Construction emissions represent an episodic, temporary source of GHG emissions. Emissions are generally associated with the operation of construction equipment and the disposal of construction waste. To be consistent with the guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site construction activities and off-site hauling and construction worker commuting are considered as project-generated. As explained by the California Air Pollution Control Officer's Association (CAPCOA) in its 2008 white paper,²¹ the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level. CEQA does not require an evaluation of speculative impacts.²² Therefore, the construction analysis does not consider such GHG emissions.

All GHG emissions are reported on an annual basis. Emissions of GHGs were calculated using CalEEMod for each year of construction of the Proposed Project and the results of this analysis are presented in **Table 4.7-1, Proposed Project Construction-Related Greenhouse Gas Emissions**. As shown in **Table 4.7-1**, the total GHG emissions from construction activities would be 618.51 MTCO₂e.

20 City of Los Angeles, EnvironmentLA, "Welcome" (2014), <http://environmentla.org/index2.htm>.

21 CAPCOA, "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act," 2008, <http://www.energy.ca.gov/2008publications/CAPCOA-1000-2008-010/CAPCOA-1000-2008-010.PDF>.

22 *CEQA Guidelines*, "Speculation," Section 15145.

**Table 4.7-1
Proposed Project Construction-Related Greenhouse Gas Emissions**

Year	CO ₂ e Emissions (Metric Tons per Year) ^a
2016	521.12
2017	97.39
Total Construction GHG Emissions^b	618.51

Source: CalEEMod (2015).

^a Construction CO₂ values were derived using CalEEMod Version 2013.2.2

^b N₂O emissions account for 0.023 MTCO₂e.

Calculation data and results are provided in **Appendix A** of this Initial Study.

Construction assumptions based on information found in **Section 3.0, Project Description**.

Operation

The GHG emissions resulting from operation of the Proposed Project, which primarily involves the usage of electricity to power the elevator shaft and lighting fixtures, were calculated assuming code compliance with the LA Green Building Code. Emissions of operational GHGs are shown in **Table 4.7-2, Proposed Project Operational Greenhouse Gas Emissions**.

**Table 4.7-2
Proposed Project Operational Greenhouse Gas Emissions**

Emissions Source	Project without GHG Reduction Measures (MTCO ₂ e/year)
Construction (amortized)	20.62
Operational (mobile) sources*	0.00
Area sources	0.02
Energy	956.33
Waste	0.00
Water	0.00
Annual Total	976.95

Source: CalEEMod (2015).

Notes: Emissions calculations are provided in **Appendix A, Air Emissions Modeling**. Totals in table may not appear to add exactly due to rounding in the computer model calculations. MTCO₂e = metric tons of carbon dioxide emissions.

The emissions of the Project represent the net difference between the existing greenhouse generated uses that would be removed and the Project greenhouse gas emissions.

* N₂O emissions account for 0.023 MTCO₂e per year; Project implementation will not result in any additional mobile sources in the area.

Operation of the Proposed Project will generate approximately 976.95 MTCO₂e annually, primarily from the elevator shaft and lighting fixtures. As discussed in **Section 4.16**, the Proposed Project will not result in any additional vehicle traffic, and therefore there will be no new operational mobile source emissions of GHGs produced by implementation of the Proposed Project. The Proposed Project is required to comply with the L.A. Green Building Code. Implementation of the Proposed Project would not conflict with any

applicable local or State plans for mobile source GHG reductions. The Proposed Project's generation of GHG emissions would not make a cumulatively considerable contribution to GHG emissions and impacts would be less than significant.

Mitigation Measures: No mitigations measures are required.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant impact. The goal of AB 32 is to reduce Statewide GHG emissions to 1990 levels by 2020. In 2014, the CARB updated the Scoping Plan, which details strategies to meet that goal. In addition, Executive Order S-3-05 aims to reduce Statewide GHG emissions to 80 percent below 1990 levels by 2050. As previously mentioned, to reduce GHG emissions from energy usage, the City's Department of Environmental Protection, EnvironmentLA, proposes the following goals as drafted in their GreenLA and ClimateLA plans: increase the amount of renewable energy provided by the LADWP to decrease dependence on fossil fuels; present a comprehensive set of green building policies to guide and support private sector development; reduce energy consumed by City facilities and utilize solar heating where applicable; and help citizens to use less energy. Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. As described previously, through required implementation of the CCR Title 24 Part 6; and the LA Green Building Code, the Proposed Project would be consistent with all previously mentioned local and Statewide goals and policies aimed at reducing the generation of GHGs. The Proposed Project's generation of GHG emissions would not make a cumulatively considerable contribution or conflict with any applicable plan, policy, or regulation for the purposes of reducing the emissions of greenhouse gases. The project is required to comply with state and City regulatory compliance measures which will effectively reduce emissions to a level that would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

Impact Analysis

The following section summarizes and incorporates by information from the Department of Toxic Substances and Control's EnviroStor Database, State Water Resources Control Board's Geotracker database, and US EPA's EnviroMapper.

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than Significant Impact. A significant impact would occur if the proposed project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Construction of the proposed project would involve the temporary use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. Operation of the project would involve the limited use and storage of common hazardous substances typical of those used in multi-family residential and retail/commercial developments, including lubricants, paints, solvents, custodial products (e.g., cleaning supplies), pesticides and other landscaping supplies, and vehicle fuels, oils, and transmission fluids. No industrial uses or activities are proposed that would result in the use or discharge of unregulated hazardous materials and/or substances, or create a public hazard through transport, use, or disposal. As a residential and retail/commercial development, the proposed project would not involve large quantities of hazardous materials that would require routine transport, use, or disposal. With compliance to applicable standards and regulations and adherence to manufacturer's instructions related to the transport, use, or disposal of hazardous materials, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident*

conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. A search of available environmental records was conducted for the site, using Envirostor and Geotracker.^{23, 24}

The existing 1-story single-family residence on the Project Site was constructed in 1914 and the HPMC maintenance buildings were constructed in 1972. There are no potentially hazardous historical uses of the Project Site.

Asbestos-Containing Materials

Asbestos is a crumbly material often found in older buildings, typically used as insulation in walls or ceilings. It was formerly popular as an insulating material because it had the desirable characteristic of being fire resistant. However, it can pose a health risk when very small particles become airborne. These dust-like particles can be inhaled, where their microscopically sharp structures can puncture tiny air sacs in the lungs, resulting in long-term health problems. The Department of Toxic Substance Control (DTSC) classifies asbestos waste as potentially hazardous if it is greater than 1 percent and easily crumbled (friable). Based on the age of the existing on-site residence (built prior to 1970), there is a potential for asbestos-containing building materials at the Project Site. According to City of Los Angeles regulations, prior to the issuance of any use of land, grading, or building permit, the applicant shall obtain a sign-off from the Fire Department indicating that all on-site hazardous materials, including contamination of the soil and groundwater, have been suitably remediated, or that the proposed project will not impede proposed or ongoing remediation measures.

Lead-Based Paint

Although lead-based paint has been taken off the market, it is estimated that 80 percent of buildings built prior to 1978 contain lead paint. Based on the age of the existing on-site structures, there is a potential for lead-based paint at the Project Site. According to City of Los Angeles regulations, prior to the issuance of any use of land, grading, or building permit, the applicant shall obtain a sign-off from the Fire Department indicating that all on-site hazardous materials, including contamination of the soil and groundwater, have been suitably remediated, or that the proposed project will not impede proposed or ongoing remediation measures.

23 Department of Toxic Substances Control, "Envirostor" (Last Updated 2013), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

24 State Water Resources Control Board, "GeoTracker" (2015), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

Methane Gas

According to the City of Los Angeles Methane Zone map,²⁵ the Project Site is not located within a methane or methane buffer zone. No impacts would occur.

Radon

According to the Radon Potential Zone Map for Southern Los Angeles County, California,²⁶ the Project Site is located within a radon zone designated “Moderate Potential for Indoor Radon Levels above 4.0 Picocuries per Liter.” Impacts would be less than significant, as potential for indoor radon levels is minimal.

Mitigation Measures: No mitigation measures are required.

c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less than Significant Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact to hazards and hazardous materials if (a) the project involved a risk of accidental explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation); or (b) the project involved the creation of any health hazard or potential health hazard. According to the LA CEQA Thresholds Guide, the determination of significance shall be made on a case-by-case basis considering the following factors: (a) the regulatory framework for the health hazard; (b) the probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance; (c) the degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance; (d) the probable frequency and severity of consequences to people from exposure to the health hazard; and (e) the degree to which project design would reduce the frequency of exposure or severity of consequences to exposure to the health hazard.

The closest school to the Project Site is the Los Angeles Unified School District’s King Middle School located at 4201 Fountain Avenue, approximately 0.4 miles east of the Project Site. As previously stated in **Section 4.3, Air Quality**, the emissions from the construction equipment would not exceed SCAQMD thresholds.

25 City of Los Angeles, Department of Public Works, Methane and Methane Buffer Zones, Map (March 2004), http://methanetesting.org/PDF/LA_MethaneZones.pdf.

26 California Geological Survey, Radon Potential Zone Map for Southern Los Angeles County, California (January 2005), Accessed January 5, 2015, http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/radon/Documents/SR182Map.pdf.

Operation of the Proposed Project would not generate direct emissions or handle substantial amounts of hazardous materials that would impact people at an existing school.

The Proposed Project would not create a significant hazard through hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact. The Project Site was not identified in the government database review. A summary of the environmental concerns are as follows:

Leaking Underground Storage Tanks

In the early 1980s, the threat posed by releases from leaking underground storage tanks (LUSTs) to groundwater quality was recognized. The discovery of soil and groundwater pollution from LUSTs prompted local, State, and federal lawmakers to enact laws governing USTs. The greatest potential hazard from a LUST is that its contents (petroleum or other hazardous substances) can seep into the soil and contaminate groundwater. Uses that may contain LUSTs include gasoline stations, auto repair shops, and other light industrial uses.

Although 12 LUST sites are located within 0.5 miles of the Project Site, no evidence of LUSTs was found on the Project Site. Ten of the 12 LUST sites are all listed as case closed.^{27,28} Two sites are listed as open. The site listed at 1630 N. Vermont Avenue was in remediation as of March 14, 2011 and the case remains open. The site is located approximately 0.3 miles away from the Project Site. The site listed at 4550 Santa Monica Boulevard is also listed as open and is located approximately 0.4 miles away from the Project Site. The site is currently undergoing assessment and interim remedial action as of August 26, 2014.²⁹ Based

27 Department of Toxic Substances Control, "Envirostor" (Last Updated 2013), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

28 State Water Resources Control Board, "GeoTracker" (2015), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

29 State Water Resources Control Board, "GeoTracker" (2015), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

on these distances, the LUST sites do not represent an environmental risk to the Project Site. Additionally, Proposed Project construction would not impact these sites due to these distances. No impacts would occur and no mitigation measures would be required.

Regulatory Agency Database Review

A description of each database and the number of sites near the Proposed Project listed in each database is provided below in **Table 4.8-1, Regulatory Agency Database Review**. The radius varies based on the standard distance for each database. Listing on a database does not mean a site presents a health or safety risk.

**Table 4.8-1
Regulatory Agency Database Review**

Database Description	Number of Sites in Project Area
EnviroStor: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.	6 within 1 mile
Leaking Underground Storage Tanks (LUST): LUST Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the State Water Resources control Board (SWRCB) LUST Information System.	12 within 0.5 miles

Source: Department of Toxic Substances Control, "Envirostor" (Last Updated 2013), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>; State Water Resources Control Board, "GeoTracker" (2015), Accessed January 5, 2015, <http://www.envirostor.dtsc.ca.gov/public/>.

None of the sites listed in **Table 4.8-1** are located near enough to the Project Site to present a health or safety risk to the Proposed Project. Impacts would less than significant.

Mitigation Measures: No mitigation measures are required.

e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or

public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The closest public airports to the Project Site are the Burbank Airport (BUR) and the Los Angeles International Airport (LAX). However, since BUR is located approximately 8 miles northwest and LAX is located approximately 12.5 miles southwest of the Project Site, it is not considered to be located within an airport hazard area.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Proposed Project is not located near a private airstrip and not within an area that would expose parking structure occupants and maintenance workers to a safety hazard. The closest private airports are located in Palmdale. Nichols Farms Airport is located approximately 43 miles northeast of the Project Site and Grey Butte Airport, located approximately 48 miles northeast of the Project Site.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

g. Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact to hazards and hazardous materials if the project involved possible interference with an emergency response plan or emergency evacuation plan.

The Proposed Project is not located on or near an adopted emergency response or evacuation plan.³⁰ Development of the Project Site may require temporary and/or partial street closures along De Longpre Avenue and Lyman Place due to construction activities. While such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans. The Project Site is located less than 0.25 miles east of Hollywood Presbyterian Medical

30 City of Los Angeles General Plan, "Safety Element," Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles, <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

Center and Children’s Hospital Los Angeles, located at 1300 Vermont Avenue, and east of Hollywood Community Hospital located at 4650 Sunset Boulevard. The Proposed Project would not cause permanent alterations to vehicular circulation routes and patterns and/or impede public access or travel on public rights-of-way. Environmental impacts may result from project construction because of limited access to emergency response equipment. However, these potential impacts would be mitigated to a less than significant level by the implementation of an emergency evacuation plan as required by the City of Los Angeles. Prior to the issuance of a building permit, the applicant is required to develop an emergency response plan in consultation with the Fire Department which includes mapping of emergency exits, evacuation routes for vehicles and pedestrians, location of nearest hospitals and fire departments. As such, impacts of the project in the interference of an emergency response plan is less than significant.

Mitigation Measures: No Mitigation Measures required.

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. A significant impact would occur if the proposed project exposed people and structures to high risk of wildfire. The Project Site is located in a highly urbanized area of Los Angeles and does not include wildlands or high fire hazard terrain or vegetation. The Project Site is not located in a Very High Fire Hazard Severity Zone (VHFHSZ).³¹ Consequently, no impacts would occur.

Mitigation Measures: No Mitigation is required.

31 City of Los Angeles Department of Planning, Zone Information and Map Access System (ZIMAS), <http://zimas.lacity.org/>, accessed December 30, 2014.

4.9 HYDROLOGY AND WATER QUALITY

Impact Analysis

a. *Would the project violate any water quality standards or waste discharge requirements?*

Less than Significant Impact. Based on the criteria established in the LA CEQA *Thresholds Guide*, a project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or would cause regulatory standards to be violated, as defined in the applicable National Pollution Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact may occur if the Proposed Project would discharge water not meeting the quality standards of local agencies that regulate surface water quality and water discharge into stormwater drainage systems. The proposed project is a parking structure. As is typical of most non-industrial urban development, stormwater runoff from the proposed project has the potential to introduce small amounts of pollutants into the stormwater system. Pollutants would be associated with runoff from landscaped areas (pesticides and fertilizers) and paved surfaces (ordinary household cleaners). Thus, the proposed project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) standards and the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the project site are minimized for downstream receiving waters. The Stormwater and Urban Runoff Pollution Control Ordinances contain requirements for construction activities and operation of development and redevelopment projects to integrate low impact development practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all developments and redevelopments consistent with the City's landscape ordinance and other related requirements in the City's Development Best Management Practices (BMPs) Handbook. Conformance would be ensured during the City's building plan review and approval process. Therefore, the proposed project would result in less-than-significant impacts and would not violate water quality standards, waste discharge requirements, or stormwater NPDES permits or otherwise substantially degrade water quality.

Construction Impacts

Three general sources of potential short-term, construction-related stormwater pollution associated with the Proposed Project include: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities that, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. Under the NPDES, since the Project Site is greater than one acre in size, the Project Applicant is responsible for

preparing a Stormwater Pollution Prevention Plan (SWPPP) to mitigate the effects of erosion and the inherent potential for sedimentation and other pollutants entering the stormwater system.

Surface water runoff from the Project Site would continue to be collected on the site and directed toward existing storm drains with adequate capacity in the Proposed Project vicinity. Pursuant to local practice and City policy, stormwater retention will be required as part of the Low Impact Development (LID) and SUSMP implementation features (despite no increased imperviousness of the site). Any contaminants gathered during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits.

Additionally, any pollutants from the parking areas would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance. The Proposed Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first $\frac{3}{4}$ inch of rainfall in a 24-hour period, which would reduce the Proposed Project's impact to the stormwater infrastructure. The Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Furthermore, the implementation of the City's landscape ordinance and other related requirements in the City's Development Best Management Practices (BMPs) Handbook would ensure that the Proposed Project's construction-related water quality impacts would be less than significant.

Mitigation Measures: No Mitigation is required.

Operational Impacts

Before operation, surface water runoff from the Project Site would continue to be collected on the site and directed toward existing storm drains in the Project vicinity that have adequate capacity. The Project would be required to incorporate operational BMPs per the City SUSMP permit requirements. The Project's SUSMP would set forth long-term BMPs to prevent adverse impacts to water quality during Project operations. For example, the SUSMP would set forth structural BMPs that must be built into the Project for ongoing water quality purposes and would be subject to review by the City for compliance with the City of Los Angeles' Development Best Management Practices Handbook, Part B: Planning Activities. Long-term BMPs for this Project could include, but are not limited to, ensuring that discharge from downspouts, roof drains, and scuppers would not be permitted on unprotected soils. The final selection of BMPs would be completed through coordination with the City of Los Angeles. Through preparation and implementation of the SUSMP, operational water quality impacts of the Proposed Project would be

minimized. Pursuant to local practice and City policy, stormwater retention will be required as part of the Low Impact Development (LID) and SUSMP implementation features.³²

Similar to the existing uses on the Project Site, the Proposed Project would continue to generate surface water runoff during operation. The Project Site is primarily covered with impervious surfaces with some ornamental landscaping areas. Therefore, the majority of the surface water runoff from the Project Site is directed to adjacent storm drains and does not percolate into the groundwater table beneath the site. Potential impacts to surface water runoff would be mitigated to a level below insignificance by incorporating stormwater pollution control measures, as required by the City's Stormwater LID Ordinance. The Proposed Project would be required to demonstrate compliance with LID Ordinance standards and retain and treat the first ¾-inch of rainfall in a 24-hour period. When in compliance with the LID Ordinance, the Proposed Project would minimize the amount of polluted surface water runoff from entering the local storm drains. City of Los Angeles Ordinances No. 172,176 and No. 173,494 specify Stormwater and Urban Runoff Pollution Control that requires the application of BMPs. The Proposed Project would also comply with water quality standards and wastewater discharge requirements set forth by the SUSMP for Los Angeles County and Cities in Los Angeles County and approved by the Los Angeles Regional Water Quality Control Board (LARWQCB). Full compliance with the LID Ordinance and implementation of design-related BMPs would ensure that the operation of the Proposed Project would not violate any water quality standards or discharge requirements, or otherwise substantially degrade water quality.

The Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The Stormwater and Urban Runoff Pollution Control Ordinances contain requirements for construction activities and operation of development and redevelopment projects to integrate low impact development practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all developments and redevelopments consistent with the City's landscape ordinance and other related requirements in the City's Development Best Management Practices (BMPs) Handbook. Conformance would be ensured during the City's building plan review and approval process. Therefore, the proposed project would result in less-than-significant impacts and would not violate water quality standards, waste discharge requirements, or stormwater NPDES permits or otherwise substantially degrade water quality.

32 City of Los Angeles, Los Angeles Municipal Code, ch. 6, art. 4.4, sec. 64.70.01 and 64.72; and ch. 9, art. 1, sec. 64.72.05 (October 2011).

Mitigation Measures: No mitigations required.

- b. *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

No Impact. A significant impact would occur if the proposed project would substantially deplete groundwater or interferes with groundwater recharge. The proposed project would not require the use of groundwater at the project site. Potable water would be supplied by the Los Angeles Department of Water and Power (LADWP), which draws its water supplies from distant sources for which it conducts its own assessment and mitigation of potential environmental impacts. Therefore, the project would not require direct additions or withdrawals of groundwater. Excavation to accommodate subterranean levels is not proposed at a depth that would result in the interception of existing aquifers or penetration of the existing water table. In addition, since the existing project site is mostly impervious, the proposed project would not reduce any existing percolation of surface water into the groundwater table. Therefore, project development would not impact groundwater supplies or groundwater recharge, and no impact would occur.

Mitigation Measures: No mitigation measures are required.

- c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?***

Less than Significant Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. The Project Site is located in a highly urbanized area of Los Angeles, and no streams or river courses are located on or within the Project vicinity. The majority of the Project Site consists of impervious surfaces with some ornamental landscape. Implementation of the Proposed Project would not increase site runoff or result in any changes in the local drainage patterns. Implementation of the SWPPP, however, would reduce the amount of surface water runoff after storm events, as the Proposed Project would be required to implement stormwater BMPs to retain or treat the runoff from a storm event producing 3/4-inch of rainfall in a 24-hour period.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- d. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?***

No Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. As previously indicated, the Proposed Project will be designed to include SUSMP and LID BMPs to maintain and treat the first 3/4-inch of a 24-hour storm. Therefore, the existing off-site surface water runoff would be maintained. Examples of BMPs include, but are not limited to, ensuring that discharge from downspouts, roof drains, and scuppers would not be permitted on unprotected soils. The Proposed Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns, which would result in flooding on- or off-site.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- e. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Less than Significant Impact. Based on the criteria established in the LA CEQA Thresholds Guide, a project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Section 13050 of the CWC or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact may occur if the volume of stormwater runoff from the Project Site were to increase to a level that exceeds the capacity of the storm drain system serving the Project Site or provides substantial sources of polluted runoff. A Project-related significant adverse effect would also occur if the Proposed Project would substantially increase the probability that polluted runoff would reach the storm drain system or that would increase runoff of any water.

Two existing storm drain catch basins are located adjacent to the Project Site at the intersection of N. Lyman Place and Fountain Avenue and at the intersection of N. Virgil Avenue and Fountain Avenue, which connects to a storm drain trunk line running away from the Project Site along N. Lyman Place and N. Virgil Avenue, respectively.³³ Storm drain facilities are owned and maintained by City of Los Angeles.

The majority of the Project Site is impervious with ornamental landscape cover over the remaining portions of the site and all surface water is directed off site to the adjacent storm drain system. The Proposed Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns. Runoff from the Project Site currently is, and would continue to be, collected on the site and directed towards existing storm drains in the Project vicinity that have adequate capacity. Pursuant to local practice and City policy, stormwater retention would be required as part of the LID/SUSMP implementation features (despite no increased imperviousness of the site). Any contaminants gathered during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits. Further, any pollutants from the Project Site would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance requirements. Accordingly, the Proposed Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first $\frac{3}{4}$ -inch of rainfall in a 24-hour period. The Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

f. Would the project otherwise substantially degrade water quality?

No Impact. A significant impact may occur if a project includes potential sources of water pollutants that would have the potential to substantially degrade water quality. As previously indicated, the Proposed Project would include BMPs to treat and retain the first $\frac{3}{4}$ inch of rainfall over a 24-hour period on site, including planter boxes and permeable pavement. Therefore, the Proposed Project would not otherwise substantially degrade water quality of surface water leaving the site. Furthermore, the Proposed Project does not include potential sources of contaminants that could potentially degrade water quality and would comply with all federal, State, and local regulations governing stormwater discharge.

No Impacts would occur.

³³ Los Angeles County Department of Public Works, "Los Angeles County Storm Drain System," <http://dpw.lacounty.gov/fcd/stormdrain/index.cfm>.

Mitigation Measures: No mitigation measures are required.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. A significant impact would occur if the Proposed Project were to place housing within a 100-year flood hazard area. A 100-year flood is defined as a flood, resulting from a severe rainstorm that has a probability of occurring approximately once every 100 years. According to the Safety Element of the City of Los Angeles General Plan, the Project Site is not located within a designated flood zone.³⁴ Additionally, the Proposed Project would not include any housing units. Therefore, the Proposed Project would not place housing within a 100-year flood hazard area.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

h. Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No Impact. A significant impact may occur if the Project Site was located within a 100-year flood zone, which would impede or redirect flood flows. According to the Safety Element of the City of Los Angeles General Plan, the Project Site is not in an area designated as a 100-year flood hazard area.³⁵ The Project Site is located in a highly urbanized area and no changes to the local drainage pattern would occur with implementation of the Proposed Project; therefore, the Proposed Project would not have the potential to impede or redirect floodwater flows.

No impact would occur.

Mitigation Measures: No mitigation measures are required.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. A significant impact may occur if a project exposes people or structures to a significant risk of loss or death caused by the failure of a levee or dam. Based on the map of Inundation

³⁴ City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 57 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

³⁵ City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 57 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

and Tsunami Hazards in the City of Los Angeles, the Project Site is located within a potential inundation area.³⁶ The Hollywood Reservoir is located approximately 3 miles northwest of the Project Site. Based on the distance of the dam from the Project Site, the risk associated with flooding resulting from dam failure is considered less than significant. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

j. Would the project expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

No Impact. A significant impact would occur if the Project Site is sufficiently close to the ocean or other water body to potentially be at risk of the effects of seismically induced tidal phenomena (i.e., seiche and tsunami), or if the Project Site is located adjacent to a hillside area with soil characteristics that would indicate potential susceptibility to mudslides or mudflows. The Project Site is not located in a potential seiche or tsunami zone. With respect to the potential impact from a mudflow, the Project Site is relatively flat and surrounded by urban development; the Project Site is located greater than 1 mile from Griffith Park and the eastern end of the Santa Monica Mountains (which are identified as areas with the potential for landslides).³⁷ Therefore, there are no sources of mudflow near the Project Site.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

36 City of Los Angeles, Department of City Planning, *Safety Element of the Los Angeles City General Plan*, p. 59 (November 1996), <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

37 *City of Los Angeles General Plan, "Safety Element,"* Exhibit C Landslide Inventory & Hillside Areas (1996), p. 51.

4.10 LAND USE AND PLANNING

Impact Analysis

a. *Would the project physically divide an established community?*

No Impact. A significant impact may occur if the Proposed Project is sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community. According to the *LA CEQA Thresholds Guide*, the determination of significance shall be made on a case- by-case basis considering the following factors: (1) the extent of the area that would be impacted, the nature and degree of impacts, and the types of land uses within that area; (2) the extent to which existing neighborhoods, communities, or land uses would be disrupted, divided or isolated, and the duration of the disruptions; and (3) the number, degree, and type of secondary impacts to surrounding land uses that could result from implementation of the Proposed Project.

The Project Site is located within an urbanized area of the Hollywood community and is consistent with the existing physical arrangement of the properties near the site. While a 1-story single-family residence is being demolished, the Proposed Project would not displace surrounding residences. Implementation of the Proposed Project would not disrupt or divide the physical arrangement of the established community.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

b. *Would the project conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Less than Significant Impact. A significant impact may occur if a project is inconsistent with the *General Plan* or zoning designations currently applicable to a project site, and would cause adverse environmental effects, which the *General Plan* and zoning ordinance are designed to avoid or mitigate.

The Project Site is located within the jurisdiction of the City of Los Angeles, and is therefore subject to the designations and regulations of several local and regional land use and zoning plans. At the regional level, the Project Site is located within the planning area of the Southern California Association of Governments (SCAG). The Proposed Project is also located within the South Coast Air Basin and, therefore, is within the jurisdiction of SCAQMD. At the local level, development of the Project Site is guided by the General Plan

of the City of Los Angeles, the LAMC, and the Hollywood Community Plan, and the SNAP, which are intended to guide local land use decisions and development patterns.

Regional Plans

SCAQMD Air Quality Management Plan. As noted in **Section 5.3, Air Quality**, the Proposed Project would not exceed the daily emissions thresholds during the construction or operational phases. Furthermore, the Proposed Project would be consistent with the AQMP.

SCAG Regional Comprehensive Plan. The Project Site is located within the six-county region that comprises the SCAG planning area. The SCAG Regional Comprehensive Plan (RCP) includes growth management policies that strive to improve the standard of living, maintain the regional quality of life, and provide social, political, and cultural equity. The Proposed Project would not generate any additional residents. The Proposed Project would be consistent with policies set forth in the RCP because it would replace the existing 1-story single-family residence, two 1-story maintenance buildings, and a surface parking lot with a parking structure containing 654 parking spaces accessible to staff and visitors in a way that is least likely to cause an adverse environmental impact. Furthermore, as the Proposed Project would replace the existing 1-story single-family house with a parking structure, the Proposed Project would not generate any new residents. The Proposed Project would be consistent with SCAG growth projections for the City of Los Angeles.

SCAG 2012 Regional Transportation Plan/Sustainable Communities Strategies (2012 RTP/SCS). SCAG's 2012 RTP/SCS presents a long-term transportation vision through the year 2035 for the SCAG region. The mission of the 2012–2035 RTP/SCS is to provide “leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians.” The 2012–2035 RTP/SCS places a greater emphasis on sustainability and integrated planning compared to previous versions of the RTP, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. The 2012-2035 RTP/SCS goals include the following: (1) maximize mobility and accessibility for all people and goods in the region; (2) ensure travel safety and reliability for all people and goods in the region; (3) preserve and ensure a sustainable regional transportation system; (4) maximize the productivity of the transportation system; (5) encourage land use and growth patterns that facilitate transit and nonmotorized transportation; and (6) protect the environment and health of residents by improving air quality and encouraging active transportation (nonmotorized transportation, such as bicycling and walking). The Proposed Project would be consistent with these goals by maximizing parking opportunities for hospital staff in an area that is already served by nearby commercial uses, public infrastructure, and transportation. Specifically, regional access is provided by US 101, I-5, and SR 2. In addition, the Project area is well-served by transit facilities, including Metro Rapid bus lines 780 and 757,

and MTA bus lines 2, 175, 204, 206, 217, 302, and 754. The Proposed Project would comply with City design standards for access driveways and would not include any hazardous design features that could pose safety issues to travelers. Therefore, the Proposed Project would also support the goal to ensure travel safety and reliability for all people and goods in the region. Further, as discussed below in Section 4.16, Transportation/Circulation, Proposed Project impacts related to the Los Angeles County Congestion Management Program, which serves as the monitoring and analytical basis for regional transportation funding decisions, would be less than significant. The Proposed Project would also support the use and productivity of the public transportation system by providing a pedestrian-accessible environment and concentrating new development within an area well served by a regional transportation system and transit opportunities.

Local Plans

City of Los Angeles General Plan

The Proposed Project would conform to the applicable objectives outlined in the City of Los Angeles General Plan (General Plan).³⁸ The General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the City consisting of 11 elements: 10 Citywide elements (Air Quality Element, Conservation Element, Historic Preservation and Cultural Resources Element, Housing Element, Infrastructure Systems Element, Noise Element, Open Space Element, Public Facilities and Services Element, Safety Element, and Transportation Element) and the Land Use Element, which provides individual plans for each of the City's 35 Community Planning Areas.

The elements that would be most applicable to the Proposed Project are the Air Quality Element, Land Use Element, and Transportation Element. Analysis of these elements follows:

Air Quality Element

The Proposed Project would comply with SB 375 and AB 32 by contributing to a reduction in GHG emissions through integrated land use, housing, and transportation planning. The key component of GHG emissions is the reduction of emissions from passenger vehicles, which represents about one-third of overall GHG emissions in the United States. Land use is among the top strategies to reduce such emissions. Compact development, which includes access and proximity to transit and concentrations of population and/or employment as a result of high-density residential and/or commercial development, can reduce congestion, lower infrastructure costs, and reduce household expenses related to transportation and energy, according to a 2010 report published by the Urban Land Institute.³⁹ The key to successful compact

³⁸ City of Los Angeles, *General Plan of the City of Los Angeles* (2002).

³⁹ Urban Land Institute, *The Role Compact Development Can Play in Reducing Green House Gas Emissions, Evidence from Three Recent Studies* (2010), 4.

development is a land use pattern that has a high-quality pedestrian network and a variety of land uses within walking distance of each other.⁴⁰

The Proposed Project's location would be located within 0.25 miles east of an existing Metro station and close to numerous bus lines and mixed land uses (including housing, employment, and public space). In addition, existing uses within walking distance include the Municipal Art Gallery, Von's grocery store, hospitals and medical offices, schools, restaurants, coffee shops, a Wells Fargo and Chase Banks, and office buildings. As such, the Proposed Project would conform to the Air Quality Element.

Land Use Element

The Proposed Project is located 0.5 miles from the existing Hollywood Boulevard and New Hampshire Avenue, and 0.25 miles from the closest Metro station at Vermont Avenue and Sunset Boulevard. This is consistent with the City's intent that the highest development intensities are targeted generally within 0.25 miles of the transit stations.⁴¹

The new parking garage is the type of development encouraged by the City because it places the new development that supports the HPMC in a commercial and high intensity area, while preserving the surrounding neighborhoods adjacent to the area. The Land Use Element states that a considerable mix of uses be accommodated to provide population support and enhance activity near the stations. This may encompass a range of retail commercial, offices, personal services, entertainment, restaurants, and housing that serve both transit users and local residents.⁴²

Because the Project Site would be located near existing bus stops and the Metro Red Line, it would reduce the need for automobile trips and miles traveled, and increase public transportation ridership. As such, the Proposed Project would conform to the goals and policies of the Land Use Element.

Transportation Element

The Proposed Project is in close proximity to Sunset Boulevard, which is a major transportation corridor providing substantial public transit opportunities and facilities, including Metro Bus lines 2, 175, 204, 206, 217, 302, and 754.⁴³ The development of the Proposed Project would promote pedestrian activity and circulation, create direct pedestrian connections between the Proposed Project and the Metro transit infrastructure, and conform to the Transportation Element's policies and objectives.

40 Urban Land Institute, *Land Use and Driving* (2010), 5.

41 *City of Los Angeles General Plan*, "Land Use Element," Goal 3k; Policy 3.15.3.

42 *City of Los Angeles General Plan*, "Land Use Element" Objective 3.4; Policy 3.4.1.

43 *City of Los Angeles General Plan*, "Transportation Element," Objective 3.5, Policy 3.12.

Los Angeles Municipal Code

The Proposed Project would not conflict with the goals, objectives, and allowable land uses in the Hollywood Community Plan and the LAMC.⁴⁴ The General Plan land use designation for the Project Site is a mix of Highway Oriented Commercial and High Density Residential, zoned C4-1-SN, [T][Q]C2-1, and R4-2, which allow for hospital, medical, residential and commercial retail land uses. The Proposed Project is comprised of a parking structure. Parking structures are permitted on lots zoned for C2, C4, and R4 uses that are located within the Hollywood Community Plan area. Therefore, the Proposed Project would conform to the allowable land uses pursuant to the LAMC.

Hollywood Community Plan

All on-site development activity is subject to the land use regulations of the Community Plan. The Community Plan goals and objectives include providing organized growth; furthering the development of Hollywood as a major center of population, employment, retail services, and entertainment; and providing a full range of housing choices for employees and residents of all economic segments in the Hollywood area. The Community Plan designates the Project Site for Neighborhood Office Commercial and High Density Residential land uses. The Proposed Project, which would provide a parking structure development in an underutilized area of Hollywood, would conform to the goals, objectives, and land uses identified in the Community Plan.

Vermont/Western Transit Oriented District Specific Plan

As noted previously, the Project Site is located within the SNAP area of the Hollywood Community Plan area, which is identified as an area with a mix of residential, commercial, and retail uses.⁴⁵ The SNAP area offers an opportunity for a concerted public and private effort to bring about new vitality and amenities in Hollywood. Additionally, the SNAP area is being planned as a pedestrian- and transit-friendly district with a significant amount of open space; recreational, cultural, and civic uses; retail activities; community buildings; and restaurants along transit and commercial corridors.

The Proposed Project is located within land use Subarea C (Community Center). Subarea C allows for multiple dwelling residential uses, including single-family residences, apartment buildings, and child care; commercial uses (includes limited commercial uses, as well as retail with limited manufacturing, service stations, and garages), and hospital and medical uses. Section 9.I of the SNAP requires that all projects be in substantial conformance with certain Development Standards and Design Guidelines for Subarea C.⁴⁶

44 City of Los Angeles Department of City Planning, Parcel Profile Reports, Zoning Information and Map Access System (ZIMAS), <http://www.zimas.lacity.org>.

45 City of Los Angeles, SNAP (2001).

46 SNAP, Development Standards and Design Guidelines (2000).

Use

Section 9.A of the SNAP states that commercial uses and hospital and medical uses are permitted on any lot in located within Subarea C.⁴⁷ The parking structure is for the Hollywood Presbyterian Medical Center, located in Subarea C and therefore is a permitted use in Subarea C.

Height and Floor Area

Section 9.B.3 (a) of the SNAP states that Hospital and Medical Use buildings shall not exceed a maximum height of 100 feet and a maximum floor area ratio (FAR) of 3.0.⁴⁸

The highest point of the Proposed Project is 56 feet above grade at the corner of De Longpre Avenue and Virgil Avenue, with mechanical equipment above that is appropriately screened and set back from the street. The Proposed Project complies with the height standard set forth in the SNAP.

Additionally, the FAR standard applies to the habitable structures on a lot and to the buildable area of a lot to determine the maximum allowable square footage of all buildings on the lot, but does not include the area within parking structures. The FAR standard does not apply to the Project.

Bicycle Parking Requirements

Section 9.E.2 of the SNAP sets forth bicycle parking requirements for projects involving non-residential uses.⁴⁹

Pursuant to the SNAP, the parking structure is required to provide one bicycle parking space for every 1,000 square feet of non-residential area for the first 10,000 square feet of floor area, and one bicycle parking space for every additional 10,000 square feet of floor area. As the FAR standards would not apply to the structure and because the structure is not located on the frontage of Vermont Avenue or Sunset Boulevard, this requirement is not applicable. While this standard is not applicable, the parking structure will contain 2 bicycle racks (32 spaces) at the southeast portion of the Project site, at-grade.

Project Parking Requirements

As stated in **Section 3.0, Project Description**, the Proposed Project would be compliant with the parking requirements of the SNAP. Section 9.E.4(i) of the SNAP requires that hospitals provide a minimum of one

47 City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. 9.A, Project Parking Requirements, Hospital and Medical Uses (2001).

48 City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. 9.B.3, Project Parking Requirements, Hospital and Medical Uses (2001).

49 City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. 9.E.2, Project Parking Requirements, Hospital and Medical Uses (2001).

parking space for each patient bed for which the hospital is licensed, and a maximum of two parking spaces for each patient bed for which the hospital is licensed.⁵⁰

As discussed previously, when accounting for hospital beds and other ancillary hospital uses, HPMC currently has a total of 1,059 parking spaces, while the maximum amount of parking spaces allowed for HPMC is 1,591 spaces. Construction of the Proposed Project would result in a loss of 76 spaces, bringing the revised total to 983 spaces. Completion of the new parking structure will contain 654 spaces, resulting in a combined total of 1,637 parking spaces throughout HPMC. Therefore, prior to the Proposed Project being operational, a minimum total of 46 spaces will be removed from the existing parking area, located west of Lyman Place in order to not exceed the maximum allowed parking count of 1,591. Therefore, the Proposed Project would satisfy this requirement.

Vermont/Western SNAP Development Standards and Design Guidelines

Section 9.I of the SNAP requires that all hospital projects be in substantial conformance with the following standards for Hospital and Medical Uses contained in the Vermont/Western Station Neighborhood Area Plan, Development Standards and Design Guidelines, Chapter VIII: Development Standards for Hospitals and Medical Centers.⁵¹ The Proposed Project conforms with the Vermont/Western SNAP Development Standards and Design Guidelines for integrating a mixture of land uses, transforming commercial streets away from a highway-oriented, suburban format into a distinctly urban, pedestrian-oriented and enlivened atmosphere. The Proposed Project would create a pedestrian-friendly environment allowing pedestrians, HPMC employees and visitors, to walk to the HPMC near the Project Site, as well as to nearby restaurants and shops. The SNAP Development Standards and Design Guidelines encourage street design features and pedestrian-friendly land uses to create streets that are interesting and inviting for walkers. The Proposed Project would utilize street design features to enhance the urban appeal and walkability of the parking structure. The façade of the building would be articulated along all street frontages. The architectural design incorporates a number of design features to reduce the visual mass of the building and create visual interest. Accent lights would uplift this elevation at night to create visual interest and create a welcoming pedestrian environment along De Longpre Avenue by providing additional lighting. The Proposed Project would attract more pedestrian activity, which will help create a more walkable pedestrian-oriented area.

Plan Consistency

As discussed previously, the Proposed Project would not conflict with local and regional plans applicable to the Project Site. Pursuant to the provisions of LAMC Section 11.5.7.C, the Applicant is requesting the

⁵⁰ City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. 9.E.4, Project Parking Requirements, Hospital and Medical Uses (2001).

⁵¹ City of Los Angeles, Vermont/Western Transit Oriented District Specific Plan (Station Neighborhood Area Plan), sec. 9.I, Project Parking Requirements, Hospital and Medical Uses (2001).

approval of a Project Permit Compliance Review, to allow for the Proposed Project located within the geographic boundaries of the Vermont/Western SNAP to proceed. Pursuant to the provisions of LAMC Section 11.5.7.E, the Applicant is requesting a Project Permit Adjustment to allow the Proposed Project to reduce pedestrian path minimum horizontal clearance from 10' to 6' and minimum vertical clearance from 12' to an approximate range of 8-9.' The parking structure design is intended to be minimal in size to enhance aesthetics and does not permit the larger clearances specified in the Vermont/Western SNAP Development Standards and Design Guidelines. This pedestrian path qualifies as a minor adjustment from the Specific Plan regulation, which does not substantially alter the intent of the Specific Plan regulation and is not a change to "the permitted use, floor area, density or intensity, height or bulk , setbacks or yards, lot coverage limitations, or parking standards regulated by the specific plan." LAMC Sec. 11.5.7.E.2(g). The Applicant would request approvals and permits from the Department of Building and Safety (and other municipal agencies) for project construction activities including, but not limited to, the following: demolition, excavation, and haul route.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. A project-related significant adverse effect could occur if a project site were located within an area governed by a habitat conservation plan or natural community conservation plan. As discussed previously, no such plans presently exist that govern any portion of the Project Site. Further, the Project Site is located in an area that is already fully developed with commercial uses, and is also within a heavily urbanized area of Los Angeles. Therefore, the Proposed Project would not have the potential to cause such effects.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.11 MINERAL RESOURCES

Impact Analysis

- a. *Would the project result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?***

No Impact. A significant impact may occur if the Project Site is located in an area used or available for extraction of a regionally important mineral resource, or if the project development would convert an existing or future regionally important mineral extraction use to another use, or if the project development would affect access to a site used or potentially available for regionally important mineral resource extraction. According to the LA CEQA Thresholds Guide, the determination of significance shall be made on a case-by-case basis, considering (a) whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a mineral resource that is located in a State Mining and Geology Board Mineral Resource Zone 2 (MRZ-2) Area, or other known or potential mineral resource area, and (b) whether the mineral resource is of regional or Statewide significance, or is noted in the Conservation Element as being of local importance.

The Project Site is not located within a MRZ-2 Area, an Oil Drilling/Surface Mining Supplemental Use District, or an Oil Field/Drilling Area.⁵² No mineral resources are known to exist beneath the Project Site. No impacts associated with the loss of availability of a known mineral resource would occur.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?***

No Impact. As noted, the Project Site is not located within a MRZ-2 Area.⁵³ The Project Site is not designated as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

No impacts would occur.

⁵² Los Angeles County Department of Public Works, *Mineral Resources and Oil Fields in East Los Angeles County, Los Angeles County Bicycle Master Plan*, Figure 3.8-2 (January 2012).

⁵³ Los Angeles County Department of Public Works, *Mineral Resources and Oil Fields in East Los Angeles County, Los Angeles County Bicycle Master Plan*, Figure 3.8-2 (January 2012).

Mitigation Measures: No mitigation measures are required.

4.12 NOISE

Impact Analysis

- a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant Impact. A significant impact may occur if a project would generate excess noise that would cause the ambient noise environment at the project site to exceed noise level standards set forth in the City of Los Angeles General Plan Noise Element (Noise Element) and the City of Los Angeles Noise Ordinance (Noise Ordinance). Implementation of the Proposed Project would result in an increase in ambient noise levels during both construction and operation, as discussed in further detail below.

Construction

Construction-related noise impacts would be significant if, as indicated in Section 112.05 of the LAMC, noise from construction equipment within 500 feet of a residential zone exceeds 75 decibels (dB[A]) at a distance of 50 feet from the noise source. This noise limitation does not apply where compliance is technically infeasible. "Technically infeasible" means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of the equipment. As defined in the *LA CEQA Thresholds Guide* for construction noise impacts, a significant impact would occur if construction activities lasting more than one day would increase the ambient noise levels by 10 dB(A) or more at any off-site, noise-sensitive location. Furthermore, according to the *LA CEQA Thresholds Guide*, construction activities that would last more than 10 days in a three-month period and increase ambient exterior noise levels by 5 dB(A) or more at a noise-sensitive use would also normally result in a significant impact.

Construction of the Proposed Project would require the use of heavy equipment for demolition, site clearing, grading, excavation and foundation preparation, the installation of utilities, paving, and building construction. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity. Equipment is assumed to be typical for a parking structure and would include excavators, dozers, loaders, a crane, an auger drill, and paving equipment.

Outdoor Construction Noise Levels, respectively, at a distance of 50 feet from the noise source (i.e., reference distance). The noise levels shown in **Table 4.12-1** represent composite noise levels associated with typical construction activities, which take into account both the number of pieces and spacing of heavy construction equipment that are typically used during each phase of construction. As shown in **Table 4.12-2**, construction noise during the heavier initial periods of construction is presented as 86 dB(A)

Leq when measured at a reference distance of 50 feet from the center of construction activity.⁵⁴ These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance. For example, a noise level of 84 dB(A) Leq measured at 50 feet from the noise source to the receptor would reduce to 78 dB(A) Leq at 100 feet from the source to the receptor, and reduce by another 6 dB(A) Leq to 72 dB(A) Leq at 200 feet from the source to the receptor.

Table 4.12-1
Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dB(A) Leq at 50 Feet ^a
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic impact equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete mixers	75-88
Concrete pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

Source: US Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, EPA-68-04-0047 (1971).

^a Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

⁵⁴ Although the peak noise levels generated by certain construction equipment may be greater than 86 dB(A) at a distance of 50 feet, the equivalent noise level would be approximately 86 dB(A) Leq (i.e., the equipment does not operate at the peak noise level over the entire duration).

**Table 4.12-2
Typical Outdoor Construction Noise Levels**

Construction Phase	Approximate L_{eq} dB(A) with Mufflers			
	50 Feet	60 Feet	100 Feet	200 Feet
Ground clearing	82	80	76	70
Excavation, grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

Source: US Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliance, EPA-68-04-0047 (1971).

Land uses on the properties surrounding the Project Site primarily include surface parking lots, office/commercial, warehouse/industrial, single-family and multifamily residential uses. Among these land uses, a single-family residence and multifamily residential uses have been identified and depicted in **Figure 4.12-1, Noise Monitoring and Sensitive Receptor Location Map**, as the most likely sensitive receptors to experience noise level increases during Project construction. To identify the existing ambient noise levels at these nearby off-site sensitive receptors, as well as the general vicinity of the Project Site, noise measurements were taken with a Larson Davis Model 831 sound level meter, which conforms to industry standards set forth in American National Standard Institute (ANSI) S1.4-1983 (R2001)—Specification for Sound Level Meters. Additionally, this noise meter meets the requirement specified in Section 111.01(l) of the City of Los Angeles Municipal Code (LAMC) that the instruments be “Type S2A” standard instruments or better (See **Appendix D, Noise Background and Modeling Data Data**). This instrument was calibrated and operated according to the manufacturer’s written specifications. At the measurement sites, the microphone was placed at a height of approximately 5 feet above grade. The measured noise levels are shown in **Table 4.12-3, Existing Ambient Daytime Noise Levels in Project Site Vicinity**.

**Table 4.12-3
Existing Ambient Daytime Noise Levels in Project Site Vicinity**

Location	Primary Noise Sources	Leq	Lmin	Lmax
Southeast corner of De Longpre Ave and Lyman Place	Minor traffic noise along De Longpre Ave and Lyman Place, occasional brief ambulance siren at distance	60.6	54.0	72.6
Southwest corner of De Longpre Ave and N Virgil Ave	Traffic noise along Virgil Ave, minor traffic noise along De Longpre Ave, brief ambulance siren along Virgil Ave	72.7	56.8	96.0
West sidewalk of Virgil Ave at southeast corner of Project site	Traffic noise along Virgil Ave, occasional brief ambulance siren along Virgil Ave	67.1	53.1	80.6
East sidewalk on Lyman Place approx. 105 feet south of southwestern corner of site	Minor traffic noise along Lyman Pl, brief dog barking from 1314-1316 Lyman Pl, occasional ambulance siren at distance	57.6	50.2	68.3

*Source: Noise modeling data sheets can be seen in **Appendix D**.*

Due to the use of construction equipment during each construction phase, the Proposed Project would expose surrounding off-site receptors to increased ambient exterior noise levels comparable to those listed in **Table 4.12-3**. It should be noted that any increase in noise levels at off-site receptors during construction of the Proposed Project would be temporary in nature and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. In addition, the construction noise during the heavier initial periods of construction (i.e., demolition, excavation, and grading work) would typically be reduced in the later construction phases (i.e., interior building construction at the proposed building) because the physical structure of the apartment building would break the line-of-sight noise transmission from the construction area to the nearby receptors.

Figure 4.12-1, Noise Monitoring and Sensitive Receptor Location Map

Since construction activities associated with the proposed development at the Project Site would last for more than 10 days in a 3-month period, the Proposed Project would cause a significant noise impact during construction if the ambient exterior noise levels at the identified off-site sensitive receptor located 25 feet from the Project Site (1316 N Lyman Place) would be increased by 5 dB(A) or more. The next closest sensitive receptor is located approximately 25 feet to the southwest of the Project Site. Based on the results shown in **Table 4.12-4, Estimated Exterior Construction Noise at Nearest Sensitive Receptors**, the ambient exterior noise levels at 1316 N Lyman Place could be exceeded by 5 dB(A) or more. Based on the criteria established in the *LA CEQA Threshold Guide*, a substantial temporary or periodic increase in ambient noise levels would occur at 1316 N Lyman Place.

Table 4.12-4
Estimated Exterior Construction Noise at Nearest Sensitive Receptor

Construction Phase	Existing Monitored Daytime Ambient Noise Levels (dB[A] L_{eq})	Estimated Peak Construction Noise Levels (dB[A] L_{eq})	Noise Level Increase (dB[A] L_{eq})
Demolition	57.6	91.6	34.0
Site Preparation	57.6	86.8	29.2
Grading	57.6	87.6	30.0
Building Construction	57.6	90.1	32.5
Paving	57.6	88.1	30.5
Architectural Coating	57.6	70.0	12.4

Source: Noise monitoring data sheets can be seen in Appendix D.

Section 41.40 of the LAMC regulates noise from demolition and construction activities. Exterior demolition and construction activities that generate noise are prohibited between the hours of 9:00 PM and 7:00 AM Monday through Friday, and between 6:00 PM and 8:00 AM on Saturday. Demolition and construction are prohibited on Sundays and all federal holidays. The construction activities associated with the Proposed Project would comply with these LAMC requirements. In addition, pursuant to the City Noise Ordinance (LAMC Section 112.05), construction noise levels are exempt from the 75 dB(A) noise threshold if all technically feasible noise attenuation measures are implemented. The estimated construction-related noise levels associated with the Proposed Project could exceed the numerical noise threshold of 75 dB(A) at 50 feet from the noise source as outlined in the City Noise Ordinance, and the typical construction noise levels associated with the Proposed Project would exceed the existing ambient noise levels at 1316 N Lyman Place, the identified off-site sensitive receptor, by more than the 5 dB(A) threshold established by the L.A. CEQA Thresholds Guide during all construction phases. Implementation of the

following mitigation measure would reduce the noise levels associated with construction of the Proposed Project to the maximum extent that is technically feasible. The measure would ensure that (1) construction activities would be limited to the hours identified in the LAMC; (2) the construction equipment would be scheduled to avoid operating several pieces of equipment simultaneously; and (3) construction equipment would be equipped with noise shielding and muffling devices to the extent feasible. Thus, based on the provisions set forth in LAMC 112.05, and compliance with the *City of Los Angeles Noise Ordinance No. 144,331 and 161,574*, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible, the project will pose a less than significant impact to noise levels.

Mitigation Measures: No Mitigation Measures Required.

Operational

Parking Garage Noise

Noise would be generated by activities within the new parking garage associated with the Proposed Project. Parking would be provided within 7 levels, including 4 above ground levels and 2.5 to 3 subterranean parking levels under the Project Site. Sources of noise within the parking structure would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. As the subterranean parking level serving the Proposed Project would be entirely underground and enclosed, noise generated at these levels would likely be imperceptible at ground level locations on and adjacent to the Project Site. As is typical for parking structures, cars entering and exiting the structure at all hours of the day and night can become a nuisance to occupants of adjacent buildings. As such, the Department of City Planning recommends the driveway ramps be constructed of noise-attenuating materials such as concrete surfaces. With implementation of mitigation measures **MM XII-40** and **MM XII-30**, noise impacts associated with the Proposed Project's subterranean parking garage and at-grade parking spaces would be reduced to ensure operational noise impacts are less than significant.

Mitigation Measures: The following mitigation measures are proposed.

MM XII-40 Increased Noise Levels (Parking Structure Ramps)

- Concrete, not metal, shall be used for construction of parking ramps.
- The interior ramps shall be textured to prevent tire squeal at turning areas.

MM XII-30 Increased Noise Levels (Parking Wall)

- A 6-foot-high solid decorative masonry wall adjacent to residential use and/or zones shall be constructed if no such wall exists.

b. *Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?*

Less than significant impact. Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for most people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Construction

Construction activities for the Proposed Project have the potential to generate low levels of groundborne vibration. The operation of construction equipment generates vibrations that propagate through the ground and diminishes in intensity with distance from the source. Vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage of buildings at the highest levels. The construction activities associated with the Proposed Project could have an adverse impact on both sensitive structures (e.g., building damage) and populations (e.g., annoyance).

In terms of construction-related impacts on buildings, the City of Los Angeles has not adopted policies or guidelines relative to groundborne vibration. While the Los Angeles County Code (LACC Section 12.08.350) states a presumed perception threshold of 0.01 inch per second RMS, this threshold applies to

groundborne vibrations from long-term operational activities, not construction. Consequently, as both the City of Los Angeles and the County of Los Angeles do not have a significance threshold to assess vibration impacts during construction, the Federal Transit Administration (FTA) and California Department of Transportation's (Caltrans) adopted vibration standards for buildings are used to evaluate potential impacts related to project construction. Based on the FTA and Caltrans criteria, construction impacts relative to groundborne vibration would be considered significant if the following were to occur:⁵⁵

- Project construction activities would cause a PPV groundborne vibration level to exceed 0.5 inches per second (ips) at any building that is constructed with reinforced concrete, steel, or timber.
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.3 ips at any engineered concrete and masonry buildings.
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.2 ips at any nonengineered timber and masonry buildings.
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.12 ips at any historical building or building that is extremely susceptible to vibration damage.

In addition, the City of Los Angeles has not adopted any thresholds associated with human annoyance for groundborne vibration impacts. Therefore, this analysis uses the FTA's vibration impact thresholds for human annoyance. These thresholds include 80 VdB at residences and buildings where people normally sleep (e.g., nearby residences) and 83 VdB at institutional buildings, such as schools and churches. No thresholds have been adopted or recommended for commercial and office uses.

Table 4.12-5, Vibration Source Levels for Construction Equipment, identifies various PPV and RMS velocity (in VdB) levels for the types of construction equipment that would operate at the Project Site during construction. As shown in **Table 4.12-5**, vibration velocities could range from 0.003 to 0.089 ips PPV at 25 feet from the source activity, with corresponding vibration levels ranging from 58 VdB to 87 VdB at 25 feet from the source activity, depending on the type of construction equipment in use.

55 US Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006; and California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual*, June 2004.

**Table 4.12-5
Vibration Source Levels for Construction Equipment**

Equipment	Approximate PPV (in/sec)					Approximate RMS (VdB)				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Caisson Drilling	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Excavator	0.040	0.014	0.011	0.008	0.005	80	71	69	66	62
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Final Report, 2006.

The existing house at 1316 N Lyman Place and multifamily residences adjacent to the Project Site are located within 25 feet of the Project Site (approximately 5 feet from excavator activities); vibration levels could reach 0.112 ips at these sensitive receptors (see **Appendix D**). As discussed previously, the most restrictive threshold for building damage from vibration is 0.12 ips PPV for historic buildings and buildings that are extremely susceptible to vibration damage. However, the existing house is not considered historic and vibration levels at the existing house would not exceed the building damage threshold. As maximum off-site vibration levels would not exceed 0.12PPV, there would be no potential for Project construction to result in vibration levels exceeding the most restrictive threshold of significance. Impacts with respect to building damage resulting from Project-generated vibration would be less than significant.

In terms of human annoyance resulting from vibration generated during construction, the single-family residential use and multifamily residences located approximately 5 feet southwest and south of the Project Site boundary could be exposed to increased vibration levels. As identified in **Table 4.12-5**, construction-generated vibration levels experienced at 1316 N Lyman Place and adjacent multi-family residences may exceed the 80 VdB thresholds for residential uses (where people normally sleep); a setback distance of 5 feet from excavator activities generates an RMS of 101 VdB using FTA methodologies. However, as expressed in the City of Los Angeles Noise Ordinance No. 144,331 and 161,574 which prohibits the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible. Also, construction activities will be limited to daytime hours when residents are likely out of their homes and not typically sleeping (7:00 AM to 6:00 PM Monday to Friday, and 8:00 AM to 6:00 PM Saturday). Additionally, construction activities will be phased so as to prevent the concurrent operation of vibration-generating equipment, consistent with FTA and City of LA recommendations. The City of Los Angeles Noise Ordinance would serve to reduce construction-related vibration levels to the maximum extent feasible. Human annoyance impacts with respect to construction-generated vibration increases would be less than significant.

Mitigation Measures: No mitigation measures are required.

Operational Vibration

The Proposed Project would not involve the use of stationary equipment that would result in high vibration levels, which are more typical for large commercial and industrial projects. The Project will not result in an increase in traffic and therefore incremental increases would not exceed 2 percent of existing traffic volumes, and therefore groundborne vibration due to regular vehicle traffic would not be perceptible.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less than Significant with Project Mitigation. A significant impact may occur if the Proposed Project were to result in a substantial permanent increase in ambient noise levels above existing ambient noise levels without the Proposed Project. As defined in the LA CEQA Thresholds Guide threshold for operational noise impacts, a project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses that are shown in **Table 4.12-6, Community Noise Exposure (CNEL)**, to increase by 3 dB(A) in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dB(A) or greater noise increase. Thus, a significant impact would occur if noise levels associated with operation of the Proposed Project would increase the ambient noise levels by 3 dB(A) CNEL at homes where the resulting noise level would be at least 70 dB(A) CNEL. In addition, any long-term increase of 5 dB(A) CNEL or more is considered to cause a significant impact. To achieve a 3 dB(A) CNEL increase in ambient noise from traffic, the volume on any given roadway would need to double. In addition to analyzing potential impacts in terms of CNEL, the analysis also addresses increases in on-site noise sources per the provisions of the LAMC, which establishes a Leq standard of 5 dB(A) over ambient conditions as constituting a LAMC violation.

**Table 4.12-6
Community Noise Exposure (CNEL)**

Land Use	Normally Acceptable^a	Conditionally Acceptable^b	Normally Unacceptable^c	Clearly Unacceptable^d
Single-family, duplex, mobile homes	50 - 60	55 - 70	70 - 75	above 75
Multifamily homes	50 - 65	60 - 70	70 - 75	above 75

Land Use	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Schools, libraries, churches, hospitals, nursing homes	50 - 70	60 - 70	70 - 80	above 80
Transient lodging—motels, hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, concert halls, and amphitheaters	---	50 - 70	---	above 70
Sports arena, outdoor spectator sports	---	50 - 75	---	above 75
Playgrounds, neighborhood parks	50 - 70	---	67 - 75	above 75
Golf courses, riding stables, water recreation, cemeteries	50 - 75	---	70 - 80	above 80
Office buildings, business, and professional commercial	50 - 70	67 - 77	above 75	---
Industrial, manufacturing, utilities, agriculture	50 - 75	70 - 80	above 75	---

Source: Office of Planning and Research, State of California General Plan Guidelines (in coordination with the California Department of Health Services) (October 2003); City of Los Angeles, General Plan Noise Element, adopted February 1999.

^a **Normally Acceptable:** Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

^b **Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

^c **Normally Unacceptable:** New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and necessary noise insulation features included in the design.

^d **Clearly Unacceptable:** New construction or development should generally not be undertaken.

Traffic Noise

For a new noise source to be audible, there would need to be a 3 dB(A) or greater CNEL noise increase. As discussed above, the traffic volume on any given roadway segment would need to double as a result of the Proposed Project for a 3 dB(A) increase in ambient noise to occur. According to the LA CEQA *Thresholds Guide*, if a project would result in traffic that is less than double the existing traffic, then the project's mobile noise impacts can be assumed to be less than significant.

According to the Traffic Study provided for the Proposed Project and discussed in **Section 4.16 Traffic and Transportation**, the proposed development would result in no additional vehicle trips in the area. As discussed in **Section 4.16** of this Initial Study, the V/C ratio at the two signalized study intersections would either remain unchanged or incrementally, but not significantly, increase (less than a 2 percent increase at each studied intersection) with the addition of ambient future traffic, related project traffic and Project traffic. Therefore, the Proposed Project would not have the potential to double the traffic volumes on any roadway segment near the Project Site, and therefore would not have the potential to increase roadway noise levels by 3 dB(A). Traffic-generated noise impacts would be considered less than significant.

Operational Noise—Stationary Noise Sources

New stationary sources of noise, such as rooftop mechanical HVAC equipment for the elevator, would be installed on the proposed structure at the Project Site. The design of this equipment would be required to comply with Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than 5 decibels. Because the noise levels generated by the HVAC equipment serving the Proposed Project would not be allowed to exceed the ambient noise level by 5 decibels on the premises of the adjacent properties, a substantial permanent increase in noise levels would not occur at the nearby sensitive receptors. Impacts would be less than significant.

Parking Garage Noise

Noise would be generated by activities within the new parking garage associated with the Proposed Project. Sources of noise within the parking structure would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. Noise levels would be highest in the early morning and evening when the largest number of people would enter and exit the Project Site. Because the subterranean parking levels serving the Project would be almost entirely underground and enclosed, noise generated at these levels would likely be imperceptible at ground-level locations on and adjacent to the Project Site. Any parking noise that may be audible from outside of the parking garage would be substantially similar to the existing noise generated at the surface parking lot on the Project Site. Operational-related noise generated by motor-driven vehicles within the Project Site is regulated under the LAMC. With regard to motor-driven vehicles, Section 114.02 of the LAMC prohibits the operation of any motor-driven vehicles on any property within the City such that the created noise would cause the noise level on the premises of any occupied residential property to exceed the ambient noise level by more than 5 decibels. The Proposed Project would implement mitigation measure **MM XII-40** and **MM XII-30** to reduce potential noise impacts from the parking ramp and at-grade parking spaces. These mitigation measures will require ramps be constructed of concrete, and not metal, as well as contain texture to prevent tire squealing. Also, the project will include the construction of a 6-foot high solid decorative masonry wall adjacent to residential use and/or zones in order to reduce noise levels to a level of insignificance.

Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: Mitigation measures **MM XII-40** and **MM XII-30** are proposed to further reduce the already less than significant noise impact.

- d. *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

Less than Significant with Project Mitigation. As discussed in subsections 4.12(a) through (c), impacts are expected to be less than significant for construction noise and vibration, and operational noise and vibration. Implementation of mitigation measures **MM XII-20, MM XII-40, and MM XII-30** would ensure the Proposed Project would not result in a substantial temporary or periodic increase in ambient noise levels.

Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: Mitigation measures **MM XII-40, and MM XII-30** are proposed to further reduce the already less than significant noise impact.

- e. *For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. A significant impact may occur if a Proposed Project were located within an airport land use plan and would introduce substantial new sources of noise or substantially add to existing sources of noise within or near a project site. There are no airports within a 2-mile radius of the Project Site, nor is the Project Site within any airport land use plan or airport hazard zone. The Proposed Project would not expose people to excessive noise levels associated with airport uses.

No impact would occur.

Mitigation Measures: No mitigation measures are required.

- f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. This question would apply to a project only if it were in the vicinity of a private airstrip and would subject area residents and workers to a safety hazard. The Project Site is not located near a private airstrip.

No impact would occur.

Mitigation Measures: No mitigation measures are required.

4.13 POPULATION AND HOUSING

Impact Analysis

- a. *Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

No Impact. The construction of a parking structure would not result in an increase in residents within the City of Los Angeles. As such, the Proposed Project would not cause unexpected growth (i.e., new housing or employment generators). The Proposed Project would not accelerate development in an undeveloped area that exceeds growth projections that would result in an adverse physical change in the environment or introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan. Therefore, the Proposed Project would not induce substantial population growth.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- b. *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?***

No Impact. A significant impact may occur if a project would result in the displacement of existing housing units, necessitating the construction of replacement housing elsewhere. Based on the LA CEQA Thresholds Guide, the determination of whether a project results in a significant impact on population and housing displacement shall be made considering the following factors:

- The total number of residential units to be demolished, converted to market rate, or removed through other means as a result of the project, in terms of net loss of market-rate and affordable units.
- The current and anticipated housing demand and supply of market rate and affordable housing units in the project area.
- The land use and demographic characteristics of the project area and the appropriateness of housing in the area.
- Whether the project is consistent with adopted City and regional housing policies such as the Framework and Housing Elements, Housing and Urban Development (HUD) Consolidated Plan and Comprehensive Housing Affordability Study (CHAS) policies, redevelopment plan, Rent Stabilization Ordinance, and SCAG's Regional Comprehensive Plan and Guide RCPG.

The Proposed Project would demolish an existing 1-story single-family residence on the Project Site. According to the City of Los Angeles Demographic Research Unit, estimated household size for occupied

units in the Hollywood Community Plan area is 2.21 people per household.⁵⁶ Based on this estimated household size, approximately 2.21 residents occupy the existing 1-story home. The Hollywood Community Plan area has more than adequate housing capacity to accommodate these existing residents. Therefore, the implementation of the Proposed Project would not necessitate the construction of replacement housing.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact. As previously mentioned, the Proposed Project would not displace substantial numbers of people necessitating the construction of replacement housing. As previously indicated, the growth projections for Hollywood indicate adequate housing is projected to accommodate growth projections. The existing residents account for a small number of people within the City.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.14 PUBLIC SERVICES

Impact Analysis

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection

Less than Significant Impact. Based on the *LA CEQA Thresholds Guide*, a project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service. The City of Los Angeles Fire Department (LAFD) considers fire protection services for a project adequate if a project is within the maximum response distance for the land use proposed. Pursuant to *LAMC* Section 57.09.07A, the maximum response distance between residential land uses and a LAFD fire station that houses an engine or truck company is 1.5 miles. If this distance were exceeded, all structures located in the applicable residential or commercial area would be required to install automatic fire sprinkler systems.

The Proposed Project would include a parking structure with 654 parking spaces. The Proposed Project would not generate any new residents; therefore, the Proposed Project would not potentially increase the demand for LAFD services. As demand for LAFD services would be similar existing conditions, no new LAFD facilities would be required.

The Project Site is served by LAFD Station No. 35 located at 1601 Hillhurst Avenue (at Hillhurst Avenue and Clayton Avenue), approximately 0.25 miles north of the Project Site. Station No. 35 is equipped with a task force truck and Engine Company, a paramedic rescue ambulance, and 12 LAFD personnel.⁵⁷ Based on the response distance criteria specified in *LAMC* 57.512.1 and the relatively short distance from Fire Station No. 35 to the Project Site, fire protection response would be considered adequate.⁵⁸

The required fire flow necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard. Pursuant to *LAMC* Section 57.507.3.1, City-established fire flow requirements vary from 2,000 gallons per minute (gpm) in low-density residential areas to 12,000 gpm in

⁵⁷ City of Los Angeles, Draft Program Environmental Impact Report, Hollywood Community Plan Area, Hollywood Community Plan Update (2011).

⁵⁸ *LAMC*, ch. 5, art. 7, Fire Protection and Prevention (Fire Code), sec. 57.512.1, Response Distances (2014).

high-density commercial or industrial areas. In any instance, a minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system while the required gpm is flowing. The required minimum fire flow for the development is estimated to be approximately 4,000 gpm based on the Proposed Project's scale and density.⁵⁹ Any potential changes in existing hydrants along the Project frontage would be reviewed by the LAFD prior to site plan approval. Standard LAFD regulations, including fire flow would be applied to the Proposed Project as standard conditions of approval by the LAFD and the City Planning Department. However, the Project would include the incorporation of regulatory compliance measures that require the project be evaluated and approved by the Fire Department either prior to the recordation of a final map or the approval of a building permit. The plot plan shall include the following minimum design features: fire lanes, where required, shall be a minimum of 20 feet in width; all structures must be within 300 feet of an approved fire hydrant. In complying with this regulation, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Police protection.

Less than Significant with Project Mitigation. A significant impact may occur if the City of Los Angeles Police Department (LAPD) could not adequately serve a project without necessitating a new or physically altered station, the construction of which may cause significant environmental impacts. Based on the LA *CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on police protection shall be made considering the following factors: (a) the population increase resulting from the project, based on the net increase of residential units or square footage of nonresidential floor area; (b) the demand for police services anticipated at the time of project build-out compared to the expected level of service available, considering, as applicable, scheduled improvements to LAPD services (facilities, equipment, and officers) and the project's proportional contribution to the demand; and (c) whether the project includes security and/or design features that would reduce the demand for police services.

The Project Site is located in the Northeast Community Area division of the LAPD's Central Bureau. The Northeast Community Area is approximately 29 square miles and includes the communities of Atwater, Cypress Park, Eagle Rock, East Hollywood, Echo Park, Elysian Park, Elysian Valley, Franklin Hills, Garvanza, Griffith Park, Glassell Park, Highland Park, Los Feliz, Mount Washington, Silver Lake, and Solano Canyon.⁶⁰ There are approximately 313 sworn police officers and 25 civilian support staff deployed over three watches at the Northeast Community Area.⁶¹ The Project Site is served by the Northeast Community

59 LAMC, ch. 5, art. 7, Fire Protection and Prevention (Fire Code), sec. 57.507.3.1, Fire-Flow Requirements (2014).

60 Los Angeles Police Department (LAPD), Central Bureau, "Northeast Community Police Station" (January 2015), http://lapdonline.org/northeast_community_police_station.

61 City of Los Angeles, Integrated Resources Plan, Environmental Impact Report (November 2005).

Police Station, located at 3353 San Fernando Road. Based on the residential service population of approximately 250,000 residents within the LAPD's Hollywood Community service area, the officer to resident ratio is approximately 1.25 officers per 1,000 residents. Within the Hollywood Area, the Proposed Project is located within Reporting District (RD) 1152.

Construction

Construction sites have the potential to attract trespassers and/or vandals that would potentially result in graffiti, excess trash, and potentially unsafe conditions for the public. Such occurrences would adversely affect the aesthetic character of the Project Site and surrounding area and could potentially cause public health and safety concerns, thereby increasing demand upon the local police department. As such, the Proposed Project is required by the Los Angeles Municipal Code to construct a fence around the site during construction to minimize trespassing, vandalism, short-cut attractions and attractive nuisances. This compliance measure would render impacts less than significant.

Mitigation Measures: No mitigation measures are required.

Operation

Response time represents the period of time elapsed from the initiation of an assistance call to the appearance of a police unit at the scene. Calls for police assistance are prioritized based on the nature of the call. Unlike fire protection services, as previously discussed, police units are most often in a mobile state; hence, actual distance between a headquarters facility and a given project site is of little relevance. Instead, the number of police officers out on the street is more directly related to the realized response time. The LAPD has a preferred response time of seven minutes to emergency calls. The Northeast Community Police Station currently meets this response time.⁶²

Implementation of the Proposed Project would not result in an increase of residents thereby generating a potential increase in the number of service calls from the Project Site. Since there is no increase in residents, the potential increase in the number of service calls from the Project Site would be anticipated to be less than significant. The Projected Project would not result in increased traffic, and therefore would not increase the number of traffic-related incidents. As demand for LAPD services would be similar existing conditions, no new LAPD facilities would be required.

The Proposed Project would install security gates at both access driveways at Lyman Place and Virgil Avenue to increase safety for the Proposed Project. Additionally, the design of the pedestrian entrances were intentional, as limited pedestrian walkways and entrances would concentrate foot traffic to a single

62 Los Angeles Police Department correspondence for Barlow Hospital Replacement and Master Plan Project (May 2010).

area and provide enhanced security to staff and visitors, by facilitating monitoring. However, responses to thefts, vehicle burglaries, vehicle damage, and crimes against persons could result due to on-site activity. As such, the plans shall incorporate the Design Guidelines relative to security, semi-public and private spaces, which may include, but not be limited to, access control to building, secured parking facilities, walls/fences with key systems, well-illuminated public and semi-public space designed with a minimum of dead space to eliminate areas of concealment, and provision of security guard patrol throughout the Project Site if needed. Applicant shall comply with the "*Design Out Crime Guidelines: Crime Prevention Through Environmental Design*", published by the Los Angeles Police Department. These measures shall be approved by the Police Department prior to the issuance of building permits. Compliance with such measures would render impacts to a level of insignificance.

Mitigation Measures: No mitigation measures are required.

c. Schools.

No Impacts. A significant impact may occur if a project includes substantial employment or population growth, which could generate a demand for school facilities that would exceed the capacity of the Los Angeles Unified School District (LAUSD). Based on the LA *CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on public schools shall be made considering the following factors: (a) the population increase resulting from the project, based on the net increase of residential units or square footage of nonresidential floor area; (b) the demand for school services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to LAUSD services (facilities, equipment, and personnel) and the project's proportional contribution to the demand; (c) whether (and to the degree to which) accommodation of the increased demand would require construction of new facilities, a major reorganization of students or classrooms, major revisions to the school calendar (such as year-round sessions), or other actions that would create a temporary or permanent impact on the school(s); and (d) whether the project includes features that would reduce the demand for school services (e.g., on-site school facilities or direct support to LAUSD).

The Project area is currently served by several LAUSD public schools, as shown in **Table 4.14-1, LAUSD Public Schools Within the Project Area.**

During construction activities, the haul route for the Project Site would utilize Sunset Boulevard and Fountain Avenue toward the US 101. None of these schools is located within the haul route for the Project, and would not result in temporary impacts to school services.

**Table 4.14-1
LAUSD Public Schools within the Project Area**

School	Address	Distance from Project Site (miles)	Students Served
Alexandria Elementary School	4211 Oakwood Avenue	1.4	Kindergarten through fifth grade
Cheremoya Elementary School	6017 Franklin Avenue	2.0	Kindergarten through sixth grade
Franklin Avenue Elementary School	1910 N. Commonwealth Avenue	0.7	Kindergarten through fifth grade
Grant Elementary School	1530 N. Wilton Place	1.4	Kindergarten through sixth grade
Harvard Elementary School	330 N. Harvard Boulevard	1.6	Kindergarten through fifth grade
Kingsley Elementary School	5200 Virginia Avenue	0.9	Kindergarten through fifth grade
Lockwood Elementary School	4345 Lockwood Avenue	0.5	Kindergarten through sixth grade
Los Feliz STEMM Magnet School (Elementary)	1740 N. New Hampshire Avenue	0.5	Kindergarten through sixth grade
Ramona Elementary School	1133 N. Mariposa Avenue	0.7	Kindergarten through sixth grade
Van Ness Avenue Elementary	501 N. Van Ness Avenue	1.9	Kindergarten through fifth grade
Vine Street Elementary	955 N. Vine Street	2.3	Kindergarten through sixth grade
King Middle School	4201 Fountain Avenue	0.4	Sixth through eighth grade
Joseph Le Conte Middle School	1316 N. Bronson Avenue	1.6	Sixth through eighth grade
John Marshall High School	3939 Tracy Street	1.0	Ninth through twelfth grade
Helen Bernstein High School	1309 N. Wilton Place	1.5	Ninth through twelfth grade

Source: Los Angeles Unified School District (Accessed January 2, 2015), <http://notebook.lausd.net/schoolsearch/selector.jsp>

The Proposed Project would not generate any residents; therefore, the Project would not generate any additional students. The demand for school services would not be increased and the need for new school facilities would not be required.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. Parks

No Impact. Based on the LA *CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on recreation and parks shall be made considering the following factors: (a) the net population increase resulting from the project; (b) the demand for recreation and park services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to recreation and park services (renovation, expansion, or addition) and the project's proportional contribution to the demand; and (c) whether the project includes features that would reduce the demand for park services (e.g., on-site recreation facilities, land dedication, or direct financial support to the Department of Recreation and Parks).

As discussed in **Section 4.13, Population and Housing**, the development of the Proposed Project would not include any residential units. Therefore, the Proposed Project would not result in an increase of new residents to the Hollywood Community Plan Area. The Proposed Project would not generate a demand on recreational resources or a need for additional parkland.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. Other public services

Libraries

No Impact. A significant impact may occur if a project includes substantial employment or population growth that could generate a demand for other public facilities (such as libraries), that would exceed the capacity available to serve the Project Site. Based on the LA *CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on libraries shall be made considering the following factors: (a) the net population increase resulting from the project; (b) the demand for library services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to existing library services (renovation, expansion, addition or relocation) and the project's proportional contribution to the demand; and (c) whether the project

includes features that would reduce the demand for library services (e.g., on-site library facilities or direct financial support to the Los Angeles Public Library [LAPL]).

The Proposed Project would not generate an increase in population and therefore would not increase the demand for library services.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.15 RECREATION

Impact Analysis

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

No Impact. A significant impact may occur if a project includes substantial employment or population growth, which would increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. Based on the LA CEQA *Thresholds Guide*, the determination of whether the project results in a significant impact on recreation and parks shall be made considering the following factors: (a) the net population increase resulting from the project; (b) the demand for recreation and park services anticipated at the time of project completion and occupancy compared to the expected level of service available, considering, as applicable, scheduled improvements to recreation and park services (renovation, expansion, or addition) and the project's proportional contribution to the demand; and (c) whether the project includes features that would reduce the demand for park services (e.g., on-site recreation facilities, land dedication, or direct financial support to the Department of Recreation and Parks).

The Proposed Project would not generate an increase in population, and therefore would not increase the demand for recreation services.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?***

No Impact. A significant impact may occur if a project includes the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment.

The Proposed Project does not include recreational facilities. As stated previously, the Proposed Project would not generate an increase in population, and therefore would not generate an increase in demand for existing for existing park or recreation facilities that would require the construction or expansion of existing recreational facilities.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.16 TRANSPORTATION AND TRAFFIC

Impact Analysis

- a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

The following section summarizes and incorporates by reference information from the *Traffic Assessment for the Hollywood Presbyterian Medical Center, Virgil Avenue Parking Garage Project, Hollywood, California* (Traffic Study) dated January 2015 and prepared by Gibson Transportation Consulting, Inc.⁶³ The Traffic Study is included as **Appendix E** to this Initial Study.

Less than Significant with Project Mitigation. A significant impact could occur if a project were to result in substantial increases in traffic volumes near the project such that the existing street capacity experiences a decrease in the existing volume to capacity ratios (V/C), or experiences increased traffic congestion exceeding the Los Angeles Department of Transportation's (LADOT's) recommended level of service. Based on the LA *CEQA Thresholds Guide*, the determination of whether the project results in a significant impact is based on whether an increase in the V/C ratio on the intersection operating condition would result after the addition of project traffic of one of the following:

- V/C ratio increase > 0.040 if final LOS⁶⁴ is C
- V/C ratio increase > 0.020 if final LOS is D
- V/C ratio increase > 0.010 if final LOS is E or F

LADOT has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the V/C ratio of the intersection increases.

The level of service definitions for intersections may be found in **Table 4.16-1, Level of Service Definitions for Intersections.**

⁶³ Gibson Transportation Consulting, Inc., *Traffic Assessment for Hollywood Presbyterian Medical Center, Virgil Avenue Parking Garage Project, Hollywood, California* (January 2015). See Appendix E.

⁶⁴ "Final LOS" is defined as projected future conditions, which include project, ambient, and related project growth but do not include project traffic mitigation.

**Table 4.16-1
Level of Service Definitions for Intersections**

Level of Service	Signalized V/C Ratio	Definition	Unsignalized Intersections Delay (seconds)
A	0.000–0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used	0-10
B	0.601–0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	10-15
C	0.707–0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	15-25
D	0.801–0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower-volume periods occur to permit clearing of developing lines, preventing excessive backups.	25-35
E	0.901–1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	35-50
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	>50

Source: *Traffic Assessment for the Hollywood Presbyterian Medical Center, Virgil Avenue Parking Garage Project, Hollywood, California (January 2015).*

Estimated Trip Generation

As shown in **Appendix E**, The Proposed Project is not expected to generate new trips as no demand-inducing land uses are proposed. Proposed Project traffic would consist of existing inbound and outbound traffic to and from the main parking area on the HPMC campus, and would represent a redistribution of existing traffic from the HPMC garage to a combination of the HPMC garage and the Proposed Project. **Table 4-16.2, Driveway Volume Estimates**, provides a summary of the existing and proposed peak hour volumes entering and exiting the existing and proposed driveways. As shown in Table 5, the Proposed Project would not generate any additional traffic, and instead will redistribute existing traffic flows around the HPMC campus.⁶⁵

65 Gibson Transportation Consulting, Inc., *Traffic Assessment for Hollywood Presbyterian Medical Center, Virgil Avenue Parking Garage Project, Hollywood, California* (January 2015). See Appendix E.

**Table 4.16-2
Driveway Volume Estimates**

Land Use	AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	Out	Total
Existing Peak Hour Driveway Volumes						
North HPMC Driveway	85	26	111	38	86	124
East HPMC Driveway	11	0	11	0	11	11
Southwest HPMC Driveway	113	50	163	76	105	181
Southeast HPMC Driveway	79	59	138	20	79	99
Total Existing Driveway Volumes	288	135	423	134	281	415
Proposed Peak Hour Driveway Volumes						
North HPMC Driveway	51	10	61	22	52	74
East HPMC Driveway	11	0	11	0	11	11
Southwest HPMC Driveway	56	23	79	49	49	98
Southeast HPMC Driveway	56	48	104	9	57	66
West Virgil Garage Driveway	75	35	110	35	73	108
East Virgil Garage Driveway	41	19	60	19	39	58
Total Proposed Driveway Volumes^{1,2}	290	135	425	134	281	415

Source: Traffic Assessment for the Hollywood Presbyterian Medical Center, Virgil Avenue Parking Garage Project, Hollywood, California (January 2015).

Note:

¹ Proposed driveway volumes include a 40% shift of traffic from main HPMC campus to Virgil Garage

² Background rounding leads to discrepancy in total driveway volumes, higher volumes represent worst-case scenario.

Construction—Traffic

The Proposed Project would require the use of haul trucks during site clearing and excavation and the use of a variety of other construction vehicles throughout the construction of the Proposed Project. The addition of these vehicles into the street system would contribute to increased traffic in the Project vicinity. The haul trips would occur outside of the peak hours and during the permissible hauling hours identified in the haul route to be approved by the Department of Building and Safety. The Proposed Project's construction trip traffic would be a fraction of the operational traffic, which would not cause any significant impacts at the studied intersection. Therefore, it is not anticipated that they could contribute to a significant increase in the overall congestion in the Project vicinity. In addition, any truck trips would be limited to the length of time required for the Project's construction. Due to the off-peak and temporary nature of the traffic, the Proposed Project would incorporate mitigation measure **MM XVI-30**.

Impacts would less than significant with mitigation incorporated.

Mitigation Measures: The following mitigation measure is proposed to reduce the already less than significant transportation and traffic impact.

MM XVI-30 Transportation (Haul Route)

- The developer shall install traffic signs in accordance with the LAMC around the site to ensure pedestrian and vehicle safety.

Operational Traffic

Twelve study intersections were identified, in conjunction with LADOT staff, for inclusion in the traffic analysis. The analyzed locations are shown in the Traffic Study and correspond to locations where potential traffic impacts from the Proposed Project are most likely to occur. The following 12 intersections, including four existing and two proposed HPMC driveways, that were identified for analysis are as follows:

1. Vermont Avenue & De Longpre Avenue
2. North HPMC Driveway & De Longpre Avenue (existing driveway)
3. Lyman Place & De Longpre Avenue
4. Virgil Avenue & De Longpre Avenue
5. Lyman Place & East HPMC Driveway (existing driveway)
6. Vermont Avenue & Fountain Avenue
7. Southwest HPMC Driveway & Fountain Avenue (existing driveway)
8. Southeast HPMC Driveway & Fountain Avenue (existing driveway)
9. Lyman Place & Fountain Avenue
10. Virgil Avenue & Fountain Avenue
11. West Virgil Garage Driveway & Lyman Place (proposed driveway)
12. East Virgil Garage Driveway & Virgil Avenue (proposed driveway)

Existing Conditions

Table 4.16-3, Existing Conditions (Year 2015) Signalized Intersection Levels of Service (LOS), summarizes the weekday morning and afternoon peak-hour LOS results for each of the signalized study intersections under existing conditions.

Table 4.16-3
Existing Conditions (Year 2015)
Signalized Intersection Levels of Service (LOS)

No.	Intersection	Peak Hour	Existing Conditions	
			V/C	LOS
6	Vermont Avenue & Fountain Avenue ¹	AM	0.574	A
		PM	0.747	C
10	Virgil Avenue & Fountain Avenue	AM	0.507	A
		PM	0.503	A

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

Note:

¹ Field observations showed traffic from every phase clearing the signal. LOS results are accurate.

Additionally, **Table 4.16-4, Existing Conditions (Year 2015) Unsignalized Intersection Levels of Service (LOS)**, summarizes the weekday morning and afternoon peak-hour LOS results for each of the unsignalized study intersections under existing conditions. As indicated in **Table 4.16-4**, the 10 study intersections currently operate at LOS C or better during both the morning and afternoon peak hours.

**Table 4.16-4
Existing Conditions (Year 2015)
Unsignalized Intersection Levels of Service (LOS)**

No.	Intersection	Peak Hour	Existing Conditions	
			Delay ¹	LOS
1	Vermont Avenue & De Longpre Avenue	AM	0.9	A
		PM	0.9	A
2	North HPMC Driveway & De Longpre Avenue	AM	7.2	A
		PM	7.3	A
3	Lyman Place & De Longpre Avenue	AM	7.4	A
		PM	7.9	A
4	Virgil Avenue & De Longpre Avenue	AM	1.0	A
		PM	2.0	A
5	Lyman Place & East HPMC Driveway	AM	0.4	A
		PM	0.6	A
7	Southwest HPMC Driveway & Fountain Avenue	AM	1.4	A
		PM	1.5	A
8	Southeast HPMC Driveway & Fountain Avenue	AM	1.3	A
		PM	0.9	A
9	Lyman Place & Fountain Avenue	AM	1.5	A
		PM	2.1	A

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

Note:

¹ Delay reported is average intersection delay.

Existing with Project Intersection Levels of Service

Table 4.16-5, Existing and Existing with Project Signalized Intersection Level of Service, summarizes the results of the Existing with Project conditions during the weekday morning and afternoon peak hours for the two signalized study intersections. The two signalized study intersections are expected to continue to operate at LOS C or better during both the morning and afternoon peak hours under Existing with Project conditions.

Table 4.16-6, Existing and Existing with Project Unsignalized Intersection Level of Service, summarizes the results of the Existing with Project conditions during the weekday morning and afternoon peak hours for the 10 unsignalized study intersections. The 10 unsignalized study intersections are expected to continue to operate at LOS C or better during both the morning and afternoon peak hours under Existing with Project conditions.

As detailed in **Tables 4.16-5** and **4.16-6**, when measuring the Existing with Project conditions against Existing conditions, the Project is not anticipated to result in a significant traffic impact at any of the 12 study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the Existing with Project conditions.

Future without Project Intersection Levels of Service

Table 4.16-7, Future without Project (Year 2016) Signalized Intersection Levels of Service, summarizes the weekday morning and afternoon peak-hour LOS results for each of the two signalized study intersections under Future without Project Conditions. **Table 4.16-8, Future without Project (Year 2016) Unsignalized Intersection Levels of Service**, summarizes the weekday morning and afternoon peak-hour LOS results for each of the 10 unsignalized study intersections under Future without Project Conditions. **Tables 4.16-7** and **4.16-8** indicate that 9 out of 10 unsignalized study intersections are projected to operate at LOS A during both the weekday morning and afternoon peak hours. The remaining intersection would operate at LOS B during the weekday morning peak hours and LOS C during the weekday afternoon peak hours.

**Table 4.16-5
Existing and Existing with Project Signalized Intersection Levels of Service**

No.	Intersection	Peak Hour	Existing Conditions		Existing With Project Conditions			Impact
			V/C	LOS	V/C	LOS	Change in V/C	
6	Vermont Avenue & Fountain Avenue	AM	0.574	A	0.574	A	0.000	NO
		PM	0.747	C	0.747	C	0.000	NO
10	Virgil Avenue & Fountain Avenue	AM	0.507	A	0.517	A	0.010	NO
		PM	0.503	A	0.502	A	-0.001	NO

Source: *Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).*

¹ Delay reported is average intersection delay.

**Table 4.16-6
Existing and Existing with Project Unsignalized Intersection Levels of Service**

No.	Intersection	Peak Hour	Existing Conditions		Existing With Project Conditions			Impact
			Delay ¹	LOS	Delay ¹	LOS	Change in Delay	
1	Vermont Avenue & De Longpre Avenue	AM	0.9	A	0.7	A	-0.2	NO
		PM	0.9	A	0.9	A	0.0	NO
2	North HPMC Driveway & De Longpre Avenue	AM	7.2	A	7.2	A	0.0	NO
		PM	7.3	A	7.2	A	-0.1	NO
3	Lyman Place & De Longpre Avenue	AM	7.4	A	7.5	A	0.1	NO
		PM	7.9	A	7.9	A	0.0	NO
4	Virgil Avenue & De Longpre Avenue	AM	1.0	A	1.2	A	0.2	NO
		PM	2.0	A	2.1	A	0.1	NO
5	Lyman Place & East HPMC Driveway	AM	0.4	A	0.3	A	-0.1	NO
		PM	0.6	A	0.6	A	0.0	NO
7	Southwest HPMC Driveway & Fountain Avenue	AM	1.4	A	0.6	A	-0.8	NO
		PM	1.5	C	0.8	A	-0.7	NO
8	Virgil Avenue & Fountain Avenue	AM	1.3	A	0.9	A	-0.4	NO
		PM	0.9	A	0.6	A	-0.3	NO
9	Lyman Place & Fountain Avenue	AM	1.5	A	2.3	A	0.8	NO
		PM	2.1	A	3.3	A	1.2	NO
11	Lyman Place & West Virgil Garage Driveway	AM	—	—	2.1	A	—	NO
		PM	—	—	3.1	A	—	NO
12	Virgil Avenue & East Virgil Garage Driveway	AM	—	—	0.4	A	—	NO
		PM	—	—	0.5	A	—	NO

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

¹ Delay reported is average intersection delay.

**Table 4.16-7
 Future without Project (Year 2016)
 Signalized Intersection Levels of Service**

No.	Intersection	Peak Hour	Future without Project Conditions	
			V/C	LOS
6	Vermont Avenue & Fountain Avenue	AM	0.600	B
		PM	0.781	C
10	Virgil Avenue & Fountain Avenue	AM	0.532	A
		PM	0.527	A

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

**Table 4.16-8
Future without Project (Year 2016)
Unsignalized Intersection Levels of Service**

No.	Intersection	Peak Hour	Future without Project Conditions	
			Delay ¹	LOS
1	Vermont Avenue & De Longpre Avenue	AM	0.8	A
		PM	1.0	A
2	North HPMC Driveway & De Longpre Avenue	AM	7.2	A
		PM	7.3	A
3	Lyman Place & De Longpre Avenue	AM	7.5	A
		PM	7.9	A
4	Virgil Avenue & De Longpre Avenue	AM	1.0	A
		PM	2.1	A
5	Lyman Place & East HPMC Driveway	AM	0.4	A
		PM	0.6	A
7	Southwest HPMC Driveway & Fountain Avenue	AM	1.3	A
		PM	1.6	A
8	Southeast HPMC Driveway & Fountain Avenue	AM	1.2	A
		PM	0.9	A
9	Lyman Place & Fountain Avenue	AM	1.5	A
		PM	2.3	A

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

¹ Delay reported is average intersection delay.

Future with Project Intersection Levels of Service

Table 4.16-9, Future with and without Project Conditions (Year 2016) Signalized Intersection Analysis, compares the results of the Future with Project conditions to Future without Project conditions during the weekday morning and afternoon peak hours for the two signalized study intersections. Both intersections are expected to continue to operate at LOS C or better during both the morning and afternoon peak hours under Future with Project conditions. As detailed in **Table 4.16-9**, when measuring the Future with Project conditions against Future without Project conditions, the V/C ratio at one of the two signalized study intersections would increase only incrementally with the addition of Project traffic and the V/C ratio at the other signalized study intersection would not increase with the addition of Project traffic. Therefore, the Project is not anticipated to result in a significant traffic impact at any of the two signalized study intersections and impacts would be less than significant.

Table 4.16-10, Future with and without Project Conditions (Year 2016) Unsignalized Intersection Analysis, compares the results of the Future with Project conditions to Future without Project conditions during the weekday morning and afternoon peak hours for the eight unsignalized study intersections. All 10 unsignalized intersections are expected to continue to operate at LOS A during both the morning and afternoon peak hours under Future with Project conditions. As detailed in **Table 4.16-10**, when measuring the Future with Project conditions against Future without Project conditions, the delay at unsignalized study intersections would increase only incrementally with the addition of Project traffic and in some cases the delay would remain the same and even decrease with the addition of Project traffic. Therefore, the Project is not anticipated to result in a significant traffic impact at any of the 10 unsignalized study intersections and impacts would be less than significant.

**Table 4.16-9
Future with and without Project Conditions (Year 2016) Signalized Intersection Analysis**

No.	Intersection	Peak Hour	Future Base (Without Project) Conditions		Future With Project Conditions			Impact
			V/C	LOS	V/C	LOS	Change in V/C	
6	Vermont Avenue & Fountain Avenue	AM	0.600	B	0.600	A	0.000	NO
		PM	0.781	C	0.781	C	0.000	NO
10	Virgil Avenue & Fountain Avenue	AM	0.532	A	0.543	A	0.011	NO
		PM	0.527	A	0.527	A	0.000	NO

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

Table 4.16-10
Future with and without Project Conditions (Year 2016) Unsignalized Intersection Analysis

No.	Intersection	Peak Hour	Future Base (Without Project) Conditions		Future With Project Conditions			Impact
			Delay ¹	LOS	Delay ¹	LOS	Change in Delay	
1	Vermont Avenue & De Longpre Avenue	AM	0.8	A	0.8	A	0.0	NO
		PM	1.0	A	1.0	A	0.0	NO
2	North HPMC Driveway & De Longpre Avenue	AM	7.2	A	7.2	A	0.1	NO
		PM	7.3	A	7.2	A	-0.1	NO
3	Lyman Place & De Longpre Avenue	AM	7.5	A	4.5	A	0.0	NO
		PM	7.9	A	8.0	A	0.1	NO
4	Virgil Avenue & De Longpre Avenue	AM	1.0	A	1.2	A	0.2	NO
		PM	2.1	A	2.2	A	0.1	NO
5	Lyman Place & East HPMC Driveway	AM	0.4	A	0.3	A	-0.1	NO
		PM	0.6	A	0.5	A	-0.1	NO
7	Southwest HPMC Driveway & Fountain Avenue	AM	1.3	A	0.6	A	-0.7	NO
		PM	1.6	A	0.8	A	-0.8	NO
8	Southeast HPMC Driveway & Fountain Avenue	AM	1.2	A	0.9	A	-0.3	NO
		PM	0.9	A	0.7	A	-0.2	NO
9	Lyman Place & Fountain Avenue	AM	1.5	A	2.3	A	0.8	NO
		PM	2.3	A	3.6	A	1.3	NO
11	Lyman Place & West Virgil Garage Driveway	AM	—	—	2.1	A	—	NO
		PM	—	—	3.1	A	—	NO
12	Virgil Avenue & East Virgil Garage Driveway	AM	—	—	0.4	A	—	NO
		PM	—	—	0.5	A	—	NO

Source: Traffic Assessment for the Virgil Avenue Parking Structure Project, Los Angeles, California (January 2015).

¹ Delay reported is average intersection delay.

Congestion Management Plan Analysis

The Los Angeles County Congestion Management Program (CMP) requires that a Traffic Impact Assessment (TIA) be performed on three types of facilities: arterial intersections, mainline freeway segments, and the public transit system.⁶⁶

Arterial Intersections

The CMP requires that a TIA be performed for all CMP arterial-monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring Intersection. Significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F ($V/C > 1.00$) after the addition of project traffic.

The CMP identifies the following arterial monitoring intersections within approximately 2.5 miles of the Project Site:

- Western Avenue & Santa Monica Boulevard (1.02 miles southwest of the Project Site)

As shown in **Table 4.16-2**, the Project would not generate any additional traffic; therefore, the Project would not add 50 peak hour trips to any intersection. The Project's CMP arterial intersection impacts are considered less than significant, and no further analysis is required.

Mainline Freeway Segments

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F ($V/C > 1.00$) after the addition of project traffic.

The CMP identifies one freeway mainline monitoring location within the vicinity of the Project Site. The monitoring location is on US 101 at Santa Monica Boulevard, approximately 0.9 miles southwest of the Project Site. As shown in **Table 4.16-2**, the Project would not generate any new trips; therefore, the Project would not add 150 peak hour trips to any freeway monitoring station and no additional freeway analysis is required under the CMP criteria for existing or future conditions.

66 Los Angeles County Metropolitan Transportation Authority, *2010 Congestion Management Program*, 2010.

Regional Transit Impact Analysis

The CMP requires that a transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system. An analysis of potential Proposed Project impacts on the transit system was also performed, per the CMP requirements and guidelines. The CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle occupancy (AVO) factor of 1.4 to estimate the number of person-trips to and from the Project. As shown in **Table 4.16-2**, the Project would not generate any new trips; therefore, no regional transit impact is possible. Therefore, the Proposed Project would not cause the capacity of the transit system to be substantially exceeded, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

No Impact. As discussed in Section 4.16(a), no CMP freeway monitoring segment or intersection analysis is required, and there would be no Project-related impacts to the CMP. The Proposed Project would not conflict with any travel demand measures.

No Impacts would occur.

Mitigation Measures: No mitigation measures are required.

- c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

No Impact. This question would apply to the Proposed Project only if it involved an aviation-related use or would influence changes to existing flight paths. No aviation-related use would occur.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less than Significant Impacts with Project Mitigation. A significant impact may occur if a project includes new roadway design or introduces a new land use or features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project site access or other features were designed in such a way as to create hazard conditions. The Proposed Project would not include unusual or hazardous design features. However, the Proposed Project will include two new vehicular access driveways to the Project Site that, if not properly designed and constructed, could potentially conflict with pedestrian circulation in the Project area. With proper site planning and implementation of mitigation measure **MM XVI-40**, potential vehicle-pedestrian conflicts will be mitigated to a less than significant level.

Mitigation Measures: The following mitigation measure is proposed to reduce the already less than significant transportation and traffic impact.

MM XVI-40 Safety Hazards

- The developer shall install appropriate traffic signs around the site to ensure pedestrian and vehicle safety.
- The Applicant shall submit a parking and driveway plan that incorporates design features that reduce accidents, to the Bureau of Engineering and the Department of Transportation for approval.

e. *Would the project result in inadequate emergency access?*

Less than Significant Impacts with Project Mitigation. A significant impact may occur if a project design would not provide emergency access meeting the requirements of the LAFD, or in any other way threatened the ability of emergency vehicles to access and serve the project site or adjacent uses.

As stated in **Section 4.8, Hazards and Hazardous Materials**, the Proposed Project is not located on or near an adopted emergency response or evacuation plan.⁶⁷ Development of the Project Site may require temporary and/or partial street closures along De Longpre Avenue due to construction activities. While such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans. The Project Site is located approximately 0.25 miles east of Hollywood Presbyterian Medical Center and Children's Hospital Los Angeles, located at 1300 Vermont

⁶⁷ City of Los Angeles General Plan, "Safety Element," Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles, <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>.

Avenue, and east of Hollywood Community Hospital located at 4650 Sunset Boulevard. The Proposed Project would not cause permanent alterations to vehicular circulation routes and patterns and/or impede public access or travel on public rights-of-way. Development of the Proposed Project may temporarily affect access on De Longpre Avenue during construction. However, these potential impacts would be mitigated to a less than significant level with implementation of mitigation measure **MM VIII-80**.

As described previously, the Proposed Project would satisfy the emergency response requirements of the LAFD. There are no hazardous design features included in the access design or site plan for the Proposed Project that could impede emergency access. Furthermore, the Proposed Project would be subject to the site plan review requirements of the LAFD and the LAPD to ensure that all access roads, driveways, and parking areas would remain accessible to emergency service vehicles. The Proposed Project would not be expected to result in inadequate emergency access.

Impacts would be less than significant mitigation incorporated.

Mitigation Measures: Mitigation measure **MM VIII-80** is proposed.

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. For the purpose of this Initial Study, a significant impact may occur if a project would conflict with adopted policies or involve modification of existing alternative transportation facilities located on or off site.

The Proposed Project would not require the disruption of public transportation services or the alteration of public transportation routes. Furthermore, the Proposed Project would not interfere with any Class I or Class II bikeway systems nor would it interfere with pedestrian facilities.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

4.17 UTILITIES AND SERVICE SYSTEMS

Impact Analysis

a. *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact. A significant impact would occur if a project exceeds wastewater treatment requirements of the applicable RWQCB. According to Section 13260 of the California Water Code, persons discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a Report of Waste Discharge (ROWD) containing information, which may be required by the appropriate RWQCB. The RWQCB then authorizes an NPDES permit that ensures compliance with wastewater treatment and discharge requirements. The LARWQCB enforces wastewater treatment and discharge requirements for properties in the Project area.

Wastewater from the Project Site is conveyed via municipal sewage infrastructure maintained by the Los Angeles Bureau of Sanitation to the Hyperion Treatment Plant (HTP). The HTP is a public facility and, therefore, is subject to the State's wastewater treatment requirements. Wastewater from the Project Site would continue to be treated according to the wastewater treatment requirements enforced by the LARWQCB.

The Proposed Project is a parking structure that would not generate any wastewater. Therefore, implementation of the Proposed Project would not exceed wastewater treatment requirements.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

b. *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. A significant impact may occur if a project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. Based on the LA CEQA Thresholds Guide, the determination of whether the project results in a significant impact on water shall be made considering the following factors: (a) the total estimated water demand for the project; (b) whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project build-out; (c) the amount by which the project would cause the projected growth in population, housing, or employment for the Hollywood

Community Plan area to be exceeded in the year of the project completion; and (d) the degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

Water Treatment Facilities and Existing Infrastructure

LADWP ensures the reliability and quality of its water supply through an extensive distribution system that includes more than 7,100 miles of pipes, more than 100 storage tanks and reservoirs within the City, and eight storage reservoirs along the Los Angeles Aqueducts. Much of the water flows north to south, entering Los Angeles in Sylmar at the Los Angeles Aqueduct Filtration Plant (LAAFP) in Sylmar, which is owned and operated by the LADWP. Water entering the LAAFP undergoes treatment and disinfection before being distributed throughout the LADWP's Water Service Area. The LAAFP has the capacity to treat approximately 600 million gallons per day (mgd). The average plant flow is approximately 450 mgd during the non-summer months and 550 mgd during the summer months; thus, the plant operates at between 75 and 90 percent capacity, respectively. Therefore, the LAAFP has a remaining treatment capacity of approximately 50 to 150 mgd, depending on the season.

The Proposed Project would require the use of water utilities for the 5,679 square feet of landscaping and automatic fire sprinkler systems. While landscaping and sprinklers would require the use of water supplies, the Proposed Project would not have any bathroom facilities, which would result in wastewater generation and implementation of the Proposed Project would not reduce the LAAFP's capacity of 600 mgd; therefore, no new or expanded water treatment facilities would be required.

The Proposed Project is a parking structure that does not have specific requirements for minimum fire flow.⁶⁸ The existing fire hydrants located along De Longpre Avenue and Lyman Place⁶⁹ would service the Proposed Project; no new public fire hydrant installations are anticipated for the Proposed Project.

In the event that any further water main and/or other infrastructure upgrades are required for the proposed development, such infrastructure improvements would be conducted within the right-of-way easements serving the Project area and would not create a significant impact to the physical environment. This is largely due to the fact that any disruption of service would be of a short-term nature, the replacement of the water mains would be within public rights-of-way, and any foreseeable infrastructure improvements would be limited to the immediate Project vicinity.

68 LAMC, ch. 5, art. 7, Fire Protection and Prevention (Fire Code), sec. 57.507.3.1, Fire-Flow Requirements (2014).

69 City of Los Angeles Department of Water and Power, City of Los Angeles Fire Hydrants ArcGIS, Accessed January 5, 2015, <http://www.arcgis.com/home/item.html?id=750fb02425724ab49a6e2c04fd6534bf>.

Wastewater Treatment Facilities and Existing Infrastructure

Based on the criteria established in the *LA CEQA Thresholds Guide*, a project would normally have a significant wastewater impact if (a) the project would cause a measurable increase in wastewater flows to a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or (b) the project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.

The Los Angeles Bureau of Sanitation provides sewer service to the Proposed Project area. Sewage from the Project Site is conveyed via sewer infrastructure to the HTP. The HTP treats an average daily flow of 362 mgd and has the capacity to treat 450 mgd.⁷⁰ This equals a remaining capacity of 88 mgd of wastewater able to be treated at the HTP.⁷¹

The Proposed Project would require the use of water utilities for the 5,679 square feet of landscaping and automatic fire sprinkler systems. While landscaping and sprinklers would require the use of water supplies, the Proposed Project would not have any bathroom facilities, which would result in wastewater generation. Therefore, implementation of the Proposed Project would not reduce the available capacity treated at HTP; therefore, no new or expanded wastewater treatment facilities would be required.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. A significant impact may occur if the volume of stormwater runoff would increase to a level exceeding the capacity of the storm drain system serving a project site, resulting in the construction of new stormwater drainage facilities. As described previously, the Proposed Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns. Runoff from the Project Site currently is and would continue to be collected on the site and directed toward existing storm drains in the Project vicinity. The Proposed Project will be required to demonstrate compliance with Low Impact Development (LID) Ordinance standards and retain or treat the first 3/4-inch of rainfall in a 24-hour

70 City of Los Angeles Department of Public Works, Bureau of Sanitation, Hyperion Treatment Plant, Accessed January 1, 2014, http://san.lacity.org/lasewers/treatment_plants/hyperion/index.htm.

71 City of Los Angeles Department of Public Works, Bureau of Sanitation, Hyperion Treatment Plant, Accessed January 1, 2014, http://san.lacity.org/lasewers/treatment_plants/hyperion/index.htm.

period. Thus, the rate of post-development runoff and pollutants from the multifamily buildings and parking areas would be reduced under the Proposed Project. The Proposed Project would not create or contribute water runoff that would exceed the capacity of existing or planned stormwater drainage systems.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?*

Less Than Significant. A significant impact may occur if a project would increase water consumption to such a degree that new water sources would need to be identified. Based on the *LA CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on water shall be made considering the following factors: (a) the total estimated water demand for the project; (b) whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project completion; (c) the amount by which the project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of the project completion; and (d) the degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

According to the City's Urban Water Management Plan (UWMP), the City's projected demand for water, during dry seasons would be 2,236,000 acre-feet per year (afy) for 2015 and 2,188,000 afy for 2020.⁷²

The Proposed Project would require the use of water utilities for the 5,679 square feet of landscaping and automatic fire sprinkler systems. Water for the 5,679 square feet of landscaping would result in a demand 541 gpd.⁷³ When accounting for water-efficiency requirements, the water demand would be reduced to 424 gpd.⁷⁴ This represents a fraction of a one percent demand on existing water supplies. Emergency sprinkler systems use approximately 8 to 24 gallons per minute. However, the use of the sprinkler systems would only occur during rare events such as fires and do not affect daily or annual water rates.

72 City of Los Angeles Department of Public Works. *City of Los Angeles Urban Water Management Plan*. 2011.

73 Baseline landscaping water use is estimated per California Code of Regulations Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance

74 Water-Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2013; California Green Building Code (CALGreen); 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

The Proposed Project is a parking structure that would generate minimal water demand. Therefore, implementation of the Proposed Project would not affect the City's total water demand and would not affect the growth projections in the UWMP.

Impacts are less than significant.

Mitigation Measures: No mitigation measures are required.

- e. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

No Impact. Based on the criteria established in the *LA CEQA Thresholds Guide*, a project would normally have a significant wastewater impact if (a) the project would cause a measurable increase in wastewater flows to a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or (b) the project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements. As stated in **Section 4.17 (b)**, the HTP treats an average daily flow of 362 mgd, and has the capacity to treat 450 mgd, leaving a remaining capacity of 88 mgd of wastewater able to be treated at the HTP.

As discussed previously, the Proposed Project is a parking structure that would not have bathrooms, which would generate wastewater and would not reduce the available capacity.

No impacts would occur.

Mitigation Measures: Mitigation measures are not required.

- f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?***

Less than Significant. A significant impact may occur if a project were to increase solid waste generation to a degree such that the existing and projected landfill capacity would be insufficient to accommodate the additional solid waste. Based on the *LA CEQA Thresholds Guide*, the determination of whether a project results in a significant impact on solid waste shall be made considering the following factors: (a) amount of projected waste generation, diversion, and disposal during demolition, construction, and operation of the project, considering proposed design and operational features that could reduce typical

waste generation rates; (b) need for additional solid waste collection route, or recycling or disposal facility to adequately handle project-generated waste; and (c) whether the project conflicts with solid waste policies and objectives in the Source Reduction and Recycling Element (SRRE) or its updates, the Solid Waste Management Policy Plan (CiSWMPP), or the Framework Element of the Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the SRRE.

Solid waste generated within the City is disposed of at privately owned landfill facilities throughout Los Angeles County. While the Bureau of Sanitation provides waste collection services to single-family and some small multifamily developments, private haulers provide waste collection services for most multifamily residential and commercial developments within the City. Solid waste transported by both public and private haulers is recycled, reused, transformed at a waste-to-energy facility, or disposed of at a landfill. Within the City of Los Angeles, the Chiquita Canyon Landfill and the Manning Pit Landfill serve existing land uses within the City. Both landfills accept residential, commercial, and construction waste. The Chiquita Canyon Landfill currently has a remaining capacity of 3.97 million tons.⁷⁵ Chiquita Canyon Landfill has an estimated remaining life of 2 years. Although this is close to Project build-out, an expansion of the Chiquita Canyon Landfill that would increase capacity by 23,872,000 tons (a 21-year life expectancy) is currently under proposal. Therefore, there would be no break in service, and Chiquita Canyon Landfill would be sufficiently able to serve the Proposed Project.

The Proposed Project would follow all applicable solid waste policies and objectives that are required by law, statute, or regulation. The solid waste disposal needs would be directed to the local recycling facilities and landfills described above. Based on the gross development size of 251,840 square feet of floor area and a standard waste generation rate of 4.34 pounds per square foot, it is estimated that the construction of the Proposed Project would generate approximately 1,092,986 pounds, or 547 tons of debris during the construction process.⁷⁶ This estimate is conservative; it does not factor in any recycling or waste diversion programs. The amount of solid waste generated by the Proposed Project during construction is within the available capacities at area landfills. During operation, trash and recycling receptacles would be provided along each floor. Additionally, the Project will contain a room for trash and recycling storage (with a separate area for recyclable materials) that will not be visible to the public. The amount of solid waste generated by the Proposed Project would be minimal, as parking structures do not have a direct source that generates trash. In addition the project will be required to be in compliance with Assembly

75 Los Angeles County Department of Public Works, *2012 Annual Report: Los Angeles Countywide Integrated Waste Management Plan* (Alhambra, CA: County of Los Angeles Department of Public Works, August 2013).

76 United States Environmental Protection Agency (US EPA), Office of Resource Conservation and Recovery, Report No. EPA530-R-09-002, *Estimating 2003 Building-Related Construction and Demolition Materials Amount*, p. 8, (March 2009), <http://www.epa.gov/epawaste/conserve/imr/cdm/pubs/cd-meas.pdf>.

Bill (AB) 939, which would require the applicant to implement a Solid Waste Diversion Program and divert at least 50 percent of the solid waste generated by the project from the appropriate Landfill. The proposed project would also comply with all federal, State, and local regulations related to solid waste. Therefore, the proposed project would have a less-than-significant impact related to solid waste.

Mitigation Measures: No mitigation measures are required.

g. Would the project comply with federal, State, and local statutes and regulations related to solid waste?

Less than Significant Impact. A significant impact may occur if a project would generate solid waste that was not disposed of in accordance with applicable regulations. During construction, the Proposed Project would generate solid waste that is typical of a parking structure and would comply with all federal, State, and local statutes and regulations regarding proper disposal.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

h. Would the project require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities?

Energy

No Impact. CEQA Appendix F: Energy Conservation, states that the goal of conserving energy implies wise and efficient energy use. The means of achieving this goal include decreasing overall per capita energy consumption; decreasing reliance on fossil fuels such as coal, natural gas, and oil; and increasing reliance on renewable energy sources. Energy conservation implies that a project's cost effectiveness be reviewed in terms of energy requirements and the corresponding monetary cost.

Based on the LA CEQA *Thresholds Guide*, the determination of whether the project results in a significant impact on energy shall be made considering the following factors: (a) the extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities; (b) whether and when the needed infrastructure was anticipated by adopted plans; and (c) the degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements. A significant impact would occur if the Proposed Project required additional energy supply facilities and/or distribution infrastructure, creating significant direct or indirect impacts to the environment.

The Proposed Project would also comply with the California Energy Commission 2013 Building Energy Efficiency Standards (Title 24, Part 6). The Standards focus on several key areas to improve the energy efficiency of newly constructed buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The 2013 Standards also include updates to the energy efficiency divisions of the California Green Building Code Standards (Title 24, Part 11). A set of prerequisites has been established for both the residential and nonresidential Reach Standards, which include efficiency measures that should be installed in any building project striving to meet advanced levels of energy efficiency. Energy Commission staff estimates that the implementation of the 2013 Building Energy Efficiency Standards may reduce statewide annual electricity consumption by approximately 613 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 10 million therms per year.

The Proposed Project will use minimal electricity for elevators, kiosks, and lighting. All lighting used throughout the parking structure would consist of energy-efficient LED light bulbs.

The Proposed Project would include a concrete top roof deck that will provide a cool roof to reduce the urban heat island effect. Cool roofs can result in decreased energy demand and are designed to maintain lower roof temperatures than traditional roofs. Cool roofs are made of highly reflective and emissive materials that remain approximately 50 to 60 degrees cooler than traditional roof materials during peak summer weather, while traditional roofs can reach temperatures of 150 to 180 degrees Fahrenheit during summer peak weather which creates hot surfaces and warmer air temperatures nearby.⁷⁷ Cool roofs can also reduce temperatures inside buildings.⁷⁸ The Proposed Project is a parking structure that would not generate substantial electricity demand. Therefore, implementation of the Project would not require additional energy supply facilities and/or distribution infrastructure.

No impacts would occur.

Mitigation Measures: No mitigation measures are required.

77 United States Environmental Protection Agency (US EPA), Climate Protection Partnership Division, *Reducing Urban Heat Islands: Compendium of Strategies, Cool Roofs*, p. 1, (October 2008), <http://www.epa.gov/heatisland/resources/pdf/CoolRoofsCompendium.pdf>.

78 United States Environmental Protection Agency (US EPA), Climate Protection Partnership Division, *Reducing Urban Heat Islands: Compendium of Strategies, Cool Roofs*, p. 11, (October 2008), <http://www.epa.gov/heatisland/resources/pdf/CoolRoofsCompendium.pdf>.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

Impact Analysis

- a.** *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant impact. Based on the analysis in this Initial Study, the proposed project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Implementation of the mitigation measures identified and compliance with existing regulations would reduce impacts to less-than-significant levels.

Mitigation Measures: No mitigation measures required.

- b.** *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

Less than Significant Impact. A significant impact may occur if the Proposed Project, in conjunction with other related projects in the area of the Project Site, would result in impacts that would be less than significant when viewed separately, but would be significant when viewed together. As concluded in this analysis, the Proposed Project's incremental contribution to cumulative impacts related to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities would be less than significant.

Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- c. ***Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?***

Less than Significant with Project Mitigation. Based on the preceding environmental analysis, the Proposed Project would not have significant environmental effects on human beings, either directly or indirectly. Any potentially significant impacts would be reduced to less than significant levels through the implementation of the applicable mitigation measures stated from **Section 4.1** to **Section 4.17**.

Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: Applicable mitigation measures stated from **Section 4.1** to **Section 4.17** would be required.

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- Los Angeles Municipal Code, Chapter 1, Article 2, Section 12.11.C.4, Definitions.
- Los Angeles Municipal Code, Chapter 1, Article 2, Section 12.16.C.3, Definitions.
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6.0 LIST OF PREPARERS

LEAD AGENCY

Los Angeles Department of City Planning

INITIAL STUDY PREPARATION

Meridian Consultants

Tony Locacciato, AICP, Principal

Roland Ok, Project Manager

Sarah Ekeberg, Project Planner

Anders Sutherland, Environmental Analyst

Lisa Maturkanic, Publications Coordinator

Bryna Fischer, Editor

Tom Brauer, Graphics Coordinator

Gibson Transportation Consulting, Inc.

Patrick Gibson, President and Principal

Richard Gibson, Project Associate

Historic Resources Group

Peyton Hall, FAIA, Managing Principal

Laura Janssen, Senior Architectural Historian

MITIGATION MONITORING AND REPORTING PROGRAM

Introduction

Section 21081.6 of the Public Resources Code requires a Lead Agency to adopt a “reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment” (Mitigation Monitoring and Reporting Program). Section 15097 of the *CEQA Guidelines* provides additional direction on mitigation monitoring or reporting:

15097. MITIGATION MONITORING OR REPORTING.

(a) This section applies when a public agency has made the findings required under paragraph (1) of subdivision (a) of Section 15091 relative to an EIR or adopted a mitigated negative declaration in conjunction with approving a project. In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

Project

This Mitigation Monitoring and Reporting Program (MMRP) is for the Virgil Avenue Parking Structure Project (ENV-2015-310-MND). The City of Los Angeles is the Lead Agency for the Project. Any agency listed below is assumed to be within the City of Los Angeles, unless its jurisdiction is listed separately.

A Mitigated Negative Declaration (MND) has been prepared to address the potential environmental impacts of the Project. Where appropriate, the environmental document identified mitigation measures to avoid or to reduce potentially significant environmental impacts of the Project. This MMRP is designed to monitor implementation of these mitigation measures identified for the Project. The MMRP is subject to review and approval by the Lead Agency as part of the adoption of the MND and of project conditions. The required mitigation measures are listed and categorized by impact area, as identified in the MND (and the Environmental Conditions listed in the Department of City Planning Recommendation Report), with an accompanying identification of the following:

- Monitoring Phase, the phase of the Project during which the mitigation measure shall be monitored;
 - Pre-Construction (including the design phase)
 - Construction (includes demolition, site preparation, vertical construction, and finishing)
 - Pre-Occupancy (prior to issuance of a Certificate of Occupancy)

- Occupancy (post-construction) with Code Enforcement
- Enforcement Agency, the agency with the power to enforce the mitigation measure; and
- Monitoring Agency, the agency to which reports including feasibility, compliance, implementation, and development are made.
- Action(s) Indicating Compliance, the action(s) of which the Enforcement or Monitoring Agency indicates that compliance with the identified mitigation measure has been implemented.

The Project Applicant shall be responsible for implementing all mitigation measures unless otherwise noted. The MMRP performance shall be monitored to determine the effectiveness of the measures implemented in any given year and reevaluate the mitigation needs for the upcoming year.

Program Modification

After review and approval of the MMRP by the Lead Agency, minor changes and modifications to the MMRP are permitted, but can only be made by the Applicants or their successors subject to the approval by the City of Los Angeles. This flexibility is necessary due to the nature of the MMRP, and the need to protect the environment with a workable program. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. No changes will be permitted unless the MMRP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

Mitigation Monitoring and Reporting Program

Section 4.4 Biological Resources

IV-20 Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

- Proposed Project activities (including disturbances to native and non-native vegetation, structures, and substrates) should take place outside of the breeding season for birds which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (California Fish and Wildlife Code Section 86).
- If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Applicant shall:
 - a. Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a Qualified Biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
 - b. If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.
 - c. Alternatively, the Qualified Biologist could continue the surveys in order to locate any nests. If an active nest is located, clearing and construction (within 300 feet of the nest or as determined by a qualified biological monitor) shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area.
 - d. The Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the project.

Monitoring Phase: Pre-Construction; Construction
Enforcement Agency: Department of City Planning

Monitoring Agency: Department of Building and Safety
Action Indicating Compliance: Biologist field inspection sign-off

Section 4.12 Noise

XII-30 Increased Noise Levels (Parking Wall)

- A 6-foot-high solid decorative masonry wall adjacent to residential use and/or zones shall be constructed if no such wall exists.

Monitoring Phase: Construction
Enforcement Agency: Department of Building and Safety
Monitoring Agency: Department of Building and Safety
Action Indicating Compliance: Field inspection sign-off

XII-40 Increased Noise Levels (Parking Structure Ramps)

- Concrete, not metal, shall be used for construction of parking ramps.
- The interior ramps shall be textured to prevent tire squeal at turning areas.

Monitoring Phase: Construction
Enforcement Agency: Department of Building and Safety
Monitoring Agency: Department of Building and Safety
Action Indicating Compliance: Field inspection sign-off

Section 4.16 Transportation/Traffic

XVI-30 Transportation (Haul Route)

- The developer shall install appropriate traffic signs in accordance with the LAMC around the site to ensure pedestrian and vehicle safety.

Monitoring Phase: Pre-Construction
Enforcement Agency: Department of Building and Safety
Monitoring Agency: Department of Building and Safety
Action Indicating Compliance: Issuance of Haul Route approval;
Compliance report submitted by contractor

XVI-40 Safety Hazards

- The developer shall install appropriate traffic signs around the site to ensure pedestrian and vehicle safety.

- The applicant shall submit a parking and driveway plan that incorporates design features that reduce accidents, to the Bureau of Engineering and the Department of Transportation for approval.

Monitoring Phase:	Pre-Construction, Construction
Enforcement Agency:	Bureau of Engineering; Department of Transportation
Monitoring Agency:	Bureau of Engineering; Department of Transportation
Action Indicating Compliance:	DOT and BOE Approval; Field inspection sign-off


INITIAL SUBMISSIONS

The following submissions by the public are in compliance with the Commission Rules and Operating Procedures (ROPs), Rule 4.3a. Please note that “compliance” means that the submission complies with deadline, delivery method (hard copy and/or electronic) AND the number of copies. The Commission’s ROPs can be accessed at <http://planning.lacity.org>, by selecting “Commissions & Hearings” and selecting the specific Commission.

The following submissions are not integrated or addressed in the Staff Report but have been distributed to the Commission.

Material which does not comply with the submission rules is not distributed to the Commission.

ENABLE BOOKMARKS ONLINE:

**If you are using Explorer, you will need to enable the Acrobat  toolbar to see the bookmarks on the left side of the screen.

If you are using Chrome, the bookmarks are on the upper right-side of the screen. If you do not want to use the bookmarks, simply scroll through the file.

If you have any questions, please contact the Commission Office at (213) 978-1300.

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037

TEL: (650) 589-1660
FAX: (650) 589-5062

amarshall@adamsbroadwell.com

SACRAMENTO OFFICE

520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721

TEL: (916) 444-6201
FAX: (916) 444-6209

KEVIN T. CARMICHAEL
CHRISTINA M. CARO
JAVIER J. CASTRO
THOMAS A. ENSLOW
KELILAH D. FEDERMAN
ANDREW J. GRAF
TANYA A. GULESSERIAN
KENDRA D. HARTMANN*
DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL
TARA C. MESSING

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

*Not admitted in California.
Licensed in Colorado.

October 18, 2021

VIA EMAIL

Commission President Ilissa Gold and Commission Members
Central Area Planning Commission
C/O Etta Armstrong, Commission Executive Assistant
200 North Spring Street, Room 272,
Los Angeles, 90012
Email: apccentral@lacity.org

Jason Hernandez, City Planning Associate
Email: jason.hernandez@lacity.org

Re: Comments on the HPMC Building Project (Case No. APCC-2020-1764-SPESPP-SPR, Environmental Case No. ENV-2015-310-MND-REC1)

Dear Honorable Members of the Central Area Planning Commission, Mr. Hernandez:

We write on behalf of Coalition for Responsible Equitable Economic Development Los Angeles (“CREED LA”) to provide preliminary comments on the HPMC Building Project (“Revised Project”), including the Addendum (“Addendum”) to the October 2015 Initial Study/Mitigated Negative Declaration (“IS/MND”) prepared by the City of Los Angeles (“City”) for the Revised Project. A different version of the Project, the Virgil Avenue Parking Structure Project, was originally approved by the City in 2015 in reliance on the October 2015 IS/MND (“Approved Project”). These comments are submitted in accordance with the Central Area Planning Commission’s (“Commission”) Rules and Operating Procedures Rule 4.3(a). CREED LA reserves the right to submit additional comments and evidence

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at later hearings and proceedings on this Project, including but not limited to responding to the Commission Staff Report for its upcoming hearing on the Project.¹

The Project site is located at 1318 N. Lyman Place, 4470,4472,4474, 4480,4480-1/2, 4482, 4484,4490,4494 W. De Longpre Avenue and 1321 and 1323 N Virgil Avenue in the City of Los Angeles, California. The Assessor's Parcel Numbers are 5542-012-028, -029, -034, -035, and -036. The Approved Project involved the demolition of two 1-story Hollywood Presbyterian Medical Center ("HPMC") maintenance buildings, an adjacent single-family home, and surface parking lots, and construction of a parking structure for HPMC patients, visitors, and employees.² As evaluated in the IS/MND, the structure would contain 654 automobile parking spaces in 3 subterranean and 4 aboveground parking levels, with an additional level of parking on the roof deck.³ The Approved Project was constructed in 2018, and as built, contains 562 automobile parking spaces in 7 levels, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck.⁴

The subject of the Addendum is the Revised Project's addition of three levels of medical office space, containing 95,995 square feet of additional floor area, on top of the parking structure.⁵ The Revised Project requires the following approvals from the City: (1) a Project Permit Compliance for the addition of three levels of medical office space, containing 95,995 square feet of floor area, on top of the parking structure; (2) a Specific Plan Exception from Section 9.E.3 to allow for zero additional vehicle parking spaces for the Revised Project; (3) a Specific Plan Exception from Section 9.G to allow for the existing pedestrian throughway to satisfy the Specific Plan's requirement in lieu of an additional pedestrian throughway; and (4) a Site Plan Review for a development project that creates 95,995 square feet of nonresidential floor area.⁶

¹ Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* ("Bakersfield") (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

² October 2015, Initial Study/Mitigated Negative Declaration for Virgil Avenue Parking Structure Project, pg. MND-1.

³ Addendum, pg. 8.

⁴ Addendum, pg. 8.

⁵ Addendum, pg. 8.

⁶ Addendum, pg. 24.

We reviewed the Addendum with the assistance of air quality and hazardous resources expert James J. Clark, Ph.D.⁷ The City must separately respond to his technical comments.

Our initial review of the Project revealed several flaws in the Addendum's analyses. Specifically, the Revised Project involves substantial changes to the Approved Project which were not analyzed in the original IS/MND, and require preparation of an environmental impact report ("EIR") or, at a minimum, a new IS/MND. The Addendum also fails to adequately disclose, analyze, and mitigate the Revised Project's new and more severe noise, air quality, greenhouse gas, and public health impacts. Therefore, the City lacks substantial evidence to support its decision that an Addendum is appropriate, rather than a subsequent or supplemental EIR or MND.

I. STATEMENT OF INTEREST

CREED LA is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental impacts of the Project. The coalition includes the Sheet Metal Workers Local 105, International Brotherhood of Electrical Workers Local 11, Southern California Pipe Trades District Council 16, and District Council of Iron Workers of the State of California, along with their members, their families, and other individuals who live and work in the City of Los Angeles.

Individual members of CREED LA and its member organizations include John Ferruccio, Jorge L. Aceves, and John P. Bustos. These individuals live, work, recreate, and raise their families in the City of Los Angeles and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

CREED LA seeks to ensure a sustainable construction industry over the long-term by supporting projects that have positive impacts for the community, and which minimize adverse environmental and public health impacts. CREED LA has an interest in enforcing environmental laws that encourage sustainable

⁷ Dr. Clark's technical comments and curricula vitae are attached hereto as Exhibit A. L5740-003acp

development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. THE CITY CANNOT RELY ON THE ADDENDUM FOR PROJECT APPROVAL

CEQA has two basic purposes, neither of which are satisfied by the Addendum. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental impacts of a project before harm is done to the environment.⁸ The EIR is the “heart” of this requirement.⁹ The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.”¹⁰

To fulfill this function, the discussion of impacts in an EIR must be detailed, complete, and “reflect a good faith effort at full disclosure.”¹¹ An adequate EIR must contain facts and analysis, not just an agency’s conclusions.¹² CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a project.¹³

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring imposition of mitigation measures and by requiring the consideration of environmentally superior alternatives.¹⁴ If an EIR identifies potentially significant impacts, it must then propose and evaluate

⁸ 14 Cal. Code Regs. § 15002(a)(1) (“CEQA Guidelines”); *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal.App.4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁹ *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.

¹⁰ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

¹¹ CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.

¹² *See Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568.

¹³ Pub. Resources Code § 21100(b)(1); CEQA Guidelines § 15126.2(a).

¹⁴ CEQA Guidelines § 15002(a)(2) and (3); *Berkeley Jets*, 91 Cal.App.4th at 1354; *Laurel Heights Improvement Ass’n v. Regents of the University of Cal.* (1998) 47 Cal.3d 376, 400.

mitigation measures to minimize these impacts.¹⁵ CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.¹⁶ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

Under CEQA, an EIR must not only discuss measures to avoid or minimize adverse impacts, but must ensure that mitigation conditions are fully enforceable through permit conditions, agreements or other legally binding instruments.¹⁷ A CEQA lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility.¹⁸ This approach helps “insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug.”¹⁹

Following preliminary review of a project to determine whether an activity is subject to CEQA, a lead agency is required to prepare an initial study to determine whether to prepare an EIR or negative declaration, identify whether a program EIR, tiering, or other appropriate process can be used for analysis of the project’s environmental effects, or determine whether a previously prepared EIR could be used with the project, among other purposes.²⁰ CEQA requires an agency to analyze the potential environmental impacts of its proposed actions in an EIR except in certain limited circumstances.²¹ A negative declaration may be prepared instead of an EIR when, after preparing an initial study, a lead agency determines that a project “would not have a significant effect on the environment.”²²

¹⁵ Pub. Resources Code §§ 21002.1(a), 21100(b)(3).

¹⁶ *Id.*, §§ 21002-21002.1.

¹⁷ CEQA Guidelines § 15126.4(a)(2).

¹⁸ *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28 (a groundwater purchase agreement found to be inadequate mitigation because there was no record evidence that replacement water was available).

¹⁹ *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.

²⁰ CEQA Guidelines §§ 15060, 15063(c).

²¹ *See, e.g.*, Pub. Resources Code § 21100.

²² *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597; Pub. Resources Code § 21080(c).

When an environmental document has already been prepared for a project, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when one or more of the following events occur:

- (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
- (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
- (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.²³

The CEQA Guidelines explain that the lead agency must determine, on the basis of substantial evidence in light of the whole record, if one or more of the following events occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

²³ Pub. Resources Code § 21166.
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- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.²⁴

Only where *none* of the conditions described above calling for preparation of a subsequent or supplemental EIR have occurred may the lead agency consider preparing a subsequent negative declaration, an addendum, or no further documentation.²⁵

The California Supreme Court clarified the standard of review applicable to subsequent approvals for activities that have been analyzed in a previous MND instead of an EIR in *Friends of the College of San Mateo Gardens v. San Mateo County Community College District ("San Mateo Gardens 1")*.²⁶ The fair argument standard of review was found to apply when determining whether an addendum was adequate or whether subsequent environmental review, either a subsequent MND or subsequent EIR, was required.²⁷ The Court found: when a project is initially approved by negative declaration, a "major revision" to the initial negative declaration will necessarily be required if the proposed modification may produce a significant environmental effect that had not previously been studied. Indeed, if the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR.²⁸

²⁴ CEQA Guidelines § 15162(a)(1)-(3).

²⁵ CEQA Guidelines § 15162(b).

²⁶ (2016) 1 Ca1.5th 937.

²⁷ *San Mateo Gardens I, supra*, 1 Ca1.5th at 959.

²⁸ *Id.* at 958.

On remand, the Court of Appeal elaborated and found the fair argument standard must be applied to determine whether a subsequent EIR was required after preparation of an MND. The Court of Appeal stated this was the only "reasonable interpretation" of *San Mateo Gardens I*:

[J]udicial review must reflect the exacting standard that an agency must apply when changes are made to a project that has been approved via a negative declaration, as opposed to the deferential standard that applies when the project was originally approved by an EIR. [The fair argument standard of review] is less deferential because a negative declaration requires a major revision—i.e., a subsequent EIR or mitigated negative declaration—whenever there is substantial evidence to support a fair argument that proposed changes 'might have a significant environmental impact not previously considered in connection with the project as originally approved.²⁹

Thus, when a project's impacts were previously reviewed in an MND, if substantial evidence shows changes to the project, changes in circumstances, or new information might result in a significant impact, adoption of an addendum is not permitted under CEQA.³⁰

Here, the City's decision to prepare an addendum, rather than a subsequent or supplemental EIR or MND, for the Project is not supported by substantial evidence. The Addendum does not simply provide "some changes or additions" to the EIR; rather, it includes analysis for a 95,995 square foot medical office project. This is an entirely new use that was not analyzed in the original IS/MND. Accordingly, the Project may have new or more severe significant impacts than previously analyzed in the IS/MND. And as described below, the Addendum's site-specific analysis conducted for the Project is also flawed in several ways. Therefore, the City may not rely on the Addendum for Project approval, and must provide detailed analysis of the Project's impacts in an EIR.

²⁹ *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* ("San Mateo Gardens II") (2017) 11 Cal.App.5th 596, 606-608, citations omitted.

³⁰ *Id.* at 606-607.
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A. Changes to the Project May Result in Significant Impacts that the Addendum Fails to Disclose and Mitigate.

The Revised Project involves the construction and operation of three new levels of medical office space, containing 95,995 square feet of additional floor area, on top of the Approved Project's original parking structure.³¹ The use of the Project site as an active medical facility is an entirely new and different purpose and use than the Approved Project's current use as a parking lot. This proposed use was not analyzed in the original IS/MND, and therefore requires a new CEQA document.³² The Revised Project's proposed use as a medical facility will also result in new and more severe impacts than analyzed in the IS/MND which were not known and could not have been known at the time the original project was approved because a medical facility was not contemplated for the Project site.³³ For these reasons, and as discussed herein, the City must prepare a subsequent or supplemental EIR, or at minimum an MND, for the Revised Project.

1. Noise

a. The Addendum Identifies New, Significant Construction Noise Impacts Resulting from the Revised Project

The Addendum considers whether the Revised Project's construction activities would generate "a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies."³⁴ The significance threshold the City uses is from the LA CEQA Thresholds Guide, which provides that "construction activities that would last more than 10 days in a 3-month period and increase ambient exterior noise levels by 5 dB(A) or more at a noise-sensitive use would normally result in a significant impact."³⁵ The Addendum finds that the Revised Project's "construction noise levels would result in a maximum increase of 0.9 dBA above the significance threshold without implementation of regulatory compliance measures."³⁶ Thus, these

³¹ Addendum, pg. 8.

³² 14 CCR § 15162(a)(2).

³³ 14 CCR § 15153(a)(3).

³⁴ Addendum, pg. 116.

³⁵ IS/MND, pg. 4.0-66; LA CEQA Thresholds Guide, pg. I.1-3.

³⁶ Addendum, pg. 118.

construction activities would cause significant noise impacts before mitigation.³⁷ The Addendum claims to mitigate these impacts through use of “mufflers, shields, sound barriers, and/or other noise reduction devices or techniques.”³⁸

The Court of Appeal in *San Mateo Gardens II* found that the need for mitigation measures for the subsequent project demonstrates the potential for adverse impacts, and that more than minor technical revisions are required:

CEQA Guidelines section 15162 does not clearly specify when the agency must prepare a subsequent negative declaration instead of issuing an addendum or providing no further documentation. But as we discuss further below, **a subsequent mitigated negative declaration is at least appropriate where a subsequent EIR would otherwise be required under CEQA Guidelines section 15162 but the project's new significant environmental effects may be avoided through mitigation measures.**³⁹

This holding follows the line of cases finding that the adequacy of mitigation measures should be analyzed in an environmental review document.⁴⁰

Here, the Revised Project’s construction noise impacts are new and previously unstudied, as the construction of a 95,995 square foot medical office building was not analyzed in the IS/MND. And the Addendum acknowledges these impacts are significant before mitigation.⁴¹ Since the Addendum identifies new and significant impacts, the City must prepare, *at minimum*, a subsequent mitigated negative declaration. If a subsequent mitigated negative declaration is prepared, it must be given the same notice and public review as is required for an initial negative declaration.⁴² But as will be demonstrated elsewhere in these comments, the City will have to prepare an EIR.

³⁷ Addendum, pg. 116.

³⁸ Addendum, pg. 119.

³⁹ *San Mateo Gardens II* at 606, emphasis added.

⁴⁰ *Salmon Protection & Watershed Network v. County of Marin* (2004) 125 Cal.App.4th 1098, 1102; *Lewis v. Seventeenth Dist. Agricultural Assn.* (1985) 165 Cal.App.3d 823, 830; *Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster* (1997) 52 Cal.App.4th 1165, 1199-1200)

⁴¹ The IS/MND determined that noise impacts from construction of the Approved Project would be less than significant. Not only did the IS/MND not study the construction noise impacts of the Revised Project, but it does not reach the same significance determination as the Addendum.

⁴² 14 Cal. Code Regs. § 15162(d).

b. The Addendum Fails to Disclose the Full Extent of the Revised Project's Noise Impacts

The Addendum states that the noise significance threshold is exceeded if the Project's operations or construction would "exceed the ambient noise level by 5 dB on the premises of the adjacent properties."⁴³ Thus, the higher the ambient noise levels, the harder it is to exceed the noise significance threshold. Bare reliance on this threshold results in both a factually and legally inadequate analysis of the Project's noise impacts.

First, the Addendum relies on misleadingly high ambient noise measurements, thus underestimating the severity of the Revised Project's actual noise impacts. The reason these ambient noise measurements are misleading is that they were collected on February 13, 2020, after the Approved Project became operational.⁴⁴ The IS/MND acknowledges that the Approved Project's operations generate noise:

[s]ources of noise within the parking structure would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. As the subterranean parking level serving the Proposed Project would be entirely underground and enclosed, noise generated at these levels would likely be imperceptible at ground-level locations on and adjacent to the Project Site. As is typical for parking structures, cars entering and exiting the structure at all hours of the day and night can become a nuisance to occupants of adjacent buildings.⁴⁵

By relying on ambient noise measurements that likely include the parking structure's operational noise, the City masks the impacts of the total noise that will be generated by the Revised Project. The LA City CEQA Thresholds Guide states that the correct analysis is: "would the project result in a[n] [...] increase in ambient noise levels in the project vicinity above levels existing *without the project?*"⁴⁶ Because the medical offices and the parking structure are a single project, the City

⁴³ Addendum, pg. 120; LA CEQA Thresholds Guide, pg. I.2-3.

⁴⁴ Addendum, Appendix B, pg. 17.

⁴⁵ IS/MND, pg. 4.0-72.

⁴⁶ LA City CEQA Thresholds Guide, pg. I.1-1; I.2-1. Emphasis added.

fails to measure their noise impacts against ambient noise levels existing without the Project.⁴⁷

The IS/MND does not quantify the parking structure's noise, so it is unknown by how much it masks the Revised Project's impacts. In any case, since the Revised Project's noise impacts likely increase ambient noise levels by some degree more than disclosed by the Addendum, the Project may have significant, unmitigated noise impacts. The City thus lacks substantial evidence to conclude that noise impacts are fully mitigated. An EIR must be prepared to evaluate the Revised Project's true impacts on ambient noise levels.

Additionally, the courts have held that reliance on a maximum noise level as the sole threshold of significance for noise impacts violates CEQA because it fails to consider whether the magnitude of changes in noise levels is significant.⁴⁸ In *Keep our Mountains Quiet v. County of Santa Clara*,⁴⁹ neighbors of a wedding venue sued over the County of Santa Clara's failure to prepare an EIR for a proposed project to allow use permits for wedding and other party events at a residential property abutting an open space preserve. Neighbors and their noise expert contended that previous events at the facility had caused significant noise impacts that reverberated in neighbors' homes and disrupted the use and enjoyment of their property.⁵⁰ Similar to the Addendum in this case, the City's CEQA document relied on the noise standards set forth in its noise ordinance as its thresholds for significant noise exposure from the project, deeming any increase to be insignificant so long as the absolute noise level did not exceed those standards.⁵¹ The Court examined a long line of CEQA cases which have uniformly held that conformity with land use regulations is not conclusive of whether or not a project has significant noise impacts⁵² in holding that the County's reliance on the project's

⁴⁷ LA City CEQA Thresholds Guide, pg. I.1-1; I.2-1 ("Would the project result in a[n] [...] increase in ambient noise levels in the project vicinity above levels existing *without the project*?").

⁴⁸ *King & Gardiner Farms, LLC*, 45 Cal.App.5th at 865.

⁴⁹ *Keep our Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714.

⁵⁰ *Id.* at 724.

⁵¹ *Id.* at 732.

⁵² *Id.*, citing *Citizens for Responsible & Open Government v. City of Grand Terrace* (2008) 160 Cal.App.4th 1323, 1338; *Oro Fino Gold Mining Corp. v. County of El Dorado* (1990) 225 Cal.App.3d 872, 881–882; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1416 (project's effects can be significant even if "they are not greater than those deemed acceptable in a general plan"); *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354, ("CEQA nowhere calls for evaluation of the impacts of a proposed project on an existing general plan").

compliance with noise regulations did not constitute substantial evidence supporting the County's finding of no significant impacts.⁵³

Similarly, here, the noise threshold used in the Addendum to assess the severity of the Revised Project's noise impacts is Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than 5 dB.⁵⁴ The Addendum applies this threshold to the Revised Project's HVAC equipment to conclude that Project operation would not result in significant noise impacts that exceed the threshold.⁵⁵ While the threshold addresses the increase in ambient noise levels over existing noise levels generated at the Project, it fails to assess the severity of noise impacts on surrounding receptors as a result of the increased noise from the Project in conjunction with all relevant sources of noise that impact those receptors. The Addendum's conclusion that noise impacts are less than significant is based on an illusory threshold and is therefore unsupported.

c. The Addendum Fails to Analyze the Total Operational Noise Impacts of the Revised Project.

The City is required to analyze whether the Revised Project would “result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.”⁵⁶ However, the City fails to analyze whether the operational noise impacts of the parking structure and medical offices *combined* would be significant.

The Addendum states that the noise significance threshold is exceeded if the Project's operations would “exceed the ambient noise level by 5 dB on the premises of the adjacent properties.”⁵⁷ The Addendum reasons that this threshold would not be exceeded because the Revised Project's heating, ventilation, and air conditioning (“HVAC”) equipment would not be allowed to exceed the ambient noise level by 5 dB

⁵³ *Id.* at 732-734; see also *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 893, as modified on denial of reh'g (Mar. 20, 2020).

⁵⁴ Addendum, p. 120.

⁵⁵ *Id.*

⁵⁶ Addendum, pg. 116.

⁵⁷ Addendum, pg. 120; LA CEQA Thresholds Guide, pg. I.2-3.
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on the premises of the adjacent properties.⁵⁸ As discussed above, this reasoning is unsupported due to the City's reliance on a threshold that does not address the full extent of operational noise impacts. The City's reasoning is further unsupported because the Addendum does not consider whether reducing HVAC noise below the threshold is possible in combination with the noise from the parking structure.⁵⁹ The parking structure is part of the Revised Project, so must be considered concurrently. Since the City has failed to adequately analyze the Revised Project's consistency with operational noise thresholds, an EIR must be prepared.

d. The Addendum Fails to Analyze the Revised Project's Cumulative Noise Impacts

CEQA mandates that a lead agency find a project may have a significant effect on the environment and "thereby require an EIR to be prepared for the project where there is substantial evidence" that the project has "possible environmental effects that are individually limited but cumulatively considerable."⁶⁰ Specifically, CEQA recognizes that incremental effects of an individual projects can be significant when viewed in connection with the effects of past projects, current projects, and probable future projects and therefore requires lead agencies to evaluate cumulative impacts from other projects with similar effects on the environment.⁶¹ "An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable."⁶²

CEQA requires that an adequate discussion of significant cumulative impacts must include either (A) a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) a summary of projections contained in an

⁵⁸ Addendum, pg. 120; LA CEQA Thresholds Guide, pg. I.2-3.

⁵⁹ 14 Cal. Code Regs. § 15126.4(a)(1)(B) (providing that compliance with a regulatory permit or similar process is sufficient mitigation if compliance with such standards can reasonably be expected, based on substantial evidence, to reduce the impact to a specified performance standard).

⁶⁰ 14 C.C.R. § 15065(a)(3).

⁶¹ *Id.* § 15064(h)(1); see *id.* § 15065(a)(3) (defining "cumulatively considerable" as meaning that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects"); *id.* § 15355 ("Cumulative impacts' refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.")

⁶² *Id.* § 15064(h)(1).

adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.⁶³

Even if the lead agency determines that a project's incremental contribution to a cumulative effect is not cumulatively considerable because the project complies with a previously approved plan or mitigation program, an EIR must be prepared if there is "substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding that the project complies with the specified plan or mitigation program."⁶⁴ Moreover, "[w]hen relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable."⁶⁵

Here, the Addendum acknowledges that "cumulative construction-noise impacts have the potential to occur when multiple construction projects in the local area generate noise within the same time frame and contribute to the local ambient noise environment." However, the Addendum fails to provide a list of related projects that will have construction or operational noise impacts.⁶⁶ And the Addendum fails to otherwise describe or evaluate conditions contributing to a cumulative effect.⁶⁷ Instead, the Addendum summarily states that related projects would implement best management practices and adhere to the City's noise standards.⁶⁸ The Addendum's approach violates CEQA by failing to conduct a cumulative impacts analysis in one of the two authorized ways.⁶⁹

The Addendum's reasoning, in the short analysis it does provide, is also flawed.⁷⁰ The Addendum reasons that because related projects would implement best management practices and adhere to the City's noise standards, there would

⁶³ 14 CCR § 15130(b).

⁶⁴ *Id.* § 15064(h)(3).

⁶⁵ *Id.*; see *id.* § 15130(a) (stating that the lead agency shall describe its basis for concluding that an incremental effect is not cumulatively considerable).

⁶⁶ 14 CCR § 15130(b).

⁶⁷ 14 CCR § 15130(b).

⁶⁸ Addendum, Appendix B, pg. 21.

⁶⁹ 14 CCR § 15130(b).

⁷⁰ 14 Cal. Code Regs. § 15126.4(a)(1)(B) (providing that compliance with a regulatory permit or similar process is sufficient mitigation if compliance with such standards can reasonably be expected, based on substantial evidence, to reduce the impact to a specified performance standard).

not be cumulative impacts.⁷¹ However, in order for a related project to ensure that its noise impacts would not combine with the Revised Project's to exceed noise thresholds, this other project would have to first identify the Revised Project in a list of related projects. This other project would then measure the two projects' combined impacts against a threshold. The Addendum cannot assume that other projects will conduct an analysis that it itself fails to conduct.

In light of the City's failure to analyze cumulative noise impacts, the City lacks substantial evidence to conclude that these impacts will be less than significant. The Addendum acknowledges that the Revised Project's construction noise exceeds noise thresholds before mitigation is applied. However, the Addendum fails to adopt binding mitigation,⁷² and fails to quantify the extent by which mitigation will reduce the Revised Project's noise impacts.⁷³ In combination with construction or operational noise from a related project, it is likely that the Revised Project may result in significant cumulative noise impacts. A subsequent or supplemental EIR must be prepared to analyze these potential impacts.

e. The City Claims to Mitigate the Revised Project's Noise Impacts with Nonbinding, Ineffective Mitigation.

Public agencies must adopt feasible mitigation measures that will substantially lessen or avoid a project's potentially significant environmental impacts and describe those mitigation measures in the CEQA document.⁷⁴ A public agency may not rely on mitigation measures of uncertain efficacy or feasibility.⁷⁵ "Feasible" means capable of successful accomplishment within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.⁷⁶ Mitigation measures must be enforceable through permit conditions, agreements, or other legally binding instruments.⁷⁷ Incorporating

⁷¹ Addendum, Appendix B, pg. 21.

⁷² As is discussed elsewhere in these comments, the Addendum does not include any mitigation measures in a binding, enforceable mitigation monitoring program.

⁷³ Addendum, pg. 119 (The City points to a government report generally stating that muffler systems may reduce construction noise levels by approximately 10 dB or more. But the City provides no project-specific analysis showing that the Revised Project's construction noise will be reduced by this amount.).

⁷⁴ Pub. Res. Code §§ 21002, 21081(a), 21100(b)(3); 14 C.C.R. § 15126.4.

⁷⁵ *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727–728.

⁷⁶ 14 C.C.R. § 15364.

⁷⁷ *Id.* § 15126.4(a)(2).

mitigation measures into conditions of approval is sufficient to demonstrate that the measures are enforceable.⁷⁸

Compliance with relevant regulatory standards can sometimes provide a basis for determining that a project will not have a significant environmental impact, but only where compliance with the standards is otherwise required by law.⁷⁹ As one court explained, “a condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance.”⁸⁰ The CEQA Guidelines specify that reliance on compliance with a regulatory permit or similar process is sufficient mitigation only if compliance with such standards can reasonably be expected, based on substantial evidence, to reduce the impact to a specified performance standard.⁸¹ The Addendum fails to meet that standard.

Here, the City acknowledges that the Project would have significant noise impacts prior to mitigation, but fails to include mitigation measures in a legally binding instrument. The Addendum finds that the Revised Project’s “construction noise levels would result in a maximum increase of 0.9 dBA above the significance threshold without implementation of regulatory compliance measures.”⁸² The Addendum claims that this impact will be mitigated through regulatory compliance with Section 112.05 of the Los Angeles Municipal Code (“LAMC”), which prohibits the operation of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from the source of the noise between the hours of 7:00 AM to 9:00 PM when the source is located within 500 feet of a residential zone.⁸³ The Addendum states that this standard can be complied with by requiring use of muffling devices on construction equipment.⁸⁴

But compliance with this standard cannot be reasonably expected to reduce noise impacts to less than significant levels. Section 112.05 provides that the aforementioned noise limitations “shall not apply where compliance therewith is technically infeasible.”⁸⁵ If the City determines at a later time that muffling its

⁷⁸ Pub Res. Code § 21081.6(b); *Gray v. County of Madera* (2008) 167 CA4th 1099, 1116.

⁷⁹ *Tracy First v. City of Tracy* (2009) 177 CA4th 912.

⁸⁰ *Oakland Heritage Alliance v. City of Oakland* (2011) 195 CA4th 884, 906.

⁸¹ 14 Cal. Code Regs. § 15126.4(a)(1)(B).

⁸² Addendum, pg. 118.

⁸³ Addendum, pg. 119; LAMC § 112.05.

⁸⁴ Addendum, pg. 119.

⁸⁵ LAMC § 112.05.

construction equipment to levels below LAMC limitations is infeasible, it is released from complying with the LAMC limitations. This determination would be made after the approval of the Addendum, in an unaccountable arena, which is prohibited by CEQA.⁸⁶ Therefore, compliance with Section 112.05 cannot be reasonably expected to reduce noise impacts to less than significant levels. As a result, the Revised Project's significant noise impacts remain unmitigated. An EIR must be prepared, in which the City adopts concrete, noise-reducing measures in a binding, enforceable instrument.

f. The Constructed Portion of the Project May Have Unmitigated Noise Impacts.

The IS/MND determined the Approved Project would have less than significant noise impacts after mitigation. The IS/MND adopted two mitigation measures to reduce the operational noise impacts from cars entering and exiting the parking structure. One of them is Mitigation Measure ("MM") XII-30, which provides "A 6-foot-high solid decorative masonry wall adjacent to residential use and/or zones shall be constructed if no such wall exists."⁸⁷ The Addendum claims this measure has been implemented: the "[p]arking structure has already been constructed and no alteration of parking ramps or walls is included in the Revised Project. Therefore, this mitigation has been implemented and is no longer necessary to implement as part of the Revised Project."⁸⁸

But the Addendum's claim may be inaccurate. Figure 1, below, is a Google Earth photo of the Approved Project, as constructed. Figure 1 shows that the

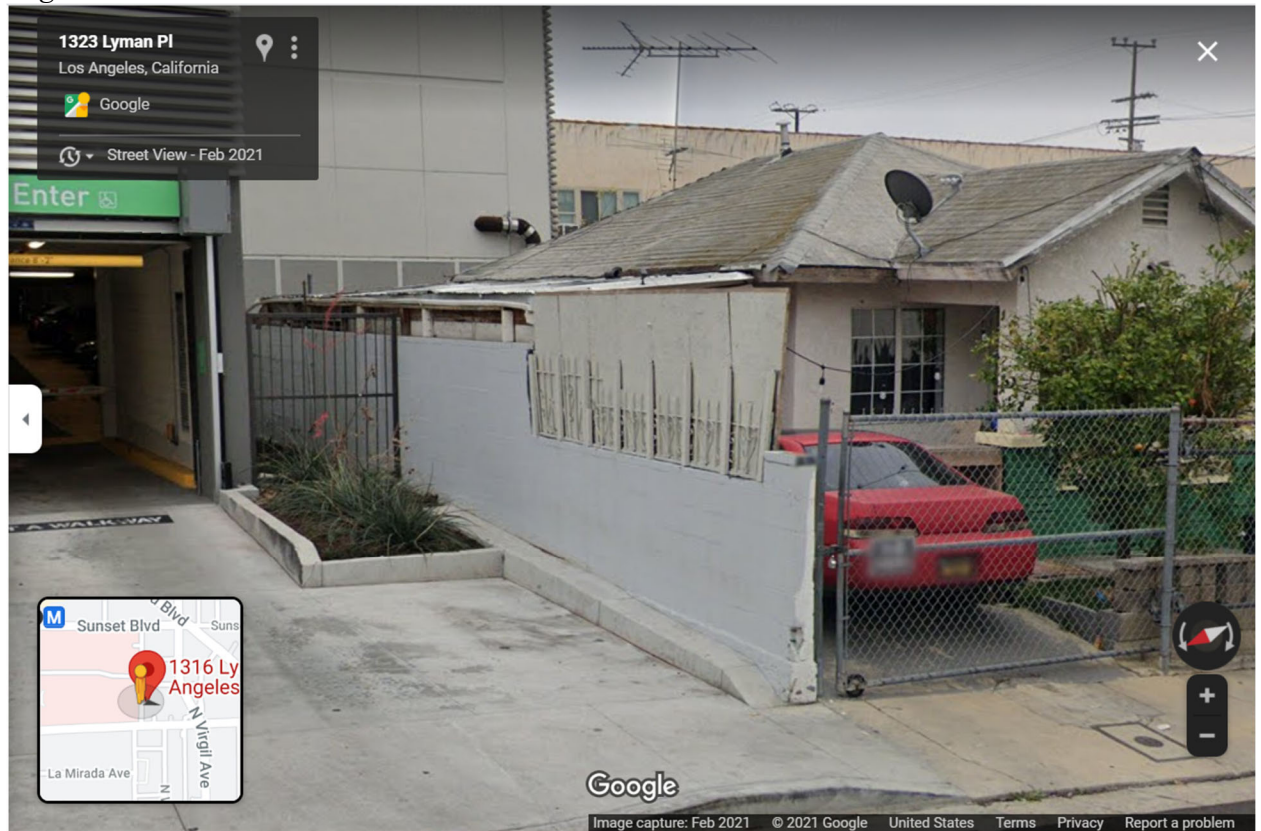
⁸⁶ *Oro Fino Gold Mining Corp. v. County of El Dorado* ("Oro Fino") (1990) 225 Cal.App.3d 872, 882 ("even though the mitigated negative declaration states that noise levels exceeding the applicable City general plan noise standard maximum of 65 decibels are prohibited, there is no evidence of any measures to be taken that would insure that the noise standards would be effectively monitored and enforced vigorously); *id.* at 85 ("One of the purposes of the [EIR] is to insure that the relevant environmental data are before the agency and considered by it prior to the decision to commit [...] resources to the project" [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84, quoting from *Hanly v. Kleindienst* (2d Cir. 1972) 471 F.2d 823, 837-838 (dis. opn. of Friendly, J.); *Sundstrom v. County of Mendocino* ("Sundstrom") (1988) 202 Cal.App.3d 296, 308-309]. In short, in the absence of overriding circumstances, the CEQA process demands that mitigation measures timely be set forth, that environmental information be complete and relevant, and that environmental decisions be made in an accountable arena. (*Sundstrom* at pp. 306-309.)").

⁸⁷ IS/MND, pg. 3. The other mitigation measure is MM XII-40, which requires parking ramps to be constructed of textured concrete.

⁸⁸ Addendum, pg. 3.

parking structure's entrance is close to an adjacent single-story residence at 1316 Lyman Ave, Los Angeles. Figure 1 also shows that the wall is not a decorative masonry wall, and is not 6 feet tall through its entire length. It appears that the residents of 1318 Lyman Ave needed to supplement this wall with plywood. It is unknown whether this makeshift barrier was intended to reduce the Project's aesthetic impacts or the significant noise impacts from parking structure entrance. It is also unknown whether the Project Applicant has improved this wall since the date of the February 2021 photo. Nonetheless, the City must consider the possibility that the parking structure's noise impacts on neighboring sensitive receptors are yet unmitigated. Further increases in noise from the Revised Project may exacerbate these impacts. A subsequent or supplemental EIR must be prepared to analyze these impacts.

Figure 1.



g. There is Substantial Evidence Demonstrating that the Revised Project has Significant Noise Impacts that Are More Severe than Previously Analyzed

The City's overall approach in its noise analysis is to rely on purported compliance with regulatory standards. The City claims that the Revised Project's significant construction noise impacts are mitigated through compliance with Section 112.05 of the LAMC. The City points to the same standard to claim the Revised Project's operational impacts (from its HVAC equipment) would not exceed thresholds. Cumulative impacts would also be less than significant because related projects would adhere to the City's noise thresholds. However, as detailed in the sections above, CREED LA has put forth a fair argument that the Revised Project will cause significant noise impacts. Courts require preparation of a subsequent or supplemental EIR under these circumstances.⁸⁹

In *Oro Fino Gold Mining Corp. v. County of El Dorado* ("Oro Fino"),⁹⁰ a mining company applied for a special use permit for drilling holes to explore for minerals.⁹¹ The mining company argued the proposed mitigated negative declaration prohibited noise levels above the applicable county general plan noise standard maximum of 50 dBA and, therefore, there could be no significant noise impact.⁹² The court rejected this argument on two grounds. "Initially, we note that conformity with a general plan does not insulate a project from EIR review where it can be fairly argued that the project will generate significant environmental effects."⁹³ Second, the court reviewed the record and, like the trial court, concluded it contained substantial evidence supporting a fair argument that noise from drilling would exceed the county standard of 50 dBA.⁹⁴ Thus, the court concluded an EIR was required.

In *Citizens for Responsible & Open Government v. City of Grand Terrace* ("Grand Terrace"),⁹⁵ the city approved a 120-unit senior housing facility based on a mitigated negative declaration.⁹⁶ A citizen's group argued substantial evidence

⁸⁹ *San Mateo Gardens I, supra*, 1 Cal.5th at 959.

⁹⁰ (1990) 225 Cal.App.3d 872.

⁹¹ *Id.* at pg. 876.

⁹² *Oro Fino, supra*.

⁹³ *Id.* at pp. 881–882.

⁹⁴ *Id.* at pg. 882.

⁹⁵ (2008) 160 Cal.App.4th 1323.

⁹⁶ *Id.* at pg. 1327.

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supported a fair argument that the project would result in significant environmental impacts, including the impact of noise from air conditioners.⁹⁷ The trial court agreed and issued a writ of mandate requiring the preparation of an EIR.⁹⁸ The appellate court affirmed.⁹⁹

In *Grand Terrace*, the noise element of the city's general plan stated exterior noise levels in residential areas should be limited to 65 dB CNEL.¹⁰⁰ The initial study concluded the facility's air conditioner units would cause noise impacts, but with mitigating measures the project would operate within the general plan's noise standard. Mitigation measures specified as conditions of approval included “shielding” the units, having self-contained condensers that would not transmit noise outside, reducing the number of units near residences, including a buffer setback, planting trees as a noise buffer, etc.¹⁰¹ However, a community member who had been in the HVAC business for 30 years stated that the type of air conditioning units proposed by the project “sound like airplanes.”¹⁰² And at a city council public hearing, community and city council members expressed concern that the air conditioners would be noisy.¹⁰³ The public was not able to analyze numerical data about the noise generated by the air conditioners because the project proponent “did not provide a noise rating on the units”¹⁰⁴

The appellate court cited *Oro Fino* for the principle that “conformity with a general plan does not insulate a project from EIR review where it can be fairly argued that the project will generate significant environmental effects.”¹⁰⁵ The court considered the testimony about the noise generated by the proposed air conditioners, took into account the mitigation measures, and concluded “there is substantial evidence that it can be fairly argued that the Project may have a significant environmental noise impact.”¹⁰⁶

⁹⁷ *Id.*

⁹⁸ *Id.* at pp. 1326–1327.

⁹⁹ *Id.* at pg. 1327.

¹⁰⁰ *Grand Terrace, supra*, 160 Cal.App.4th at pg. 1338.

¹⁰¹ *Id.* at 1339-1340.

¹⁰² *Id.* at 1338-1339.

¹⁰³ *Id.* at 1338.

¹⁰⁴ *Id.* at pp. 1339, 1340.

¹⁰⁵ *Grand Terrace, supra*, at pg. 1338.

¹⁰⁶ *Id.* at p. 1341.

CREED LA has thus far introduced stronger evidence of significant noise impacts than the citizens' group in *Grand Terrace*.

First, these comments show that the Revised Project's significant construction impacts are unmitigated, as the City relies on unenforceable, non-binding mitigation. This is stronger evidence of significant noise impacts than any evidence considered in *Grand Terrace*, as it is uncontested that the Revised Project, without mitigation, exceeds noise thresholds by at least 0.9 dBA.¹⁰⁷

Second, these comments show that the City includes the Approved Project's own operational noise in its ambient noise measures, thus underestimating the Revised Project's increase of ambient noise levels. Ambient noise levels may be exceeded when this error is corrected.

Third, these comments show that the Revised Project's operational noise may exceed noise thresholds, as the City failed to analyze the *combined* operational noise impacts of the parking structure and medical offices. As discussed above, sources of noise within the parking structure would include engines accelerating, doors slamming, car alarms, and people talking. And HVAC systems can "sound like airplanes."¹⁰⁸ Combined, there may be a significant operational noise impact. This noise impact will be acutely felt by the sensitive receptors adjacent to the building.¹⁰⁹ As in *Grand Terrace*, we are not able to calculate whether there is a quantitative exceedance of City noise thresholds because the environmental document does not quantify these impacts. And as in *Grand Terrace*, we are not required to generate such data ourselves to demonstrate an EIR is necessary.¹¹⁰

Fourth, the Revised Project may already have unmitigated noise impacts on the sensitive receptors at 1316 Lyman Ave. Not only did the Approved Project not build a decorative masonry wall as stated in the IS/MND, the wall as constructed is not 6 feet tall through its entire length. The fact that the residents of 1316 Lyman Ave needed to supplement this wall with plywood suggests that additional noise

¹⁰⁷ Addendum, pg. 118.

¹⁰⁸ *Id.* at 1338-1339.

¹⁰⁹ Adjacent to the Project site is a single-story residence at 1316 Lyman Ave, Los Angeles.

¹¹⁰ *Grand Terrace, supra*, at pg. 1341 ("Although there was no evidence as to the actual noise rating of the individual air conditioner units or of the actual noise level caused by the units en masse, there was nevertheless a sufficient basis for concluding that, even with the mitigated measures in place, there was enough evidence to support a fair argument that the Project's noise from 20 or more noisy air conditioners would have a significant environmental impact").

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from the Revised Project would have significant impacts. This evidence is analogous to the testimony at the *Grand Terrace* city council public hearing.¹¹¹

Therefore, a subsequent or supplemental EIR must be prepared.

B. The Addendum Fails to Disclose Potentially Significant Health Risks from Construction Emissions that Are More Severe than Previously Analyzed

An agency must support its findings of a project's potential environmental impacts with concrete evidence, with "sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision."¹¹² A project's health risks "must be 'clearly identified' and the discussion must include 'relevant specifics' about the environmental changes attributable to the Project and their associated health outcomes."¹¹³

Courts have held that an environmental review document must disclose a project's potential health risks to a degree of specificity that would allow the public to make the correlation between the project's impacts and adverse effects to human health.¹¹⁴ In *Bakersfield Citizens for Local Control v. City of Bakersfield* ("*Bakersfield*"), the court found that the EIRs' description of health risks were insufficient and that after reading them, "the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin."¹¹⁵ And in *Sierra Club v. County of Fresno* ("*Sierra Club*"), the Supreme Court of California disapproved of an EIR that failed to compare the health effects from exposure to ozone emissions against applicable thresholds.¹¹⁶ The Court held that it is insufficient to merely state that "exposure to ambient levels of ozone ranging from 0.10 to 0.40 [parts per million of ozone] has been found to significantly alter lung functions" – the EIR must also compare the Project's impacts against this threshold.¹¹⁷

¹¹¹ *Id.* at 1338.

¹¹² *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516.

¹¹³ *Id.* at 518.

¹¹⁴ *Id.* at 518–520; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184.

¹¹⁵ *Bakersfield* at 1220.

¹¹⁶ (2018) 6 Cal.5th 502, 517

¹¹⁷ *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 519.

The Addendum analyzes the Revised Project's health risks from construction activities in a paragraph, concluding impacts are less than significant:

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Sensitive receptors are located adjacent to the Project, as shown in Figure 2. Localized diesel particulate emissions (strongly correlated with PM_{2.5} emissions) would be minimal and would be substantially below localized thresholds, as shown in Table 11. Project compliance with the CARB anti-idling measure, which limits idling to no, more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area.¹¹⁸

This analysis fails to meet the informational standards articulated in *Bakersfield* and *Sierra Club*. The Addendum fails to disclose or explain the applicable health risk threshold – that health impacts are significant when the Project exposes sensitive receptors to air contaminants that exceed the maximum incremental cancer risk of 10 in one million.¹¹⁹ The Addendum also fails to conduct a quantified health risk analysis (“HRA”) to measure the Project's TAC emissions and resultant health impacts to sensitive receptors. The Addendum accordingly fails to compare these health impacts against the applicable significance threshold, in conflict with the holding of *Sierra Club*.¹²⁰ As in *Bakersfield*, after reading the Addendum, the public is left with little understanding of the Revised Project's health consequences.¹²¹

The failure to prepare an HRA also conflicts with scientific authority. California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (“OEHHA”)¹²² guidance sets a recommended threshold for

¹¹⁸ Addendum, Appendix A, pg. 22.

¹¹⁹ South Coast Air Quality Management District (“SCAQMD”), Air Quality Analysis Handbook, Air Quality Significance Thresholds, available at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>.

¹²⁰ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1219-20.

¹²¹ *Bakersfield* at 1220.

¹²² OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at <http://oehha.ca.gov/about/program.html>.

preparing an HRA of a construction period of two months or more.¹²³ The Addendum acknowledges construction will take at least two months.”¹²⁴ Specifically:

[i]t will approximately take one (1) month to prepare the anchor bolts for retrieval of the steel columns and another one (1) month to complete the erection of the steel and welding. A 100-ton mobile crane will be utilized for steel erections, which is contingent upon the size of the heaviest piece of steel structure. After the completion of the steel structure, the fire proofing, concrete decking, exterior cladding, and roofing works will be followed in order to make dry-in of the building. A 25-ton mobile crane and the concrete truck will be staged on De Longpre for material hoisting and concrete decking work. This phase is anticipated to be completed in eight (8) months. The build-out phase consists of mechanical, electrical, plumbing, elevator, and interior finishing work, as well as medical imaging equipment installation, which will last for approximately 14 months.¹²⁵

This passage from the Addendum shows that heavy equipment, including a 100-ton and 25-ton mobile crane, will be utilized in construction for at least two months. Therefore, OEHHA guidance supports the preparation of a construction HRA, in addition to the CEQA mandate.

In addition to its failure to disclose health risks, the Addendum does not adopt all available measures to reduce health risks to nearby sensitive receptors. Some of these sensitive receptors are directly adjacent to the Project site.¹²⁶ Due to this proximity, these sensitive receptors may be acutely impacted by even relatively low emissions of TACs. Despite this heightened risk, the Addendum states that heavy-duty diesel equipment engines would merely meet Tier 3 standards. Tier 3 equipment emits more TACs than other commercially-available equipment. The Revised Project should use Tier 4 Final equipment to mitigate health risks the Addendum may have failed to detect as a result of its truncated health risk analysis.

¹²³ See “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html (“OEHHA Guidance”), pp. 8-18.

¹²⁴ Addendum, Appendix A, pg. 19.

¹²⁵ Addendum, Appendix A, pg. 20.

¹²⁶ Addendum, Appendix A, Figure 2.

In light of the Revised Project’s undisclosed potential health risks, the City must prepare an EIR which includes a construction HRA.

C. The City’s Air Quality Analysis Fails to Disclose Back-Up Generator Emissions, thus Underestimating Potentially Significant Air Quality, GHG, and Health Impacts Resulting from New Project Features.

CEQA Guidelines Section 15378 defines “project” to mean “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.”¹²⁷ Courts have explained that a complete description of a project must “address not only the immediate environmental consequences of going forward with the project, but also all “*reasonably foreseeable* consequence[s] of the initial project.”¹²⁸ “If a[n]...EIR...does not adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project, informed decision-making cannot occur under CEQA and the final EIR is inadequate as a matter of law.”¹²⁹

The Addendum fails to disclose whether the Revised Project would require back-up generator, which are commonly used for medical facilities and have been identified in other medical facility projects analyzed by the City. Whereas the Approved Project – a parking structure – would not be reasonably expected to require a back-up generator, medical facilities often utilize back-up generators to minimize the consequences of a power outage. Use of back-up generators is required by law for many medical facilities.¹³⁰ Such generators can significantly impact air quality, GHG emissions, and public health through DPM emissions.¹³¹ Therefore, if

¹²⁷ CEQA Guidelines § 15378.

¹²⁸ *Laurel Heights I*, 47 Cal. 3d 376, 398 (emphasis added); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

¹²⁹ *Riverwatch v. Olivenhain Municipal Water Dist.* (2009) 170 Cal. App. 4th 1186, 1201.

¹³⁰ See 22 CCR § 70841 (requiring hospitals to maintain emergency generators); § 72657 (requiring nursing homes to maintain emergency electrical systems in safe operating condition).

¹³¹ California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps> (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions); California Air Resources Board, Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events (October 25, 2019), available at <https://ww2.arb.ca.gov/resources/documents/use-back-engines-electricity-generation-during-public-safety-power-shutoff> (“When electric utilities de-energize their electric lines, the demand for back-up L5740-003acp

the Project Applicant can reasonably foresee use of a back-up generator, the Addendum's failure to disclose such a generator is a failure to disclose all "reasonably foreseeable consequence[s] of the initial project."¹³²

These consequences may include significant air quality, GHG emissions, and public health impacts. According to SCAQMD Rules 1110.2¹³³ and 1470,¹³⁴ back-up generators are allowed to operate for up to 200 hours per year, and operate for maintenance up to 50 hours per year.

Further, a back-up generator would operate during unscheduled events like Public Safety Power Shutoff ("PSPS") events and extreme heat events ("EHEs"). Dr. Clark's comments show that although such events are unscheduled, they occur frequently enough in California that they are reasonably foreseeable.¹³⁵ For example, the total duration of PSPS events in California lasted between 141 hours to 154 hours in 2019.¹³⁶ In 2021, two EHEs have been declared so far, which lasted 120 hours combined.¹³⁷ Dr. Clark explains that these two EHEs would have tripled the calculated yearly DPM emissions from the Project.¹³⁸ These conditions are expected to increase in severity.¹³⁹ Therefore, a failure to consider this source of emissions drastically underestimates the Revised Project's air quality, GHG, and public health impacts. A subsequent or supplemental EIR would have to be prepared to analyze these potentially significant impacts.

power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts)").

¹³² *Laurel Heights I*, 47 Cal. 3d 376, 398.

¹³³ Available at <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1110-2.pdf>.

¹³⁴ Available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf?sfvrsn=4>.

¹³⁵ Clark, pg. 4.

¹³⁶ *Id.*, pg. 5.

¹³⁷ *Id.*, pg. 6.

¹³⁸ *Id.*, pg. 6.

¹³⁹ OEHHA, Extreme Heat Events, February 11, 2019, <https://oehha.ca.gov/epic/changes-climate/extreme-heat-events> (showing that frequency of extreme heat events is increasing); NASA Earth Observatory, California Heatwave Fits a Trend, September 6, 2020, <https://earthobservatory.nasa.gov/images/147256/california-heatwave-fits-a-trend> (showing trends toward longer and more intense heatwaves in Southern California).

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D. The Revised Project Creates Potentially Significant Greenhouse Gas Emissions that are Specific to the Project's New Uses and are More Severe than Previously Analyzed.

The Addendum states that the Revised Project would have less than significant GHG impacts because it complies with the LA Green Building Code.¹⁴⁰ However, courts have held that a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. For instance, in *Californians for Alternatives to Toxics v. Department of Food & Agriculture*, the court set aside an EIR for a statewide crop disease control plan because it did not include an evaluation of the risks to the environment and human health from the proposed program but simply presumed that no adverse impacts would occur from pesticides properly registered with the California Department of Pesticide Regulation. The Addendum similarly fails to conduct a project-specific analysis of potential impacts and the effect of regulatory compliance. Substantial evidence shows that the Revised Project may have significant GHG emissions.

To begin with, the Revised Project's GHGs exceed SCAQMD draft thresholds. In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.¹⁴¹ With its October 2008 document, SCAQMD proposed the use of a percent reduction target to determine significance of commercial/residential projects that emit greater than 3,000 MTCO₂e per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO₂e per year would be assumed to have a less-than-significant impact on climate change. SCAQMD has yet to formally adopt this or other thresholds for commercial/residential projects. The Addendum states that the Revised Project's GHG emissions are 3,557.65 MTCO₂e per year, which exceeds the SCAQMD threshold.¹⁴² Although this threshold has not yet been formally adopted, the fact that some scientific authorities view the Revised Project's emissions as significant constitutes project-specific, substantial evidence that an EIR must be prepared. The bare proposition that the Revised Project would comply with the LA Green Building Code does not address this substantial evidence.

¹⁴⁰ Addendum, pg. 81.

¹⁴¹ SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, Attachment E, available at [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2).

¹⁴² Addendum, pg. 82, Table 4.8-1.

There is also substantial evidence showing the Revised Project's GHG emissions are likely higher than disclosed. As discussed in these comments, the Addendum does not disclose whether a back-up generator would be part of the Revised Project. Also, the GHG emissions the Addendum attributes to energy consumption seem incorrect: the Addendum claims that the Approved Project's energy consumption would result in 956.33 MTCO₂e/year, but the Revised Project's energy consumption would result in 802.56 MTCO₂e/year.¹⁴³ The Addendum does not explain that the GHGs of a parking structure are likely to be higher than those of a parking structure combined with medical facilities.

The Revised Project's potentially significant GHG emissions (at least 3,557.65 MTCO₂e/year) are substantial increases over the Approved Project's emissions (976.95 MTCO₂e/year), and now exceed a SCAQMD draft threshold.¹⁴⁴ This increase is a result of the substantial changes proposed in the Revised Project, which would now involve vehicle trip generation, water consumption, wastewater generation, and increased energy needs. Since this potentially significant impact was not evaluated in the IS/MND or Addendum, a subsequent or supplemental EIR must be prepared.

E. The Addendum Fails to Analyze the Revised Project's Potentially Significant Energy Consumption Which is the Result of New Project Features and Is More Severe than Previously Analyzed.

The CEQA Guidelines state that an environmental review document should determine whether a Project results in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.¹⁴⁵ The Addendum's approach to this analysis is to assert that the Revised Project would be built and operated in accordance with the applicable State Building Code Title 24 regulations and City of Los Angeles Green Building code. However, Appendix F of the CEQA Guidelines lists several disclosures relating to energy consumption that should be included in an environmental document. The Addendum fails to make these disclosures.

Appendix F states that the project description should identify energy-consuming equipment and processes used during construction and operation of the

¹⁴³ Addendum, pg. 82, Table 4.8-1.

¹⁴⁴ Addendum, pg. 82, Table 4.8-1.

¹⁴⁵ CEQA Guidelines, Appendix F, subd. I
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project, as well as discuss their energy intensiveness.¹⁴⁶ The Addendum fails to disclose any of the energy-intensive medical equipment that is reasonably expected to be utilized at the Revised Project. This energy consumption was also not analyzed in the IS/MND because the Approved Project did not include medical facilities.

Appendix F states that the project description should communicate the “[t]otal energy requirements of the project by fuel type and end use.”¹⁴⁷ The Addendum fails to quantify the Revised Project’s energy consumption.

Appendix F explains that the project description should identify “[e]nergy conservation equipment and design features.”¹⁴⁸ The IS/MND stated the Approved Project would implement “a concrete top roof deck that will provide a cool roof to reduce the urban heat island effect.”¹⁴⁹ However, as the Revised Project will be built on top of the Approved Project, the Addendum must disclose whether the Revised Project would include a cool roof to conserve energy.

Because the IS/MND fails to communicate basic facts of the Project’s energy consumption, an EIR is necessary to fully and accurately describe the Project and its energy use impacts.

F. The Addendum Requests an Exception from an Inapplicable Section of the Specific Plan.

As part of the Revised Project, the Applicant seeks a Specific Plan Exception from Section 9.E.3 of the Vermont/Western Transit Oriented District (Station Neighborhood Area) Specific Plan (“Specific Plan”).¹⁵⁰ The requested exception would allow for zero vehicle parking spaces for the Revised Project. However, the Applicant is requesting an exception from a provision that does not apply to hospitals or medical uses. Section 9.E.3 provides:

Notwithstanding the contrary provisions of Section 12.21 A 4 of the Code and regardless of the underlying zone, the following parking standards shall

¹⁴⁶ *Id.*, subd. (A)(1) (“Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project”).

¹⁴⁷ CEQA Guidelines, Appendix F, subd. (A)(2).

¹⁴⁸ *Id.*, subd. (A)(3).

¹⁴⁹ IS/MND, pg. 4.0-113.

¹⁵⁰ Addendum, pg. 24.

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apply to Projects with commercial uses, **other than Hospital and Medical Uses**: (i) the maximum number of off-street parking spaces which may be provided shall be limited to two parking spaces for each 1,000 square feet of combined floor area of commercial uses contained within all buildings on a lot; (ii) a maximum of 50% of the required non-residential parking spaces may be provided off-site, but within 1,500 feet of the lot for which they are provided.¹⁵¹

Since the Revised Project is a medical use, Section 9.E.4 appears to be the applicable provision:

Hospital and Medical Uses. Notwithstanding the contrary provisions of Section 12.21 A 4 (d) of the Code, **the following parking standards shall apply to Hospital and Medical Use Projects**: (i) hospitals shall provide a minimum of one parking space for each patient bed for which the hospital is licensed, and a maximum of two parking space for each patient bed for which the hospital is licensed; (ii) a maximum of 50% of the required hospital parking spaces may be provided off-site, but within 1,500 feet of the lot for which they are provided; and (iii) off-site parking facilities may be provided pursuant to leases of existing parking spaces for at least a twenty-year term, in order to provide the parking required by this Specific Plan, and these leased spaces may be shared parking operated or maintained by more than one owner or lessee.¹⁵²

Since the Addendum does not request an exception from this particular provision, the Revised Project must comply with it. It should be noted that the Specific Plan provides that whenever it contains more stringent provisions than the LAMC, the Specific Plan shall prevail and supersede the applicable provisions of the Code.¹⁵³ The applicable provision of the Code is LAMC Section 12.21 A.3(x)(3), which requires providing two parking spaces per 1000 square feet of floor area.

III. CONCLUSION

The City has failed to satisfy CEQA's procedural and evidentiary standards for the preparation of an addendum. As explained above, the Addendum fails to

¹⁵¹ Specific Plan, Section 9.E.3 [emphasis added].

¹⁵² Specific Plan, Section 9.E.4 [emphasis added].

¹⁵³ Specific Plan, Section 3.B.

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adequately analyze and mitigate the Revised Project's noise, air quality, GHG, and public health impacts. For these reasons, we urge the City to prepare a subsequent or supplemental EIR for the Project before the City considers approval of the Revised Project. We thank you for the opportunity to provide these comments on the Addendum.

Sincerely,



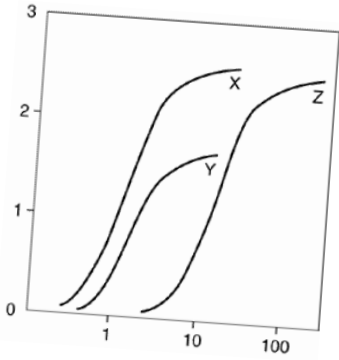
Aidan P. Marshall

APM:acp

Attachment

L5740-003acp

EXHIBIT A



Clark & Associates
Environmental Consulting, Inc.

OFFICE
12405 Venice Blvd
Suite 331
Los Angeles, CA 90066

PHONE
310-907-6165

FAX
310-398-7626

EMAIL
jclark.assoc@gmail.com

October 18, 2021

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Attn: Mr. Aidan P. Marshall

Subject: Comments On Hollywood Presbyterian Medical Center (HPMC) Building Project, 1318 North Lyman Place, Los Angeles, CA 90027.

Dear Mr. Marshall:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the 2021 Addendum to the City of Los Angeles Initial Study/Mitigated Negative Declaration (IS/MND) of the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the plan. If we do not comment on a specific item this does not constitute acceptance of the item.

Project Description:

The original Project included the demolition of two maintenance facilities, a single-family residence and a surface parking lot for construction of a parking structure containing 654 automobile parking spaces in 7 levels, consisting of 3 subterranean parking levels and 4 aboveground levels, with an additional level of parking on the roof deck ("Approved Project"). When completed the parking structure will contain 562 automobile parking spaces in a 7 level structure, consisting of 2 subterranean parking levels and 5 aboveground levels, with no roof deck. The Revised Project includes the addition of three levels of medical office space, containing approximately 95,995 square feet of floor space, on top of the parking structure. The Revised Project would increase the height of the building to approximately 94 feet above

ground level. Construction of the Revised Project would begin in September 2021 and is expected to be completed by August 2023.

Specific Comments:

1. The City's Air Quality Analysis Underestimates Emissions and Omits Relevant Emissions Input Data.

The Air Quality Analysis of the Revised Project utilized the California Air Pollution Officers Association's (CAPCOA) CalEEMod, Version 2016.3.2 was used to quantify construction-related and operational emissions.¹ However, on June 1, 2021, the CAPCOA posted the release of the latest version of CalEEMOD, Version 2020.4.0. The updates to the model include additional analysis and emissions factors which were added to ensure compliance with recent changes in law:

1. Incorporation of the latest EMFAC2017 data from CARB (<https://www.arb.ca.gov/emfac/2017/>).
2. Addition of CARB's EMFAC2017 N2O emissions.
3. Inclusion of the 2019 update to Title 24 (building efficiency % reduction, see <http://www.energy.ca.gov/title24/2019standards/index.html>).
4. Incorporation of the ITE 10th edition trip rate data for land uses previously programmed into the model.
5. Utility Intensity Factors for greenhouse gases were updated.

The updates in version 2020.4.0 provide a higher level of accuracy regarding emission estimates for the project impacts compared to older versions of the CalEEMOD model. The City must re-run the CalEEMOD analyses and present them in an environmental impact report (EIR) in order to ensure that all elements of the air quality analyses required by current laws are performed for the project.

¹ Meridian Consultants. Air Quality Study For The HPMC Building Project. Prepared For CHA Property Holdings, LP. Prepared by Meridian Consultants. April, 2020.

2. The Air Quality Analysis For The Original Parking Lot Project Calculated An Annual Operational GHG Emission Level Of Less Than 1,000 MT CO_{2eq} Per Year. The Revised Project Will Triple The GHG Emissions For The Project And Will Cause An Exceedance Of The GHG Significance Threshold.

In the original IS/MND for the parking lot project, the City calculated a total operational emission level of greenhouses gases (GHG MT CO_{2eq}) of 976.95 metric tons of CO₂ equivalent (MT CO_{2eq}) per year. This estimate includes 20.62 MT CO_{2eq} of construction emissions that should be added to the new project for 25 years as a measure of the total impact of the project.

**Table 4.7-2
Proposed Project Operational Greenhouse Gas Emissions**

Emissions Source	Project without GHG Reduction Measures (MTCO _{2e} /year)
Construction (amortized)	20.62
Operational (mobile) sources*	0.00
Area sources	0.02
Energy	956.33
Waste	0.00
Water	0.00
Annual Total	976.95

Source: CalEEMod (2015).

Notes: Emissions calculations are provided in Appendix A, Air Emissions Modeling. Totals in table may not appear to add exactly due to rounding in the computer model calculations. MTCO_{2e} = metric tons of carbon dioxide emissions.

The emissions of the Project represent the net difference between the existing greenhouse-generated uses that would be removed and the Project greenhouse gas emissions.

* N₂O emissions account for 0.023 MTCO_{2e} per year; Project implementation will not result in any additional mobile sources in the area.

Using the same conditions outlined by the City in their Air Quality Analysis, the GHG emission for the Revised Project are attached as Appendix B to this letter. It is clear that the GHG emissions from the Project will more than triple over the original Project's estimates and presents a significant issue under the CEQA analysis process. While the SCAQMD has not adopted a formal significance threshold for GHG for non-industrial projects, the generally accepted thresholds for residential, mixed use, and commercial projects (Tier 3 value) from SCAQMD is 3,000 MT CO_{2eq}.²

² SCAQMD. 2009. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #14. November 19, 2009. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1309	1.0674	0.9958	1.8900e-003	0.0354	0.0522	0.0876	9.4900e-003	0.0494	0.0589	0.0000	164.0181	164.0181	0.0281	0.0000	164.7209
2022	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9081	501.9081	0.0611	0.0000	503.4353
2023	0.1958	1.3808	1.7487	3.4000e-003	0.0885	0.0614	0.1499	0.0237	0.0591	0.0828	0.0000	292.4477	292.4477	0.0340	0.0000	293.2972
Maximum	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9081	501.9081	0.0611	0.0000	503.4353

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3953	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Energy	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	800.7022	800.7022	0.0187	4.6800e-003	802.5634
Mobile	0.4513	2.0096	5.6911	0.0210	1.7620	0.0160	1.7781	0.4723	0.0149	0.4872	0.0000	1,937.4753	1,937.4753	0.0972	0.0000	1,939.9052
Waste						0.0000	0.0000		0.0000	0.0000	225.3240	0.0000	225.3240	13.3163	0.0000	558.2307
Water						0.0000	0.0000		0.0000	0.0000	3.2733	89.0981	92.3714	0.3383	8.3700e-003	103.3243
Total	0.8524	2.0621	5.7365	0.0213	1.7620	0.0200	1.7821	0.4723	0.0189	0.4912	228.5973	2,827.2782	3,055.8755	13.7704	0.013	3,404.0263

Emission Source	GHG Emissions (MT CO ₂ eq)
Construction (amortized)*	(20.62 + 16.78 = 37.40)
Operational (mobile) sources	1,939.9052
Area sources	2.72E-03
Energy	802.5634
Waste	558.2307

Emission Source	GHG Emissions (MT CO _{2eq})
Water	103.3243
Annual Total	3,441.43

Note: * - 20.62 MT CO_{2eq} per year carried over from original Project for next 25 years.

The City must address this significant increase in GHG emissions in an EIR for the project to assess the necessary mitigation measures that will be required to reduce the operational emissions below the significance threshold.

3. The City’s Analysis Of Emissions Does Not Consider The Impact From The Back Up Generator (BUG) That Will Need To Be Installed On-Site.

The City’s air quality analysis does not consider the impact from the back-up generator (BUG) that will need to be installed on-site. BUGs are necessary for medical centers to ensure that operations can be maintained during emergency situations. According to SCAQMD Rules 1110.2, 1470, BUGs are allowed to operate for up to 200 hours per year and maintenance cannot exceed more than 50 hours per year. The City’s analysis clearly fails to assess the amount of toxic air contaminants (TACs) that will be released from the Project. Diesel exhaust from BUGs are well recognized as TACs. The City has therefore failed to properly measure the potential impact of DPM emissions from the BUG on the receptors nearby.

In addition, the IS/MND ignores the substantial increase in operational emissions from BUGs in the Air Basin due to unscheduled events, including but not limited to Public Safety Power Shutoff (PSPS) events and extreme heat events. Extreme heat events are defined as periods where in the temperatures throughout California exceed 100 degrees Fahrenheit.³ From January, 2019 through

³ Governor of California. 2021. Proclamation of a state of emergency. June 17, 2021.

December, 2019, Southern California Edison reported 158 of their circuits underwent a PSP event⁴. In Los Angeles County, two circuits had 4 PSPS events during that period, lasting an average of 35 to 38 hours. The total duration of the PSPS events lasted between 141 hours to 154 hours in 2019. In 2021, the Governor Of California declared that during extreme heat events the use of stationary generators shall be deemed an emergency use under California Code of Regulations (CCR), title 17, section 93115.4 sub. (a) (30) (A)(2). The number of Extreme Heat Events is likely to increase in California with the continuing change in climate the State is currently undergoing.

Power produced during PSPS or extreme heat events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts).⁵ Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury.

According to the California Public Utilities Commission (CPUC) de-energization report⁶ in October 2019, there were almost **806 PSPS events** (emphasis added) that impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. CARB's data also indicated that on average each of these customers had about 43 hours of power outage in October 2019.⁷ Using the actual emission factors for each diesel BUG engines in the air district's stationary BUGs database, CARB staff calculated that the 1,810 additional stationary running during a PSPS in October 2019 generated 126 tons of NOx, 8.3 tons or particulate matter, and 8.3 tons of DPM.

⁴ SCAQMD. 2020. Proposed Amendment To Rules (PARS) 1110.2, 1470, and 1472. Dated December 10, 2020. http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2_1470_1472/par1110-2_1470_wgm_121020.pdf?sfvrsn=6.

⁵ CARB. 2019. Use of Back-up Engines For Electricity Generation During Public Safety Power Shutoff Events. October 25, 2019.

⁶ <https://www.cpuc.ca.gov/deenergization/> as cited in CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

⁷ CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

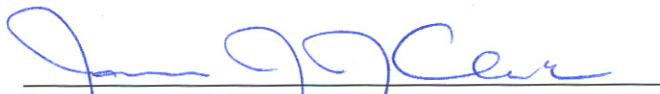
For every PSPS or Extreme Heat Event (EHE) triggered during the operational phase of the project, significant concentrations of DPM will be released that are not accounted for in the City's analysis. In 2021, two EHEs have been declared so far. For the June 17, 2021 Extreme Heat Event, the period for which stationary generator owners were allowed to use their BUGs lasted 48 hours. For the July 9, 2021 EHE, the period for which stationary generator owners were allowed to use their BUGs lasted 72 hours. These two events would have tripled the calculated DPM emissions from the Project for the year if the project had been completed.

An EIR must be prepared that includes an analysis of the additional operation of the BUG that will occur at the project site that is not accounted for in the current air quality analysis.

Conclusion

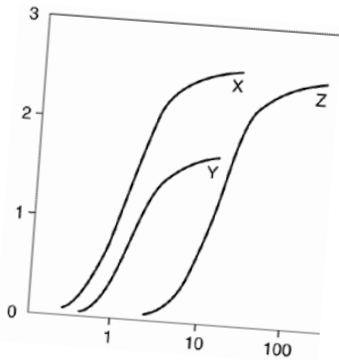
The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant unmitigated impacts if the addendum to the IS/MND is approved. The City must re-evaluate the significant impacts identified in this letter by requiring the preparation of a draft environmental impact report.

Sincerely,



JAMES J. J. CLARK, Ph.D.

Attachment A: CV



Clark & Associates
Environmental Consulting, Inc

Office
12405 Venice Blvd.
Suite 331
Los Angeles, CA 90066

Phone
310-907-6165

Fax
310-398-7626

Email
jclark.assoc@gmail.com

James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well-recognized toxicologist, air modeler, and health scientist. He has 30 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling, RESRAD, GENII); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: Pamela Butler Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01701 United States District Court Eastern District of Missouri Eastern Division

Case: Kenneth Edward Koterba Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01702 United States District Court Eastern District of Missouri Eastern Division

Case: Anthony Hines Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01703 United States District Court Eastern District of Missouri Eastern Division

Case: Emery David Walick, III Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01704 United States District Court Eastern District of Missouri Eastern Division

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Trial Pending

Case: Don Strong, et al. vs. Republic Services, Inc., Bridgeton Landfill, LLC, vs. Cotter Corporation, N.S.L., Case No.: 17SL-CC01632-01 Circuit Court of St. Louis County, State of Missouri, Division 17

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members from radiologically impacted material (RIM) releases from the adjacent West Lake Landfill. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Settlement in favor of plaintiff.

Case: Arnold Goldstein, Hohn Covas, Gisela Janette La Bella, et al.. vs. Exxon Mobil Corporation, PBF Energy Inc., Torrance Refining Company LLC, et al., Case No.: 2:17-cv-02477DSF United States District Court for the Central District of California

Client: Sher Edlging, LLP, San Francisco, California and Matern Law Group , PC., El Segundo, California

Dr. Clark performed a historical dose reconstruction for community members from an active 700 acre petroleum refinery in Los Angeles. The analysis included a multi-year dispersion model was performed in general accordance with the methods outlined by the U.S. EPA and the SCAQMD for assessing the health impacts in Torrance, California. The results of the analysis are being used as the basis for injunctive relief for the communities surrounding the refinery.

Case Result: Trial Pending

**Case: Scott D. McClurg, et al. v. Mallinckrodt Inc. and Cotter Corporation.
Lead Case No.: 4:12CV00361 AGF United States District Court Eastern District
of Missouri Eastern Division**

Client: Environmental Law Group, Birmingham, AL.

Dr. Clark performed a historical dose reconstruction for community members and workers exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis included the incorporation of air dispersion modeling across the community to determine ground-level air concentrations and deposition of thorium and uranium isotopes and their respective daughter products. The dose reconstruction considered all relevant pathways to determine total doses of radiation received across the community from 1946 through 2017.

Case Result: Settlement in favor of plaintiff.

**Case: Mary Ann Piccolo V. Headwaters Incorporated, et al. Seventh Judicial
Court In and For Carbon County, State of Utah. Case No. 130700053**

Client: Law Offices of Roy L. Mason. Annapolis, MD

Dr. Clark performed a dose assessment of an individual occupationally exposed to metals and silica from fly ash who later developed cancer. A review of the individual's medical and occupational history was performed to prepare opinions regarding his exposure and later development of cancer.

Case Result: Settlement in favor of plaintiff.

Case: Tracey Coleman V. Headwaters Incorporated, et al. Seventh Judicial Court In and For Carbon County, State of Utah. Case No. 140902847

Client: Law Offices of Roy L. Mason. Annapolis, MD

Dr. Clark performed a dose assessment of an individual occupationally exposed to metals and silica from fly ash who later developed cancer. A review of the individual's medical and occupational history was performed to prepare opinions regarding his exposure and later development of cancer.

Case Result: Settlement in favor of plaintiff.

Case: David Dominguez and Amanda Dominguez V. Cytec Industries, Inc et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. BC533123

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to hexavalent chromium who later developed cancer. A review of the individual's medical and occupational history was performed to prepare opinions regarding her exposure and later development of cancer.

Case Result: Settlement in favor of plaintiff.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client(s) – Multiple

Indoor Air Evaluations, California: Performed multiple indoor air screening evaluations and risk characterizations consistent with California Environmental Protection Agency's (Cal/EPA) Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) methodologies. Characterizations included the use of DTSC's modified Johnson & Ettinger Model and USEPA models, as well as the attenuation factor model currently advocated by Cal/EPA's Office of Environmental Health and Hazard Assessment (OEHHA).

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model were used to estimate acute and chronic exposure concentrations to multiple contaminants and were incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark managed the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Imminent and Substantial Endangerment Order. Dr. Clark assisted the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)

Association for Environmental Health and Sciences (AEHS)

American Chemical Society (ACS)

International Society of Environmental Forensics (ISEF)

Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark**, F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment*. Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment*. Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

- Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, Volume 70 (2008) page 002254.
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Attachment B: CalEEMOD Analysis

HPMC Parking Lot - Los Angeles-South Coast County, Annual

HPMC Parking Lot
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	102.78	1000sqft	2.36	102,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

HPMC Parking Lot - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Addition of 3 stories of medical suites to existing parking structure.

Construction Phase - Building Schedule Per MND

Off-road Equipment - Assumed use of one 100-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Trips and VMT - Maximum of 80 workers anticipated in the peak time

Vehicle Trips - Weekday trip rates adjusted per traffic study. Weekend trip rates adjusted per CalEEMod default weekday/weekend ratios

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emission standards.

Area Mitigation - Compliant with SCAQMD Rule 1113 - Architectural Coatings (<50 gms/Liter)

Water Mitigation -

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Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstructionPhase	NumDays	220.00	308.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	PhaseEndDate	10/25/2022	9/8/2023
tblConstructionPhase	PhaseEndDate	11/10/2021	11/1/2021
tblConstructionPhase	PhaseStartDate	10/12/2022	7/6/2022
tblConstructionPhase	PhaseStartDate	10/14/2021	9/1/2021
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	HorsePower	231.00	375.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblVehicleTrips	ST_TR	8.96	5.71
tblVehicleTrips	SU_TR	1.55	0.99
tblVehicleTrips	WD_TR	36.13	23.04

2.0 Emissions Summary

HPMC Parking Lot - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1309	1.0674	0.9958	1.8900e-003	0.0354	0.0522	0.0876	9.4900e-003	0.0494	0.0589	0.0000	164.0182	164.0182	0.0281	0.0000	164.7210
2022	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9085	501.9085	0.0611	0.0000	503.4356
2023	0.1958	1.3808	1.7487	3.4000e-003	0.0885	0.0614	0.1499	0.0237	0.0591	0.0828	0.0000	292.4479	292.4479	0.0340	0.0000	293.2974
Maximum	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9085	501.9085	0.0611	0.0000	503.4356

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1309	1.0674	0.9958	1.8900e-003	0.0354	0.0522	0.0876	9.4900e-003	0.0494	0.0589	0.0000	164.0181	164.0181	0.0281	0.0000	164.7209
2022	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9081	501.9081	0.0611	0.0000	503.4353
2023	0.1958	1.3808	1.7487	3.4000e-003	0.0885	0.0614	0.1499	0.0237	0.0591	0.0828	0.0000	292.4477	292.4477	0.0340	0.0000	293.2972
Maximum	0.3585	2.5422	2.9944	5.8300e-003	0.1574	0.1176	0.2750	0.0422	0.1129	0.1551	0.0000	501.9081	501.9081	0.0611	0.0000	503.4353

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-14-2021	1-13-2022	0.6255	0.6255
2	1-14-2022	4-13-2022	0.5618	0.5618
3	4-14-2022	7-13-2022	0.6208	0.6208
4	7-14-2022	10-13-2022	1.0990	1.0990
5	10-14-2022	1-13-2023	0.6202	0.6202
6	1-14-2023	4-13-2023	0.5632	0.5632
7	4-14-2023	7-13-2023	0.5679	0.5679
8	7-14-2023	9-30-2023	0.3557	0.3557
		Highest	1.0990	1.0990

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4192	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Energy	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	800.7022	800.7022	0.0187	4.6800e-003	802.5634
Mobile	0.4513	2.0096	5.6911	0.0210	1.7620	0.0160	1.7781	0.4723	0.0149	0.4872	0.0000	1,937.4753	1,937.4753	0.0972	0.0000	1,939.9052
Waste						0.0000	0.0000		0.0000	0.0000	225.3240	0.0000	225.3240	13.3163	0.0000	558.2307
Water						0.0000	0.0000		0.0000	0.0000	4.0916	108.7315	112.8231	0.4228	0.0105	126.5088
Total	0.8762	2.0621	5.7365	0.0213	1.7620	0.0200	1.7821	0.4723	0.0189	0.4912	229.4156	2,846.9116	3,076.3272	13.8550	0.0151	3,427.2108

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3953	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Energy	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	800.7022	800.7022	0.0187	4.6800e-003	802.5634
Mobile	0.4513	2.0096	5.6911	0.0210	1.7620	0.0160	1.7781	0.4723	0.0149	0.4872	0.0000	1,937.4753	1,937.4753	0.0972	0.0000	1,939.9052
Waste						0.0000	0.0000		0.0000	0.0000	225.3240	0.0000	225.3240	13.3163	0.0000	558.2307
Water						0.0000	0.0000		0.0000	0.0000	3.2733	89.0981	92.3714	0.3383	8.3700e-003	103.3243
Total	0.8524	2.0621	5.7365	0.0213	1.7620	0.0200	1.7821	0.4723	0.0189	0.4912	228.5973	2,827.2782	3,055.8755	13.7704	0.0131	3,404.0263

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.69	0.66	0.61	13.75	0.68

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Steel Structure	Building Construction	9/1/2021	11/1/2021	5	44	
2	Building Construction	Building Construction	11/24/2021	9/27/2022	5	220	
3	Build-Out	Building Construction	7/6/2022	9/8/2023	5	308	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Build-Out	Air Compressors	1	6.00	78	0.48
Steel Structure	Cranes	1	8.00	375	0.29
Steel Structure	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	130	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Build-Out	Cranes	1	8.00	130	0.29
Steel Structure	Forklifts	2	7.00	89	0.20
Build-Out	Forklifts	2	7.00	89	0.20
Steel Structure	Rubber Tired Dozers	1	8.00	247	0.40
Steel Structure	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Build-Out	Generator Sets	1	8.00	84	0.74
Build-Out	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Welders	3	8.00	46	0.45
Build-Out	Welders	3	8.00	46	0.45
Building Construction	Welders	3	8.00	46	0.45

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Steel Structure	12	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Build-Out	9	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Steel Structure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	0.7932	0.6616	1.1100e-003		0.0406	0.0406		0.0383	0.0383	0.0000	94.4699	94.4699	0.0216	0.0000	95.0106
Total	0.0891	0.7932	0.6616	1.1100e-003		0.0406	0.0406		0.0383	0.0383	0.0000	94.4699	94.4699	0.0216	0.0000	95.0106

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3.2 Steel Structure - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1600e-003	0.0369	0.0100	1.0000e-004	2.3600e-003	8.0000e-005	2.4300e-003	6.8000e-004	7.0000e-005	7.5000e-004	0.0000	9.2190	9.2190	5.7000e-004	0.0000	9.2331
Worker	7.5700e-003	5.9000e-003	0.0666	1.9000e-004	0.0193	1.6000e-004	0.0195	5.1200e-003	1.5000e-004	5.2700e-003	0.0000	17.4049	17.4049	5.1000e-004	0.0000	17.4177
Total	8.7300e-003	0.0428	0.0766	2.9000e-004	0.0217	2.4000e-004	0.0219	5.8000e-003	2.2000e-004	6.0200e-003	0.0000	26.6239	26.6239	1.0800e-003	0.0000	26.6509

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	0.7932	0.6616	1.1100e-003		0.0406	0.0406		0.0383	0.0383	0.0000	94.4698	94.4698	0.0216	0.0000	95.0104
Total	0.0891	0.7932	0.6616	1.1100e-003		0.0406	0.0406		0.0383	0.0383	0.0000	94.4698	94.4698	0.0216	0.0000	95.0104

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3.2 Steel Structure - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1600e-003	0.0369	0.0100	1.0000e-004	2.3600e-003	8.0000e-005	2.4300e-003	6.8000e-004	7.0000e-005	7.5000e-004	0.0000	9.2190	9.2190	5.7000e-004	0.0000	9.2331
Worker	7.5700e-003	5.9000e-003	0.0666	1.9000e-004	0.0193	1.6000e-004	0.0195	5.1200e-003	1.5000e-004	5.2700e-003	0.0000	17.4049	17.4049	5.1000e-004	0.0000	17.4177
Total	8.7300e-003	0.0428	0.0766	2.9000e-004	0.0217	2.4000e-004	0.0219	5.8000e-003	2.2000e-004	6.0200e-003	0.0000	26.6239	26.6239	1.0800e-003	0.0000	26.6509

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2041	0.2089	3.2000e-004		0.0112	0.0112		0.0108	0.0108	0.0000	25.9820	25.9820	4.7200e-003	0.0000	26.1000
Total	0.0275	0.2041	0.2089	3.2000e-004		0.0112	0.0112		0.0108	0.0108	0.0000	25.9820	25.9820	4.7200e-003	0.0000	26.1000

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3.3 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4000e-004	0.0235	6.3700e-003	6.0000e-005	1.5000e-003	5.0000e-005	1.5500e-003	4.3000e-004	5.0000e-005	4.8000e-004	0.0000	5.8666	5.8666	3.6000e-004	0.0000	5.8756
Worker	4.8200e-003	3.7500e-003	0.0424	1.2000e-004	0.0123	1.0000e-004	0.0124	3.2600e-003	9.0000e-005	3.3500e-003	0.0000	11.0759	11.0759	3.3000e-004	0.0000	11.0840
Total	5.5600e-003	0.0272	0.0487	1.8000e-004	0.0138	1.5000e-004	0.0139	3.6900e-003	1.4000e-004	3.8300e-003	0.0000	16.9425	16.9425	6.9000e-004	0.0000	16.9596

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2041	0.2089	3.2000e-004		0.0112	0.0112		0.0108	0.0108	0.0000	25.9819	25.9819	4.7200e-003	0.0000	26.0999
Total	0.0275	0.2041	0.2089	3.2000e-004		0.0112	0.0112		0.0108	0.0108	0.0000	25.9819	25.9819	4.7200e-003	0.0000	26.0999

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3.3 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4000e-004	0.0235	6.3700e-003	6.0000e-005	1.5000e-003	5.0000e-005	1.5500e-003	4.3000e-004	5.0000e-005	4.8000e-004	0.0000	5.8666	5.8666	3.6000e-004	0.0000	5.8756
Worker	4.8200e-003	3.7500e-003	0.0424	1.2000e-004	0.0123	1.0000e-004	0.0124	3.2600e-003	9.0000e-005	3.3500e-003	0.0000	11.0759	11.0759	3.3000e-004	0.0000	11.0840
Total	5.5600e-003	0.0272	0.0487	1.8000e-004	0.0138	1.5000e-004	0.0139	3.6900e-003	1.4000e-004	3.8300e-003	0.0000	16.9425	16.9425	6.9000e-004	0.0000	16.9596

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.2950	1.4181	2.1600e-003		0.0665	0.0665		0.0637	0.0637	0.0000	178.1866	178.1866	0.0316	0.0000	178.9769
Total	0.1715	1.2950	1.4181	2.1600e-003		0.0665	0.0665		0.0637	0.0637	0.0000	178.1866	178.1866	0.0316	0.0000	178.9769

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3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7600e-003	0.1530	0.0413	4.1000e-004	0.0103	2.9000e-004	0.0106	2.9700e-003	2.7000e-004	3.2400e-003	0.0000	39.8749	39.8749	2.3800e-003	0.0000	39.9345
Worker	0.0310	0.0232	0.2676	8.1000e-004	0.0842	6.7000e-004	0.0848	0.0224	6.2000e-004	0.0230	0.0000	73.2791	73.2791	2.0200e-003	0.0000	73.3295
Total	0.0358	0.1763	0.3089	1.2200e-003	0.0944	9.6000e-004	0.0954	0.0253	8.9000e-004	0.0262	0.0000	113.1540	113.1540	4.4000e-003	0.0000	113.2640

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.2950	1.4181	2.1600e-003		0.0665	0.0665		0.0637	0.0637	0.0000	178.1864	178.1864	0.0316	0.0000	178.9767
Total	0.1715	1.2950	1.4181	2.1600e-003		0.0665	0.0665		0.0637	0.0637	0.0000	178.1864	178.1864	0.0316	0.0000	178.9767

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3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7600e-003	0.1530	0.0413	4.1000e-004	0.0103	2.9000e-004	0.0106	2.9700e-003	2.7000e-004	3.2400e-003	0.0000	39.8749	39.8749	2.3800e-003	0.0000	39.9345
Worker	0.0310	0.0232	0.2676	8.1000e-004	0.0842	6.7000e-004	0.0848	0.0224	6.2000e-004	0.0230	0.0000	73.2791	73.2791	2.0200e-003	0.0000	73.3295
Total	0.0358	0.1763	0.3089	1.2200e-003	0.0944	9.6000e-004	0.0954	0.0253	8.9000e-004	0.0262	0.0000	113.1540	113.1540	4.4000e-003	0.0000	113.2640

3.4 Build-Out - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1274	0.9535	1.0615	1.6300e-003		0.0495	0.0495		0.0477	0.0477	0.0000	135.1319	135.1319	0.0221	0.0000	135.6854
Total	0.1274	0.9535	1.0615	1.6300e-003		0.0495	0.0495		0.0477	0.0477	0.0000	135.1319	135.1319	0.0221	0.0000	135.6854

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3.4 Build-Out - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1700e-003	0.1020	0.0275	2.7000e-004	6.8500e-003	1.9000e-004	7.0400e-003	1.9800e-003	1.8000e-004	2.1600e-003	0.0000	26.5833	26.5833	1.5900e-003	0.0000	26.6230
Worker	0.0207	0.0155	0.1784	5.4000e-004	0.0561	4.5000e-004	0.0566	0.0149	4.1000e-004	0.0153	0.0000	48.8527	48.8527	1.3500e-003	0.0000	48.8864
Total	0.0238	0.1175	0.2059	8.1000e-004	0.0630	6.4000e-004	0.0636	0.0169	5.9000e-004	0.0175	0.0000	75.4360	75.4360	2.9400e-003	0.0000	75.5093

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1274	0.9535	1.0615	1.6300e-003		0.0495	0.0495		0.0477	0.0477	0.0000	135.1317	135.1317	0.0221	0.0000	135.6852
Total	0.1274	0.9535	1.0615	1.6300e-003		0.0495	0.0495		0.0477	0.0477	0.0000	135.1317	135.1317	0.0221	0.0000	135.6852

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3.4 Build-Out - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1700e-003	0.1020	0.0275	2.7000e-004	6.8500e-003	1.9000e-004	7.0400e-003	1.9800e-003	1.8000e-004	2.1600e-003	0.0000	26.5833	26.5833	1.5900e-003	0.0000	26.6230
Worker	0.0207	0.0155	0.1784	5.4000e-004	0.0561	4.5000e-004	0.0566	0.0149	4.1000e-004	0.0153	0.0000	48.8527	48.8527	1.3500e-003	0.0000	48.8864
Total	0.0238	0.1175	0.2059	8.1000e-004	0.0630	6.4000e-004	0.0636	0.0169	5.9000e-004	0.0175	0.0000	75.4360	75.4360	2.9400e-003	0.0000	75.5093

3.4 Build-Out - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1652	1.2527	1.4832	2.2900e-003		0.0606	0.0606		0.0584	0.0584	0.0000	190.0503	190.0503	0.0303	0.0000	190.8078
Total	0.1652	1.2527	1.4832	2.2900e-003		0.0606	0.0606		0.0584	0.0584	0.0000	190.0503	190.0503	0.0303	0.0000	190.8078

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3.4 Build-Out - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.1084	0.0348	3.7000e-004	9.6400e-003	1.3000e-004	9.7600e-003	2.7800e-003	1.2000e-004	2.9000e-003	0.0000	36.2124	36.2124	1.9700e-003	0.0000	36.2617
Worker	0.0273	0.0197	0.2307	7.3000e-004	0.0789	6.1000e-004	0.0795	0.0210	5.6000e-004	0.0215	0.0000	66.1852	66.1852	1.7000e-003	0.0000	66.2278
Total	0.0306	0.1281	0.2654	1.1000e-003	0.0885	7.4000e-004	0.0893	0.0237	6.8000e-004	0.0244	0.0000	102.3977	102.3977	3.6700e-003	0.0000	102.4896

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1652	1.2527	1.4832	2.2900e-003		0.0606	0.0606		0.0584	0.0584	0.0000	190.0500	190.0500	0.0303	0.0000	190.8076
Total	0.1652	1.2527	1.4832	2.2900e-003		0.0606	0.0606		0.0584	0.0584	0.0000	190.0500	190.0500	0.0303	0.0000	190.8076

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3.4 Build-Out - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.1084	0.0348	3.7000e-004	9.6400e-003	1.3000e-004	9.7600e-003	2.7800e-003	1.2000e-004	2.9000e-003	0.0000	36.2124	36.2124	1.9700e-003	0.0000	36.2617
Worker	0.0273	0.0197	0.2307	7.3000e-004	0.0789	6.1000e-004	0.0795	0.0210	5.6000e-004	0.0215	0.0000	66.1852	66.1852	1.7000e-003	0.0000	66.2278
Total	0.0306	0.1281	0.2654	1.1000e-003	0.0885	7.4000e-004	0.0893	0.0237	6.8000e-004	0.0244	0.0000	102.3977	102.3977	3.6700e-003	0.0000	102.4896

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4513	2.0096	5.6911	0.0210	1.7620	0.0160	1.7781	0.4723	0.0149	0.4872	0.0000	1,937.475 3	1,937.475 3	0.0972	0.0000	1,939.905 2
Unmitigated	0.4513	2.0096	5.6911	0.0210	1.7620	0.0160	1.7781	0.4723	0.0149	0.4872	0.0000	1,937.475 3	1,937.475 3	0.0972	0.0000	1,939.905 2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	2,368.05	586.87	101.75	4,642,593	4,642,593
Total	2,368.05	586.87	101.75	4,642,593	4,642,593

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	743.6061	743.6061	0.0176	3.6300e-003	745.1280
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	743.6061	743.6061	0.0176	3.6300e-003	745.1280
NaturalGas Mitigated	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354
NaturalGas Unmitigated	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Medical Office Building	1.06994e+006	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354
Total		5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Medical Office Building	1.06994e+006	5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354
Total		5.7700e-003	0.0525	0.0441	3.1000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	57.0961	57.0961	1.0900e-003	1.0500e-003	57.4354

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	1.33511e+006	743.6061	0.0176	3.6300e-003	745.1280
Total		743.6061	0.0176	3.6300e-003	745.1280

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	1.33511e+006	743.6061	0.0176	3.6300e-003	745.1280
Total		743.6061	0.0176	3.6300e-003	745.1280

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3953	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Unmitigated	0.4192	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3714					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Total	0.4192	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3714					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Total	0.3953	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

HPMC Parking Lot - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	92.3714	0.3383	8.3700e-003	103.3243
Unmitigated	112.8231	0.4228	0.0105	126.5088

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	12.8969 / 2.45655	112.8231	0.4228	0.0105	126.5088
Total		112.8231	0.4228	0.0105	126.5088

HPMC Parking Lot - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	10.3175 / 2.3067	92.3714	0.3383	8.3700e-003	103.3243
Total		92.3714	0.3383	8.3700e-003	103.3243

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	225.3240	13.3163	0.0000	558.2307
Unmitigated	225.3240	13.3163	0.0000	558.2307

HPMC Parking Lot - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	1110.02	225.3240	13.3163	0.0000	558.2307
Total		225.3240	13.3163	0.0000	558.2307

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	1110.02	225.3240	13.3163	0.0000	558.2307
Total		225.3240	13.3163	0.0000	558.2307

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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HPMC Parking Lot - Los Angeles-South Coast County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

HPMC Parking Lot - Los Angeles-South Coast County, Summer

HPMC Parking Lot
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	102.78	1000sqft	2.36	102,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

HPMC Parking Lot - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Addition of 3 stories of medical suites to existing parking structure.

Construction Phase - Building Schedule Per MND

Off-road Equipment - Assumed use of one 100-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Trips and VMT - Maximum of 80 workers anticipated in the peak time

Vehicle Trips - Weekday trip rates adjusted per traffic study. Weekend trip rates adjusted per CalEEMod default weekday/weekend ratios

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emission standards.

Area Mitigation - Compliant with SCAQMD Rule 1113 - Architectural Coatings (<50 gms/Liter)

Water Mitigation -

HPMC Parking Lot - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstructionPhase	NumDays	220.00	308.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	PhaseEndDate	10/25/2022	9/8/2023
tblConstructionPhase	PhaseEndDate	11/10/2021	11/1/2021
tblConstructionPhase	PhaseStartDate	10/12/2022	7/6/2022
tblConstructionPhase	PhaseStartDate	10/14/2021	9/1/2021
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	HorsePower	231.00	375.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblVehicleTrips	ST_TR	8.96	5.71
tblVehicleTrips	SU_TR	1.55	0.99
tblVehicleTrips	WD_TR	36.13	23.04

2.0 Emissions Summary

HPMC Parking Lot - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4458	37.9420	33.7271	0.0639	1.0031	1.8537	2.8568	0.2685	1.7506	2.0191	0.0000	6,111.731 3	6,111.731 3	1.1380	0.0000	6,140.181 9
2022	4.5164	31.9527	38.1191	0.0743	2.0061	1.4860	3.4920	0.5370	1.4280	1.9650	0.0000	7,057.863 1	7,057.863 1	0.8460	0.0000	7,079.012 9
2023	2.1729	15.3022	19.5868	0.0382	1.0031	0.6820	1.6851	0.2685	0.6567	0.9251	0.0000	3,623.145 3	3,623.145 3	0.4166	0.0000	3,633.559 8
Maximum	4.5164	37.9420	38.1191	0.0743	2.0061	1.8537	3.4920	0.5370	1.7506	2.0191	0.0000	7,057.863 1	7,057.863 1	1.1380	0.0000	7,079.012 9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4458	37.9420	33.7271	0.0639	1.0031	1.8537	2.8568	0.2685	1.7506	2.0191	0.0000	6,111.731 2	6,111.731 2	1.1380	0.0000	6,140.181 9
2022	4.5164	31.9527	38.1191	0.0743	2.0061	1.4860	3.4920	0.5370	1.4280	1.9650	0.0000	7,057.863 1	7,057.863 1	0.8460	0.0000	7,079.012 9
2023	2.1729	15.3022	19.5868	0.0382	1.0031	0.6820	1.6851	0.2685	0.6567	0.9251	0.0000	3,623.145 3	3,623.145 3	0.4166	0.0000	3,633.559 8
Maximum	4.5164	37.9420	38.1191	0.0743	2.0061	1.8537	3.4920	0.5370	1.7506	2.0191	0.0000	7,057.863 1	7,057.863 1	1.1380	0.0000	7,079.012 9

HPMC Parking Lot - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2971	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.4810	14.0818	42.7326	0.1579	13.0613	0.1164	13.1778	3.4953	0.1083	3.6036		16,083.2209	16,083.2209	0.7826		16,102.7848
Total	5.8097	14.3693	42.9845	0.1596	13.0613	0.1383	13.1997	3.4953	0.1302	3.6255		16,428.1072	16,428.1072	0.7892	6.3200e-003	16,449.7218

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.4810	14.0818	42.7326	0.1579	13.0613	0.1164	13.1778	3.4953	0.1083	3.6036		16,083.2209	16,083.2209	0.7826		16,102.7848
Total	5.6792	14.3693	42.9845	0.1596	13.0613	0.1383	13.1997	3.4953	0.1302	3.6255		16,428.1072	16,428.1072	0.7892	6.3200e-003	16,449.7218

HPMC Parking Lot - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Steel Structure	Building Construction	9/1/2021	11/1/2021	5	44	
2	Building Construction	Building Construction	11/24/2021	9/27/2022	5	220	
3	Build-Out	Building Construction	7/6/2022	9/8/2023	5	308	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

HPMC Parking Lot - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Build-Out	Air Compressors	1	6.00	78	0.48
Steel Structure	Cranes	1	8.00	375	0.29
Steel Structure	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	130	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Build-Out	Cranes	1	8.00	130	0.29
Steel Structure	Forklifts	2	7.00	89	0.20
Build-Out	Forklifts	2	7.00	89	0.20
Steel Structure	Rubber Tired Dozers	1	8.00	247	0.40
Steel Structure	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Build-Out	Generator Sets	1	8.00	84	0.74
Build-Out	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Welders	3	8.00	46	0.45
Build-Out	Welders	3	8.00	46	0.45
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Steel Structure	12	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Build-Out	9	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Steel Structure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407		4,733.418 3	4,733.418 3	1.0837		4,760.509 6
Total	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407		4,733.418 3	4,733.418 3	1.0837		4,760.509 6

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.2 Steel Structure - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407	0.0000	4,733.4183	4,733.4183	1.0837		4,760.5096
Total	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407	0.0000	4,733.4183	4,733.4183	1.0837		4,760.5096

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.2 Steel Structure - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688		2,045.7290	2,045.7290	0.3717		2,055.0206
Total	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688		2,045.7290	2,045.7290	0.3717		2,055.0206

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688	0.0000	2,045.7290	2,045.7290	0.3717		2,055.0206
Total	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688	0.0000	2,045.7290	2,045.7290	0.3717		2,055.0206

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3429	0.2357	3.2222	9.1500e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		911.0159	911.0159	0.0268		911.6870
Total	0.3946	1.8862	3.6537	0.0135	1.0031	0.0106	1.0137	0.2685	9.8900e-003	0.2784		1,378.3130	1,378.3130	0.0544		1,379.6723

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639		2,046.0117	2,046.0117	0.3630		2,055.0864
Total	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639		2,046.0117	2,046.0117	0.3630		2,055.0864

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639	0.0000	2,046.0117	2,046.0117	0.3630		2,055.0864
Total	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639	0.0000	2,046.0117	2,046.0117	0.3630		2,055.0864

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

3.4 Build-Out - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456		2,327.4597	2,327.4597	0.3813		2,336.9926
Total	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456		2,327.4597	2,327.4597	0.3813		2,336.9926

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456	0.0000	2,327.4597	2,327.4597	0.3813		2,336.9926
Total	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456	0.0000	2,327.4597	2,327.4597	0.3813		2,336.9926

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.3212	0.2129	2.9728	8.8200e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		878.9699	878.9699	0.0243		879.5764
Total	0.3697	1.7825	3.3811	0.0132	1.0031	9.9500e-003	1.0130	0.2685	9.2700e-003	0.2778		1,342.1959	1,342.1959	0.0508		1,343.4669

3.4 Build-Out - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491		2,327.7171	2,327.7171	0.3712		2,336.9958
Total	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491		2,327.7171	2,327.7171	0.3712		2,336.9958

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1910	0.3687	4.1900e-003	0.1088	1.3800e-003	0.1102	0.0313	1.3100e-003	0.0327		448.6426	448.6426	0.0236		449.2315
Worker	0.3017	0.1926	2.7377	8.5000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		846.7856	846.7856	0.0219		847.3324
Total	0.3376	1.3836	3.1064	0.0127	1.0031	8.1800e-003	1.0112	0.2685	7.5700e-003	0.2761		1,295.4282	1,295.4282	0.0454		1,296.5640

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491	0.0000	2,327.7171	2,327.7171	0.3712		2,336.9958
Total	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491	0.0000	2,327.7171	2,327.7171	0.3712		2,336.9958

HPMC Parking Lot - Los Angeles-South Coast County, Summer

3.4 Build-Out - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1910	0.3687	4.1900e-003	0.1088	1.3800e-003	0.1102	0.0313	1.3100e-003	0.0327		448.6426	448.6426	0.0236		449.2315
Worker	0.3017	0.1926	2.7377	8.5000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		846.7856	846.7856	0.0219		847.3324
Total	0.3376	1.3836	3.1064	0.0127	1.0031	8.1800e-003	1.0112	0.2685	7.5700e-003	0.2761		1,295.4282	1,295.4282	0.0454		1,296.5640

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

HPMC Parking Lot - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4810	14.0818	42.7326	0.1579	13.0613	0.1164	13.1778	3.4953	0.1083	3.6036		16,083.2209	16,083.2209	0.7826		16,102.7848
Unmitigated	3.4810	14.0818	42.7326	0.1579	13.0613	0.1164	13.1778	3.4953	0.1083	3.6036		16,083.2209	16,083.2209	0.7826		16,102.7848

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	2,368.05	586.87	101.75	4,642,593	4,642,593
Total	2,368.05	586.87	101.75	4,642,593	4,642,593

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

HPMC Parking Lot - Los Angeles-South Coast County, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
NaturalGas Unmitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2931.34	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

HPMC Parking Lot - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2.93134	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

HPMC Parking Lot - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Unmitigated	2.2971	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

HPMC Parking Lot - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

HPMC Parking Lot - Los Angeles-South Coast County, Summer

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

HPMC Parking Lot - Los Angeles-South Coast County, Winter

HPMC Parking Lot
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	102.78	1000sqft	2.36	102,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

HPMC Parking Lot - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Addition of 3 stories of medical suites to existing parking structure.

Construction Phase - Building Schedule Per MND

Off-road Equipment - Assumed use of one 100-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Off-road Equipment - Assumed use of one 25-ton mobile crane

Trips and VMT - Maximum of 80 workers anticipated in the peak time

Vehicle Trips - Weekday trip rates adjusted per traffic study. Weekend trip rates adjusted per CalEEMod default weekday/weekend ratios

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emission standards.

Area Mitigation - Compliant with SCAQMD Rule 1113 - Architectural Coatings (<50 gms/Liter)

Water Mitigation -

HPMC Parking Lot - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstructionPhase	NumDays	220.00	308.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	PhaseEndDate	10/25/2022	9/8/2023
tblConstructionPhase	PhaseEndDate	11/10/2021	11/1/2021
tblConstructionPhase	PhaseStartDate	10/12/2022	7/6/2022
tblConstructionPhase	PhaseStartDate	10/14/2021	9/1/2021
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	HorsePower	231.00	375.00
tblOffRoadEquipment	HorsePower	231.00	130.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblTripsAndVMT	WorkerTripNumber	33.00	80.00
tblVehicleTrips	ST_TR	8.96	5.71
tblVehicleTrips	SU_TR	1.55	0.99
tblVehicleTrips	WD_TR	36.13	23.04

2.0 Emissions Summary

HPMC Parking Lot - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4869	37.9638	33.4968	0.0632	1.0031	1.8538	2.8569	0.2685	1.7507	2.0192	0.0000	6,045.7066	6,045.7066	1.1382	0.0000	6,074.1624
2022	4.5953	31.9896	37.6874	0.0730	2.0061	1.4861	3.4922	0.5370	1.4282	1.9652	0.0000	6,929.6815	6,929.6815	0.8465	0.0000	6,950.8440
2023	2.2107	15.3172	19.3760	0.0376	1.0031	0.6821	1.6851	0.2685	0.6567	0.9252	0.0000	3,561.5538	3,561.5538	0.4166	0.0000	3,571.9685
Maximum	4.5953	37.9638	37.6874	0.0730	2.0061	1.8538	3.4922	0.5370	1.7507	2.0192	0.0000	6,929.6815	6,929.6815	1.1382	0.0000	6,950.8440

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4869	37.9638	33.4968	0.0632	1.0031	1.8538	2.8569	0.2685	1.7507	2.0192	0.0000	6,045.7066	6,045.7066	1.1382	0.0000	6,074.1624
2022	4.5953	31.9896	37.6874	0.0730	2.0061	1.4861	3.4922	0.5370	1.4282	1.9652	0.0000	6,929.6815	6,929.6815	0.8465	0.0000	6,950.8440
2023	2.2107	15.3172	19.3760	0.0376	1.0031	0.6821	1.6851	0.2685	0.6567	0.9252	0.0000	3,561.5538	3,561.5538	0.4166	0.0000	3,571.9685
Maximum	4.5953	37.9638	37.6874	0.0730	2.0061	1.8538	3.4922	0.5370	1.7507	2.0192	0.0000	6,929.6815	6,929.6815	1.1382	0.0000	6,950.8440

HPMC Parking Lot - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2971	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.3689	14.3683	40.8492	0.1501	13.0613	0.1171	13.1784	3.4953	0.1089	3.6042		15,301.2778	15,301.2778	0.7829		15,320.8510
Total	5.6975	14.6558	41.1011	0.1518	13.0613	0.1390	13.2003	3.4953	0.1308	3.6261		15,646.1641	15,646.1641	0.7896	6.3200e-003	15,667.7881

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Energy	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Mobile	3.3689	14.3683	40.8492	0.1501	13.0613	0.1171	13.1784	3.4953	0.1089	3.6042		15,301.2778	15,301.2778	0.7829		15,320.8510
Total	5.5670	14.6558	41.1011	0.1518	13.0613	0.1390	13.2003	3.4953	0.1308	3.6261		15,646.1641	15,646.1641	0.7896	6.3200e-003	15,667.7881

HPMC Parking Lot - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Steel Structure	Building Construction	9/1/2021	11/1/2021	5	44	
2	Building Construction	Building Construction	11/24/2021	9/27/2022	5	220	
3	Build-Out	Building Construction	7/6/2022	9/8/2023	5	308	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

HPMC Parking Lot - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Build-Out	Air Compressors	1	6.00	78	0.48
Steel Structure	Cranes	1	8.00	375	0.29
Steel Structure	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	130	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Build-Out	Cranes	1	8.00	130	0.29
Steel Structure	Forklifts	2	7.00	89	0.20
Build-Out	Forklifts	2	7.00	89	0.20
Steel Structure	Rubber Tired Dozers	1	8.00	247	0.40
Steel Structure	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Build-Out	Generator Sets	1	8.00	84	0.74
Build-Out	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Steel Structure	Welders	3	8.00	46	0.45
Build-Out	Welders	3	8.00	46	0.45
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Steel Structure	12	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Build-Out	9	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Steel Structure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407		4,733.418 3	4,733.418 3	1.0837		4,760.509 6
Total	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407		4,733.418 3	4,733.418 3	1.0837		4,760.509 6

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.2 Steel Structure - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407	0.0000	4,733.4183	4,733.4183	1.0837		4,760.5096
Total	4.0512	36.0558	30.0734	0.0504		1.8431	1.8431		1.7407	1.7407	0.0000	4,733.4183	4,733.4183	1.0837		4,760.5096

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.2 Steel Structure - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688		2,045.7290	2,045.7290	0.3717		2,055,020.6
Total	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688		2,045.7290	2,045.7290	0.3717		2,055,020.6

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688	0.0000	2,045.7290	2,045.7290	0.3717		2,055.0206
Total	1.9636	14.5776	14.9183	0.0225		0.8018	0.8018		0.7688	0.7688	0.0000	2,045.7290	2,045.7290	0.3717		2,055.0206

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3815	0.2609	2.9461	8.6100e-003	0.8942	7.2300e-003	0.9014	0.2372	6.6600e-003	0.2438		857.8009	857.8009	0.0252		858.4319
Total	0.4357	1.9080	3.4234	0.0129	1.0031	0.0107	1.0138	0.2685	9.9900e-003	0.2785		1,312.2883	1,312.2883	0.0546		1,313.6528

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639		2,046.0117	2,046.0117	0.3630		2,055.0864
Total	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639		2,046.0117	2,046.0117	0.3630		2,055.0864

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639	0.0000	2,046.0117	2,046.0117	0.3630		2,055.0864
Total	1.7862	13.4896	14.7717	0.0225		0.6922	0.6922		0.6639	0.6639	0.0000	2,046.0117	2,046.0117	0.3630		2,055.0864

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

3.4 Build-Out - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456		2,327.4597	2,327.4597	0.3813		2,336.9926
Total	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456		2,327.4597	2,327.4597	0.3813		2,336.9926

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456	0.0000	2,327.4597	2,327.4597	0.3813		2,336.9926
Total	1.9907	14.8981	16.5853	0.0255		0.7739	0.7739		0.7456	0.7456	0.0000	2,327.4597	2,327.4597	0.3813		2,336.9926

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3583	0.2356	2.7134	8.3000e-003	0.8942	7.0000e-003	0.9012	0.2372	6.4500e-003	0.2436		827.6556	827.6556	0.0228		828.2253
Total	0.4092	1.8010	3.1652	0.0125	1.0031	0.0101	1.0131	0.2685	9.3600e-003	0.2779		1,278.1050	1,278.1050	0.0511		1,279.3825

3.4 Build-Out - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491		2,327.7171	2,327.7171	0.3712		2,336.9958
Total	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491		2,327.7171	2,327.7171	0.3712		2,336.9958

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0378	1.1856	0.4015	4.0800e-003	0.1088	1.4500e-003	0.1103	0.0313	1.3800e-003	0.0327		436.4602	436.4602	0.0249		437.0833
Worker	0.3375	0.2131	2.4941	8.0000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		797.3765	797.3765	0.0205		797.8895
Total	0.3754	1.3987	2.8956	0.0121	1.0031	8.2500e-003	1.0113	0.2685	7.6400e-003	0.2761		1,233.8367	1,233.8367	0.0454		1,234.9727

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491	0.0000	2,327.7171	2,327.7171	0.3712		2,336.9958
Total	1.8353	13.9186	16.4804	0.0255		0.6738	0.6738		0.6491	0.6491	0.0000	2,327.7171	2,327.7171	0.3712		2,336.9958

HPMC Parking Lot - Los Angeles-South Coast County, Winter

3.4 Build-Out - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0378	1.1856	0.4015	4.0800e-003	0.1088	1.4500e-003	0.1103	0.0313	1.3800e-003	0.0327		436.4602	436.4602	0.0249		437.0833
Worker	0.3375	0.2131	2.4941	8.0000e-003	0.8942	6.8000e-003	0.9010	0.2372	6.2600e-003	0.2434		797.3765	797.3765	0.0205		797.8895
Total	0.3754	1.3987	2.8956	0.0121	1.0031	8.2500e-003	1.0113	0.2685	7.6400e-003	0.2761		1,233.8367	1,233.8367	0.0454		1,234.9727

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

HPMC Parking Lot - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3689	14.3683	40.8492	0.1501	13.0613	0.1171	13.1784	3.4953	0.1089	3.6042		15,301.2778	15,301.2778	0.7829		15,320.8510
Unmitigated	3.3689	14.3683	40.8492	0.1501	13.0613	0.1171	13.1784	3.4953	0.1089	3.6042		15,301.2778	15,301.2778	0.7829		15,320.8510

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	2,368.05	586.87	101.75	4,642,593	4,642,593
Total	2,368.05	586.87	101.75	4,642,593	4,642,593

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

HPMC Parking Lot - Los Angeles-South Coast County, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
NaturalGas Unmitigated	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2931.34	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

HPMC Parking Lot - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Medical Office Building	2.93134	0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131
Total		0.0316	0.2874	0.2414	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.8638	344.8638	6.6100e-003	6.3200e-003	346.9131

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use Low VOC Cleaning Supplies

HPMC Parking Lot - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Unmitigated	2.2971	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.2970	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

HPMC Parking Lot - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240
Total	2.1665	1.0000e-004	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0225	0.0225	6.0000e-005		0.0240

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

HPMC Parking Lot - Los Angeles-South Coast County, Winter

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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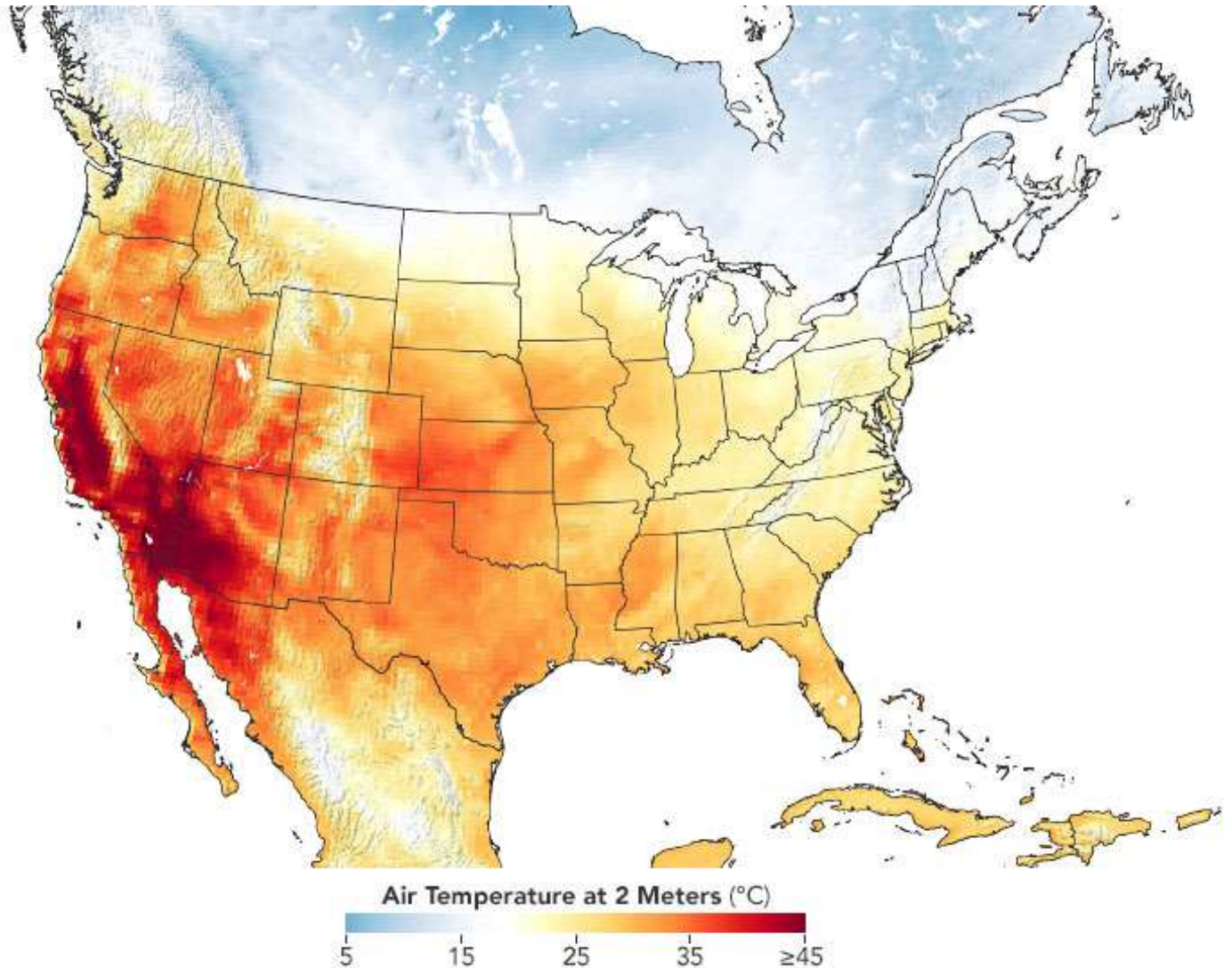
User Defined Equipment

Equipment Type	Number
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11.0 Vegetation



California Heatwave Fits a Trend



September 6, 2020

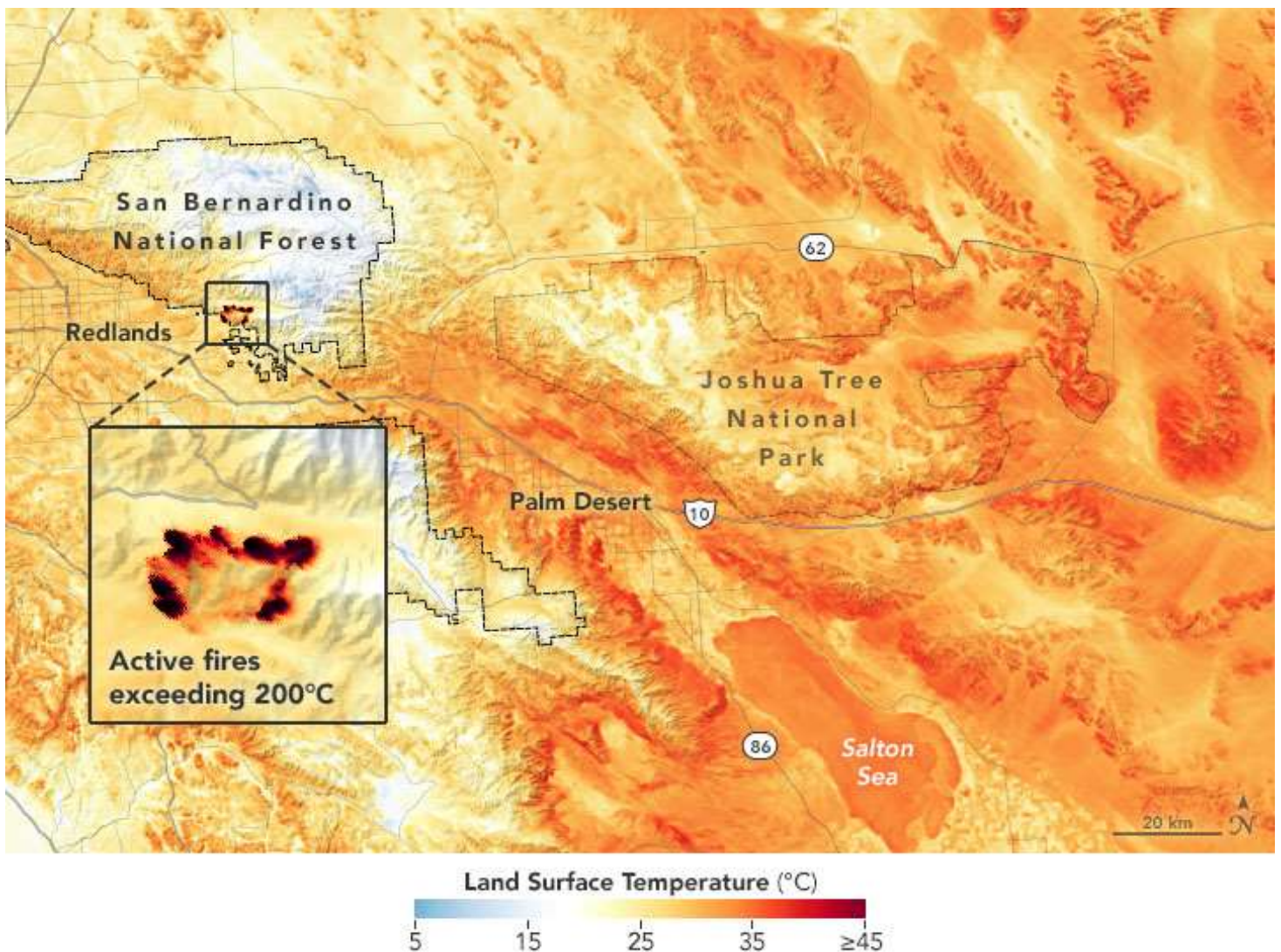
JPEG

In early September 2020, an intense heatwave broke temperature records in several locations in Southern California. The dry, hot conditions helped fuel new and existing fires, which have consumed tens of thousands of acres of land. According to recently published research, these extremes fit a long-term trend toward longer and more intense heatwaves in Southern California.

The map above shows air temperatures across the United States on September 6, 2020, when much of the Southwest roasted in a dramatic heatwave. The map was derived from the Goddard Earth Observing System (GEOS) model and represents temperatures at 2 meters (about 6.5 feet) above the ground. The darkest red areas are where the model shows temperatures surpassing 113°F (45°C).

On September 6, 2020, around 1:30 p.m., Los Angeles County recorded its highest temperature ever at 121°F (49°C) at Woodland Hills. Several other cities, like Paso Robles and Palmdale, also hit record highs.

The map below shows land surface temperatures (LSTs) on September 6 near San Bernardino National Forest. The data come from NASA's ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS), which uses a scanning radiometer to measure thermal infrared energy emitted from Earth's surface. Note that LSTs are not the same as air temperatures: They reflect how hot the surface of the Earth would feel to the touch and can sometimes be significantly hotter or cooler than air temperatures. (The map also captures the El Dorado fire, which had burned more than 11,000 acres and was 19 percent contained as of September 9.)



September 6, 2020

JPEG

The extreme heat comes only weeks after another record-breaking heatwave in California. In August 2020, Death Valley reached 130 degrees Fahrenheit—possibly the highest temperature ever reliably recorded on Earth. The widespread extreme conditions tapped into subtropical moisture that spurred thunderstorms, hundreds of thousands of lightning bolts, and hundreds of wildfires across the state.

These recent heatwaves are “not surprising at all” to Glynn Hulley, a climate researcher at NASA’s Jet Propulsion Laboratory. A heatwave is defined as a period when temperatures in a region are outside of their historical average for usually two or more days. “Heatwaves are becoming more frequent, lasting longer, and increasing in nighttime temperature and humidity, particularly in urban regions such as the Los Angeles basin.”

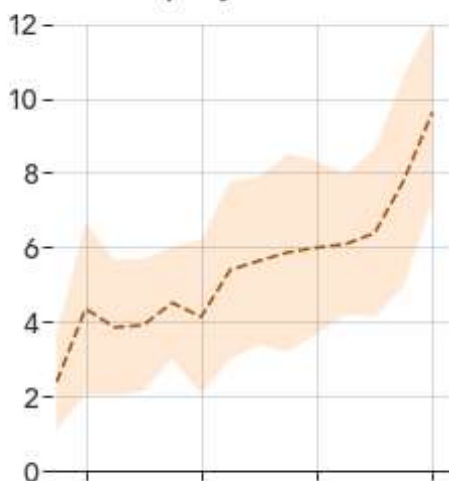
Hulley and colleagues published a study in July 2020 showing how heatwaves became more frequent, intense, and longer-lasting in Southern California from 1950 to 2020. Using ground-based data from the National Oceanic and Atmospheric Administration, the team examined temperatures over inland urban, rural, and coastal urban areas. Heatwave activity showed the largest change in inland urban areas such as Los Angeles County, which Hulley said is most likely because they are farther away from coastal breezes and because urban areas act as heat islands—consisting of less cooling vegetation and more heat-absorbing surfaces (roads, buildings) that re-radiate heat stored during the daytime.

The graphs below show the number of heatwaves per year, the duration, and the intensity for inland urban areas from 1950 to 2020. The dotted line represents the average value of three heatwave definitions currently accepted by the research community. The shaded areas show the standard deviation. Intensity is calculated as the maximum temperature during a heatwave minus the average heatwave temperature.

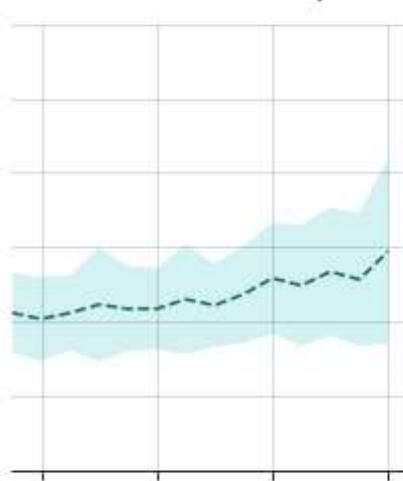
More, Longer, and Hotter

Heatwaves affecting inland, urban California are on the rise

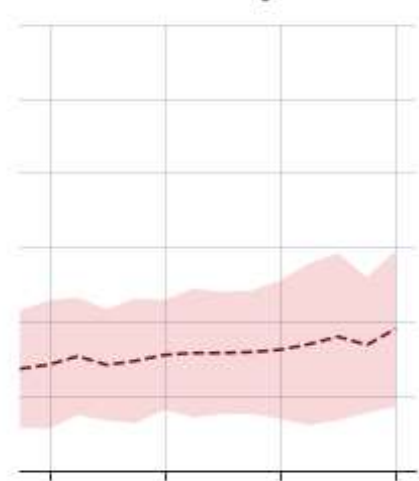
Heatwaves per year



Heatwave duration (days)



Heatwave intensity (°C)



1960 1980 2000 2020 1960 1980 2000 2020 1960 1980 2000 2020

1950 - 2020

Hulley and colleagues found statistically significant spikes in heatwave activity during severe droughts, particularly the record 2012-2016 California drought. During extreme droughts, heatwaves increased from about four times per year to six times. They also increased in length from five to six days on average.

A major reason for increased heatwaves is warmer nighttime temperatures in Southern California, which increased approximately 0.41°C per decade. This trend more than doubles when humidity (i.e., heat index) is taken into account.

“The heatwaves that end up killing a lot of people are really warm, humid nighttime heatwaves, and they are going to become more common,” said Brian Kahn, a co-author on the study and researcher at NASA’s Jet Propulsion Laboratory. “Nighttime is normally your chance to cool off, but now there’s less relief from the heatwave.”

Hulley said the September 2020 heatwave may not be the last one of the year. The study found that heatwaves in Southern California are occurring earlier and persisting later in the year, resulting in a longer heatwave season. In the mid-20th century, the first heatwaves typically began in May and ended in late August. Today, they start in March and end as late as September or October.

“This has serious consequences for the fire season in Southern California, which peaks during the fall season when strong desert Santa Ana winds further enhance aridity and the drying out of vegetation,” said Hulley.

NASA Earth Observatory images by Joshua Stevens, using GEOS-5 data from the Global Modeling and Assimilation Office at NASA GSFC, data from the ECOSTRESS science team at NASA/JPL-Caltech, and data from Hulley, G. C., Dousset, B., & Kahn, B. H. (2020). Story by Kasha Patel.

Image of the Day Atmosphere Heat Land Drought Human Presence Remote Sensing

Temperature Extremes



[View this area in EO Explorer](#)

A new study shows heatwaves in Southern California have increased in frequency, duration, and intensity over recent decades.

Image of the Day for September 11, 2020

Instruments:

ISS — ECOSTRESS

In situ Measurement

Model

View more Images of the Day:

[Sep 10, 2020](#)

[Sep 12, 2020](#)

References & Resources

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2020-21 Heat and Drought in North America

Record-breaking heat and long-term rain and snow shortfalls parched the western United States and Mexico.

Emission Impact: Additional Generator Usage Associated with Power Outage

January 30, 2020

This report has been reviewed by the staff of the California Air Resources Board. The contents do not necessarily reflect the views and policies of the California Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

Summary

For public safety, it may be necessary for utilities to turn off electricity when gusty winds and dry conditions, combined with a heightened fire risk, are forecasted. This is called a “Public Safety Power Shutoff” or “PSPS”. According to CPUC de-energization report¹, in October 2019, there have been almost 806 PSPS events that have impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. Data also indicates that on average each of these customers had about 43 hours of power outage in October 2019.

Following the PSPS events, many households and businesses in California started operating their back-up generators to provide power for their day-to-day operations. Generators used during power outage will increase emissions as compared to an average day. Staff assessment indicated that with 973,000 customers impacted by PSPS events in October 2019, approximately 125,000 back-up generators were used by customers to provide electricity during power outage. Assuming 50 hours of operation per generator during month of October 2019, staff estimated excess emissions from the use of generators which are summarized in Table 1.

Table 1: Population and excess emissions from the use of electricity power generators during October 2019 PSPS events.

Generator Type		NOx (tons)	PM (tons)	Diesel PM (tons)	Additional Generators Running in PSPS
Portable	Gasoline Less than 25 hp	24.3	10.6		122,000
	Diesel above 25 hp <i>Non-Rental Generator</i>	7.3	0.30	0.30	381
	Diesel above 25 hp <i>Rental Generator</i>	9.1	0.30	0.30	582
Permitted Stationary Back-Up Generators (Assuming 30% Load Factor)		125.7	8.3	8.3	1,810
Non-permitted generators ²		N/A	N/A	N/A	N/A
Total		166.4	19.4	8.9	124,774

¹ <https://www.cpuc.ca.gov/deenergization/>

² This analysis does not include emissions estimates from non-permitted generators such as the residential standby natural gas powered generators with power rating of less than 50 hp (e.g, a 22 kW Guardian Series home standby generator by Generac). At this point there is no information available on their population and sales. According to discussion with industry, it is assumed that most of these generator are powered by natural gas.

To put these numbers into context, 9 tons of diesel PM is equivalent to emissions from almost 29,000 heavy duty diesel trucks (above 14,000 lbs.) driving on California roadways for the period of one month (on average each truck drives around 3,000 miles per month).

The calculations described in the rest of the document outlines the assumptions used to estimate potential emissions impact from the use of gasoline and diesel generators during PSPS events.

Small Gasoline Powered Generators (less than 25 hp)

Population

Based on 2018 California State University Fullerton (CSUF) Survey³ for small off-road (SORE) equipment, about one out of 8 households own a generator in California. For a population of 973,000 households, about 122,000 generators will likely to be used to provide additional power during the power shut-off period.

Emission Factors

According to data provided by manufacturers as part of the SORE Evaporative Reporting Requirement⁴, generators have an average horsepower of 3.5 hp of which when combined with a load factor of 0.68, derived from OFFROAD2007⁵, results in an effective power of 2.4 hp. To determine emission factors, we used emissions data from SORE exhaust certification database. Table 2 shows the derived emission factors along with weighted average emission factors across all horsepower bins.

Table 2: Exhaust emission factors (g/bhp-hr) for gasoline powered generator less than 25 hp

Equipment	Tech Type	Horsepower	Percent Population	HC (g/bhp-hr)	NOX (g/bhp-hr)	PM (g/bhp-hr)
Generator Sets	G2-CARB	0 – 2	5%	27.860	0.900	0.600
	G4-CARB	2 – 5	82%	5.634	1.484	0.740
		5 – 15	9%	2.885	1.975	0.140
		15 – 25	3%	3.390	1.422	0.140
	G4-FI	15 – 25	1%	1.074	2.125	0.140
Population Weighted Average				6.296	1.505	0.655

Using the effective power and emission factors described earlier, staff estimated excess emissions as well emissions during 50 hours of generators operation (5 days with 10 hours a day operation). For example, with 122,000 generators operating for 50 hours during power shutoff, staff estimated excess emissions of 24.3 tons of NOx, 101.5 tons of THC, and 10.6 tons of PM. The calculation below outlines the assumptions used for this emissions impact assessment. Obviously, a more refined estimate can be made with additional information.

³ Survey of Small Off-Road Engines (SORE) Operating within California: Results from Surveys with Four Statewide Populations, Submitted May 15, 2019, Prepared by the Social Science Research Center (SSRC) at CSU, Fullerton.

⁴ https://ww3.arb.ca.gov/msprog/mailouts/ecars1805/ecars1805.pdf?_ga=2.15158582.1846785299.1570743950-1632999103.1458687259

⁵ <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-archives>

Portable Diesel Generators (above 25 hp)

Portable diesel generators are generally much larger and supply more power than gasoline generators, and could be used during PSPS events to supply power to larger facilities (such as schools, industrial facilities, or buildings). Table 3 provides CARB's latest population, activity, and emissions associated diesel portable generators registered under CARB's PERP program⁶.

Table 3: Emissions and Population of Diesel portable generators registered under CARB's PERP program

	Population (statewide)	Annual Activity (hours)	NOx (tons/yr)	PM (tons/yr)	PM25 (tons/yr)
Portable Equipment - Non-Rental Generator	5,081	1,299	2,537	99	91
Portable Equipment - Rental Generator	7,764	1,392	3,363	123	113

For assessing the emissions impact associated with this event, this analysis will assume that the percent of businesses that use generators and backup generators that are impacted by the PSPS is roughly proportional to the percent of households impacted (about 973,000 households out of 13,000,000 in California, or about 7.5 percent of the population of generators in the state). Table 4 shows the excess emissions from the use of portable diesel power generators during PSPS events assuming 50 hours of operations.

Table 4: Population and excess emissions from the use of portable diesel powered generators during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	PM2.5 (tons)
Portable Equipment - Non-Rental Generator	381	7.3	0.30	0.30
Portable Equipment - Rental Generator	582	9.1	0.30	0.30
Total	964	16.45	0.61	0.61

Permitted Stationary Back-Up Generators (BUG)

Population

Data on permitted stationary back-up generators were provided to CARB by several air districts. Staff used the facility ID from the districts permit data to find the address of the facility that the stationary BUGs are operating and determined whether those BUGs were impacted by the PSPS events or not. Using this process, staff determined that almost 1,810 stationary BUGs across California were impacted by the October 2019 PSPS events.

Emission Factors

Additionally, using actual emission factors for each diesel BUG engines provided in the districts' stationary BUGs database (i.e., stationary BUGs permit database), staff assumed a work based emission factors of 0.44 g/bhp-hr for PM and 6.7 g/bhp-hr for NOx, based on averaging of a

⁶ <https://ww2.arb.ca.gov/our-work/programs/portable-equipment-registration-program-perp>

sample of permitted diesel powered backup generators in the state. The analysis also indicated that an average permitted back-up generator has a power rating of ~ 627 hp and they can go up as high as 4,400 hp which when combined with a load factor assumption of 30% resulted in an effective power of 188 hp. Table 5 provides a summary of excess emissions associated with the stationary BUGs impacted by the PSPS events.

Table 5: Population and excess emissions from the use of diesel powered stationary back-up generators (BUG) during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	Diesel PM (tons)
Permitted Stationary Back-Up Generators	1,810	126	8.3	8.3



OEHHA Program Descriptions and Reports

Apr 29, 2020

Executive Office

The Executive Office provides the direction and leadership necessary to plan, develop and administer programs and activities in OEHHA. Other functions provided by the executive office include legal support to various programs, legislative analysis and liaison, communication and public information, and administrative functions relating to OEHHA's Proposition 65 activities.

Administrative Services Division

Division of Scientific Programs

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Notice of Adoption of Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments 2015




Mar 6, 2015

In accordance with Health and Safety Code, Section 44300 et seq. (The Air Toxics Hot Spots Information and Assessment Act, AB 2588, Connelly as amended by SB 1731, Calderon), the Director of the Office of Environmental Health Hazard Assessment (OEHHA) hereby adopts The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

OEHHA is releasing the final version of the document, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February 2015, by posting on our Web site. This Guidance Manual has been developed by OEHHA, in conjunction with the Air Resources Board (ARB), for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360 (b) (2)). OEHHA earlier developed three Technical Support Documents (TSDs) in response to this statutory requirement, which provided the scientific basis for values used in assessing risk from exposure to facility emissions. The three TSDs describe non-cancer risk assessment (derivation of acute, 8-hour and chronic reference exposure levels), derivation of cancer potency factors, and and exposure assessment methodology including stochastic risk assessment. These TSDs underwent public and peer review, were approved by the State's Scientific Review Panel on Toxic Air Contaminants, and adopted by OEHHA for use in the Air Toxics Hot Spots program. The Guidance Manual combines the critical information from the three TSDs into a manual for the preparation of health risk assessments.

A computer program, the Hot Spots Analysis and Reporting Program (HARP) has been developed by ARB as a tool to implement the risk assessments as outlined in this guidance manual. The HARP program is available from ARB <http://www.arb.ca.gov/toxics/harp/harp.htm>.

Downloads

-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments without Appendices](#)
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-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendices Only](#)
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-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendices A-F](#)
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-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendices G-J](#)
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-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendix K](#)
Mar 6, 2015
-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendices L-M](#)
Mar 6, 2015
-  [Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments Appendix N](#)



Related Notices

- ▶ [Draft Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments for the Scientific Review Panel Oct 2014](#)
Oct 14, 2014
- ▶ [Extension of Public Comment Period on Draft Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments](#)
Jul 28, 2014
- ▶ [Notice of Public Comment for Draft Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments 2014](#)
Jun 20, 2014

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**CALIFORNIA
GRANTS
PORTAL**



(Adopted August 3, 1990)(Amended September 7, 1990)(Amended August 12, 1994)
(Amended December 9, 1994)(Amended November 14, 1997)(Amended June 3, 2005)
(Amended February 1, 2008)(Amended July 9, 2010)(Amended September 7, 2012)
(Amended December 4, 2015)(Amended June 3, 2016)(Amended November 1, 2019)

RULE 1110.2 EMISSIONS FROM GASEOUS- AND LIQUID-FUELED ENGINES

(a) Purpose

The purpose of Rule 1110.2 is to reduce Oxides of Nitrogen (NO_x), Volatile Organic Compounds (VOCs), and Carbon Monoxide (CO) from engines.

(b) Applicability

All stationary and portable engines over 50 rated brake horsepower (bhp) are subject to this rule.

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) AGRICULTURAL STATIONARY ENGINE is a non-portable engine used for the growing and harvesting of crops of the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. An engine used for the processing or distribution of crops or fowl or animals is not an agricultural engine.
- (2) APPROVED EMISSION CONTROL PLAN is a control plan, submitted on or before December 31, 1992, and approved by the Executive Officer prior to November 14, 1997, that was required by subdivision (d) of this rule as amended September 7, 1990.
- (3) BREAKDOWN is a physical or mechanical failure or malfunction of an engine, air pollution control equipment, or related operating equipment that is not the result of operator error, neglect, improper operation or improper maintenance procedures, which leads to excess emissions beyond rule related emission limits or equipment permit conditions.
- (4) CERTIFIED SPARK-IGNITION ENGINE means engines certified by California Air Resources Board (CARB) to meet emission standards in accordance with Title 13, Chapter 9, Article 4.5 of the California Code of Regulations (CCR).
- (5) COMPRESSOR GAS LEAN-BURN ENGINE is a stationary gaseous-fueled two-stroke or four-stroke lean-burn engine used to compress natural gas or pipeline quality natural gas for delivery through a pipeline or into storage.

- (c) (6) EMERGENCY STANDBY ENGINE is an engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair.
- (7) ENGINE is any spark- or compression-ignited internal combustion engine, including engines used for control of VOC's, but not including engines used for self-propulsion.
- (8) ESSENTIAL PUBLIC SERVICE includes any facility or operator as defined in Rule 1302.
- (9) EXEMPT COMPOUNDS are defined in South Coast AQMD Rule 102 – Definition of Terms.
- (10) FACILITY means any source or group of sources or other air contaminant emitting activities which are located on one or more contiguous properties within the South Coast AQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in Section 55.2 of Title 40, Part 55 of the Code of Federal Regulations (40 CFR Part 55). Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.
- (11) FORMER RECLAIM FACILITY means a facility, or any of its successors, that was in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX, that has received a final determination notification, and is no longer in the RECLAIM program.
- (12) LEAN-BURN ENGINE means an engine that operates with high levels of excess air and an exhaust oxygen concentration of greater than 4 percent.
- (13) LOCATION means any single site at a building, structure, facility, or installation. For the purpose of this definition, a site is a space occupied or to be occupied by an engine. For engines which are brought to a facility to perform maintenance on equipment at its permanent or ordinary location, each maintenance site shall be a separate location.

- (c) (14) NET ELECTRICAL ENERGY means the electrical energy produced by a generator, less the electrical energy consumed by any auxiliary equipment necessary to operate the engine generator and, if applicable, any heat recovery equipment, such as heat exchangers.
- (15) NON-RECLAIM FACILITY means a facility, or any of its successors, that was not in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX.
- (16) NON-ROAD ENGINE is any engine, defined under 40 CFR Part 89, that does not remain or will not remain at a location for more than 12 consecutive months, or a shorter period of time where such period is representative of normal annual source operation at a stationary source that resides at a fixed location for more than 12 months (e.g., seasonal operations such as canning facilities), and meets one of the following:
- (A) Is used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as a mobile crane); or
 - (B) Is used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawn mowers and string trimmers); or
 - (C) By itself, or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Transportability includes, but is not limited to, wheels, skids, carrying handles, dolly, trailer, platform or mounting.
- (17) OPERATING CYCLE means a period of time within which a round of regularly recurring events is completed, and cannot be stopped without the risk of endangering public safety or health, causing material damage to the equipment or product, or cannot be stopped due to technical constraints. Economic reasons alone will not be sufficient to extend this time period. The operating cycle includes batch processes that may start and finish several times within a twenty-four hour period, in which case each start to finish interval is considered a complete cycle.
- (18) OXIDES OF NITROGEN (NO_x) means nitric oxide and nitrogen dioxide.
- (19) PORTABLE ENGINE is an engine that, by itself or in or on a piece of equipment, is designed to be and capable of being carried or moved from one location to another. Indications of portability include, but are not

- (c) limited to, wheels, skids, carrying handles, dolly, trailer, platform or mounting. The operator must demonstrate the necessity of the engine being periodically moved from one location to another because of the nature of the operation.

An engine is not portable if:

- (A) The engine or its replacement remains or will reside at the same location for more than 12 consecutive months. Any engine, such as a back-up or stand-by engine, that replaces an engine at a location and is intended to perform the same function as the engine being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of both engines, including the time between the removal of the original engine and installation of the replacement engine, will be counted toward the consecutive time period; or
- (B) The engine remains or will reside at a location for less than 12 consecutive months where such a period represents the full length of normal annual source operations such as a seasonal source; or
- (C) The engine is removed from one location for a period and then it or its equivalent is returned to the same location thereby circumventing the portable engine residence time requirements.

The period during which the engine is maintained at a designated storage facility shall be excluded from the residency time determination.

- (20) **RATED BRAKE HORSEPOWER (bhp)** is the rating specified by the manufacturer, without regard to any derating, and listed on the engine nameplate.
- (21) **RECLAIM FACILITY** means a facility, or any of its successors, that was in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX.
- (22) **RICH-BURN ENGINE WITH A THREE-WAY CATALYST** means an engine designed to operate near stoichiometric conditions with a catalytic control device that simultaneously reduces emissions of NO_x, CO and VOC.
- (23) **STATIONARY ENGINE** is an engine which is either attached to a foundation or if not so attached, does not meet the definition of a portable or non-road engine and is not a motor vehicle as defined in Section 415 of the California Vehicle Code.

- (c) (24) **TIER 2 AND TIER 3 DIESEL ENGINES** mean engines certified by CARB to meet Tier 2 or Tier 3 emission standards in accordance with Title 13, Chapter 9, Article 4 of the CCR.
- (25) **USEFUL HEAT RECOVERED** means the waste heat recovered from the engine exhaust and/or cooling system that is put to productive use. The waste heat recovered may be assumed to be 100% useful unless the hot water, steam or other medium is vented to the atmosphere, or sent directly to a cooling tower or other unproductive use.
- (26) **VOLATILE ORGANIC COMPOUND (VOC)** is as defined in Rule 102.
- (d) **Requirements**
 - (1) **Stationary Engines:**
 - (A) Operators of stationary engines with an amended Rule 1110.1 Emission Control Plan submitted by July 1, 1991, or an Approved Emission Control Plan, designating the permanent removal of engines or the replacement of engines with electric motors, in accordance with subparagraph (d)(1)(B), shall do so by December 31, 1999, or not operate the engines on or after December 31, 1999 in a manner that exceeds the emission concentration limits listed in Table I:

TABLE I ALTERNATIVE TO ELECTRIFICATION CONCENTRATION LIMITS		
NO_x (ppmvd)¹	VOC (ppmvd)²	CO (ppmvd)¹
11	30	70

¹ Parts per million by volume, corrected to 15% oxygen on a dry basis and averaged over 15 minutes.

² Parts per million by volume, measured as carbon, corrected to 15% oxygen on a dry basis and averaged over the sampling time required by the test method.

- (B) The operator of any other stationary engine not covered by subparagraph (d)(1)(A) shall:
 - (i) Remove such engine permanently from service or replace the engine with an electric motor, or alternatively comply

- (d) with the following, if applicable:
- (ii) Comply with the applicable emission concentration limits listed in either Table II or Table III-A or B, or technologically achievable case-by-case VOC or CO emission concentration limits approved by the Executive Officer pursuant to clause (d)(1)(B)(vii), averaged over 15 minutes or other averaging time period allowed by clauses (d)(1)(B)(iii) through (d)(1)(B)(v);
 - (iii) Use an averaging time approved by the Executive Officer for an engine that uses non-pipeline quality natural gas that has demonstrated that due to the varying heating value of the gas a longer averaging time was necessary. The fixed-interval averaging time shall not exceed six hours for any of the concentration limits of Table II, unless an engine is subject to an existing permit condition allowing for an averaging time greater than six hours. Non-pipeline quality natural gas is a gas that does not meet the gas specifications of the local gas utility and is not supplied to the local gas utility;
 - (iv) Use a fixed-interval averaging time of one hour for engines equipped with a Continuous Emissions Monitoring System (CEMS), to demonstrate compliance with the emission concentration limits of Table II or Table III-B;
 - (v) Use a fixed-interval averaging time of three hours for compressor gas lean-burn engines equipped with selective catalytic reduction pollution control equipment and a CEMS, to demonstrate compliance with the NO_x emission concentration limit of Table II;
 - (vi) Comply with the emission concentration limits listed in Table II for Low-Use Engines. A Low-Use engine is an engine that operates less than 500 hours per year or uses less than 1×10^9 British Thermal Units (Btus) per year (higher heating value) of fuel;
 - (vii) Comply with any technologically achievable case-by-case CO and VOC limits that were approved by the Executive Officer in lieu of the concentration limits in Table II

- (d) effective on and after July 1, 2011 for a two-stroke engine equipped with an oxidation catalyst and insulated exhaust ducts and catalyst housing that has demonstrated that the CO and VOC limits effective on and after July 1, 2011 were not achievable. The case-by-case limits shall not exceed 250 ppmvd VOC and 2000 ppmvd CO, but must comply with the applicable NO_x concentration limit in Table II.

TABLE II		
CONCENTRATION LIMITS FOR LOW-USE ENGINES		
NO_x (ppmvd)¹	VOC (ppmvd)²	CO (ppmvd)¹
bhp ≥ 500: 36 bhp < 500: 45	250	2000
CONCENTRATION LIMITS		
EFFECTIVE JULY 1, 2011		
NO_x (ppmvd)¹	VOC (ppmvd)²	CO (ppmvd)¹
11	30	250

¹ Parts per million by volume, corrected to 15% oxygen on a dry basis.

² Parts per million by volume, measured as carbon, corrected to 15% oxygen on a dry basis and averaged over the sampling time required by the test method.

- (C) The operator of any stationary engine fired by landfill or digester gas (biogas) shall not operate the engine in a manner that exceeds the emission concentration limits of Table III-A, provided that the facility monthly average biogas usage by the biogas engine is 90% or more, based on the higher heating value of the fuels used. The calculation of the monthly facility biogas use percentage may exclude natural gas fired during: any electrical outage at the facility; a Stage 2 or higher electrical emergencies called by the California Independent System Operator Corporation; and when a sewage treatment plant activates an Emergency Operations Center or Incident Command System, as part of an emergency response

- (d) plan, because of either high influent flows caused by precipitation or a disaster.

TABLE III-A CONCENTRATION LIMITS FOR LANDFILL AND DIGESTER GAS (BIOGAS)-FIRED LOW-USE ENGINES		
NO _x (ppmvd) ¹	VOC (ppmvd) ²	CO (ppmvd) ¹
bhp ≥ 500: 36 x ECF ³ bhp < 500: 45 x ECF ³	Landfill Gas: 40 Digester Gas: 250 x ECF ³	2000
TABLE III-B CONCENTRATION LIMITS FOR LANDFILL AND DIGESTER GAS (BIOGAS)-FIRED ENGINES EFFECTIVE JANUARY 1, 2017		
NO _x (ppmvd) ¹	VOC (ppmvd) ²	CO (ppmvd) ¹
11	30	250

- ¹ Parts per million by volume, corrected to 15% oxygen on a dry basis.
- ² Parts per million by volume, measured as carbon, corrected to 15% oxygen on a dry basis and averaged over the sampling time required by the test method.
- ³ ECF is the efficiency correction factor.

The ECF shall be 1.0 unless:

- (i) The engine operator has measured the engine’s net specific energy consumption (q_a), in compliance with ASME Performance Test Code PTC 17 -1973, at the average load of the engine; and
- (ii) The ECF-corrected emission limit is made a condition of the engine’s permit to operate.

The ECF is as follows:

$$ECF = \frac{9250 \text{ Btus/hp-hr}}{\text{Measured } q_a \text{ in Btus/hp-hr}}$$

Measured q_a shall be based on the lower heating value of the fuel. ECF shall not be less than 1.0.

- (d) The Executive Officer may approve the burning of more than 10% natural gas in a landfill or digester gas-fired engine, when it is necessary, if: the only alternative to limiting natural gas to 10% would be shutting down the engine and flaring more landfill or digester gas; or the engine requires more natural gas in order for a waste heat recovery boiler to provide enough thermal energy to operate a sewage treatment plant, and other boilers at the facility are unable to provide the necessary thermal energy.
- (D) Notwithstanding the provisions of subparagraph (d)(1)(B), the operator of any stationary engine fired by landfill or digester gas (biogas) shall not operate the engine in a manner that exceeds the emission concentration limits of Table III.
- (E) Biogas engine operators that establish to the satisfaction of the Executive Officer that they have complied with the emissions limits of Table III-B by January 1, 2015 will have their respective engine permit application fees refunded.
- (F) For the City of San Bernardino, Orange County Sanitation District, and Eastern Municipal Water District that commenced and implemented technology demonstration projects prior to January 1, 2015, all their biogas engines shall have until January 1, 2018 to comply with the requirements of Table III-B.
- (G) Once an engine complies with the concentration limits as specified in Table III-B, there shall be no limit on the percentage of natural gas burned.
- (H) The concentration limits effective as specified in Table III-A shall apply to engines that are biogas-fired Low-Use engines. A biogas-fired Low-Use engine is an engine that operates fewer than 500 hours per year or uses less than 1×10^9 Btus per year (higher heating value) of fuel.
- (I) An operator of a biogas engine with a CEMS shall meet either:
- (i) The NO_x and CO limits of Table III-B, averaged pursuant to the specified averaging provisions in subparagraph (d)(1)(B);
 - (ii) The emission limits at or below 11 ppmvd for NO_x and 250 ppmvd for CO (if CO is selected for averaging), each

- (d) corrected to 15% O₂ and averaged over a 24-hour fixed interval, with the emission limits and averaging time specified as a condition in the engine's permit to operate on or before November 1, 2019; or
 - (iii) The emission limits at or below 9.9 ppmvd for NO_x and 225 ppmvd for CO (if CO is selected for averaging), each corrected to 15% O₂ and averaged over a 48-hour fixed interval, with emission limits and averaging time specified as a condition in the engine's permit to operate.
- (J) The operator of any new engine subject to subparagraph (e)(1)(B) shall:
- (i) Comply with the requirements of Best Available Control Technology in accordance with Regulation XIII if the engine requires a South Coast AQMD permit; or
 - (ii) Not operate the engine in a manner that exceeds the emission concentration limits in Table I if the engine does not require a South Coast AQMD permit.
- (K) By February 1, 2009, the operator of a spark-ignited engine without a Rule 218-approved continuous emission monitoring system (CEMS) or a Regulation XX (RECLAIM)-approved CEMS shall equip and maintain the engine with an air-to-fuel ratio controller with an oxygen sensor and feedback control, or other equivalent technology approved by the Executive Officer, CARB and EPA.
- (L) New Non-Emergency Electrical Generators
- (i) All new non-emergency engines driving electrical-generators shall comply with the following emission standards in lbs/MW-hr:

(d)

TABLE IV EMISSION STANDARDS FOR NEW ELECTRICAL GENERATION DEVICES		
Pollutant	Emission Standard (lbs/MW-hr)¹	Concentration Limit³ (ppmvd)⁴
NO _x	0.070	2.5
CO	0.20	12
VOC	0.10 ²	10

- 1 The averaging time of the emission standard for VOC is the sampling time required by the test method.
- 2 Mass emissions of VOC shall be calculated using a ratio of 16.04 pounds of VOC per lb-mole of carbon.
- 3 Concentration limit is calculated using a 40% engine efficiency and no applied thermal credit.
- 4 Parts per million by volume, corrected to 15% oxygen on a dry basis.

(ii) Engines subject to this subparagraph that produce combined heat and electrical power may include one megawatt-hour (MW-hr) for each 3.4 million Btus of useful heat recovered (MW_{th}-hr), in addition to each MW-hr of net electricity produced (MW_e-hr). The compliance of such engines shall be based on the following equation:

$$\frac{\text{Lbs}}{\text{MW-hr}} = \frac{\text{Lbs}}{\text{MW}_e\text{-hr}} \times \text{Electrical Energy Factor (EEF)}$$

Where:

Lbs/MW-hr = The calculated emissions standard.

Lbs/MW_e-hr = The short-term engine emission limit in pounds per MWe-hr of net electrical energy produced.

EEF = The annual MW_e-hrs of net electrical energy produced divided by the sum of annual MW_e-hrs plus annual MW_{th}-hrs of useful heat recovered.

(iii) For combined heat and power engines, the short-term

- (d) emission limits in lbs/MW_e-hr and the maximum allowed annual EEF must be selected by operator and stated on the operating permit.
- (iv) The requirements of this subparagraph shall apply to NO_x emissions from new non-emergency engines driving electrical-generators subject to Regulation XX (RECLAIM).
- (v) This subparagraph does not apply to: engines installed prior to February 1, 2008; engines issued a permit to construct prior to February 1, 2008 and installed within 12 months of the date of the permit to construct; engines for which an application is deemed complete by October 1, 2007; engines installed by an electric utility on Santa Catalina Island; engines installed at remote locations without access to natural gas and electric power; engines used to supply electrical power to ocean-going vessels while at berth, prior to January 1, 2014; or landfill or digester gas-fired engines that meet the requirements of subparagraph (d)(1)(C).
- (vi) For engines driving electrical generators and operating with a CEMS, a fixed-interval averaging time of one hour shall be used to demonstrate compliance with the NO_x and CO emission standard requirements of Table IV in lbs/MW-hr. For engines driving electrical generators and operating without a CEMS, the NO_x and CO emission standard requirements of Table IV in lbs/MW-hr shall be averaged over 15 minutes.
- (vii) Owners and operators of new engines installed prior to January 1, 2024 with no ammonia emissions from add-on control equipment and where NO_x emissions meet the concentration limit of Table IV at all times may elect to apply for and comply with the concentration limits of Table IV, expressed in ppmvd, except an alternative VOC concentration limit that is equal to or less than 25 ppmvd may be complied with. The Executive Officer shall accumulate daily VOC emissions in excess of the concentration limit of Table IV based on the permitted VOC

- (d) limits from each such engine and shall not approve any additional permit for such engine that will cause the total accumulated daily VOC emissions to exceed 45 lbs per day. Any new installation on or after January 1, 2024 shall comply with the VOC concentration limit in Table IV in ppmvd.
- (2) Portable Engines:
- (A) The operator of any portable engine generator subject to this rule shall not use the portable generator for:
- (i) Power production into the electric grid, except to maintain grid stability during an emergency event or other unforeseen event that affects grid stability; or
 - (ii) Primary or supplemental power to a building, facility, stationary source, or stationary equipment, except during unforeseen interruptions of electrical power from the serving utility, maintenance and repair operations, and remote operations where grid power is unavailable. For interruptions of electrical power, the operation of a portable generator shall not exceed the time of the actual interruption of power.
- This subparagraph shall not apply to a portable generator that complies with emission concentration limits of Table I and the other requirements in this rule applicable to stationary engines.
- (B) The operator of any portable diesel engine shall comply with the applicable requirements of the Subchapter 7.5 Airborne Toxic Control Measures for diesel particulate matter in Chapter 1, Division 3, Title 17 of the California Code of Regulations.
- (C) The operator of any portable spark-ignited engine shall comply with the applicable requirements of the Large Spark Ignition Engine Fleet Requirements, Article 2, Chapter 15, Division 3, Title 13 of the California Code of Regulations.
- (e) Compliance
- (1) Agricultural Stationary Engines:
- (A) The operator of any agricultural stationary engine subject to this rule and installed or issued a permit to construct prior to June 3,

- (e) 2005 shall comply with subparagraph (d)(1)(B) and the other applicable provisions of this rule in accordance with the compliance schedules in Table V:

TABLE V COMPLIANCE SCHEDULES FOR STATIONARY AGRICULTURAL ENGINES		
Action Required	Tier 2 and Tier 3 Diesel Engines, Certified Spark-Ignition Engines, and All Engines at Facilities with Actual Emissions Less Than the Amounts in the Table of Rule 219(q)	Other Engines
Submit notification of applicability to the Executive Officer	January 1, 2006	January 1, 2006
Submit to the Executive Officer applications for permits to construct engine modifications, control equipment, or replacement engines	March 1, 2009	September 1, 2007
Initiate construction of engine modifications, control equipment, or replacement engines	September 30, 2009, or 30 days after the permit to construct is issued, whichever is later	March 30, 2008, or 30 days after the permit to construct is issued, whichever is later
Complete construction and comply with applicable requirements	January 1, 2010, or 60 days after the permit to construct is issued, whichever is later	July 1, 2008, or 60 days after the permit to construct is issued, whichever is later
Complete initial source testing	March 1, 2010, or 120 days after the permit to construct is issued, whichever is later	September 1, 2008, or 120 days after the permit to construct is issued, whichever is later

- (e) The notification of applicability shall include the following for each engine:
 - (i) Name and mailing address of the operator
 - (ii) Address of the engine location
 - (iii) Manufacturer, model, serial number, and date of manufacture of the engine
 - (iv) Application number
 - (v) Engine type (diesel, rich-burn spark-ignition or lean-burn spark-ignition)
 - (vi) Engine fuel type
 - (vii) Engine use (pump, compressor, generator, or other)
 - (viii) Expected means of compliance (engine replacement, control equipment installation, or electrification)
- (B) The operator of any new agricultural stationary engine that is not subject to the compliance schedule of subparagraph (e)(1)(A) for existing engines shall comply with the requirements of subparagraph (d)(1)(J) immediately upon installation.
- (2) Non-Agricultural Stationary Engines:
 - (A) The operator of any stationary engine not meeting the requirements of subparagraph (d)(1)(B) or (d)(1)(C) that go into effect in 2010 or later, shall comply with the compliance schedule in Table VI.
 - (B) The operator of any stationary engine that elects to amend a permit to operate to incorporate ECF-adjusted emission limits shall submit to the Executive Officer an application for a change of permit conditions by August 1, 2008, and comply with emission limits of the previous version of this rule until February 1, 2009 when the engine shall be in compliance with the emission limits of this rule.
 - (C) The operator of any stationary engine that is required to add operating restrictions to a permit to operate to meet the requirements of this rule shall submit to the Executive Officer an application for a change of permit conditions by August 1, 2008.

(e)

TABLE VI COMPLIANCE SCHEDULE FOR NON- -AGRICULTURAL STATIONARY ENGINES	
Action Required	Applicable Compliance Date
Submit to the Executive Officer applications for permits to construct engine modifications, control equipment, or replacement engines	Twelve months before the final compliance date
Initiate construction of engine modifications, control equipment, or replacement engines	Three months before the final compliance date, or 60 days after the permit to construct is issued, whichever is later
Complete construction and comply with applicable requirements	The final compliance date, or 120 days after the permit to construct is issued, whichever is later
Complete initial source testing	60 days after the final compliance date in subparagraph (d)(1)(B) or (d)(1)(C), or 180 days after the permit to construct is issued, whichever is later

- (3) Stationary Engine CEMS
 - (A) The operator of any stationary engine with an existing CEMS shall commence the reporting required by Rule 218 Subdivision (f) on January 1, 2008. The first summary report for the six months ending June 30, 2008 shall be due on July 30, 2008.
 - (B) The operator of any stationary engine that is required to modify an existing CEMS or install a CEMS on an existing engine shall comply with the compliance schedule in Table VII. Public agencies shall be allowed one year more than the dates in Table VII, except for biogas engines.
 - (C) The operator of any stationary engine that is located at a RECLAIM or former RECLAIM facility that is required to modify an existing CEMS or install a CEMS on an existing engine that is subject to paragraph (f)(1) shall comply with the compliance schedule in Table VII except that the operator shall submit to the

- (e) Executive Officer applications for a new or modified CEMS within 90 days of becoming a former RECLAIM facility.
 - (i) For engines at a RECLAIM or former RECLAIM facility, installation of a CEMS is required concurrently with the installation of retrofit control technologies or new engine replacements to meet the requirements of paragraph (d)(1).

TABLE VII COMPLIANCE SCHEDULE FOR NEW OR MODIFIED CEMS ON EXISTING ENGINES			
Action Required	Applicable Compliance Dates For:		
	Non-Biogas Engines Rated at 750 bhp or More	Non-Biogas Engines Rated at Less than 750 bhp	Biogas Engines*
Submit to the Executive Officer applications for new or modified CEMS	August 1, 2008	August 1, 2009	January 1, 2011
Complete installation and commence CEMS operation, calibration, and reporting requirements	Within 180 days of initial approval	Within 180 days of initial approval	Within 180 days of initial approval
Complete certification tests	Within 90 days of installation	Within 90 days of installation	Within 90 days of installation
Submit certification reports to Executive Officer	Within 45 days after tests are completed	Within 45 days after tests are completed	Within 45 days after tests are completed
Obtain final approval of CEMS	Within 1 year of initial approval	Within 1 year of initial approval	Within 1 year of initial approval

* A biogas engine is one that is subject to the emission limits of Table III.

- (e) (4) Stationary Engine Inspection and Monitoring (I&M) Plans:
The operator of stationary engines subject to the I&M plan provisions of subparagraph (f)(1)(D) shall:
- (A) By August 1, 2008, submit an initial I&M plan application to the Executive Officer for approval;
 - (B) By December 1, 2008, implement an approved I&M plan or the I&M plan as submitted if the plan is not yet approved.
- Any operator of 15 or more stationary engines subject to the I&M plan provisions shall comply with the above schedule for at least 50% of engines, and for the remaining engines shall:
- (C) By February 1, 2009, submit an initial I&M plan application to the Executive Officer for approval;
 - (D) By June 1, 2009, implement an approved I&M plan or the I&M plan as submitted if the plan is not yet approved.
- (5) Stationary Engine Air-to-Fuel Ratio Controllers
- (A) The operator of any stationary engine that does not have an air-to-fuel ratio controller, as required by subparagraph (d)(1)(K), shall comply with those requirements in accordance with the compliance schedule in Table V, except that the application due date is no later than May 1, 2008 and the initial source testing may be conducted at the time of the testing required by subparagraph (f)(1)(C).
 - (B) The operator of any stationary engine that has the air-to-fuel ratio controller required by subparagraph (d)(1)(K), but it is not listed on the permit to operate, shall submit to the Executive Officer an application to amend the permit by April 1, 2008.
 - (C) The operator of more than five engines that do not have air-to-fuel ratio controllers may take an additional three months, to May 1, 2009, to install the equipment on up to 50% of the affected engines.
- (6) New Stationary Engines
- The operator of any new stationary engine issued a permit to construct after February 1, 2008 shall comply with the applicable I&M or CEMS requirements of this rule when operation commences. If applicable, the operator shall provide the required information in subparagraph (f)(1)(D) to the Executive Officer prior to the issuance of the permit to construct so that the I&M procedures can be included in the permit. A separate I&M

- (e) plan application is not required.
- (7) **Biogas Engines**
For any biogas engine for which the operator applies to the Executive Officer by April 1, 2008 for a change of permit conditions for ECF-corrected emission limits, or the approval to burn more than 10 percent natural gas in accordance with subparagraph (d)(1)(C), the biogas engine shall not be subject to the initial concentration limits of Tables II or III until August 1, 2008, provided the operator continues to comply with all emission limits in effect prior to February 1, 2008.
- (8) **Compliance Schedule Exception**
If an engine operator submits to the Executive Officer an application for an administrative change of permit conditions to add a permit condition that causes the engine permit to expire by the effective date of any requirement of this rule, then the operator is not required to comply with the earlier steps required by this subdivision for that requirement. The effective date for the CEMS requirements shall be one year after the date that a CEMS application is due.
- (9) **Exceedance of Usage Limits**
(A) If an engine was initially exempt from the new concentration limits in subparagraph (d)(1)(B) or subparagraph (d)(1)(C) that take effect on or after July 1, 2011 because of low engine use but later exceeds the low-use criteria, the operator shall bring the engine into compliance with the rule in accordance with the schedule in Table VI with the final compliance date in Table VI being twelve months after the conclusion of the first twelve-month period for which the engine exceeds the low-use criteria.
(B) If engines that were initially exempt from new CEMS by the low-use criterion in subclause (f)(1)(A)(ii)(I) later exceed that criterion, the operator shall install CEMS on those engines in accordance with the schedule in Table VII, except that the date for submitting the CEMS application in Table VII shall be six months after the conclusion of the first twelve-month period for which the engines exceed the criterion.
- (10) **RECLAIM or Former RECLAIM Facilities**
The owner or operator of a RECLAIM or former RECLAIM facility with any unit(s) subject to subdivision (d) shall meet the applicable NO_x

- (e) emission limit in Table II or III-B in accordance with the schedule specified in Rule 1100 – Implementation Schedule for NO_x Facilities.
- (f) Monitoring, Testing, Recordkeeping and Reporting
 - (1) Stationary engines:

The operator of any engine subject to the provisions of paragraph (d)(1) of this rule shall meet the following requirements:

 - (A) Continuous Emission Monitoring
 - (i) For engines of 1000 bhp and greater and operating more than two million bhp-hr per calendar year, a NO_x and CO CEMS shall be installed, operated and maintained in calibration to demonstrate compliance with the emission limits of this rule.
 - (ii)
 - (I) For facilities with engines subject to paragraph (d)(1), having a combined rating of 1500 bhp or greater at the same location, and having a combined fuel usage of more than 16 x 10⁹ Btus per year (higher heating value), CEMS shall be installed, operated and maintained in calibration to demonstrate compliance of those engines with the applicable NO_x and CO emission limits of this rule.
 - (II) Any engine that as of October 1, 2007 is located within 75 feet of another engine (measured from engine block to engine block) is considered to be at the same location. Operators of new engines shall not install engines farther than 75 feet from another engine unless the operator demonstrates to the Executive Officer that operational needs or space limitations require it.
 - (III) The following engines shall not be counted toward the combined rating or required to have a CEMS by this clause: engines rated at less than 500 bhp; standby engines that are limited by permit conditions to only operate when other primary engines are not operable; engines that are limited by permit conditions to operate less than 1000 hours

- (f) per year or a fuel usage of less than 8×10^9 Btus per year (higher heating value of all fuels used); engines that are used primarily to fuel public natural gas transit vehicles and that are required by a permit condition to be irreversibly removed from service by December 31, 2014; and engines required to have a CEMS by the previous clause. A CEMS shall not be required if permit conditions limit the simultaneous use of the engines at the same location in a manner to limit the combined rating of all engines in simultaneous operation to less than 1500 bhp.
- (IV) For engines rated below 1000 bhp, the CEMS may be time shared by multiple engines.
- (V) Operation of engines by the electric utility in the Big Bear Lake area during the failure of a transmission line to the utility may be excluded from an hours-per-year or fuel usage limit that is elected by the operator pursuant to subclause (f)(1)(A)(ii)(III).
- (VI) In lieu of complying with subclause (f)(1)(A)(ii)(I), an operator that is a public agency, or is contracted to operate engines solely for a public agency, may comply with the Inspection and Monitoring Plan requirements of subparagraph (f)(1)(D), except that the operator shall conduct diagnostic emission checks at least weekly or every 150 operating hours, whichever occurs later. If any such engine is found to exceed an applicable NO_x or CO limit by a source test required by subparagraph (f)(1)(C) or South Coast AQMD test using a portable analyzer on three or more occasions in any 12-month period, the operator shall comply with the CEMS requirements of this subparagraph for such engine in accordance with the compliance schedule of Table VII, except that the operator shall submit a CEMS application to

- (f) the Executive Officer within six months of the third exceedance.
- (iii) All CEMS required by this rule shall:
- (I) Comply with the applicable requirements of Rules 218 and 218.1, including equipment specifications and certification, operating, recordkeeping, quality assurance and reporting requirements, except as otherwise authorized by this rule;
 - (II) Include equipment that measures and records exhaust gas concentrations, both uncorrected and corrected to 15 percent oxygen on a dry basis; and
 - (III) Have data gathering and retrieval capability approved by the Executive Officer
- (iv) The operator of an engine that is required to install CEMS may request the Executive Officer to approve an alternative monitoring device (or system components) to demonstrate compliance with the emission limits of this rule. The applicant shall demonstrate to the Executive Officer that the proposed alternative monitoring device is at a minimum equivalent in relative accuracy, precision, reliability, and timeliness to a CEMS for that engine, according to the criteria specified in 40 CFR Part 75 Subpart E. In lieu of the criteria specified in 40 CFR Part 75 Subpart E, substitute criteria is acceptable if the applicant demonstrates to the Executive Officer that the proposed alternative monitoring device is at minimum equivalent in relative accuracy, precision, reliability, and timeliness to a CEMS for that engine. Upon approval by the Executive Officer, the substitute criteria shall be submitted to EPA as an amendment to the State Implementation Plan (SIP).
If the alternative monitoring device is denied or fails to be recertified, a CEMS shall be required.
- (v) Notwithstanding the requirements of Rules 218 and 218.1, operators of engines that are required to install a CEMS by clause (f)(1)(A)(ii) may:

- (f)
 - (I) Store data electronically without a strip chart recorder, but there shall be redundant data storage capability for at least 15 days of data. The operator must demonstrate that both sets of data are equivalent.
 - (II) Conduct relative accuracy testing on the same schedule for source testing in clause (f)(1)(C)(i), instead of annually. The minimum sampling time for each test is 15 minutes.
- (vi) Notwithstanding the requirements of Rules 218 and 218.1, operators of engines that are required to install a CEMS by clause (f)(1)(A)(ii), and that are to be monitored by a timeshared CEMS, may:
 - (I) Monitor an engine with the CEMS for 15 consecutive minutes, purge for the minimum required purge time, then monitor the next engine for 15 consecutive minutes. The CEMS shall operate continuously in this manner, except for required calibrations.
 - (II) Record the corrected and uncorrected NO_x, CO and diluent data at least once per minute and calculate and record the 15-minute average corrected concentrations for each sampling period.
 - (III) Have sample lines to each engine that are not the same length. The purge time will be based on the sample line with the longest response time. Response times shall be checked during cylinder gas audits. Sample lines shall not exceed 100 feet in length.
 - (IV) Conduct a minimum of five tests for each engine during relative accuracy tests.
 - (V) Perform a cylinder gas audit every calendar quarter on each engine, except for engines for which relative accuracy testing was conducted that quarter.
 - (VI) Exclude monitoring of nitrogen dioxide (NO₂) for rich-burn engines, unless source testing

- (f) demonstrates that NO₂ is more than 10 percent of total NO_x.
 - (VII) Conduct daily calibration error (CE) tests by injecting calibration gases at the analyzers, except that at least once per week the CE test shall be conducted by injecting calibration gases as close to the probe tip as practical.
 - (VIII) Stop operating and calibrating the CEMS during any period that the operator has a continuous record that the engine was not in operation.
- (vii) A CO CEMS shall not be required for lean-burn engines or an engine that is subject to Regulation XX (RECLAIM), and not required to have a NO_x CEMS by that regulation.
- (viii) Notwithstanding the requirements of this paragraph and paragraph (c)(2) of Rule 2012, an operator may take an existing NO_x CEMS out of service for up to two weeks (cumulative) in order to modify the CEMS to add CO monitoring.
- (ix) In lieu of clause (f)(1)(A)(i), an Essential Public Service or a contractor for an Essential Public Service that is operating a biogas engine of 1000 bhp and greater and less than 1200 bhp, may alternatively comply with the Inspection and Monitoring Plan requirements of subparagraph (f)(1)(D), provided the operator conducts diagnostic emission checks at least weekly or every 150 operating hours, whichever occurs later.
- (x) If an Essential Public Service or a contractor for an Essential Public Service has elected to comply with the Inspection and Monitoring Plan provisions pursuant to clause (f)(1)(A)(ix) for biogas engines is found to exceed an applicable NO_x or CO limit by a source test required by subparagraph (f)(1)(C) or South Coast AQMD test using a portable analyzer on three or more occasions in any 12-month period, the operator shall comply with the CEMS requirements of clause (f)(1)(A)(i) for such biogas engine in accordance with the compliance schedule of Table VII

- (f) except that the operator shall submit a CEMS application to the Executive Officer within six months of the third exceedance.
- (B) Elapsed Time Meter
Maintain an operational non-resettable totalizing time meter to determine the engine elapsed operating time.
- (C) Source Testing
- (i) Effective August 1, 2008, conduct source testing for NO_x, VOC reported as carbon, and CO concentrations (concentrations in ppm by volume, corrected to 15 percent oxygen on dry basis) at least once every two years from the date of the previous source test, no later than the last day of the calendar month that the test is due, or every 8,760 operating hours, whichever occurs first. Relative accuracy tests required by Rule 218.1 or 40 CFR Part 75 Subpart E shall satisfy this requirement for those pollutants monitored by a CEMS. The above source test frequency may be reduced to once every three years if the engine has operated less than 2,000 hours since the last source test. If the engine has not been operated before the date a source test is due, the source test shall be conducted by the end of seven consecutive days or 15 cumulative days of resumed operation. The operator of the engine shall keep sufficient operating records to demonstrate that it meets the requirements for extension of the source testing deadlines.
- (ii) Conduct source testing for at least 30 minutes during normal operation (actual duty cycle). This test shall not be conducted under a steady-state condition unless it is the normal operation. In addition, conduct source testing for NO_x and CO emissions for at least 15 minutes at: an engine's actual peak load, or the maximum load that can be practically achieved during the test, and; at actual minimum load, excluding idle, or the minimum load that can be practically achieved during the test. These additional two tests are not required if the permit limits the engine to operating at one defined load, $\pm 10\%$. No pre-tests for

- (f) compliance are permitted. The emission test shall be conducted at least 40 operating hours, or at least 1 week, after any engine servicing or tuning. If an emission exceedance is found during any of the three phases of the test, that phase shall be completed and reported. The operator shall correct the exceedance, and the source test may be immediately resumed. Relative accuracy tests required by Rule 218.1 or 40 CFR Part 75 Subpart E shall satisfy this requirement for those pollutants monitored by a CEMS for all applicable operating loads specified in this clause (f)(1)(C)(ii).
- (iii) Use a contractor to conduct the source testing that is approved by the Executive Officer under the Laboratory Approval Program for the necessary test methods.
- (iv) Submit a source test protocol to the Executive Officer for written approval at least 60 days before the scheduled date of the test. The source test protocol shall include the name, address and phone number of the engine operator and a South Coast AQMD-approved source testing contractor that will conduct the test, the application and permit number(s), emission limits, a description of the engine(s) to be tested, the test methods and procedures to be used, the number of tests to be conducted and under what loads, the required minimum sampling time for the VOC test, based on the analytical detection limit and expected VOC levels, and a description of the parameters to be measured in accordance with the I&M plan required by subparagraph (f)(1)(D). The source test protocol shall be approved by the Executive Officer prior to any testing. The operator is not required to submit a protocol for approval if: there is a previously approved protocol that meets these requirements; the engine has not been altered in a manner that requires a permit alteration; and emission limits have not changed since the previous test. If the operator submits the protocol by the required date, and the Executive Officer takes longer than 60 days to approve the protocol, the

- (f) operator shall be allowed the additional time needed to conduct the test.
- (v) Provide the Executive Officer at least 30 days prior notice of any source test to afford the Executive Officer the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the engine operator shall notify the Executive Officer as soon as possible of any delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Executive Officer by mutual agreement.
- (vi) Submit all source test reports, including a description of the equipment tested, to the Executive Officer within 60 days of completion of the test.
- (vii) By February 1, 2009, provide, or cause to be provided, source testing facilities as follows:
 - (I) Sampling ports adequate for the applicable test methods. This includes constructing the air pollution control system and stack or duct such that pollutant concentrations can be accurately determined by applicable test methods;
 - (II) Safe sampling platform(s), scaffolding or mechanical lifts, including safe access, that comply with California General Safety Orders. Agricultural stationary engines are excused from this subclause if they are in remote locations without electrical power;
 - (III) Utilities for sampling and testing equipment. Agricultural stationary engines are exempt from this subclause if they are on wheels and moved to storage during the off season.
- (D) Inspection and Monitoring (I&M) Requirements
 - (i) I&M Plan. The operator shall:
 - (I) Submit to the Executive Officer for written approval

- (f) an I&M plan. One plan application is required for each facility that does not have a NO_x and CO CEMS for each engine. The I&M plan shall include all items listed in Attachment 1. The owner or operator may request an alternative item(s) in Attachment 1 that is determined by the Executive Officer to be equivalent in meeting the same objectives.
- (II) Upon written approval by the Executive Officer, implement the I&M plan as approved.
 - (III) Submit an I&M plan for approval to the Executive Officer for a plan revision before any change in I&M plan operations can be implemented. The operator shall apply for a plan revision prior to any change in emission limits or control equipment.
- (ii) Diagnostic emission checks by a portable NO_x, CO, and oxygen analyzer shall be conducted at least weekly or every 150 engine operating hours, whichever occurs later.
- (I) If an engine is in compliance for three consecutive diagnostic emission checks, without any adjustments to the oxygen sensor set points, then the engine may be checked monthly or every 750 engine operating hours, whichever occurs later, until there is a noncompliant diagnostic emission check or, for rich-burn engines with three-way catalysts, until the oxygen sensor is replaced. When making adjustments to the oxygen sensor set points that are not within 72 hours prior to the diagnostic emission check, returning to a more frequent diagnostic emission check schedule is not required if the engine is in compliance with the applicable emission limits prior to and after the set point adjustments.
 - (II) For diesel engines and other lean-burn engines that operate at a RECLAIM or former RECLAIM facility or have a NO_x CEMS, and that are subject to a CO limit more stringent than the 2000 ppmvd limit

- (f) of Tables II or III, a CO diagnostic emission check shall be performed at least quarterly, or every 2,000 engine operating hours, whichever occurs later.
- (III) For diesel engines and other lean-burn engines that operate at a RECLAIM or former RECLAIM facility or have a NOx CEMS, and that are not subject to a CO limit more stringent than the 2000 ppmvd limit of Tables II or III, diagnostic emission checks are not required.
- (IV) No engine or control system maintenance or tuning may be conducted within 72 hours prior to the diagnostic emission check, unless it is an unscheduled, required repair.
- (V) The portable analyzer shall be calibrated, maintained and operated in accordance with the manufacturer's specifications and recommendations and the Protocol for the Periodic Monitoring of Nitrogen Oxides, Carbon Monoxide, and Oxygen from Stationary Engines Subject to South Coast Air Quality Management District Rule 1110.2, approved on February 1, 2008, or subsequent protocol approved by EPA and the Executive Officer.
- (iii) Requirements for responding to, diagnosing and correcting breakdowns, faults, malfunctions, alarms, diagnostic emission checks finding emissions in excess of rule or permit limits, and parameters out-of-range.
 - (I) For any diagnostic emission check or breakdown that results in emissions in excess of those allowed by this rule or a permit condition, the operator shall correct the problem as soon as possible and demonstrate compliance with another diagnostic emission check, or shut down an engine by the end of an operating cycle, or within 24 hours from the time the operator knew of the breakdown or excess emissions, or reasonably should have known,

- (f)
 - (II) whichever is sooner.
 - (II) For excess emissions due to breakdowns that result in NO_x or CO emissions greater than the concentrations specified in Table VIII, the operator shall not be considered in violation of this rule if the operator demonstrates the all of the following: (1) compliance with subclause (f)(1)(D)(iii)(I), (2) compliance with the reporting requirements of subparagraph (f)(1)(H), and (3) the engine with excess emissions has no more than three incidences of breakdowns with emissions exceeding Table VIII limits in the calendar quarter.

TABLE VIII EXCESS EMISSION CONCENTRATION THRESHOLDS FOR BREAKDOWNS		
	NO _x (ppmvd) ¹	CO (ppmvd) ¹
Lean-Burn Engines	45	250
Rich-Burn Engines	150	2000
Biogas Engines ²	185	2000

¹ Corrected to 15% oxygen.

² Effective up to the time of compliance with the limits specified in Table III-B, after which the thresholds revert to the applicable lean or rich-burn engine limits.

- (III) Any emission check conducted by South Coast AQMD staff that finds excess emissions will be treated as a violation.
- (IV) For other problems, such as parameters out-of-range, an operator shall correct the problem and demonstrate compliance with another diagnostic emission check within 48 hours of the operator first knowing of the problem.
- (iv) If an engine has a NO_x CEMS and does not have a CO CEMS, it is subject to this subparagraph (f)(1)(D) as it

(f) pertains to CO only.

(E) Operating Log

Maintain a monthly engine operating log that includes:

- (i) Total hours of operation;
- (ii) Type of liquid and/or type of gaseous fuel;
- (iii) Fuel consumption (cubic feet of gas and gallons of liquid);
and
- (iv) Cumulative hours of operation since the last source test
required in subparagraph (f)(1)(C).

Facilities subject to Regulation XX may maintain a quarterly log for engines that are designated as a process unit on the facility permit until such time that the facility becomes a former RECLAIM facility. The facility shall maintain a monthly engine log starting in the month that it has become a former RECLAIM facility.

(F) New Non-Emergency Electrical Generating Engines

Operators of engines subject to the requirements of subparagraph (d)(1)(L) shall also meet the following requirements.

- (i) The engine generator shall be monitored with a calibrated electric meter that measures the net electrical output of the engine generator system, which is the difference between the electrical output of the generator and the electricity consumed by the auxiliary equipment necessary to operate the engine generator.
- (ii) For engines monitored with a CEMS, the emissions of the monitored pollutants in ppmvd corrected to 15% O₂, lbs/hr, and lbs/MW_e-hr and the net MW_e-hrs produced shall be calculated and recorded for the four 15-minute periods of each hour of operation. The mass emissions of NO_x shall be calculated based on the measured fuel flow and one of the F factor methods of 40 CFR Part 60, Appendix A, Method 19, or other method approved by the Executive Officer. Mass emissions of CO shall be calculated in the same manner as NO_x, except that the ppmvd CO shall be converted to lb/scf using a conversion factor of 0.727×10^{-7} .

- (f)
 - (iii) For NO_x and CO emissions from engines not monitored with a CEMS and VOC emissions from all engines, the emissions of NO_x, CO and VOC in lbs/MW_e-hr shall be calculated and recorded whenever the pollutant is measured by a source test or diagnostic emission check. Mass emissions of NO_x and CO shall be calculated in the same manner as the previous clause. Mass emissions of VOC shall be calculated in the same manner, except that the ppmvd VOC as carbon shall be converted to lb/scf using a conversion factor of 0.415×10^{-7} .
 - (iv) For engines generating combined heat and power that rely on the EEF to comply with Table IV emission standards, the daily and annual useful heat recovered (MW_{th}-hrs), net electrical energy generated (MW_e-hrs) and EEF shall be monitored and recorded.
 - (v) Other methods of calculating mass emissions than those specified, such as by direct measurement of exhaust volume, may be used if approved by the Executive Officer. All monitoring, calculation, and recordkeeping procedures must be approved by the Executive Officer.
 - (vi) Operators of combined heat and power engines shall submit to the Executive Officer the reports of the following information within 15 days of the end of the first year of operation, and thereafter within 15 days of the end of each calendar year: the annual net electrical energy generated (MW_e-hrs); the annual useful heat recovered (MW_{th}-hrs), the annual EEF calculated in accordance with clause (d)(1)(L)(ii); and the maximum annual EEF allowed by the operating permit. If the actual annual EEF exceeds the allowed EEF, the report shall also include the time periods and emissions for all instances where emissions exceeded any emission standard in Table IV.
- (G) Portable Analyzer Operator Training
The portable analyzer tests required by the I&M Plan requirements of subparagraph (f)(1)(D) shall only be conducted by a person who

(f) has completed an appropriate South Coast AQMD-approved training program in the operation of portable analyzers and has received a certification issued by the District.

(H) Reporting Requirements

- (i) The operator shall report to the Executive Officer, by telephone (1-800-CUT-SMOG or 1-800-288-7664) or other South Coast AQMD-approved method, any breakdown resulting in emissions in excess of rule or permit emission limits within one hour of such noncompliance or within one hour of the time the operator knew or reasonably should have known of its occurrence. Such report shall identify the time, specific location, equipment involved, responsible party to contact for further information, and to the extent known, the causes of the noncompliance, and the estimated time for repairs. In the case of emergencies that prevent a person from reporting all required information within the one-hour limit, the Executive Officer may extend the time for the reporting of required information provided the operator has notified the Executive Officer of the noncompliance within the one-hour limit.
- (ii) Within seven calendar days after the reported breakdown has been corrected, but no later than thirty calendar days from the initial date of the breakdown, unless an extension has been approved in writing by the Executive Officer, the operator shall submit a written breakdown report to the Executive Officer which includes:
 - (I) An identification of the equipment involved in causing, or suspected of having caused, or having been affected by the breakdown;
 - (II) The duration of the breakdown;
 - (III) The date of correction and information demonstrating that compliance is achieved;
 - (IV) An identification of the types of excess emissions, if any, resulting from the breakdown;
 - (V) A quantification of the excess emissions, if any, resulting from the breakdown and the basis used to

- (f) quantify the emissions;
 - (VI) Information substantiating whether the breakdown resulted from operator error, neglect or improper operation or maintenance procedures;
 - (VII) Information substantiating that steps were immediately taken to correct the condition causing the breakdown, and to minimize the emissions, if any, resulting from the breakdown;
 - (VIII) A description of the corrective measures undertaken and/or to be undertaken to avoid such a breakdown in the future; and
 - (IX) Pictures of any equipment which failed, if available.
- (iii) Within 15 days of the end of each calendar quarter, the operator shall submit to the Executive Officer a report that lists each occurrence of a breakdown, fault, malfunction, alarm, engine or control system operating parameter out of the acceptable range established by an I&M plan or permit condition, or a diagnostic emission check that finds excess emissions. Such report shall be in a South Coast AQMD-approved format, and for each incident shall identify the time of the incident, the time the operator learned of the incident, specific location, equipment involved, responsible party to contact for further information, to the extent known the causes of the event, the time and description of corrective actions, including shutting an engine down, and the results of all portable analyzer NO_x and CO emissions checks done before or after the corrective actions. The operator shall also report if no incidents occurred.

(2) Portable engines:

The operator of any portable engine shall maintain a monthly engine operating log that includes:

- (i) Total hours of operation; or
- (ii) Type of liquid and/or type of gaseous fuel; and
- (iii) Fuel consumption (cubic feet of gas and gallons of liquid).

Facilities subject to Regulation XX may maintain a quarterly log for engines that are designated as a process unit on the facility permit until

- (f) such time that the facility becomes a former RECLAIM facility. The facility shall maintain a monthly engine log starting in the month that it has become a former RECLAIM facility.
- (3) Recordkeeping for All Engines
All data, logs, test reports and other information required by this rule shall be maintained for at least five years and made available for inspection by the Executive Officer.
- (g) Test Methods
Testing to verify compliance with the applicable requirements shall be conducted in accordance with the test methods specified in Table IX, or any test methods approved by CARB and EPA, and authorized by the Executive Officer.

TABLE IX TESTING METHODS	
Pollutant	Method
NO _x	South Coast Air Quality Management District Method 100.1
CO	South Coast Air Quality Management District Method 100.1
VOC	South Coast Air Quality Management District Method 25.1* or Method 25.3*

* Excluding ethane and methane

A violation of any standard of this rule established by any of the specified test methods, or any test methods approved by the CARB or EPA, and authorized by the Executive Officer, shall constitute a violation of this rule.

- (h) Alternate Compliance Option
 - (1) In lieu of complying with the applicable emission limits by the effective date specified in Table III-B or subparagraph (d)(1)(F), owners or operators of biogas-fired units may elect to defer compliance in quarterly increments up to one additional year, provided the owner or operator:
 - (A) Submits an alternate compliance plan and pays a Compliance Flexibility Fee, as provided for in paragraph (h)(2), to the Executive Officer at least 60 days prior to the applicable compliance date in either Table III-B or subparagraph (d)(1)(F) for qualified biogas technology demonstration project engines, and

- (h) (B) Maintains on-site a copy of verification of Compliance Flexibility Fee payment and South Coast AQMD approval of the alternate compliance plan that shall be made available upon request to South Coast AQMD staff.

(2) Plan Submittal

The alternate compliance plan submitted pursuant to paragraph (h)(1) shall include:

- (A) A completed South Coast AQMD Form 400A with company name, South Coast AQMD Facility ID, identification that application is for a compliance plan (Section 7a of form), and identification that request is for Rule 1110.2 Compliance Flexibility Fee option (Section 9 of form);
- (B) Attached documentation of unit permit ID, unit rated brake horsepower (bhp), and fee calculation;
- (C) Filing Fee payment; and
- (D) Compliance Flexibility Fee payment as calculated by the following equation:

$$CFF = bhp \times R \times Q$$

Where,

CFF = Compliance Flexibility Fee, \$

bhp = rated brake horsepower of unit

R = Fee Rate = \$11.75 per brake horsepower per quarter

Q = Number of quarters (up to four)

(3) Usage of Compliance Flexibility Fee funds

The funds collected from the Compliance Flexibility Fee will be applied to South Coast AQMD NOx reduction programs pursuant to protocols approved under South Coast AQMD rules.

(i) Exemptions

(1) The provisions of subdivision (d) shall not apply to:

- (A) All orchard wind machines powered by an internal combustion engine.
- (B) Emergency standby engines, engines used for fire-fighting and flood control, and any other emergency engines approved by the Executive Officer, which have permit conditions that limit

- (i) operation to 200 hours or less per year as determined by an elapsed operating time meter, and agricultural emergency standby engines that are exempt from a South Coast AQMD permit and operate 200 hours or less per year as determined by an elapsed operating time meter.
- (C) Laboratory engines used in research and testing purposes.
- (D) Engines operated for purposes of performance verification and testing of engines.
- (E) Auxiliary engines used to power other engines or gas turbines during start-ups.
- (F) Portable engines that are registered under the state registration program pursuant to Title 13, Article 5 of the CCR.
- (G) Nonroad engines, with the exception that subparagraph (d)(2)(A) shall apply to portable generators.
- (H) Engines operating on San Clemente Island.
- (I) Agricultural stationary engines provided that:
 - (i) The operator submits documentation to the Executive Officer by the applicable date in Table V when permit applications are due that the applicable electric utility has rejected an application for an electrical line extension to the location of the engines, or the Executive Officer determines that the operator does not qualify, due to no fault of the operator, for funding authorized by California Health and Safety Code Section 44229; and
 - (ii) The operator replaces the engines, in accordance with the compliance schedule of Table X, with engines certified by CARB to meet the Tier 4 emission standards of 40 CFR Part 1039 Section 1039.101, Table 1. These Tier 4 replacement engines shall be considered to comply with Best Available Control Technology; and
 - (iii) The operator does not operate the Tier 4 engines in a manner that exceeds the not-to-exceed standards of 40 CFR Part 1039 Section 1039.101(e), as determined by the test methods of subdivision (g) of this rule.

(i)

TABLE X COMPLIANCE SCHEDULE FOR INSTALLATION OF NEW TIER 4 STATIONARY AGRICULTURAL ENGINES	
Action Required	Due Date
Submit to the Executive Officer applications for permits to construct engine modifications, control equipment, or replacement engines	March 1, 2013
Initiate construction of engine modifications, control equipment, or replacement engines	September 30, 2013, or 30 days after the permit to construct is issued, whichever is later
Complete construction and comply with applicable requirements	January 1, 2014, or 60 days after the permit to construct is issued, whichever is later
Complete initial source testing	March 1, 2014, or 120 days after the permit to construct is issued, whichever is later

- (J) An engine start-up, until sufficient operating temperatures are reached for proper operation of the emission control equipment or for the tuning of the engine and/or emission control equipment, and an engine shutdown period. The periods shall not exceed 30 minutes, unless the Executive Officer approves in writing a longer period not exceeding two hours for an engine and makes it a condition of the engine permit.
- (K) An engine start-up, after an engine overhaul or major repair requiring removal of a cylinder head or for the installation or the replacement of catalytic emission control equipment, for a period not to exceed four operating hours.
- (L) The initial commissioning of a new engine for a period specified by permit conditions, provided the operator takes measures to reduce emissions and the duration of the commissioning to the extent possible. The commissioning period shall not exceed 150 operating hours.

- (i)
 - (M) An engine used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity, or natural gas is available within a ½ mile radius, has a manufacturer's rating of 100 bhp or less, and is fired exclusively on diesel #2, compressed natural gas, or liquefied petroleum gas.
 - (N) Any engine at a RECLAIM or former RECLAIM facility that is subject to a NOx emission limit in a different rule for an industry-specific category defined in Rule 1100 – Implementation Schedule for NOx facilities.
 - (O) An engine operated in either the Southern California Coastal Waters or Outer Continental Shelf Waters provided:
 - (i) The engine is used to power a crane;
 - (ii) The engine is certified by CARB to meet the Tier 4 – Final emission standards of 40 CFR Part 1039 Section 1039.101 Table 1;
 - (iii) The engine is operated per the specifications of the engine manufacturer; and
 - (iv) The operator submits an I&M Plan to the Executive Officer for approval and implementation, pursuant to the requirements of subparagraph (f)(1)(D).
- (2) The facility operator of MM PRIMA DESHECHA ENERGY, LLC, or any of its successors, shall not be required to meet the emissions requirements specified in Table III-B if they submit a detailed retirement plan that is approved by the Executive Officer for the permanent shutdown of all equipment subject to Rule 1110.2 by October 1, 2022. The plan shall describe in detail the steps and schedule that will be taken to remove the equipment or render the equipment permanently inoperable by October 1, 2022 and shall require the surrendering of the permits for the equipment by that date. The plan shall be submitted before July 1, 2016 and include:
 - (A) South Coast AQMD Form 400A with company name, South Coast AQMD Facility ID, and permit number(s) for the subject equipment; and
 - (B) Filing Fee payment pursuant to Rule 306.

The Executive Officer shall act on the plan before January 1, 2017.

- (i) (3) The provisions of this rule shall not apply to units located at landfills or publicly owned treatment works that are subject to a NO_x emission limit in a Regulation XI rule adopted or amended after November 1, 2019.

ATTACHMENT 1

An I&M Plan submitted to the Executive Officer for approval and implementation, pursuant to the requirements of paragraphs (e)(4) and (e)(6), and subparagraph (f)(1)(D) of the rule, shall include:

- A. Identification of engine and control equipment operating parameters necessary to maintain pollutant concentrations within the rule and permit limits. This shall include, but not be limited to:
1. Procedures for using a portable NO_x, CO and oxygen analyzer to establish the set points of the air-to-fuel ratio controller (AFRC) at 25%, 60% and 95% load (or fuel flow rate), $\pm 5\%$, or the minimum, midpoint and maximum loads that actually occur during normal operation, $\pm 5\%$, or at any one load within the $\pm 10\%$ range that an engine permit is limited to in accordance with clause (f)(1)(C)(ii) of the rule;
 2. Procedures for verifying that the AFRC is controlling the engine to the set point during the daily monitoring required by subdivision D of this attachment;
 3. Procedures for reestablishing all AFRC set points with a portable NO_x, CO and oxygen analyzer whenever a set point must be readjusted, within 24 hours of an oxygen sensor replacement, and, for rich-burn engines with three way catalysts, between 100 and 150 engine operating hours after an oxygen sensor replacement;
 4. For engines with catalysts, the maximum allowed exhaust temperature at the catalyst inlet, based on catalyst manufacturer specifications;
 5. For lean-burn engines with selective catalytic control devices, the minimum exhaust temperature at the catalyst inlet required for reactant flow (ammonia or urea), and procedures for using a portable NO_x and oxygen analyzer to establish the acceptable range of reactant flow rate, as a function of load.
- Parameter monitoring is not required for diesel engines without exhaust gas recirculation and catalytic exhaust control devices.
- B. Procedures for alerting the operator to emission control malfunctions. Engine control systems, such as air-to-fuel ratio controllers, shall have a malfunction indicator light and audible alarm.
- C. Procedures for diagnostic emission checks conducted by a portable NO_x, CO, and oxygen analyzer per the requirements of clause (f)(1)(D)(ii) of the rule.
- D. Procedures for at least daily monitoring, inspection and recordkeeping of:

1. engine load or fuel flow rate;
2. the set points, maximums and acceptable ranges of the parameters identified by subdivision A of this attachment, and the actual values of the same parameters;
3. the engine elapsed time meter operating hours;
4. the operating hours since the last diagnostic emission check required by clause (f)(1)(D)(ii) of the rule;
5. for rich-burn engines with three-way catalysts, the difference of the exhaust temperatures (ΔT) at the inlet and outlet of the catalyst (changes in the ΔT can indicate changes in the effectiveness of the catalyst);
6. engine control system and AFRC system faults or alarms that affect emissions.

The daily monitoring and recordkeeping may be done in person by the operator, or by remote monitoring.

- E. Procedures for responding to, diagnosing and correcting breakdowns, faults, malfunctions, alarms, diagnostic emission checks finding emissions in excess of rule or permit limits, and parameters out-of-range, per the requirements of clause (f)(1)(D)(iii) of the rule.
- F. Procedures and schedules for preventive and corrective maintenance.
- G. Procedures for reporting noncompliance to the Executive Officer in accordance with subparagraph (f)(1)(H) of the rule.
- H. Procedures and format for the recordkeeping of monitoring and other actions required by the plan.

(Adopted April 2, 2004)(Amended March 4, 2005)
(Amended November 3, 2006)(Amended June 1, 2007)
(Amended May 4, 2012)(Amended October 1, 2021)

**RULE 1470 REQUIREMENTS FOR STATIONARY DIESEL-FUELED
INTERNAL COMBUSTION AND OTHER COMPRESSION
IGNITION ENGINES**

(a) Applicability

- (1) This rule shall apply to any person who either sells a stationary compression ignition (CI) engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in the South Coast Air Quality Management District, except as provided in subdivision (h).
- (2) This rule shall apply to any person who owns or operates a stationary CI engine in the South Coast Air Quality Management District with a rated brake horsepower greater than 50 (>50 bhp), except as provided in subdivision (h).

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) **AGRICULTURAL OPERATIONS** means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.
- (2) **ALTERNATIVE FUEL** means natural gas, propane, ethanol, or methanol.
- (3) **ALTERNATIVE DIESEL FUEL** means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM Standard Specification for Diesel Fuel Oils D975-11, "Standard Specification for Diesel Fuel Oils," as modified in March 2011, which is incorporated herein by reference, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends that do not meet the definition

of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:

- (A) the additive is supplied to the engine fuel by an on-board dosing mechanism; or
 - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine; or
 - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (4) **APPROACH LIGHT SYSTEM WITH SEQUENCED FLASHER LIGHTS IN CATEGORY 1 AND CATEGORY 2 CONFIGURATIONS (ALSF-1 AND ALSF-2)** means high intensity approach lighting systems with sequenced flashers used at airports to illuminate specified runways during category II or III weather conditions, where category II means a decision height of 100 feet and runway visual range of 1,200 feet, and category III means no decision height or decision height below 100 feet and runway visual range of 700 feet.
- (5) **BASELINE OR BASELINE EMISSIONS** means the emissions level of a diesel-fueled engine using CARB diesel fuel as configured upon initial installation or by January 1, 2003, whichever is later.
- (6) **CALIFORNIA AIR RESOURCES BOARD (CARB) DIESEL FUEL** means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in Title 13 CCR, Sections 2281 and 2282.
- (7) **CANCER RISK** means the characterization of the probability of developing cancer from exposure to environmental chemical hazards, in accordance with the methodologies specified in “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments”, Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (8) **CERTIFIED CI ENGINE** means a CI engine that is certified to meet the Tier 1, Tier 2, Tier 3, or Tier 4 Off-Road CI Certification Standards as specified in Title 13, California Code of Regulations, section 2423, or a CI engine that is certified to comply with the new nonroad CI engine emissions standards as specified in 40 CFR, Part 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (2006).

- (9) COMPRESSION IGNITION (CI) ENGINE means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.
- (10) CONTROL AREA means any electrical region in California that regulates its power generation in order to balance electrical loads and maintain planned interchange schedules with other control areas.
- (11) CUMULATIVELY means the aggregation of hours or days of engine use, and any portion of an hour or day of engine use, toward a specified time limit(s).
- (12) DATE OF ACQUISITION OR SUBMITTAL means
- (A) For each District-approved permit or District registration:
- (i) The date the application for the District permit or the application for engine registration was received by the District; or
- (ii) Upon District approval, the date of purchase.
- (B) For an engine subject to neither a District permit program nor a District registration program for stationary sources, the date of purchase.
- (13) DATE OF PURCHASE means the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.
- (14) DEMAND RESPONSE PROGRAM (DRP) means a program for reducing electrical demand using an interruptible service contract (ISC).
- (15) DIESEL FUEL means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons – organic compounds consisting exclusively of the elements carbon and hydrogen – that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.
- (16) DIESEL-FUELED means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (17) DIESEL PARTICULATE FILTER (DPF) means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either

physical action or by oxidizing (burning off) the particles in a process called regeneration.

- (18) DIESEL PARTICULATE MATTER (PM) means the particles found in the exhaust of diesel-fueled CI engines as determined in accordance with the test methods identified in subdivision (g).
- (19) DIGESTER GAS is any gas derived from anaerobic decomposition of organic matter.
- (20) DIRECT-DRIVE EMERGENCY STANDBY FIRE PUMP ENGINES means engines directly coupled to pumps exclusively used in water-based fire protection systems.
- (21) DIRECT-DRIVE EMERGENCY STANDBY FLOOD CONTROL PUMP ENGINES means engines directly coupled to pumps exclusively used for the pumping of water or sewage to prevent or mitigate a flood or sewage overflow, or the pumping of water to maintain pressure in the water distribution system.
- (22) DRP ENGINE means an engine that is enrolled in a DRP.
- (23) DUAL-FUEL DIESEL PILOT ENGINE means a dual-fueled engine that uses diesel fuel as a pilot ignition source at an annual average ratio of less than 5 parts diesel fuel to 100 parts total fuel on an energy equivalent basis.
- (24) DUAL-FUEL ENGINE means any CI engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.
- (25) EMERGENCY STANDBY ENGINE means a stationary engine that meets the criteria specified in subparagraphs (b)(25)(A), (b)(25)(B), and (b)(25)(C) and any combination of subparagraphs (b)(25)(D), (b)(25)(E), or (b)(25)(F) below:
 - (A) is installed for the primary purpose of providing electrical power or mechanical work during an emergency use and is not the source of primary power at the facility; and
 - (B) is operated to provide electrical power or mechanical work during an emergency use; and

- (C) is not operated to supply power to an electric grid or does not supply power as part of a financial arrangement with any entity, except as allowed in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); and
 - (D) is operated under limited circumstances for maintenance and testing, emissions testing, or initial start-up testing, as specified in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); or
 - (E) is operated under limited circumstances in response to an impending outage, as specified in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); or
 - (F) is operated under limited circumstances under a DRP as specified in paragraphs (c)(7) and (c)(8).
- (26) EMERGENCY USE means providing electrical power or mechanical work during any of the following events and subject to the following conditions:
- (A) the failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility:
 - (i) which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
 - (ii) which is demonstrated by the owner or operator to the Executive Officer's satisfaction to have been beyond the reasonable control of the owner or operator.
 - (B) the failure of a facility's internal power distribution system:
 - (i) which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
 - (ii) which is demonstrated by the owner or operator to the Executive Officer's satisfaction to have been beyond the reasonable control of the owner or operator;
 - (C) the pumping of water or sewage to prevent or mitigate a flood or sewage overflow;
 - (D) the pumping of water for fire suppression or protection;
 - (E) the powering of ALSF-1 and ALSF-2 airport runway lights under category II or III weather conditions;
 - (F) the pumping of water to maintain pressure in the water distribution system for the following reasons:
 - (i) a pipe break that substantially reduces water pressure; or

- (ii) high demand on the water supply system due to high use of water for fire suppression; or
 - (iii) the breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities.
- (27) EMISSION CONTROL STRATEGY means any device, system, or strategy employed with a diesel-fueled CI engine that is intended to reduce emissions including, but not limited to, particulate filters, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives used in combination with particulate filters, alternative diesel fuels, and any combination of the above.
- (28) END USER means any person who purchases or leases a stationary diesel-fueled engine for operation in the South Coast Air Quality Management District. Persons purchasing engines for the sole purpose of resale are not considered “end users.”
- (29) ENROLLED means the ISC is in effect during the specified time period for an engine in an ISC.
- (30) EXECUTIVE OFFICER means the executive officer of the South Coast Air Quality Management District, or his or her designated representative.
- (31) FACILITY means any source or group of sources or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.
- (32) FUEL ADDITIVE means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine;

or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.

- (33) GENERATOR SET means a CI engine coupled to a generator that is used as a source of electricity.
- (34) HAZARD INDEX means the sum of individual acute or chronic hazard quotients for each substance affecting a particular toxicological endpoint, as determined in accordance with the requirements of “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments”, Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (35) HAZARDOUS AIR POLLUTANT (HAP) means any pollutant on a list maintained by EPA pursuant to Section 112(b) of the federal Clean Air Act.
- (36) HEALTH FACILITY has the same meaning as defined in Section 1250 of the California Health and Safety Code.
- (37) IN-USE means a CI engine that is not a “new” CI engine.
- (38) INITIAL START-UP TESTING means operating the engine or supported equipment to ensure their proper performance either:
 - (A) for the first time after installation of a stationary diesel-fueled CI engine at a facility, or
 - (B) for the first time after installation of emission control equipment on an in-use stationary diesel-fueled CI engine.
- (39) INTERRUPTIBLE SERVICE CONTRACT (ISC) means a contractual arrangement in which a utility distribution company provides lower energy costs to a nonresidential electrical customer in exchange for the ability to reduce or interrupt the customer’s electrical service during a Stage 2 or Stage 3 alert, or during a transmission emergency.
- (40) JET FUEL means fuel meeting any of the following specifications:
 - (A) ASTM D 1655-02, *Standard Specification for Aviation Turbine Fuels*, which is incorporated herein by reference. Jet fuels meeting this specification includes Jet A, Jet A-1, and Jet B;
 - (B) Military Detail (MIL-DTL) 5624T, *Turbine Fuels, Aviation, Grades Jet Propellant (JP) JP-4, JP-5, and JP-5/JP8 ST*, dated September 18, 1998, which is incorporated herein by reference; and
 - (C) Military Test (MIL-T) 83133E, *Turbine Fuels, Aviation, Kerosene Types, North Atlantic Treaty Organization (NATO) F-34 (JP-8)*,

NATO F-35 and *JP-8+100*, dated April 1, 1999, which is incorporated herein by reference.

- (41) LANDFILL GAS means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.
- (42) LOCATION means any single site at a building, structure, facility, or installation. For the purpose of this definition, a site is a space occupied or to be occupied by an engine.
- (43) MAINTENANCE AND TESTING means operating an emergency standby CI engine to:
 - (A) Evaluate the ability of the engine or its supported equipment to perform during an emergency. “Supported Equipment” includes, but is not limited to, generators, pumps, transformers, switchgear, uninterruptible power supply, and breakers; or
 - (B) Facilitate the training of personnel on emergency activities; or
 - (C) Provide electric power for the facility when the utility distribution company takes its power distribution equipment offline to service that equipment for any reason that does not qualify as an emergency use; or
 - (D) Provide additional hours of operation to perform testing on an engine that has experienced a breakdown or failure during maintenance. Upon approval of the Executive Officer, these additional hours of operation will not be counted in the maximum allowable annual hours of operation for the emergency standby CI engine.
- (44) MAJOR SOURCE means a plant that emits or has the potential to emit any single hazardous air pollutant (HAP) at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site. Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.
- (45) MAXIMUM RATED POWER means the maximum brake kilowatt output of an engine as determined from any of the following, whichever is the greatest:
 - (A) The manufacturer’s sales and service literature;

- (B) the nameplate of the unit; or
 - (C) if applicable, as shown in the application for certification of the engine.
- (46) MODEL YEAR means the stationary CI engine manufacturer's annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.
- (47) NEW or NEW CI ENGINE means the following:
- (A) a stationary CI engine installed or to be installed at a facility on or after January 1, 2005, including an engine relocated from an off-site location on or after January 1, 2005, except the following shall be deemed in-use engines:
 - (i) a replacement stationary CI engine that is installed to temporarily replace an in-use engine while the in-use engine is undergoing maintenance and testing, provided the replacement engine emits no more than the in-use engine and the replacement engine is not used more than 180 days cumulatively in any 12-month rolling period;
 - (ii) an engine for which a District-approved application for a district permit or engine registration for stationary sources was filed with the District prior to January 1, 2005;
 - (iii) an engine that is one of four or more engines owned by an owner or operator and is relocated prior to January 1, 2008 to an offsite location that is owned by the same owner or operator;
 - (iv) an engine installed at a facility prior to January 1, 2005 and relocated within the same facility after January 1, 2005;
 - (v) a model year 2004 or 2005 engine with a date of purchase prior to January 1, 2005, for use in the South Coast Air Quality Management District.
 - (B) a stationary CI engine that has been reconstructed after January 1, 2005 shall be deemed a new engine unless the sum of the costs of all individual reconstructions of that engine after January 1, 2005 is less than 50% of the lowest-available purchase price, determined at the time of the most recent reconstruction, of a complete, comparably-equipped new engine (within $\pm 10\%$ of the reconstructed engine's brake horsepower rating).

For purposes of this definition, the cost of reconstruction and the cost of a comparable new engine shall not include the cost of equipment and devices required to meet the requirements of this rule.

- (48) NON-METHANE HYDROCARBONS (NMHC) means the sum of all hydrocarbon air pollutants except methane.
- (49) OWNER OR OPERATOR means any person subject to the requirements of this rule, including but not limited to:
 - (A) an individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including but not limited to, a government corporation; and
 - (B) any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law.
- (50) PORTABLE CI ENGINE means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another, except as provided in paragraph (b)(63). Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dollies, trailers, or platforms. The provisions of this definition notwithstanding, an engine with indicators of portability that remains at the same facility location for more than 12 consecutive rolling months or 365 rolling days, whichever occurs first, not including time spent in a storage facility, shall be deemed a stationary engine.
- (51) PRIME CI ENGINE means a stationary CI engine that is not an emergency standby CI engine.
- (52) PRIORITIZATION SCORE means the numeric value used to rank facilities in order of their potential to pose significant risk to human receptors. Prioritization scores are calculated per the process described in the “CAPCOA Air Toxics Hot Spots Program Facility Prioritization Guidelines,” California Air Pollution Control Officer’s Association (CAPCOA), July 1990, which is incorporated herein by reference.
- (53) RATED BRAKE HORSEPOWER (BHP) means:
 - (A) For in-use engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine’s configuration as of January 1, 2005:

- (i) The manufacturer's sales and service literature; or
 - (ii) The nameplate of the engine; or
 - (iii) If applicable, as shown in the application for certification of the engine.
- (B) For new engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine's configuration upon the engine's initial installation at the facility:
 - (i) The manufacturer's sales and service literature; or
 - (ii) The nameplate of the engine; or
 - (iii) If applicable, as shown in the application for certification of the engine.
- (54) RECEPTOR LOCATION means any location outside the boundaries of a facility where a person may experience exposure to diesel exhaust due to the operation of a stationary diesel-fueled CI engine. Receptor locations include, but are not limited to, residences, businesses, hospitals, daycare centers, and schools.
- (55) RECONSTRUCTION means the rebuilding of the engine or the replacement of engine parts, including pollution control devices, but excluding operating fluids; lubricants; and consumables such as air filters, fuel filters, and glow plugs that are subject to regular replacement.
- (56) ROTATING OUTAGE means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.
- (57) SCHOOL OR SCHOOL GROUNDS means any public or private school, including juvenile detention facilities and schools serving as the students' place of residence (e.g., boarding schools), used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes. School or School Grounds includes any building or structure, playground, athletic field, or other areas of school property, but does not include unimproved school property.
- (58) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM means an emission control system that reduces NOx emissions through the catalytic reduction of NOx in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.

- (59) SELLER means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (60) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.
- (61) STAGE 2 ALERT means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 5 percent.
- (62) STAGE 3 ALERT means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 1.5 percent.
- (63) STATIONARY CI ENGINE means a CI engine that is designed to stay in one location, or remains in one location. A CI engine is stationary if any of the following are true:
 - (A) the engine or its replacement is attached to a foundation, or if not so attached, resides at the same location for more than 12 consecutive months. Any engine such as backup or standby engines, that replaces an engine at a location and is intended to perform the same or similar function as the engine(s) being replaced, shall be included in calculating the consecutive time period. The cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or
 - (B) the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or
 - (C) the engine is moved from one location to another in an attempt to circumvent the 12 month residence time requirement. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination.

- (64) STATIONARY SOURCE means any building, structure, facility, or installation that emits any affected pollutant directly or as fugitive emissions. Building, structure, facility, or installation includes all pollutant emitting activities which:
 - (A) are under the same ownership or operation, or which are owned or operated by entities which are under common control; and
 - (B) belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and
 - (C) are located on one or more contiguous or adjacent properties.
- (65) TRANSMISSION CONSTRAINED AREA means the specific location that is subject to localized operating reserve deficiencies due to the failure of the normal electrical power distribution system.
- (66) TRANSMISSION EMERGENCY means an official forecast or declaration by the California Independent System Operator that the available electrical power transmission capacity to a transmission constrained area is insufficient and may result in an uncontrolled local grid collapse in the transmission constrained area.
- (67) UTILITY DISTRIBUTION COMPANY means one of several organizations that control energy transmission and distribution in California. Utility Distribution Companies include, but are not limited to, the Pacific Gas and Electric Company, the San Diego Gas and Electric Company, Southern California Edison, Los Angeles Department of Water and Power, the Imperial Irrigation District, and the Sacramento Municipal Utility District.
- (68) VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES (VERIFICATION PROCEDURE) means the CARB regulatory procedure codified in Title 13, CCR, Sections 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM or NO_x from in-use diesel engines using a particular emission control strategy.
- (69) VERIFIED DIESEL EMISSION CONTROL STRATEGY means an emission control strategy, designed primarily for the reduction of diesel PM

emissions, which has been verified pursuant to the CARB “Verification Procedure”.

- (70) VERY HIGH FIRE HAZARD SEVERITY ZONE means land designated by the California Department of Forestry and Fire Protection pursuant to Public Resources Code 4201- 4204 or a Local Agency pursuant to Government Code 51175-51189 as an area with a very high degree of fire hazard.
- (71) WATER OR SEWAGE FACILITY means a public entity that is responsible for water delivery operations, sewage pumping plants, sewage treatment, or water reclamation.

(c) Requirements

- (1) Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)
- (A) As of January 1, 2006, except as provided in subdivision (h), no owner or operator of a new stationary CI engine or an in-use prime stationary diesel-fueled CI engine shall fuel the engine with any fuel unless the fuel is one of the following:
- (i) CARB Diesel Fuel; or
 - (ii) an alternative diesel fuel as defined in paragraph (b)(3); or
 - (iii) any alternative diesel fuel that is not identified in paragraph (b)(3) and meets the requirements of the Verification Procedure for fuels; or
 - (iv) an alternative fuel; or
 - (v) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure for fuels; or
 - (vi) any combination of the fuels identified in clauses (c)(1)(A)(i) through (c)(1)(A)(v), above.
- (B) As of January 1, 2006, except as provided in subdivision (h), no owner or operator of an in-use emergency standby stationary diesel-fueled CI engine shall add to the engine or any fuel tank directly attached to the engine any fuel unless the fuel is one of the following:
- (i) CARB Diesel Fuel; or
 - (ii) an alternative diesel fuel as defined in paragraph (b)(3); or

- (iii) any alternative diesel fuel that is not identified in paragraph (b)(3) and meets the requirements of the Verification Procedure for fuels; or
 - (iv) an alternative fuel; or
 - (v) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure for fuels; or
 - (vi) any combination of the fuels identified in clauses (c)(1)(B)(i) through (c)(1)(B)(v), above.
- (2) Operating Requirements and Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines With a Rated Brake Horsepower of Greater than 50 (>50 bhp)
- (A) Limit on Non-Emergency Operation
- As of June 2, 2004 the owner or operator of a new emergency standby diesel-fueled CI engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:
- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
 - (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
 - (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.
- (B) No owner or operator of a new stationary emergency standby diesel-fueled CI engine (>50 bhp) shall operate in response to the notification of an impending rotating outage, unless all the following criteria are met:

- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
 - (ii) the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a specified time; and
 - (iii) the engine is located in a specific location that is subject to the rotating outage; and
 - (iv) the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) Except as provided in subdivision (h), no person shall sell, offer for sale, purchase, lease for use, or operate in the South Coast Air Quality Management District any new stationary emergency standby diesel-fueled CI engine (>50 bhp), excluding new direct-drive emergency standby fire pump engines and new direct-drive emergency standby flood control pump engines, unless it meets all of the following applicable operating requirements and emission standards, except new direct-drive emergency standby fire pump engines and new direct-drive emergency standby flood control pump engines shall comply with clause (c)(2)(C)(v):
- (i) Hours of Operating Requirements
New stationary emergency standby diesel-fueled engines (>50 bhp) shall not operate more than 50 hours per year for maintenance and testing, as defined in paragraph (b)(43).
 - (ii) New stationary emergency standby diesel-fueled engines (>50 bhp) installed prior to January 1, 2011, shall emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr, and meet the NMHC, NO_x, NMHC + NO_x and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423). New stationary emergency standby diesel-fueled engines (>50 bhp) located

- on school grounds or 100 meters or less from a school shall comply with the diesel PM standards as specified in clause (c)(2)(C)(v).
- (iii) New stationary emergency standby diesel-fueled engines (>50 bhp) installed or with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011 and prior to January 1, 2013, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr. New stationary emergency standby diesel-fueled engines (>50 bhp) located on school grounds or 100 meters or less from a school shall comply with the diesel PM standards as specified in clause (c)(2)(C)(v).
- (iv) Diesel PM Standard
- (I) Any new stationary emergency standby diesel-fueled engines (>50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013 and located at a sensitive receptor or 50 meters or less from a sensitive receptor, except those located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall be a certified CI engine. The new stationary emergency standby diesel-fueled engine shall also meet the diesel PM standard for off-road engines of the same maximum rated power as specified in Table 1, in effect on the date of acquisition or submittal, as defined in subdivision (b).

Table 1 – PM Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines Located at a Sensitive Receptor or 50 Meters or Less From a Sensitive Receptor – gram per brake horsepower-hour (g/bhp-hr)

Engine Size	Requirement	Emission Rate
50 < HP < 175	On or after January 1, 2013	0.15 g/bhp-hr
175 ≤ HP ≤ 750	On or after January 1, 2013	0.01 g/bhp-hr ¹
>750 HP	January 1, 2013-June 30, 2015	0.075 g/bhp-hr
	On or after July 1, 2015	0.02 g/bhp-hr ¹

¹ Diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (Title 13CCR Section 2423).

(II) Two or more new emergency standby engines that are individually rated below 175 bhp and located within 50 meters of the same sensitive receptor shall each emit diesel PM at a rate no greater than 0.01 g/bhp-hr if:

- (aa) the cumulative maximum rated horsepower of such engines is equal to or greater than 175 bhp; and
- (bb) applications for such engines are deemed complete for either a Permit to Construct or Permit to Operate on or after January 1, 2013; and
- (cc) applications for such engines are deemed complete within 18 months of each other.

(v) Diesel PM Standard for Engines Located On or Near School Grounds

New stationary emergency standby diesel-fueled engines (>50 bhp) located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr.

(vi) Diesel PM Standards for New Stationary Emergency Standby Diesel-Fueled Engines Located Greater Than 50 Meters From Sensitive Receptors (except schools)

Any new stationary emergency standby diesel-fueled engine (>50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013, and located greater than 50 meters from a sensitive receptor, except those located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr.

(vii) NMHC + NO_x, and CO Standards

Any new stationary emergency standby diesel-fueled CI engines (> 50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall meet the standards for off-road engines of the same maximum rated power as specified in Table 2 below:

Table 2: NMHC+NO_x and CO Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines –

g/bhp-hr (g/kW-hr)

Maximum Engine Power	NMHC+NO _x g/bhp-hr (g/kW-hr)	CO g/bhp-hr (g/kW-hr)
50 < HP < 100 (37 < kW < 75)	3.5 (4.7)	3.7 (5.0)
100 ≤ HP < 175 (75 ≤ kW < 130)	3.0 (4.0)	3.7 (5.0)
175 ≤ HP ≤ 750 (130 ≤ kW ≤ 560)	3.0 (4.0)	2.6 (3.5)
HP > 750 (kW > 560)	4.8 (6.4)	2.6 (3.5)

HP- Horsepower

kW- Kilowatts

g/bhp-hr – grams per brake horsepower-hour

(viii) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules and initial start-up testing. Hours of operation used solely for testing and demonstration for compliance with District rules and for initial start-up testing shall not be included as part of the engine’s cumulative annual hours specified in clause (c)(2)(C)(i).

(D) Emission Standards and Hours of Operating Requirements for Certain New Engines Installed After Specified Dates

On or after January 1, 2011, except as provided in subdivision (h) or clause (c)(2)(C)(v), no person shall sell, offer for sale, purchase, lease for use, or operate in the South Coast Air Quality Management District any new stationary emergency standby diesel-fueled CI direct-drive fire pump engine, or new stationary emergency standby diesel-fueled CI direct-drive flood control pump engine (>50 bhp), unless it complies with all of the following applicable emission standards and operating requirements:

(i) Emissions Standards and Hours of Operating Requirements for New Stationary Emergency Standby Direct-Drive Fire Pump Engines

(I) New stationary emergency standby direct-drive fire pump engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall meet the applicable emission standards for all pollutants for an engine with the same NFPA nameplate power rating, as specified in Table 3 – Emission Standards for New Stationary Emergency Standby Direct-Drive Fire Pump Engines; and

Table 3: Emission Standards for New Stationary Emergency Standby Diesel Fueled Direct-Drive Fire Pump Engines - g/bhp-hr (g/kW-hr)

Maximum Engine Power	PM g/bhp-hr (g/kW-hr)	NMHC+NOx g/bhp-hr (g/kW-hr)	CO g/bhp-hr (g/kW-hr)
50 < HP < 100 (37 < kW < 75)	0.30 (0.40)	3.5 (4.7)	3.7 (5.0)
100 ≤ HP < 175 (75 ≤ kW < 130)	0.22 (0.30)	3.0 (4.0)	3.7 (5.0)
175 ≤ HP ≤ 750 (130 ≤ kW ≤ 560)	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
HP > 750 (kW > 560)	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)

HP- Horsepower

kW- Kilowatts

g/bhp-hr – grams per brake horsepower-hour

(II) meet the applicable stationary emergency standby direct-drive fire pump engine certification requirements and emission standards required by 40 CFR § 60.4202(d); and

- (III) not operate more than the number of hours necessary to comply with the maintenance and testing requirements of the 2002 edition or the most current edition of the National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” which is incorporated herein by reference.
 - (ii) Emissions Standards and Hours of Operating Requirements for New Stationary Emergency Standby Direct-Drive Flood Control Pump Engines
 - (I) New stationary emergency standby direct-drive flood control pump engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr; and
 - (II) shall meet the NMHC+NO_x and CO standards for off-road engines of the same maximum rated power as specified in Table 2 of clause (c)(2)(C)(vii); and
 - (III) shall not operate more than 50 hours per year for maintenance and testing, as defined in paragraph (b)(43).
- (E) Backpressure Relief Option for New Stationary Emergency Standby Engines

Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may install an engine exhaust backpressure relief device, provided all of the following conditions are met:

 - (i) the new stationary emergency standby engine is located at an Essential Public Service as defined in Rule 1302 or health facility and shall be a certified CI engine that meets, without the use of a diesel particulate filter, a diesel PM rate less than or equal to 0.15 g/bhp-hr and the applicable NMHC+NO_x and CO standards specified in Table 2 of clause (c)(2)(C)(vii); and

- (ii) the engine exhaust backpressure relief device bypasses the diesel particulate filter only when the engine exhaust backpressure approaches the high backpressure limit, as specified by the engine and/or diesel particulate filter manufacturer; and
- (iii) the engine exhaust gases discharged through the backpressure relief device shall be vented away from enclosed spaces, building occupants, equipment operators, and sensitive receptors; and
- (iv) in addition to a backpressure monitor, as required in subparagraph (d)(5)(B), the engine owner shall install an electronic device that is capable of measuring and recording engine exhaust backpressure associated with the diesel particulate filter and engine exhaust temperature data, including the date and time of measurement. The device shall continually record exhaust backpressure and temperature data during all actual engine operation. Records of exhaust temperature and backpressure measurements shall be retained for a period of 36 months and made available to the District upon request; and
- (v) the owner or operator shall repair the diesel particulate filter and reset the exhaust backpressure relief device no more than 5 working days after the backpressure relief device has been activated or no more than 5 working days after the conclusion of the emergency in which the device was activated. If new or replacement parts are necessary for the repair of the diesel particulate filter and/or exhaust backpressure relief device, as detailed in the breakdown notification, the owner or operator shall be allowed an additional 10 working days after the conclusion of the emergency to complete any necessary repairs to the diesel particulate filter and/or exhaust backpressure relief device; and
- (vi) the owner or operator shall submit a written breakdown notification to the Executive Officer within 24 hours of activation of the engine exhaust backpressure relief device.

(F) Diesel Particulate Filter Cleaning Option for New Emergency Standby Engines

Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may remove the control equipment filter media for cleaning, provided all of the following conditions are met:

- (i) the new emergency standby engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed;
- (ii) the control equipment filter media shall be returned and re-installed within 10 working days from the date of removal;
- (iii) the owner or operator shall maintain records indicating the date(s) the control equipment filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained pursuant to the requirements specified in subparagraph (d)(7)(C).

(3) Operating Requirements and Emission Standards for In-Use Emergency Standby Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp).

- (A) No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI engine in response to the notification of an impending rotating outage unless all the following criteria are met:
- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
 - (ii) the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
 - (iii) the engine is located in a specific location that is subject to the rotating outage; and
 - (iv) the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.

(B) Limit on Non-Emergency Operation

As of June 2, 2004 the owner or operator of an in-use emergency standby diesel-fueled CI engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:

- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
- (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.

(C) Except as provided in subdivision (h), no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (> 50 hp) in the South Coast Air Quality Management District unless it meets, in accordance with the applicable compliance schedules specified in subdivision (e), the following requirements:

- (i) Diesel PM Standard and Hours of Operating Requirements
The owner or operator of in-use stationary emergency standby diesel-fueled engines (>50 bhp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school shall meet the following requirements:
 - (I) No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate greater than 0.40 g/bhp-hr more than 20 hours per year for maintenance and testing purposes unless the

alternative maintenance and testing requirements of subclause (c)(3)(C)(i)(III) are met. In-use emergency standby diesel fueled CI engines operated at health facilities shall be allowed up to 10 additional hours per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).

- (II) No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate less than or equal to 0.40 g/bhp-hr more than 30 hours per year for maintenance and testing purposes, except as provided in clause (c)(3)(C)(ii). This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).
- (III) An owner or operator of a water or sewage facility with an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) located in a very high fire hazard severity zone, excluding engines located in SB 535 Disadvantaged Communities as identified by the California Office of Environmental Health Hazard Assessment's CalEnviroScreen, that elects to meet an alternative maintenance and testing schedule shall not conduct maintenance and testing for more than 20 hours averaged over a consecutive three-year rolling period, with no individual calendar year exceeding 30 hours where a South Coast Air Quality Management District operating permit incorporates the alternative maintenance and testing schedule. The determination of whether an engine is located in a very high fire hazard severity zone and disadvantaged community shall be determined at the time that the permit application is deemed complete. The consecutive three-year rolling period shall start

the calendar year in which the permit is modified to incorporate the alternative maintenance and testing schedule. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).

(ii) Alternative Diesel PM Standard and Hours of Operating Requirements

The Executive Officer may allow the owner or operator of an in-use emergency standby diesel-fueled CI engine (> 50 hp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school, to operate more than 30 hours per year for maintenance and testing purposes on a site-specific basis, provided the following limits are met:

(I) Up to 50 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.15 g/bhp-hr.

(II) Up to 100 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

(iii) Diesel PM Standards and Hours of Operating Requirements For In-Use Stationary Emergency Standby Diesel-Fueled Engines (>50 Bhp) Located on School Grounds or 100 Meters or Less from an Existing, as of April 2, 2004, Schools All in-use emergency diesel-fueled CI engines (> 50 bhp), subject to this clause, certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with either option 1 or option 2 below. All engines not certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with option 1, option 2, or option 3 below:

(I) Option 1: Reduce the diesel PM emission rate by at least 85 percent, by weight, from the baseline level, in accordance with the appropriate compliance schedule specified in subdivision (e) and operate 75

- hours or less per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C); or
- (II) Option 2: Emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr in accordance with the appropriate compliance schedule as specified in subdivision (e) and operate 100 hours or less per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C); or
 - (III) Option 3: Reduce the diesel PM emission rate by at least 30% from the baseline level and operate 20 hours or less per year for maintenance and testing purposes, by no later than January 1, 2006, and emit diesel PM at a rate of 0.01 g/bhp-hr or less and operate 100 hours or less per year for maintenance and testing purposes by no later than July 1, 2011. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).
- (iv) Additional Standards:
- Owners or operators that choose to meet the diesel PM standards defined in clauses (c)(3)(C)(i) through (c)(3)(C)(iii) with emission control strategies that are not verified through the Verification Procedure shall either:
- (I) Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary emergency standby diesel-fueled CI engine, then the in-use stationary emergency standby

diesel-fueled CI engine shall meet the Tier 1 standards in Title 13, CCR, Section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI engine's model year; or

- (II) Not increase CO emission rates by more than 10% above baseline and not increase HC or NOx emission rates by more than 10% above baseline, or not increase the sum of NMHC and NOx emission rates above baseline.
- (v) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules shall not be included as part of the engine's cumulative annual hours specified in clauses (c)(3)(C)(i) through (c)(3)(C)(iii).
- (vi) **Backpressure Relief Option for In-Use Stationary Emergency Standby Engines**
Owners or operators of an in-use stationary emergency standby engine located at an Essential Public Service, as defined in Rule 1302, or health facility using a diesel particulate filter to comply with the diesel PM standards of this rule may install an engine exhaust backpressure relief device, provided all of the conditions specified in (c)(2)(E)(ii) through (c)(2)(E)(vi) are met.
- (vii) **Diesel Particulate Filter Cleaning Option for In-Use Emergency Standby Engines**
Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may remove the control equipment filter media for cleaning, provided all of the following conditions are met:
 - (i) the in-use emergency standby engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed;

- (ii) the control equipment filter media shall be returned and re-installed within 10 working days from the date of removal;
 - (iii) the owner or operator shall maintain records indicating the date(s) the control equipment filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained pursuant to the requirements specified in subparagraph (d)(7)(C).
- (4) New Stationary Prime Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp)

As of January 1, 2005, except as provided in subdivision (h), no person shall sell, purchase, offer for sale, or lease for use in the South Coast Air Quality Management District a new stationary prime diesel-fueled CI engine (>50 bhp) unless it meets the following applicable emission standards, and no person shall operate any new stationary prime diesel-fueled CI engine (>50 bhp) unless it meets all of the following emission standards and operational requirements:

 - (A) Diesel PM Standard

All new stationary prime diesel-fueled CI engines (> 50 bhp) shall either emit diesel PM at a rate that is less than or equal to 0.01 grams diesel PM per brake-horsepower-hour (g/bhp-hr) or shall meet the diesel PM standard, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (Title 13, CCR, Section 2423), in effect on the date of acquisition or submittal, as defined in subdivision (b), whichever is more stringent;
 - (B) HC, NO_x, NMHC + NO_x, and CO Standards

All new stationary prime diesel-fueled CI engines (> 50 bhp) shall meet the applicable emission standards specified in South Coast Air Quality Management District Rule 1110.2 – Emissions From Gaseous and Liquid-Fueled Engines.
- (5) Emission Standards for In-Use Stationary Prime Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)

Except as provided in subdivision (h), all in-use stationary prime diesel-fueled CI engines (> 50 bhp) operated in the South Coast Air Quality

Management District shall meet the following requirements, according to specified dates:

(A) Diesel PM Standards

All in-use stationary prime diesel-fueled CI engines (> 50 bhp) certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with either option 1 or option 2 below. All engines not certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with option 1, option 2, or option 3 below:

- (i) Option 1: Reduce the diesel PM emission rate by at least 85 percent, by weight, from the baseline level, in accordance with the appropriate compliance schedule specified in subdivision (e); or
- (ii) Option 2: Emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr in accordance with the appropriate compliance schedule as specified in subdivision (e); or
- (iii) Option 3: Reduce the diesel PM emission rate by at least 30% from the baseline level, by no later than January 1, 2006, and emit diesel PM at a rate of 0.01 g/bhp-hr or less by no later than July 1, 2011.

(B) Additional Standards

Owners or operators that choose to meet the diesel PM limits defined in subparagraph (c)(5)(A) with emission control strategies that are not verified through the Verification Procedure shall:

- (i) Meet the applicable HC, NO_x, NMHC+NO_x, and CO emission standards specified in South Coast Air Quality Management District Rule 1110.2 – Emissions From Gaseous and Liquid-Fueled Engines.

(6) New and In-Use Stationary Diesel-Fueled CI Engines Used in Agricultural Operations (> 50 bhp)

New and in-use stationary diesel-fueled CI engines used in agricultural operations (>50 bhp) shall comply with all applicable requirements of title 17, CCR, sections 93115.2, 93115.3, 93115.4, and 93115.8 of the California Air Resources Board's "Airborne Toxic Control Measure for Stationary Compression Ignition Engines."

(7) Operating Requirements and Emission Standards for New Emergency Standby Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp) Used in Demand Response Programs (DRP Engines)

(A) Limit on Non-Emergency Operation

As of June 2, 2004 the owner or operator of a new stationary emergency standby diesel-fueled CI DRP engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:

- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
- (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.

(B) No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless all of the following criteria are met:

- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
- (ii) the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
- (iii) the engine is in a specific location that is subject to the rotating outage in the control area; and

- (iv) the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) Except as provided in subdivision (h), no person shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp), unless it meets all of the following applicable operating requirements and emission standards:
- (i) Diesel PM Standard and Hours of Operating Requirements
New DRP engines enrolled in an ISC on or after January 1, 2005 shall:
 - (I) meet a diesel PM standard of 0.01 g/bhp-hr or less or meet the current model year diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same horsepower rating (Title 13 CCR Section 2423), in effect on the date of ISC enrollment, whichever is more stringent; and
 - (II) comply with the limitations on the hours of operation for maintenance and testing as specified in clause (c)(2)(C)(i); and
 - (III) not operate more than 150 hours per year for ISC operation.
 - (ii) HC, NO_x, NMHC + NO_x, and CO standards
No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engines (>50 bhp), unless it meets the more stringent of the following emission standards for HC, NO_x, NMHC + NO_x, and CO:
 - (I) The emission requirements specified for spark ignition emergency internal combustion engines pursuant to the most current version of SCAQMD Best Available Control Technology Guidelines, Part D – BACT Guidelines for Non-Major Polluting Facilities, or

- (II) The standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the new stationary emergency standby diesel-fueled CI DRP engine, then the new stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in Title 13, CCR, Section 2423, for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI DRP engine's model year.
 - (iii) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules and for initial start-up testing shall not be included as part of the engine's cumulative annual hours.
- (8) Operating Requirements and Emission Standards for In-Use Emergency Standby Diesel-Fueled CI DRP Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp)
- (A) Limit on Non-Emergency Operation

As of June 2, 2004 the owner or operator of an in-use stationary emergency standby diesel-fueled CI DRP engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:

 - (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
 - (ii) An engine that that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and

- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session, except an engine that emits diesel PM at a rate of 0.01 g/bhp-hr and less, which is not subject to this restriction.
- (B) No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless all of the following criteria are met:
- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
 - (ii) the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
 - (iii) the engine is in a specific location that is subject to the rotating outage in the control area; and
 - (iv) the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) Except as provided in subdivision (h), no person shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) unless it meets all of the following applicable operating requirements and emission standards:
- (i) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC prior to January 1, 2005, shall as of January 1, 2006:
 - (I) meet a diesel PM standard of 0.15 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and

- (III) not operate more than 150 hours per year for ISC operation.
- (ii) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC on or after January 1, 2005, and prior to January 1, 2008:
 - (I) meet a diesel PM standard of 0.15 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and
 - (III) not operate more than 150 hours per year for ISC operation.
- (iii) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC after January 1, 2008:
 - (I) meet a diesel PM standard of 0.01 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and
 - (III) not operate more than 150 hours per year for ISC operation.
- (iv) Additional Standards:

Owners or operators that choose to meet the diesel PM limits and hour of operation limits defined in clauses (c)(8)(C)(i) through (c)(8)(C)(iii) with emission control strategies that are not verified through the Verification Procedure shall either:

 - (I) Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary emergency standby diesel-fueled CI DRP

engine, then the in-use stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in Title 13, CCR, Section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI DRP engine's model year; or

- (II) not increase CO emission rates by more than 10% above baseline and not increase HC or NO_x emission rates by more than 10% above baseline, or not increase the sum of NMHC and NO_x emission rates above baseline.
 - (v) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules shall not be included as part of the time for maintenance and testing purposes allowed under clauses (c)(3)(C)(i) through (c)(3)(C)(v).
- (9) **Requirements Applicable to DRP Engines After a DRP is Terminated**
After a DRP is terminated by either the Utility Distribution Company or the engine owner or operator, the DRP engine shall remain subject to the requirements of paragraphs (c)(7) and (c)(8) as if the DRP were still in effect.
- (10) **Emission Standards for New Stationary Diesel-Fueled CI Engines Less than or Equal to 50 Brake Horsepower (≤ 50 bhp)**
New stationary diesel-fueled CI engines with a rated brake horsepower less than or equal to 50 shall comply with all applicable requirements of Title 17, CCR, section 93115.9 of the California Air Resources Board's "Airborne Toxic Control Measure for Stationary Compression Ignition Engines."
- (d) **Recordkeeping, Reporting, and Monitoring Requirements**
- (1) **Reporting Requirements for Owners or Operators of New and In-Use Stationary CI Engines, Including Non-Diesel-Fueled CI Engines, Having a Rated Horsepower Greater than 50 (>50 bhp)**

- (A) Except as provided in subdivision (h) and subparagraph (d)(1)(D) below, prior to the installation of any new stationary CI engine (> 50 bhp) at a facility, each owner or operator shall provide the information identified in subparagraph (d)(1)(C) to the Executive Officer.
- (B) Except as provided in subdivision (h) and subparagraph (d)(1)(D) below, and no later than July 1, 2005, each owner or operator of an in-use stationary CI engine (> 50 bhp) shall provide the information specified in subparagraph (d)(1)(C) to the Executive Officer.
- (C) Each owner or operator shall submit to the Executive Officer all of the following information for each new and in-use stationary CI engine (>50 bhp), in accordance with the requirements of subparagraphs (d)(1)(A) and (d)(1)(B) above:
 - (i) Owner/Operator Contact Information
 - (I) Company name
 - (II) Contact name, phone number, address, e-mail address
 - (III) Address of engine(s)
 - (ii) Engine Information
 - (I) Make
 - (II) Model
 - (III) Engine Family
 - (IV) Serial number
 - (V) Year of manufacture (if unable to determine, approximate age)
 - (VI) Rated Brake Horsepower
 - (VII) Exhaust stack height from ground
 - (VIII) Engine Emission Factors and supporting data for PM, NO_x and NMHC separately or NMHC+NO_x, and CO, (if available) from manufacturers data, source tests, or other sources (specify)
 - (IX) Diameter of stack outlet
 - (X) Direction of outlet (horizontal or vertical)
 - (XI) End of stack (open or capped)
 - (XII) Control equipment (if applicable)
 - (aa) Turbocharger

- (bb) Aftercooler
 - (cc) Injection Timing Retard
 - (dd) Catalyst
 - (ee) Diesel Particulate Filter
 - (ff) Other
 - (iii) Fuel(s) Used
 - (I) CARB Diesel
 - (II) Jet fuel
 - (III) Diesel
 - (IV) Alternative diesel fuel (specify)
 - (V) Alternative fuel (specify)
 - (VI) Combination (Dual fuel) (specify)
 - (VII) Other (specify)
 - (iv) Operation Information
 - (I) Description of general use of engine
 - (II) Typical load (percent of maximum bhp rating)
 - (III) Typical annual hours of operation
 - (IV) If seasonal, months of year operated and typical hours per month operated
 - (V) Fuel usage rate (if available)
 - (v) Receptor Information
 - (I) Nearest receptor description (receptor type)
 - (II) Distance to nearest receptor (feet or meters)
 - (III) Distance to nearest school
 - (vi) State whether the engine is included in an existing AB2588 emission inventory.
 - (D) The Executive Officer may exempt the owner or operator from providing all or part of the information identified in subparagraph (d)(1)(C) if there is a current record of the information in the owner or operator's permit to operate, permit application, or District records.
- (2) Demonstration of Compliance with Emission Limits
- (A) Prior to the installation of a new stationary diesel-fueled CI engine at a facility, the owner or operator of the new stationary diesel-fueled CI engine(s) subject to the requirements of subparagraph (c)(2)(C), (c)(2)(D), (c)(4)(A), (c)(4)(B), (c)(7)(A), or (c)(7)(C)

shall provide emission data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.

(B) By no later than the earliest applicable compliance date specified in subdivision (e), the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subparagraphs (c)(3)(C), (c)(5)(A), or (c)(8)(C) shall provide emissions and/or operational data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.

(3) Notification of Non-Compliance

Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in paragraphs (c)(1) through (c)(9) shall notify the Executive Officer immediately upon detection of the violation and shall be subject to district enforcement action.

(4) Notification of Loss of Exemption

(A) Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in subdivision (h) from all or part of the requirements of paragraphs (c)(2) through (c)(9), shall notify the Executive Officer immediately after they become aware that the exemption no longer applies. No later than 180 days after notifying the Executive Officer, the owner or operator shall demonstrate compliance with the requirements of paragraphs (c)(2) through (c)(9). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of paragraphs (c)(2) through (c)(9) shall provide emission data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.

(B) The Executive Officer shall notify owners or operators of in-use stationary diesel-fueled CI engines, who are subject to the exemption specified in paragraph (h)(7) from the requirements of paragraphs (c)(1) through (c)(9), when the exemption no longer applies. No later than 180 days after notification by the Executive Officer, the owner or operator shall demonstrate compliance with the requirements of paragraphs (c)(1) through (c)(9). An owner or

operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of paragraphs (c)(2) through (c)(9) shall provide emissions data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.

(5) Monitoring Equipment

(A) A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed on all engines subject to any of the requirements of paragraphs (c)(2) through (c)(9), unless the District determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.

(B) All DPFs installed pursuant to the requirements in paragraphs (c)(2) through (c)(9) must be installed with a backpressure monitor to notify the owner or operator when the high backpressure limit of the engine is approached.

(C) The Executive Officer may by permit condition require the owner or operator to install and maintain additional monitoring equipment for the particular emission control strategy(ies) used to meet the requirements of paragraphs (c)(2) through (c)(9), upon determining that such equipment is necessary to ensure the effectiveness of the selected control strategy.

(6) Reporting Provisions for Exempted Prime Engines

An owner or operator of an engine subject to paragraphs (h)(4) or (h)(9) shall keep records of the number of hours the engines are operated on a monthly basis. Such records shall be retained for a minimum of 36 months from the date of entry. Record entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to District staff upon request. Record entries made from 25 to 36 months from the most recent entry shall be made available to District staff within 5 working days from the district's request.

(7) Reporting Requirements for Emergency Standby Engines

(A) Starting January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep a monthly log of usage

that shall list and document the nature of use in each of the following areas:

- (i) emergency use hours of operation;
 - (ii) maintenance and testing hours of operation;
 - (iii) hours of operation for emission testing to show compliance with subparagraphs (c)(2)(C) and (c)(3)(C);
 - (iv) initial start-up and testing hours;
 - (v) hours of operation for all uses other than those specified in clauses (d)(7)(A)(i) through (d)(7)(A)(iv) above;
 - (vi) if applicable, hours of operation to comply with the requirements of NFPA 25;
 - (vii) if applicable, DRP engine hours of operation;
 - (viii) hours of operation to demonstrate compliance with District rules; and
 - (ix) the fuel used.
 - (I) For engines operated exclusively on CARB Diesel Fuel, the owner or operator shall document the use of CARB Diesel Fuel through the retention of fuel purchase records indicating that the only fuel purchased for supply to an emergency standby engine was CARB Diesel Fuel; or
 - (II) For engines operated on any fuel other than CARB Diesel Fuel, fuel records demonstrating that the only fuel purchased and added to an emergency standby engine or engines, meets the requirements of paragraph (c)(1).
- (B) Alternative Fuel Recordkeeping Requirements for Owners and/or Operators of Emergency Standby Engines
In lieu of a log of usage, as specified in clause (d)(7)(A)(ix), the owner and/or operator may maintain a monthly summary of fuel purchases for the engine.
- (C) Records shall be retained for a minimum of 36 months. Records for the prior 24 months shall be retained on-site, either at a central location or at the engine's location, or at an offsite central location within California, and shall be made immediately available to the District staff upon request. Records for the prior 25 to 36 months

shall be made available to District staff within 5 working days from request.

- (8) Additional Reporting Requirements for Stationary Emergency Diesel-Fueled CI Engines Used to Fulfill the Requirements of an Interruptible Service Contract (ISC)

The owner or operator of an ISC engine shall provide to the District the following information, as necessary to the extent the District does not already have the information:

- (A) For each diesel-fueled engine enrolled in an ISC:
- (i) Owner's Company Name (if applicable);
 - (ii) Contact name, phone number, and e-mail address;
 - (iii) Model year and engine manufacturer;
 - (iv) Annual hours of engine operation under ISC and emergency use; and
 - (v) Diesel PM emission rate of the engine (g/bhp-hr).
- (B) The owner or operator shall update the information identified in subparagraph (d)(8)(A) as necessary to reflect the current inventory of ISC engines and shall provide a complete and updated inventory annually to the District and the California Air Resources Board no later than 90 days after December 31st of any given year thereafter.
- (i) The California Air Resources Board shall evaluate the submitted inventory and information annually to determine whether any subsequent year's submittal is necessary.
 - (ii) If the California Air Resources Board determines a submittal is not necessary for any subsequent year, the California Air Resources Board will notify the owner or operator by December 31st of any given year of such determination.
- (C) The owner or operator may identify to the Executive Officer documentation demonstrating that all or part of the information required under paragraph (d)(8) has been previously submitted. If acceptable to the Executive Officer, the owner or operator shall be exempted from resubmitting the information.

- (e) Compliance Schedule and Permit Application Dates

- (1) For each in-use emergency standby diesel-fueled CI engine (> 50 bhp), that will meet the requirements of paragraph (c)(3) solely through maintaining

or reducing the current annual hours of operation for maintenance and testing, the owner or operator shall be in compliance with the annual hours of operation limits beginning January 1, 2006.

- (2) For Owners or Operators of Three or Fewer Engines in the South Coast Air Quality Management District

For each in-use emergency standby diesel-fueled CI engine (> 50 bhp), that does not comply with paragraph (e)(1) in order to meet the requirements of paragraph (c)(3) and each stationary diesel-fueled CI engine (> 50 bhp) complying with emission limitations specified in paragraphs (c)(3) or (c)(5), the owner or operator shall meet the following requirements in accordance with the following schedule:

- (A) All pre-1989 through 1989 model year engines, inclusive, shall be in compliance by no later than January 1, 2006;
- (B) All 1990 through 1995 model year engines, inclusive, shall be in compliance by no later than January 1, 2007;
- (C) All 1996 and later model year engines shall be in compliance by no later than January 1, 2008.

- (3) For Owners or Operators of Four or More Engines in the South Coast Air Quality Management District

For each emergency standby diesel-fueled CI engine (> 50 bhp) under common ownership or operation that does not comply with paragraph (e)(1) in order to meet the requirements of paragraph (c)(3) and stationary diesel-fueled CI engines (> 50 bhp) complying with emission limitations specified in paragraphs (c)(3) or (c)(5), the owner or operator shall comply with the following:

- (A) No later than July 1, 2005, the owner or operator shall submit a compliance plan, pursuant to paragraph (e)(4); and
- (B) Meet the requirements of paragraphs (c)(3) or (c)(5), in accordance with the following schedule:

<u>Pre-1989 Through 1989 Model Year Engines, Inclusive</u>	
<u>Percent of Engines</u>	<u>Compliance date</u>
25%	January 1, 2006
50%	January 1, 2007
75%	January 1, 2008
100%	January 1, 2009

1990 through 1995 Model Year Engines, Inclusive

<u>Percent of Engines</u>	<u>Compliance date</u>
30%	January 1, 2007
60%	January 1, 2008
100%	January 1, 2009

1996 and Later Model Year Engines

<u>Percent of Engines</u>	<u>Compliance date</u>
50%	January 1, 2008
100%	January 1, 2009

(4) Compliance Plan

(A) A submitted compliance plan shall be subject to plan fees specified in Rule 306 and shall include the following information:

- (i) Owner/operator contact information (company name, AQMD facility identification number, contact name, phone number, address, e-mail address); and
- (ii) AQMD permit number(s) and address(es) of engine(s) for engines subject to subparagraph (e)(3)(A); and
- (iii) Identification of the control strategy for each stationary diesel-fueled CI engine that when implemented will result in compliance with the applicable requirements of paragraphs (c)(3) and (c)(5). If applicable, the information should include the Executive Order number issued by the Executive Officer of the Air Resources Board for a Diesel Emission Control Strategy that has been approved by the Executive Officer of the Air Resources Board through the Verification Procedure; and
- (iv) Consistent with the dates specified in paragraphs (e)(2) and (e)(3), a schedule showing key milestone dates for each engine demonstrating how the engine will be brought into compliance with the applicable requirements of paragraphs (c)(3) and (c)(5). In instances where engines are located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school, the schedule shall give priority to bringing these engines into compliance with the applicable requirements of paragraphs (c)(3) and (c)(5).

(B) The owner or operator may identify to the Executive Officer documentation demonstrating that all or part of the information required under subparagraph (e)(4)(A) has been previously submitted. If acceptable to the

Executive Officer, the owner or operator shall be exempted from resubmitting the information.

(5) Permit Application Dates

Permit applications necessary to achieve compliance with paragraphs (c)(3) and (c)(5) shall be submitted no later than six (6) months prior to the compliance dates specified in paragraphs (e)(1) through (e)(3).

(f) Emissions Data

(1) Upon approval by the Executive Officer, the following sources of data may be used in whole or in part to demonstrate compliance with the emissions standards or requirements of paragraphs (c)(2) through (c)(10):

- (A) off-road engine certification test data for the stationary diesel-fueled CI engine;
- (B) engine manufacturer test data;
- (C) emissions test data from a similar engine; or
- (D) emissions test data used in meeting the requirements of the Verification Procedure for the emission control strategy implemented.

(2) Emissions testing of a stationary diesel-fueled CI engine, for purposes of showing compliance with the requirements of paragraphs (c)(2) through (c)(10), shall be done in accordance with the methods specified in subdivision (g).

(3) For purposes of emissions testing, the particulate matter (PM) emissions from a dual-fueled stationary CI engine, which uses as its fuel a mixture of diesel fuel and other fuel(s), shall be deemed to be 100% diesel PM.

(4) Emissions testing for the purposes of determining the percent change from baseline shall include baseline and emission control strategy testing subject to the following conditions:

- (A) Baseline testing may be conducted with the emission control strategy in place, provided the test sample is taken upstream of the emission control strategy and the presence of the emission control strategy is shown to the Executive Officer's satisfaction as having no influence on the emission test results;
- (B) Control strategy testing shall be performed on the stationary diesel-fueled CI engine with full implementation of the emission control strategy;

- (C) The percent change from baseline shall be calculated as the baseline emissions minus control strategy emissions, with the difference being divided by the baseline emissions and the result expressed as a percentage; and
 - (D) The same test method shall be used for determining both baseline emissions and control strategy emissions.
- (5) Emission testing for the purposes of demonstrating compliance with an emission level shall be performed on the stationary diesel-fueled CI engine with the emission control strategy fully implemented.
- (6) Alternative Compliance Demonstration
The owner or operator of a new or in-use stationary diesel-fueled CI engine (> 50 bhp) may demonstrate compliance with the 0.01 g/bhp-hr PM emission standard of paragraphs (c)(2) through (c)(8) by using one of the following:
- (A) a level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets a 0.15 g/bhp-hr or less PM emission standard; or
 - (B) an alternative diesel PM control method that is equally or more effective than a level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets a 0.15 g/bhp-hr or less PM emission standard, and is approved for use by the Executive Officer.
- (g) Test Methods
- (1) The following test methods shall be used to determine diesel PM, HC, NO_x, CO and NMHC emission rates:
 - (A) Diesel PM emission testing shall be done in accordance with one of the following methods:
 - (i) California Air Resources Board Method 5 (ARB Method 5), *Determination of Particulate Matter Emissions from Stationary Sources*, as amended July 28, 1997, which is incorporated herein by reference.
 - (I) For purposes of this clause, diesel PM shall be measured only by the probe catch and filter catch and shall not include PM captured in the impinger catch or solvent extract.

- (II) The tests are to be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the Executive Officer.
 - (III) The Executive Officer may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 - (ii) International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or
 - (iii) Title 13, California Code of Regulations, Section 2423, *Exhaust Emission Standards and Test Procedures –Off-Road Compression Ignition Engines*, which is incorporated herein by reference.
- (B) NO_x, CO and HC emission testing shall be done in accordance with one of the following methods:
- (i) California Air Resources Board Method 100 (ARB Method 100), *Procedures for Continuous Gaseous Emission Stack Sampling*, as amended July 28, 1997, which is incorporated herein by reference.
 - (I) Tests using ARB Method 100 shall be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the Executive Officer.
 - (II) The Executive Officer may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 - (ii) International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or

- (iii) Title 13, California Code of Regulations, Section 2423, *Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines*, which is incorporated herein by reference.
 - (C) NMHC emission testing shall be done in accordance with one of the following methods:
 - (i) International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) (“ISO 8178 Part 1”); ISO 8178-2: 1996(E) (“ISO 8178 Part 2”); and ISO 8178-4: 1996(E) (“ISO 8178 Part 4”), which are incorporated herein by reference; or
 - (ii) Title 13, California Code of Regulations, Section 2423, *Exhaust Emission Standards and Test Procedures –Off-Road Compression Ignition Engines*, which is incorporated herein by reference.
 - (2) The Executive Officer may approve the use of alternatives to the test methods listed in paragraph (g)(1), provided the alternatives are demonstrated to the Executive Officer’s satisfaction as accurate in determining the emission rate of diesel PM, HC, NO_x, NMHC, or CO.
- (h) Exemptions
 - (1) The requirements of this rule do not apply to portable CI engines or CI engines used to provide the motive power for on-road and off-road vehicles.
 - (2) The requirements of this rule do not apply to CI engines used for the propulsion of marine vessels or auxiliary CI engines used on marine vessels.
 - (3) The requirements specified in paragraph (c)(10) do not apply to single cylinder cetane test engines used exclusively to determine the cetane number of diesel fuels in accordance with American Society for Testing and Materials (ASTM) Standard D 613-03b, “Standard Test Method for Cetane Number of Diesel Fuel Oil,” as modified on June 10, 2003, which is incorporated herein by reference.
 - (4) The requirements specified in subparagraphs (c)(3)(C) and (c)(5)(A) do not apply to in-use stationary diesel-fueled CI engines used in emergency standby or prime applications that, prior to January 1, 2005, were required in writing by the district to meet and comply with either minimum technology requirements or performance standards implemented by the

district from the *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*, October 2000, which is incorporated herein by reference.

- (5) The requirements specified in subparagraph (c)(3)(C) do not apply to permitted in-use stationary emergency standby diesel-fueled CI engines that will be removed from service or replaced prior to January 1, 2009, in accordance with an approved Office of Statewide Health Planning Development (OSHPD) Compliance Plan that has been approved prior to January 1, 2009, except that this exemption does not apply to replacement engines for the engines that are removed from service under the OSHPD plan.
- (6) The requirements in paragraphs (c)(1), (c)(4), and (c)(5) do not apply to any stationary diesel-fueled CI engine used solely for the training and testing of United States Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair, and rebuilding of engines when such training engines are required to be configured and designed similarly to counterpart engines used by the U.S. DoD, U.S. Military services, or North Atlantic Treaty Organization (NATO) forces in combat, combat support, combat service support, tactical or relief operations used on land or at sea.
- (7) The requirements specified in paragraphs (c)(1) through (c)(9) do not apply to stationary diesel-fueled CI engines used solely on San Clemente Island. The Executive Officer shall review the land use plans for the island at least once every five (5) years and withdraw this exemption if the land use plans are changed to allow use by the general public of the islands.
- (8) The requirements specified in paragraphs (c)(2) through (c)(9) do not apply to stationary diesel-fueled engines used solely on outer continental shelf (OCS) platforms located within 25 miles of California's seaward boundary.
- (9) Request for Exemption for Low-Use Prime Engines Outside of School Boundaries.

The Executive Officer may approve a Request for Exemption from the provisions of paragraph (c)(5) for any in-use stationary diesel-fueled CI engine located beyond school boundaries, provided the approval is in writing and the writing specifies all of the following conditions to be met by the owner or operator:

- (A) the engine is a prime engine;

- (B) the engine is located more than 500 feet from a school at all times; and
 - (C) the engine operates no more than 20 hours cumulatively per year, unless the engine is used to start a combustion turbine in a refinery cogeneration plant, in which case a different number of hours may be approved by the Executive Officer, on a case-by-case basis per facility, considering operational requirements and emission impacts.
- (10) The requirements in subparagraphs (c)(3)(C) and (c)(5)(A) do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.
 - (11) The requirements in paragraph (c)(1), subparagraphs (c)(2)(C), (c)(3)(C), (c)(4)(A), and (c)(5)(A) do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.
 - (12) The requirements in subparagraphs (c)(3)(C) and (c)(5)(A) do not apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.
 - (13) The requirements of subparagraph (c)(3)(C) do not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel-fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 - *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2002 edition or the most current edition, which is incorporated herein by reference.
 - (14) The requirements of paragraph (c)(1), subparagraphs (c)(2)(C), (c)(2)(D), and (c)(3)(C), and paragraphs (c)(4) and (c)(5) do not apply to any stationary diesel-fueled CI engine used to power equipment that is owned by the National Aeronautics and Space Administration (NASA) and used solely at manned-space-flight facilities (launch, tracking, and landing sites), provided the Executive Officer approves this exemption in writing. This exemption only applies to diesel engines that power equipment which is maintained in the same configuration as similar equipment at all manned-space-flight facilities.
 - (15) Upon written approval of the Executive Officer, the requirements of this rule shall not apply to stationary CI engines used exclusively:
 - (A) as engine test cells and test stands for testing CI engines, or CI engine components;

- (B) for operation or performance testing of fuels, fuel additives, or emission control devices at research and development facilities; or
 - (C) for maintenance, repair, or rebuild training at educational facilities.
- (16) The diesel PM requirements of subparagraph (c)(2)(C)(iv) do not apply to new stationary emergency standby diesel-fueled engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013, provided the following conditions are met:
- (A) the new stationary emergency standby engine is a replacement of an existing stationary emergency standby engine used for the same purpose; and
 - (B) the new stationary emergency standby engine is installed or to be installed at the same physical location as the engine being replaced; and
 - (C) the engine owner can demonstrate to the satisfaction of the Executive Officer, that there is insufficient space in the area where the engine is located such that installation or addition of emission control equipment would require demolition or removal of one or more load bearing walls, the floor, or the ceiling; and
 - (D) the installation of the new stationary emergency standby engine or other ancillary equipment, excluding emission control equipment, does not require the demolition or removal of one or more load bearing walls, the floor, or the ceiling; and
 - (E) engines meeting all of the requirements of subparagraphs (h)(16)(A) through (h)(16)(D) shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr; and
 - (F) the diesel PM requirement is not required pursuant to South Coast Air Quality Management District Rule 1401 – New Source Review of Toxic Air Contaminants or Regulation XIII – New Source Review.
- (i) Severability, Effect of Judicial Order
In the event that any portion of this rule is held by judicial order to be invalid, such order shall not affect the validity of the remaining portions of this rule.
- (j) Applicability of the AB 2588 Air Toxics “Hot Spots” Program

Facilities that have stationary CI engines subject to this rule are also subject to the requirements of the AB 2588 Air Toxics “Hot Spots” Program.

(k) Major Sources

All major sources shall comply with the requirements of 40 CFR 63 subpart ZZZZ.

ATTACHMENT E

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold

October 2008

Deputy Executive Officer
Planning, Rule Development and Area Sources
Elaine Chang, DrPH

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Laki Tisopulos, Ph.D., P.E.

Planning and Rules Manager
Planning, Rule Development and Area Sources
Susan Nakamura

Author:	Steve Smith, Ph.D. Michael Krause	Program Supervisor Air Quality Specialist
Contributors:	Jeffery Inabinet James Koizumi Barbara Radlein	Air Quality Specialist Air Quality Specialist Air Quality Specialist
Reviewed:	Barbara Baird	Principal District Counsel

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD**

Chairman: WILLIAM A. BURKE, Ed.D.
Speaker of the Assembly Appointee

Vice Chairman: S. ROY WILSON, Ed.D.
Supervisor, Fourth District
County of Riverside

MEMBERS

MICHAEL D. ANTONOVICH
Supervisor, Fifth District
County of Los Angeles

MICHAEL A. CACCIOTTI
Councilmember, City of South Pasadena
Cities of Los Angeles County, Eastern Region

BILL CAMPBELL
Supervisor, Third District
County of Orange

JANE W. CARNEY
Senate Rules Committee Appointee

RONALD O. LOVERIDGE
Mayor, City of Riverside
Cities of Riverside County

JOSEPH K. LYOU, PH.D
Governor's Appointee

GARY C. OVITT
Supervisor, Fourth District
County of San Bernardino

JAN PERRY
Councilmember, Ninth District
City of Los Angeles Representative

MIGUEL A. PULIDO
Mayor, City of Santa Ana
Cities of Orange County

TONIA REYES URANGA
Councilmember, City of Long Beach
Cities of Los Angeles County, Western Region

DENNIS YATES
Mayor, City of Chino
Cities of San Bernardino County

EXECUTIVE OFFICER

BARRY WALLERSTEIN, D. Env.

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P R E F A C E

This Draft *Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* document contains the proposed interim GHG significance threshold, rationale for developing the threshold, and details of the working group meetings and represents a work-in-progress of staff's efforts to date. This document will be updated as more information becomes available. For the staff recommendation to the Governing Board at the December 5, 2008 public hearing, please refer to Attachment A of Agenda Item Number 31.

Finally, to facilitate identifying changes to this Guidance Document since its release in October 2008, added text is underlined and deleted text is denoted with ~~striketrough~~ text.

LIST OF ACRONYMS AND ABBREVIATIONS

List of Acronyms and Abbreviations

Acronym/ Abbreviation	Definition
AB 32	Assembly Bill 32 Global Warming Solutions Act of 2006
AER	Annual Emission Reporting
AG	Attorney General
ARB	Air Resources Board
BACT	Best Available Control Technology
BARCT	Best Available Retrofit Control Technology
BAU	Business as Usual
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CCAR	California Climate Action Registry
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CPUC	California Public Utilities Commission
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
GHG	Greenhouse Gas
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GWP	Global Warming Potential
IGR	Intergovernmental Review
IPCC	International Panel on Climate Change
ITE	Institute of Transportation Engineers
km	Kilometer
LNG	Liquefied Natural Gas
MMBTU	Million British Thermal Units
MND	Mitigated Negative Declaration
MMT CO _{2e}	Million Metric Tons Carbon Dioxide Equivalent
MW	Megawatts
N ₂ O	Nitrous Oxide
ND	Negative Declaration
NO _x	Oxides of Nitrogen
OPR	State Office of Planning and Research
PFC	Perfluorocarbon

List of Acronyms and Abbreviations (Concluded)

Acronym/ Abbreviation	Definition
PM	Particulate Mater
ROG	Reactive Organic Gas
RPS	Renewable Portfolio Standards
S-3-05	Executive Order S-3-05
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO _x	Sulfur Oxides
TAC	Toxic Air Contaminants
URBEMIS	Urban Emissions Model
VMT	Vehicle Miles Traveled

CHAPTER 1

INTRODUCTION AND EXECUTIVE SUMMARY

Introduction

Purpose of This Guidance Document

California Environmental Quality Act and GHGs

Legal Authority

Contents of This Guidance Document

INTRODUCTION

The California Environmental Quality Act (CEQA) requires public agencies in California to analyze potential adverse impacts for proposed projects undertaken by a public agency, funded by a public agency, and requiring discretionary approval by a public agency. The fundamental purposes of CEQA are to inform governmental decision-makers and the public about the significant environmental effects of proposed activities, identify ways to avoid or significantly reduce environmental damage, use feasible alternatives or mitigation measures to avoid significant damage, and disclose to the public why a governmental agency approved a project if significant effects are involved (CEQA Guidelines §15002[a]). To disclose potential adverse impacts from a proposed project, pursuant to CEQA lead agencies typically prepare multidisciplinary environmental impact analysis and make decisions based on the analysis regarding the environmental effects of the proposed project (CEQA Guidelines §15002[a]).

In the past, air quality analyses tended to focus on potential adverse impacts from criteria pollutants and toxic air contaminants. Subsequent to the adoption of Assembly Bill (AB) 32 – The California Global Warming Solutions Act of 2006, lead agencies have increasingly faced legal challenges to their CEQA documents for failure to analyze greenhouse gases (GHGs) or making a determination of significance regarding GHG emission impacts.

Greenhouse gases are those gases that have the ability to trap heat in the atmosphere, a process that is analogous to the way a greenhouse traps heat. GHGs may be emitted as a result of human activities as well as through natural processes. As a result of human activities, such as electricity production, vehicle use, etc., GHGs have been accumulating in the earth's atmosphere at a faster rate than has occurred historically, i.e., prior to the Industrial Age starting approximately 150 years ago. Increasing GHG concentrations in the atmosphere are leading to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) provided the first unequivocal evidence that global climate temperatures are increasing (2007a). Further, the primary driver of global climate change is increased emissions of GHGs due to human activities. According to the IPCC, there is very high confidence, based on more evidence from a wider range of species, that recent warming is strongly affecting terrestrial, marine, freshwater biological systems.

Carbon dioxide (CO₂) is the most important anthropogenic GHG because it comprises the majority of total GHG emissions emitted per year and it is very long-lived in the atmosphere. Annual emissions of CO₂ have increased approximately 80 percent between 1970 and 2004. In addition to CO₂, other GHG pollutants emitted directly as a result of human activities include methane (CH₄), nitrous oxide (N₂O) and halocarbons (a group of gases containing fluorine, chlorine or bromine). Without changes in current climate change mitigation policies and related sustainable

development practices, GHG emissions and global climate temperatures will continue to increase.

To prevent or minimize further increases in global temperatures resulting from increases in GHG emissions due to human activities, it is necessary to stabilize the concentration of GHGs in the atmosphere. Stabilizing GHGs in the atmosphere can only occur through reducing GHG emissions. Without further reductions in GHGs, increased global temperatures will surpass humans' and ecosystems' ability to adapt to these changing conditions (IPCC, 2007b).

In response to the increasing body of evidence that GHGs will continue to affect global climate, Governor Schwarzenegger issued executive order (EO S-3-05), which established the following greenhouse gas emission reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Subsequent to the Governor's issuance of EO S-3-05, the California State Legislature adopted Assembly Bill (AB) 32 – The California Global Warming Solutions Act of 2006. With the adoption of AB 32, the California State Legislature recognized the growing concern regarding changes to global climate resulting from increasing emissions of greenhouse gases (GHGs). AB 32 establishes a cap on statewide greenhouse gas emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels. Specifically, (AB 32) recognizes the serious threat to the “economic wellbeing, public health, natural resources, and the environment of California” that results from global warming. Consequently, AB 32 mandates a significant reduction in GHGs in order to contribute to efforts to stabilize atmospheric concentrations of GHGs. Under AB 32, greenhouse gases are defined as: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

In general, there is currently an absence of regulatory guidance with regard to analyzing GHG emission impacts in CEQA documents. Similarly, no public agency in California has formally adopted GHG significance thresholds. Recognizing the absence of guidance regarding analyzing and determining the significance of GHGs, the California Air Pollution Control Officers Association (CAPCOA) prepared a White Paper reviewing policy choices, analytical tools, and mitigation strategies for GHGs. In particular, the White Paper identifies a number of options for establishing GHG significance thresholds, but makes no formal recommendation of one approach over another.

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. Although districts will also address some of these issues on a project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues.

Because of its expertise in establishing air quality analysis methodologies and comprehensive efforts to establish regional and localized significance thresholds for criteria pollutants, local public agencies have asked South Coast Air Quality Management District (SCAQMD) for guidance in quantifying GHG impacts and recommending GHG significance thresholds to assist them with determining whether or not GHG impacts in their CEQA documents are significant. As a result, SCAQMD staff has received requests from a number of public agencies and other stakeholders to provide guidance on analyzing GHG impacts and establishing a GHG significance threshold. In response to these requests from the various stakeholders, SCAQMD established a stakeholder working group to receive input on establishing a GHG significance threshold. In the meantime, SCAQMD staff has joined many other stakeholders urging CARB to establish a statewide threshold for GHGs. In the absence of a statewide threshold, SCAQMD staff will recommend its interim approach to the Governing Board for consideration and it will also become the SCAQMD's input to the statewide process.

PURPOSE OF THIS GUIDANCE DOCUMENT

The purpose of this Guidance Document, therefore, is to provide information on GHG legislation relative to CEQA, a brief summary of the Working Group process, development of the resulting staff-recommended interim GHG significance threshold proposal, and how to use it. This Guidance Document also provides information on the SCAQMD's authority to establish a GHG significance threshold pursuant to CEQA and some background information on GHGs and global climate change. This Guidance Document also discusses future efforts to further refine the interim GHG significance threshold as necessary, includes recommendations for analyzing GHG impacts using current modeling tools, and describes measures to mitigate GHG emission impacts.

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND GHGS

- California Attorney General's Office

Subsequent to adopting AB 32, the California Attorney General's Office determined that GHG emissions contributing to global climate change also contribute to potential adverse environmental impacts that should be evaluated pursuant to the California Environmental Quality Act (CEQA). The Attorney General's Office has submitted numerous comment letters to lead agencies on their CEQA documents for failure to analyze GHG emissions, failure to make a significance determination, and failure to implement feasible mitigation measures to reduce GHG emissions to the maximum extent feasible.

For example, the California Attorney General, on behalf of the people of California, filed a legal challenge against the County of San Bernardino for failure to analyze "reasonably foreseeable" GHG emissions in the CEQA document prepared for its

General Plan update. The County reached a settlement with the Attorney General by committing to developing a GHG inventory and a plan for reducing GHGs.

Similarly, the California Attorney General submitted comments on the CEQA document for a refinery in northern California. Although GHG emissions were quantified, the Attorney General cited the failure of the lead agency to make a determination of significance relative to GHG emissions stating, “[E]ven if there is no established threshold in law or regulation, lead agencies are obligated by CEQA to determine significance. Neither CEQA, nor the regulations, authorize reliance on the lack of an agency-adopted standard as the basis for determining that a project’s potential cumulative impact is not significant.” In other words, the absence of a threshold does not in any way relieve lead agencies of their obligations to address GHG emissions from projects under CEQA. By not concluding whether or not a project is significant, the lead agency may be avoiding its responsibility to implement GHG mitigation measures.

- Senate Bill (SB) 97 – CEQA: Greenhouse Gas Emissions

In August 2007, Governor Schwarzenegger signed into law Senate Bill (SB) 97 – CEQA: Greenhouse Gas Emissions stating, “This bill advances a coordinated policy for reducing greenhouse gas emissions by directing the Office of Planning and Research (OPR) and the Resources Agency to develop CEQA guidelines on how state and local agencies should analyze, and when necessary, mitigate greenhouse gas emissions.” Specifically, SB 97 requires OPR, by July 1, 2009, to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Resources Agency would be required to certify and adopt those guidelines by January 1, 2010. OPR would be required to periodically update the guidelines to incorporate new information or criteria established by the State Air Resources Board pursuant to the California Global Warming Solutions Act of 2006. SB 97 also identifies a limited number of types of projects that would be exempt under CEQA from analyzing GHG emissions. Finally, the legislation will be repealed on January 1, 2010.

- Office of Planning and Research Technical Advisory

Consistent with SB 97, on June 19, 2008, OPR released its *Technical Advisory on CEQA and Climate Change*, which was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (Cal/EPA), and the California Air Resources Board (CARB). According to OPR, the *Technical Advisory* offers the informal interim guidance regarding the steps lead agencies should take to address climate change in their CEQA documents, until CEQA guidelines are developed pursuant to SB 97 on how state and local agencies should analyze, and when necessary, mitigate greenhouse gas emissions.

According to OPR, lead agencies should determine whether greenhouse gases may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by

type and source. Second, the lead agency must assess whether those emissions are individually or cumulatively significant. When assessing whether a project’s effects on climate change are “cumulatively considerable” even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. Finally, if the lead agency determines that the GHG emissions from the project as proposed are potentially significant, it must investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts of those emissions.

SB 375 (Steinberg) Transportation, Land Use, and the California Environmental Quality Act (CEQA)

On September 30, 2008, Governor Schwarzenegger signed into law SB 375 (Steinberg). SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. This legislation is important to achieving AB 32 goals because greenhouse gas emissions associated with land use, which includes transportation, are the single largest sector of emissions in California. Further, SB 375 provides a path for better planning by providing incentives to locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled (VMT) every year. The following bullet points summarize some of the main provisions of the bill.

- Require the regional governing bodies in each of the state’s major metropolitan areas to adopt, as part of their regional transportation plan, a “sustainable community strategy” that will meet the region’s target for reducing GHG emissions. These strategies would get people out of their cars by promoting smart growth principles such as: development near public transit; projects that include a mix of residential and commercial use; and projects that include affordable housing to help reduce new housing developments in outlying areas with cheaper land and reduce vehicle miles traveled (VMT).
- Create incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions.
- Provide various forms of CEQA relief by allowing projects that are shown to conform to the preferred sustainable community strategy through the local general plans (and therefore contribute to GHG reduction) to have a more streamlined environmental review process. Specifically, SB 375 will change CEQA in two ways:
 - If a development is consistent with the sustainable community’s strategy and incorporates any mitigation measures required by a prior EIR, then the environmental review does not have to consider: a) growth-inducing impacts, or b) project-specific or cumulative impacts from cars on global warming or the regional transportation network.

- A narrowly-defined group of “transit priority projects” will be exempt from CEQA review.

LEGAL AUTHORITY

CEQA Guidelines §15022(a) states that a public agency shall adopt objectives, criteria, and specific procedures consistent with CEQA and these [State] Guidelines for administering its responsibilities under CEQA. CEQA Guidelines §15022(d) states further, “In adopting procedures to implement CEQA, a public agency may adopt the State CEQA Guidelines through incorporation by reference. The agency may then adopt only those specific procedures or provisions described in subsection [15022] (a) which are necessary to tailor the general provisions of the guidelines to the specific operations of the agency.” At the December 11, 1998 Public Hearing the SCAQMD’s Governing Board formally incorporated by reference the State CEQA Guidelines as the implementing guidelines for the SCAQMD’s CEQA program. Adopting GHG significance thresholds would be consistent with CEQA Guidelines §15022 provision to tailor a public agency’s implementing guidelines by adopting criteria relative to the specific operations of the SCAQMD.

Specifically with regard to thresholds of significance, CEQA Guidelines §15064.7(a) states, “Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.” Subsection (b) of the same section states further, “Thresholds of significance to be adopted for general use as part of the lead agency’s environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence.” Staff’s recommended GHG significance threshold has undergone a public review process as part of stakeholder working group meetings that are open to the public. This Guidance Document provides the substantial evidence relative to the methodology for developing the interim GHG significance threshold. After completion of the public process, the proposed interim GHG significance threshold will be brought to the SCAQMD’s Governing Board at a public meeting, where it will be considered for adoption by resolution, consistent with CEQA Guidelines §15064.7(b). Staff’s proposed interim GHG significance threshold is a recommendation only for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. However, if adopted the SCAQMD will use the interim GHG significance threshold for projects where it is the lead agency.

- Considerations When Establishing Significance Thresholds

No significance thresholds for GHG emissions have been developed, adopted, or endorsed statewide or at the local level¹. Air districts have primary authority under

¹ In response to comments submitted by the Attorney General’s Office on a dairy project, the San Joaquin Valley Air Pollution Control District (SJVAPCD) identified a significance threshold of 38,477 metric tons of

state law for "control of air pollution from all sources, other than emissions from motor vehicles" (H&SC §40000). The term air contaminant or "air pollutant" is defined extremely broadly, to mean "any discharge, release, or other propagation into the atmosphere" and includes, but is not limited to, soot, carbon, fumes, gases, particulate matter, etc. Greenhouse gases and other global warming pollutants such as black carbon would certainly be included in this definition. The U.S. Supreme Court held in *Massachusetts v. EPA* 549 U.S. 497 (2009) that greenhouse gases were clearly within the Federal Clean Air Act's broad definition of air pollutants. Therefore, air districts have the authority to regulate global warming pollutants primarily from non-vehicular sources, while pursuant to AB 32 CARB has authority over a wide range of sources, including vehicular sources.

Appendix G of the CEQA Guidelines provides a checklist of suggested environmental topics that should be addressed in a CEQA document. Questions under each environmental topic area are designed to elicit information on whether a project has the potential to generate significant adverse environmental impacts to that environmental topic area. However, neither the CEQA statutes nor the implementing Guidelines discuss or identify thresholds of significance or particular methodologies for performing an impact analysis. These tasks are left to a lead agency's judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable.

The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area (CEQA Guidelines §15064(b)). Further, in evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project (§15064(d)). Significance conclusions must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines §15064(f)(5)).

Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is essentially a regulatory standard or set of criteria that represent the level at which a lead agency finds a particular environmental effect of a project to be significant. Specifically, a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant

carbon dioxide equivalent per year (MT CO₂eq./yr). According to SJVAPCD staff, the agency currently has no plans to formally adopt this significance threshold through a public process.

by the agency and compliance with which means the effect normally will be determined to be less than significant (§15064.7(a)).

Even in the absence of clearly defined significance thresholds for GHG emissions, the California Attorney General has advised that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

CONTENTS OF THIS GUIDANCE DOCUMENT

The following subsections provide brief summaries of the chapters contained in this guidance document.

- Summaries of Chapter 1

Chapter 1 is the introductory chapter of this document that contains general background information on GHGs and the determination that GHGs must be analyzed in CEQA documents. There is also information on CEQA legislation related to GHGs and global climate change. Finally, the chapter contains information on the legal authority that allows the SCAQMD to adopt significance thresholds for the purpose of determining the severity of impacts analyzed in CEQA documents

- Summaries of Chapter 2

Chapter 2 contains more detailed background information on GHG emissions relative to global climate change, both internationally and nationally. This chapter also provides more detailed information on legislation to reduce GHG house gas emissions, e.g., Assembly Bill 32 – the Global Warming Solutions Act of 2006, etc. Finally, Chapter 2 contains information on early guidance on evaluating GHG emissions in CEQA documents.

- Summaries of Chapter 3

Chapter 3 contains information on the working group established by the SCAQMD to provide feedback to staff on the development of an interim GHG significance threshold. The chapter also includes discussions on considerations in establishing an interim GHG significance threshold and describes the current staff proposal for an interim GHG significance threshold.

- Summaries of Chapter 4

Chapter 4 contains general recommendations for analyzing GHG emissions in CEQA documents.

- Summaries of Chapter 5

In Chapter 5 it is assumed that the SCAQMD Governing Board will adopt staff's proposed interim GHG significance threshold. Therefore, this chapter discusses future action items, including outreach to interested stakeholders, compiling lists of applicable GHG design features and mitigation measures, and periodic review and update, as necessary of the interim GHG significance threshold.

CHAPTER 2

BACKGROUND INFORMATION ON GHGS

General Background Information

Legislative Background – California

Initial Guidance on Evaluating GHGs Pursuant to CEQA

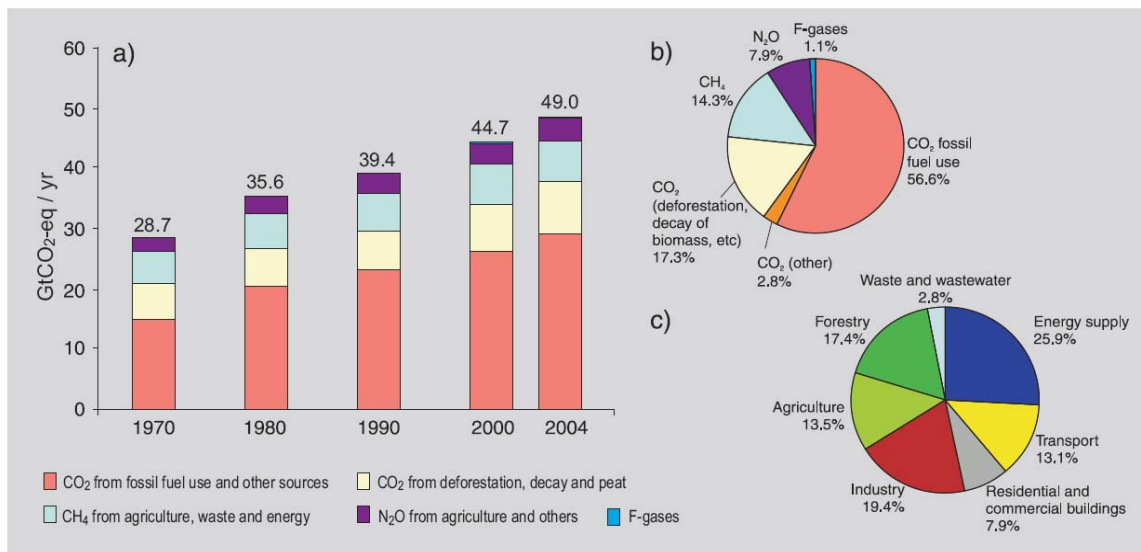
GENERAL BACKGROUND INFORMATION ON GHGS

- Intergovernmental Panel on Climate Change

In the last few years information and data have been compiled that demonstrate unequivocally that increases in average global air and ocean temperatures are occurring (IPCC, 2007a). For example, 11 of the last 12 years (1995-2006) rank among the 12 warmest years in the instrumental record of global surface temperature (since 1850). The temperature increase is widespread over the globe and is greater at higher northern latitudes. Further, increases in sea level are consistent with global warming. For example, global average sea level rose at an average rate of 1.8 [1.3 to 2.3]mm per year over 1961 to 2003 and at an average rate of about 3.1 [2.4 to 3.8]mm per year from 1993 to 2003. According to the IPCC (2007b), there is very high confidence, based on more evidence from a wider range of species, that recent warming is strongly affecting terrestrial, marine, and freshwater biological systems.

One of the major drivers in global climate change has been directly linked to the increase in greenhouse gas (GHG) emissions due to human activities worldwide (Figure 2-1). Carbon dioxide (CO₂) is the most important anthropogenic GHG. Annual CO₂ emissions have increased approximately 80 percent between 1970 and 2004 (IPCC, 2007b)

Figure 2-1
Global Anthropogenic GHG Emissions



Source – IPCC, 2007b: (a) Global annual emissions of anthropogenic GHGs from 1970 to 2004.5 (b) Share of different anthropogenic GHGs in total emissions in 2004 in terms of CO₂-eq. (c) Share of different sectors in total anthropogenic GHG emissions in 2004 in terms of CO₂-eq. (Forestry includes deforestation.) {WGIII Figures TS.1a, TS.1b, TS.2b}

Human activities have been responsible for substantial increases in four long-lived GHGs, including: CO₂, methane (CH₄), nitrous oxide (N₂O) and halocarbons (a group of gases

containing fluorine, chlorine or bromine). Global increases in CO₂ concentrations are due primarily to fossil fuel use, with land-use change providing another significant but smaller contribution. It is very likely that the observed increase in CH₄ concentration is predominantly due to agriculture and fossil fuel use. The increase in N₂O concentration is primarily due to agriculture (IPCC, 2007).

According to the IPCC (2007), for the next couple of decades global temperatures are expected to rise approximately 0.2° C per decade under a variety of scenarios. Further, global temperatures are expected to continue for centuries as a result of human activities due to the time scales associated with climate processes and feedbacks, even if GHG concentrations are stabilized. As a result, based on the current understanding of climate-carbon feedback, model studies show that substantial GHG emission reductions are necessary to avoid substantial increases in global air and ocean temperatures.

LEGISLATIVE BACKGROUND – CALIFORNIA

California has taken a leadership role in not only recognizing the future impacts to global climate change from anthropogenic sources of GHG emissions, but in establishing policies and adopting laws to substantially reduce GHG emissions by 2050. In addition to the GHG legislation related to CEQA described in Chapter 1, California has adopted the following policies and laws that specifically address reducing GHG emissions.

- Governor Schwarzenegger’s Executive Order (June 2005)

In June 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which establishes greenhouse gas emission reduction targets in response to projected increases in global air and ocean temperatures. Specifically, EO S-3-05 establishes the following three GHG emission reduction targets:

- Reduce GHG emissions to 2000 emission levels by 2010;
- Reduce GHG emissions to 1990 emission levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

Further, EO S-3-05 charges the California Environmental Protection Agency (CalEPA) secretary to coordinate with the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the CARB, Chairperson of the Energy Commission and President of the Public Utilities Commission to develop a Climate Action Plan. EO S-3-05 also charges the Secretary of CalEPA with the oversight of efforts to meet the above GHG emission reduction targets and the responsibility to prepare biannual reports on progress in meeting the GHG emission reduction targets.

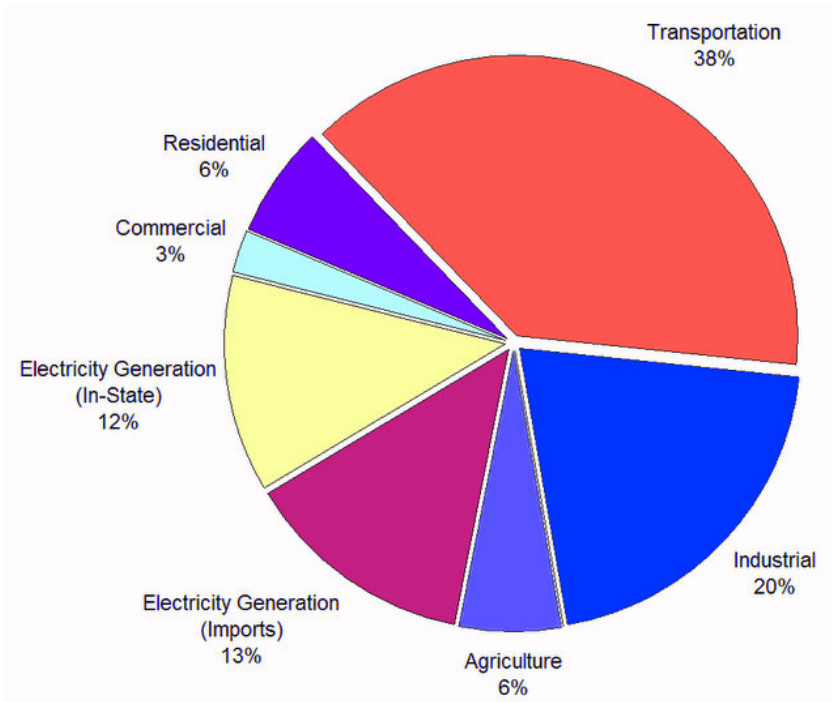
- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32)

The Global Warming Solutions Act of 2006 (AB 32) was adopted by the California State Legislature in 2006. AB 32 assigns CARB the responsibilities of monitoring and reducing GHG emissions. Specifically, AB 32 requires CARB to:

- Establish a statewide greenhouse gas emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of greenhouse gases by January 1, 2009;
- Adopt a plan by January 1, 2009, indicating how emission reductions will be achieved from significant greenhouse gas sources via regulations, market mechanisms and other actions;
- Adopt regulations by January 1, 2011, to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas, including provisions for using both market mechanisms and alternative compliance mechanisms;
- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise CARB;
- Ensure public notice and opportunity for comment for all CARB actions;
- To adopt rules for “sources” including non-vehicular; and
- Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to impacts on California's economy, the environment and public health; equity between regulated entities; electricity reliability; conformance with other environmental laws, and must ensure that the rules do not disproportionately impact low-income communities.

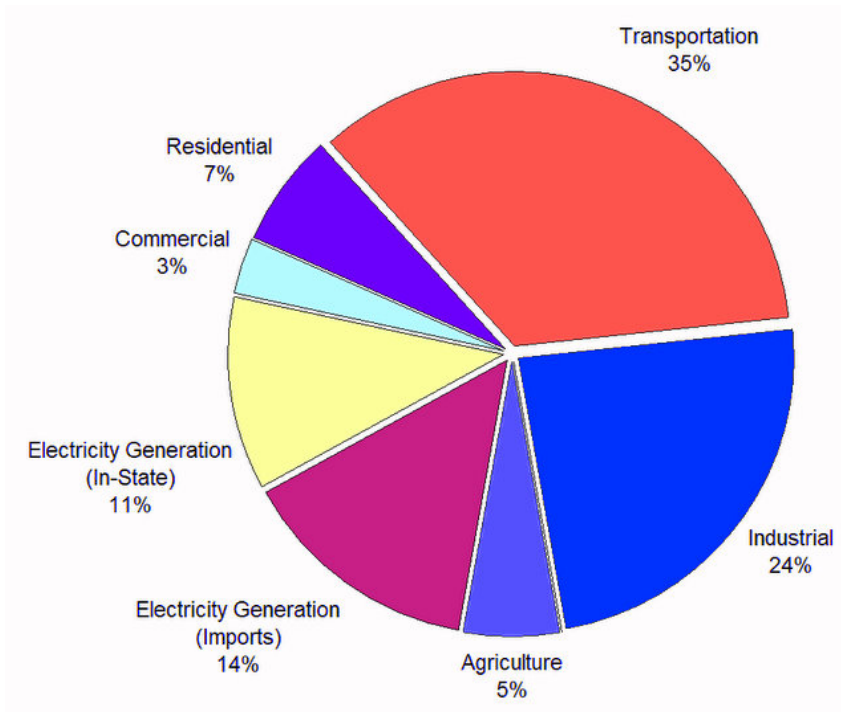
According to the schedule of milestones laid out in AB 32, CARB has made progress in the following areas. Consistent with AB 32's requirement to establish a GHG emission inventory, in December 2007 CARB adopted the California Greenhouse Gas Emission Inventory. The Inventory accounts for all GHG emissions within the state of California and supports the AB 32 Climate Change Program. Figure 2-2 shows CARB's inventory for the year 2004. The Inventory also serves as the basis for developing future year GHG emission forecasts necessary to support measure development and Scoping Plan recommendations. ARB staff has developed a year 2020 “business-as-usual” (BAU) forecast of GHG emissions for use in developing the Draft Scoping Plan. Figure 2-3 shows CARB's inventory for the year 2020, which is AB 32's target inventory.

Figure 2-2
2004 GHG Emissions by Sector (Gross Emissions: 484.4 MMT CO₂eq.)



Source: CARB, 2007

Figure 2-3
1990 GHG Emissions by Sector (Gross Emissions: 433.3 MMT CO₂eq.)



Source: CARB, 2007

On December 6, 2007, the Air Resources Board (ARB) approved a regulation for the mandatory reporting of greenhouse gas emissions from major sources, pursuant to AB 32. The mandatory reporting regulation specifies the types of facilities that must report their GHG emissions, requirements for reporting and estimating the GHG emissions, and requirements for emissions verification. Upon adoption, the CARB Board directed staff to make other conforming modifications, as may be appropriate, based on comments received. Subsequent to adoption, the mandatory reporting regulation has undergone two sets of modifications.

Consistent with the requirement to develop a scoping plan indicating how GHG emission reductions will be achieved through regulations, market mechanisms, and other actions, the Draft Scoping Plan was released for public review and comment on June 26, 2008, followed by workshops in July and August, 2008.

The Draft Scoping Plan calls for achievable GHG emission reduction in California's carbon footprint to 1990 levels. Reducing greenhouse gas emissions to 1990 levels means cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. Key elements of CARB's preliminary recommendation for reducing California's greenhouse gas emissions to 1990 levels by 2020 contained in the Draft Scoping Plan include the following:

- Expansion and strengthening of existing energy efficiency programs and building and appliance standards;
- Expansion of the Renewables Portfolio Standard for electricity generation to 33 percent;
- Development of a California cap-and-trade program that links with other WCI Partner programs to create a regional market system;
- Implementation of existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Targeted fees to fund the State's long-term commitment to AB 32 administration.

The Scoping Plan is expected go to the CARB Board for adoption in November, 2008.

INITIAL GUIDANCE ON EVALUATING GHGS PURSUANT TO CEQA

As noted in Chapter 1, both the California Attorney General's Office and the OPR determined that GHG emissions contributing to global climate change have the potential to generate adverse environmental impacts that should be evaluated pursuant to CEQA. Until recently, however, there has been little or no guidance relative to analyzing GHG emissions in CEQA documents or determining significance. The first explicit guidance was provided by the Association of Environmental Professionals (AEP) in its White Paper on Global Climate Change (AEP, 2007) and the White Paper on CEQA and Climate Change prepared by the California Air Pollution Control Officers Association (CAPCOA, 2008). The content of each of these White Papers is summarized in the following subsections.

- Association of Environmental Professionals – White Paper on Global Climate Change

AEP's White Paper (AEP) was one of the first attempts to discuss GHGs in the context of CEQA. The intent of the White Paper was to provide practical, interim information to CEQA practitioners and to help Lead Agencies determine how to address GHGs and global climate change in CEQA documents prior to the development and adoption of guidance by appropriate government agencies. Further, AEP's White Paper provided a summary of the current regulatory environment surrounding GHG emissions, and the various approaches that a Lead Agency may select in a CEQA document to address the potential impacts of global climate change and a project's cumulative contribution to GHG. The White Paper described several approaches for addressing GHGs and global Climate Change in CEQA documents, but did not recommend a single approach or methodology, leaving that decision to local Lead Agencies. The AEP White Paper identified eight approaches for analyzing GHGs and global climate change, which are summarized in the following bullet points.

- **Approach 1 – No Analysis:** under this approach the Lead Agency would not mention or discuss GHGs or global climate change.
- **Approach 2 – Screening Analysis:** under this approach the Lead Agency would establish a process to screen projects and determine that they would not make significant contributions to GHG emissions or GCC and, therefore, would not need to mitigate accordingly.
- **Approach 3 – Qualitative Analysis without Significance Determination:** this approach involves a qualitative discussion of GHGs and global climate change and potential ways the project will contribute to the generation of GHG emissions, but does not provide any significance conclusions.
- **Approach 4 – Qualitative Analysis with Significance Determination:** under this approach the Lead Agency would qualitatively discuss GHGs and climate change impacts and conclude that the project impacts are significant.
- **Approach 5 – Quantitative Analysis without Significance Determination:** under this approach the Lead Agency would quantify GHG emissions from the proposed project, but the results are not compared to a quantitative significance threshold.
- **Approach 6 – Quantitative Analysis with Net Zero Threshold:** this approach involves quantifying GHG emissions and using zero net carbon dioxide equivalent increase as the threshold.
- **Approach 7 – Quantitative Analysis Relative to California GHG Emission Reduction Strategies:** this approach employs both quantitative and qualitative components. The quantitative analysis contains an inventory of project GHG emissions. The qualitative component involves project compliance with the emission reduction strategies contained in the California Climate Action Team's (CAT) Report to the Governor, which contains recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met.
- **Approach 8 – Use of Partial Exemption, “Within the Scope” of a Program EIR, or Tiering:** this option relies on the preparation of a broad EIR on a plan, program, or zoning action that is certified and contains a cumulative GHG and global climate change

impact analysis and mitigation. A later project that is consistent with the actions, goals, and/or policies in that plan, program, or zoning action need not again evaluate the cumulative impact regarding the project's GHG contribution to global climate change. In this situation, the later project may use the "partial exemption" provision of Public Resources Code §21083.3 and CEQA Guidelines §15183.

Since the date that the AEP White Paper was finalized (June, 2007), it has become clear that any of the above eight options that do not include quantification of GHG emissions and a determination of significance would be vulnerable to legal challenge. In addition, with the exception of the net zero approach in option 6, none of the options evaluated identify potential GHG significance thresholds. Approaches to developing GHG significance thresholds were specifically addressed in CAPCOA's White Paper (CAPCOA, 2008).

- California Air Pollution Control Officers Association – White Paper: CEQA and Climate Change

The intent of CAPCOA's White Paper is to serve as a resource for public agencies as they establish procedures for reviewing GHG emissions from projects under CEQA. It considers the application of thresholds and offers three alternative programmatic approaches toward determining whether GHG emissions are significant. Although the White Paper considers an option of not establishing a GHG significance threshold, as already noted this option is not considered to be a viable approach and will not be considered further. Ultimately, the White Paper is intended to provide consistent approaches for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA.

The CAPCOA White Paper identifies three programmatic approaches to establishing GHG significance thresholds and also discusses the benefits and problems associated with each approach. Each approach has inherent advantages and disadvantages. The three basic approaches are:

- No significance threshold for GHG emissions (not discussed further);
- GHG emissions threshold set at zero; or
- GHG threshold set at a non-zero level, two approaches.

The following subsections briefly summarize two of the three major programmatic approaches developed by CAPCOA.

-Zero Threshold

An air district or lead agency may determine that any degree of project-related increase in GHG emissions would contribute considerably to climate change which, therefore, would be considered a significant impact. As a result, the air district or lead agency could adopt a zero-emission GHG threshold. If the zero threshold option is chosen, the lead agency would be required to quantify and mitigate GHG emissions for all projects subject to CEQA, regardless of the size of the project or the availability of GHG reduction measures available to reduce the project's emissions. Projects that could not meet the zero-emission threshold would be required to undergo an environmental impact report (EIR) CEQA process to disclose the unmitigable significant impact, and develop the justification for a statement of overriding consideration to be adopted by the lead agency.

CAPCOA notes in the White Paper that if an air district or lead agency elects to adopt a zero threshold approach, it should consider the administrative costs and the environmental review system capacity. Some projects that previously would have qualified for an exemption could require further substantial analysis, including preparation of a Negative Declaration (ND), a Mitigated Negative Declaration (MND) or an EIR. Moreover, the trade-offs between the volume of projects requiring review and the quality of consideration given to reviews should be considered. It may also be useful to consider whether meaningful mitigation can be achieved from smaller projects.

-Approach 1: Non-Zero Threshold – Statute and Executive Order Approach

According to CAPCOA, a non-zero GHG significance threshold could minimize the resources spent reviewing environmental analyses that do not result in real GHG reductions or to prevent the environmental review system from being overwhelmed. The practical advantages of considering non-zero thresholds for GHG significance determinations can fit into the concept regarding whether the project’s GHG emissions represent a “considerable contribution to the cumulative impact” and therefore warrant analysis.

The first non-zero GHG significance threshold approach is based on achieving the objectives of AB 32 or executive order EO S-3-05 and explores four possible options under this scenario. A project would be required to meet the target objectives, or reduce GHG emissions to the target objectives, to be considered less than significant. The options under this approach are variations of ways to achieve the 2020 goals of AB 32 from new development, which is estimated to be about a 30 percent reduction from business-as-usual. Table 2-1 summarizes the four statute and executive order approaches identified by CAPCOA. SCAQMD staff has identified and included in Table 2-1 potential pros and cons identified for each option.

-Approach 2: Non-Zero Threshold – Tiered Threshold Options

The second non-zero GHG significance threshold approach is comprised of a number of tiered GHG significance threshold options. Within this option, the CAPCOA White Paper discusses seven variations. The tiered threshold options offer both quantitative and qualitative approaches to setting a threshold, as well as different metrics for establishing the various tiers. Variations range from setting the first tier at zero to second tiers set at defined emission levels or based on the size of a project. This approach would then prescribe a set of GHG mitigation strategies that would have to be incorporated into the project in order for the project to be considered less than significant. CAPCOA notes that some applications of the tiered threshold approach may require inclusion in a General Plan or adoption of enabling regulations or ordinances to render them fully effective and enforceable. The various tiered threshold options are summarized in Table 2-2. SCAQMD staff has identified and included in Table 2-2 potential pros and cons identified for each option.

Table 2 – 1
Statute and Executive Order Approach

Threshold Number	Description of Threshold	Pros*	Cons*
1.1	<p>Project must reduce emissions compared to business as usual to be less than significant, two approaches:</p> <p>a. Project must reduce GHG emissions 33 percent compared to business-as-usual (BAU) (2020 target), or</p> <p>b. Project must reduce GHG emissions 80 percent compared to business-as-usual (2050 target).</p>	<ul style="list-style-type: none"> • Could reduce resource impacts compared to zero threshold, as not every project would require an EIR • Would achieve GHG reductions consistent with AB 32 • A single threshold is easier to apply and understand 	<ul style="list-style-type: none"> • Could be viewed as setting a de minimis level • Fewer projects would trigger significance, thus, less mitigation • BAU should be defined by CARB • BAU may be difficult to define for all projects
1.2	<p>All new projects must reduce GHG emissions compared to BAU by a uniform percentage to be considered less than significant, e.g., 50 percent.</p>	<ul style="list-style-type: none"> • Same as 1.1 • May produce greater percent reduction of GHGs • Single threshold easier to apply & understand 	<ul style="list-style-type: none"> • Could produce substantially greater GHG reductions than 1.1, but may be difficult to achieve • BAU should be defined by CARB • BAU may be difficult to define for all projects

* Pros and cons reflect only SCAQMD staff's evaluation of the approaches.

Table 2 – 1 (Concluded)
Statute and Executive Order Approach

Threshold Number	Description of Threshold	Pros*	Cons*
1.3	Projects must reduce GHG emissions compared to business-as-usual by a uniform percentage based on economic sector to be less than significant, i.e., different reductions required for different market sectors.	<ul style="list-style-type: none"> • Sector-specific approach may be more appropriate approach • Would take into account costs & available control technologies • Avoids over- or under-regulation of GHGs per sector 	<ul style="list-style-type: none"> • Requires extensive information on emission inventories • Requires extensive information on control technologies • Difficult to determine percent reduction by sector • Because of information requirements, may be more viable in the long term
1.4	Uniform GHG emission reduction by region. Regional GHG reduction plan developed consistent with AB32 emission reductions, e.g., reduce GHG emissions 33% or 80% compared to BAU. A project is not significant if its GHG emissions are consistent with plan.	<ul style="list-style-type: none"> • Could tailor GHG reductions to specific regional needs • GHG reduction strategies could be integrated into regional plans 	<ul style="list-style-type: none"> • Would need to establish GHG regions • Requires extensive information on regional emission inventories • Because of the need to develop a regional plan, may be a more viable interim approach

* Pros and cons reflect only SCAQMD staff's evaluation of the approaches.

Table 2 – 2
Tiered Threshold Options

Threshold Number	Description of Threshold	Pros*	Cons*
2.1	This threshold employs a decision tree approach. Tier 1, no increase in GHG emissions, not significant (zero threshold). If GHG emissions greater than zero, tier two, use one of the following threshold options.	<ul style="list-style-type: none"> • Tiered approach allows flexibility by establishing multiple thresholds to cover a wide range of projects • Tier 2 may minimize administrative burden & costs • Tiers could be set at different levels depending on GHGs, size & other project characteristics • Projects exceeding tier 2 must implement mitigation 	<ul style="list-style-type: none"> • Tier 1 may increase administrative burdens & costs • There may not be meaningful mitigation for small projects • Available mitigation may consist of purchasing offsets • EJ concerns of purchasing offsets because of associated criteria pollutant emissions • Offset markets not well established
2.2	Establish a quantitative threshold based on capturing a percentage, e.g., 90%, of future discretionary projects, CAPCOA's threshold is 900 metric tons CO ₂ eq per year (equivalent to 50 houses or 30,000 square feet of commercial space, i.e., CAPCOA assumes 90% of all projects are this size or greater). Projects less than this would not be significant.	<ul style="list-style-type: none"> • Would capture a larger percentage of projects in the district than is currently the case • Would exclude small projects from further GHG analysis • Single threshold easier to apply & understand 	<ul style="list-style-type: none"> • Would increase administrative & cost burden, especially in developing & moderate growth areas • May not be amenable to industrial projects because of the diversity of these projects • There may not be meaningful mitigation for small projects

* Pros and cons reflect only SCAQMD staff's evaluation of the approaches.

Table 2 – 2 (Continued)
Tiered Threshold Options

Threshold Number	Description of Threshold	Pros*	Cons*
2.3	This threshold is based on CARB’s proposed mandatory reporting threshold of 25,000 metric tons of CO ₂ eq per year. Alternatively, use the Market Advisory Committee of 10,000 metric tons of CO ₂ eq per year. Projects less than either would not be significant.	<ul style="list-style-type: none"> • CARB estimates this threshold would capture 90 % of all industrial projects • Single threshold easier to apply & understand 	<ul style="list-style-type: none"> • May not be amenable to industrial projects because of the diversity of these projects • There may not be meaningful mitigation for small projects
2.4	<p>This approach establishes a GHG threshold based on and analogous to a NO_x/VOC criteria pollutant CEQA significance threshold and is established using the following four steps:</p> <p>a. Define NO_x/VOC CEQA thresholds in tons per year (e.g., 10 t/yr)</p> <p>b. Define the regional NO_x/VOC inventory in tons per year (e.g., annual NO_x inventory for 2005 from 2007AQMP ~ 375,585 t/yr)</p> <p>c. Calculate percentage of NO_x/VOC inventory the significance threshold represents ($10 / 375,585 = 0.00003$) to obtain “minimum percentage of regulated inventory” for NO_x/VOC.</p>	<ul style="list-style-type: none"> • Single threshold easier to apply & understand 	<ul style="list-style-type: none"> • Threshold cumbersome to derive • Threshold would change periodically as inventory goes up or down • Could have widely divergent thresholds by air basin because of varying inventories

* Pros and cons reflect only SCAQMD staff’s evaluation of the approaches.

Table 2 – 2 (Continued)
Tiered Threshold Options

Threshold Number	Description of Threshold	Pros*	Cons*
2.4 (Cont.)	d. Define California GHG emission inventory for 2004 in tons CO ₂ eq per year (499 MMT CO ₂ eq). Apply minimum percentage of regulated inventory to California GHG inventory for 2004 to develop a GHG threshold analogous to the CEQA Threshold (e.g., 0.00003 x 499 MMT = 14,970 metric tons CO ₂ eq per year = significance threshold).	•	•
2.5	Establish quantitative unit-based thresholds based on capturing a percentage, e.g., 90%, of future discretionary projects in specific market sectors (similar to 2.2 above). CAPCOA examples include: <ul style="list-style-type: none"> • 30,000 square-foot (SF) office = 800 metric tons CO₂eq per year; • 30,000 SF retail = 2,500 metric tons CO₂eq per year; • 30,000 SF supermarket = 43,000 metric tons CO₂eq per year. 	<ul style="list-style-type: none"> • Would capture a larger percentage of projects in the district than is currently the case • Would exclude small projects from further GHG analysis • Single threshold easier to apply & understand 	<ul style="list-style-type: none"> • Would increase administrative & cost burden, especially in developing & moderate growth areas • May not be amenable to industrial projects because of the diversity of these projects • There may not be meaningful mitigation for small projects

* Pros and cons reflect only SCAQMD staff's evaluation of the approaches.

Table 2 – 2 (Concluded)
Tiered Threshold Options

Threshold Number	Description of Threshold	Pros*	Cons*
2.6	<p>This threshold would include tiered CEQA thresholds based on CEQA’s definition of “projects with statewide, regional or areawide significance (§15206(b)), which include:</p> <ul style="list-style-type: none"> • Residential development > 500 dwellings • Shopping center or business establishment employing > 1,000 persons or > 500,000 SF • Commercial office building employing >1,000 persons or > 250,000 SF • Hotel/motel > 500 rooms • Industrial, manufacturing or processing plant or industrial park employing > 1,000 persons or > 600,000 SF 	<ul style="list-style-type: none"> • Could capture up to 50% of all future commercial development 	<ul style="list-style-type: none"> • May capture substantially less than 50% if future development, resulting less GHG mitigation • Percentage capture of industrial/manufacturing projects currently unknown
2.7	<p>Efficiency-based thresholds would be based on measurements of efficiency compared to intensity. Must be based on reasonable GHG emissions compared to business-as-usual.</p>	<ul style="list-style-type: none"> • Would benchmark GHG intensity against target levels of efficiency • Thresholds established to provide future foreseeable GHG reductions compared to BAU • Would support AB 32 target objectives 	<ul style="list-style-type: none"> • Would require substantial data & possibly modeling • May be more appropriate as a threshold in the long term

* Pros and cons reflect only SCAQMD staff’s evaluation of the approaches.

CHAPTER 3

INTERIM GHG SIGNIFICANCE THRESHOLD STAFF PROPOSAL

Introduction

GHG Analysis Considerations

Current Staff Interim GHG Significance Threshold Proposals

INTRODUCTION

Because GHG emissions affect global climate, some have argued that it may be more appropriate for national or state agencies to establish significance thresholds or GHG emission reduction target objectives. However, no agency has established GHG significance thresholds that could assist Lead Agencies with determining the significance of GHG emissions in CEQA documents. In the absence of statewide guidance on this issue and in response to requests from a variety of stakeholders, the SCAQMD established a GHG Significance Threshold Stakeholder Working Group (Working Group) to establish an interim GHG significance threshold until such time as the state establishes a GHG significance threshold or provides recommended guidance on establishing a GHG significance threshold. Staff's goal is to reach consensus regarding an interim GHG significance threshold to the extent possible and take the staff proposal to the SCAQMD Governing for consideration and approval.

The Working Group was formed to assist staff's efforts to develop an interim GHG significance threshold and is comprised of a wide variety of stakeholders including: state agencies, OPR, CARB, and the Attorney General's Office; local agencies, city and county planning departments, utilities such as sanitation and power, etc.; regulated stakeholders, industry and industry groups; and organizations, both environmental and professional. Stakeholders were chosen based on their participation in other related stakeholder working groups and their expressed interest in participating in the developing a GHG significance threshold. Working group meetings are open to the public and have been well attended. The members of the Working Group and other interested parties who have requested to be notified of the meetings are listed in Appendix A. Information on the progress of the Working Group, including agendas, overhead presentations, and letters received from the various stakeholders can be found at the following website:

<https://www.aqmd.gov/ceqa/handbook/GHG/GHG.html>.

Part of the purpose of the Working Group is to provide a forum to solicit comments and suggestions from the various stakeholders to assist SCAQMD staff with developing an interim GHG significance threshold that is consistent with CEQA requirements for developing significance thresholds, is supported by substantial evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed project are significant.

SCAQMD staff held the first Working Group meeting in April 2008. Except for September, Working Group meetings have been held on a monthly basis since April. Brief summaries of each Working Group meeting and the topics and staff GHG significance threshold proposals discussed to date are provided in Appendix B. Staff's initial proposed has been modified over time based on comments and concerns raised at Working Group meetings or in written comments. The following sections summarize staff's latest recommended interim GHG significance threshold proposal and some of the concepts necessary to understanding the various components of staff's

proposal. The latest staff proposal is considered to be a work-in-progress as staff is continuing to solicit further public input and suggestions.

The following subsections briefly summarize the GHG significance threshold design criteria concepts included as part of staff's proposed interim GHG significance threshold proposal. Following the discussion of design concepts, SCAQMD staff's current interim proposal is described.

GHG ANALYSIS CONSIDERATIONS

Before discussing quantification methodologies, it is necessary to consider design criteria that establish the parameters upon which the actual GHG analysis is based. The following subsections include discussions from the Working Group of some of the most important design criteria to be considered when quantifying GHG emissions. The following topics include some of the most important parameters that should be considered when quantifying GHG emissions and, therefore, should not be considered an exhaustive list of considerations as individual projects may include characteristics that may require additional considerations.

Policy Objective

The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimately contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.

As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to some type of CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact.

Therefore, the policy objective of staff's recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change. Further, a 90 percent emission

capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for less than one percent of future 2050 statewide GHG emissions target (85 MMTCO₂eq/yr). In addition, these small projects would be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory

- GHG Pollutants

Gases that trap heat in the atmosphere are often called greenhouse gases. The Kyoto Protocol, adopted in December 1997, is an agreement under which industrialized countries will reduce their collective emissions of greenhouse gases by specified percentages, depending on the country, compared to 1990 levels. The goal is to lower overall emissions of six greenhouse gases - carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons, averaged over the period of 2008-2012.

Similarly, AB 32 defines GHGs as including the following: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, section 38505(g)). The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide.

Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

- **Carbon Dioxide (CO₂):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N₂O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). Fluorinated gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as high global warming potential gases (high GWP gases).
 - Hydrofluorocarbons are manmade chemicals that have historically replaced Chlorofluorocarbons used in refrigeration and semiconductor manufacturing.
 - Perfluorocarbons are manmade chemicals that are by-products of aluminum smelting and uranium enrichment.
 - Sulfur hexafluoride is a manmade chemical that is largely used in heavy industry to insulate high voltage equipment and to assist in the manufacturing of cable cooling systems.

GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question to the same mass of carbon dioxide (whose GWP is by definition 1). A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless. A substance's GWP depends on the time span over which the potential is calculated. A gas which is quickly removed from the atmosphere may initially have a large effect but for longer time periods as it has been removed becomes less important. For the purposes of a CEQA analysis, especially an analysis of operation emissions, the maximum GWP is typically used, regardless of the actual atmospheric lifetime. This approach simplifies the analysis and provides a very conservative analysis, especially for the fluorinated gases. The GWP of the six Kyoto GHGs is shown in Table 3-1.

The SCAQMD staff recommends that a GHG analysis include the six Kyoto GHGs, to the extent emission factors are available primarily because there is more information on these GHGs than other potential GHGs. Other GHGs would be added to the list as scientific information becomes available and agreed to by national or international protocols and agreements.

Table 3-1
Global Warming Potential of Kyoto GHGs

Gas	Atmospheric Lifetime	GWP
Carbon dioxide (CO ₂)	50 – 200	1
Methane (CH ₄)	12 ± 3	21
Nitrous oxide (N ₂ O)	120	310
HFC-23 (Hydrofluorocarbons)	264	11,700
HFC-32	5.6	650

Table 3-1 (Concluded)
Global Warming Potential of Kyoto GHGs

Gas	Atmospheric Lifetime	GWP
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF4 (Perfluorocarbons)	50,000	6,500
C2F6	10,000	9,200
C4F10	2,600	7,000
C6F14	3,200	7,400
Sulfur hexafluoride (SF6)	3,200	23,900

Source: U.S. EPA (<http://www.epa.gov/>)

Carbon black, a form of particulate air pollution most often produced from biomass burning, cooking with solid fuels and diesel exhaust, may also have a warming effect in the atmosphere. It is estimated that carbon black's contribution to climate change is second only to carbon dioxide. Carbon black contributes to global warming by absorbing heat while airborne in the atmosphere. Carbon black is of particular concern in the arctic because it settles on ice and snow, reducing its reflectivity and increasing the rate of melting.

Based on a survey of available information, there are little data available for calculating carbon black effects on global warming. As a result, SCAQMD staff is not recommending analyzing carbon black effects on global warming. As information becomes available, staff will reconsider adding carbon black to the list of GHGs to be analyzed in CEQA documents.

- Business-As-Usual (BAU)

In CARB's Scoping Plan (CARB, 2008) CARB states that the BAU case is a representation of what the state of the California economy will be in the year 2020 assuming that none of the measures recommended in the Scoping Plan are implemented. CARB's projected BAU GHG emissions in 2020 are shown in Table 3-2.

Table 3-2
2002-2004 Average Emissions and 2020 Projected Emissions (Business-as-Usual)
(MMTCO₂E)

Sector	2002-2004 Average Emissions	Projected 2020 Emissions [BAU]
Transportation	179.3	225.4
Electricity	109.0	139.2
Commercial and Residential	41.0	46.7
Industry	95.9	100.5
Recycling and Waste	5.6	7.7
High GWP	14.8	46.9
Agriculture	27.7	29.8
Forest Net Emissions -	4.7	0.0
Emissions Total	469	596

Source: CARB, 2008 – Scoping Plan, Table 1

CARB’s Scoping Plan states further that continuing increases in global greenhouse gas emissions at BAU rates would result, by late in the century, in California losing 90 percent of the Sierra snow pack, sea level rising by more than 20 inches, and a three to four times increase in heat wave days, flood damage, etc. To avoid future foreseeable environmental impacts to California, the Scoping plan calls for an ambitious but achievable reduction in California’s carbon footprint. Reducing greenhouse gas emissions to 1990 levels means reducing approximately 30 percent from BAU emission levels projected for 2020, or about 15 percent from today’s levels. On a per-capita basis, that means reducing our annual emissions of 14 tons of carbon dioxide equivalent for every man, woman and child in California down to about 10 tons per person by 2020.

Although CARB’s Scoping Plan calls for reducing GHG emissions 30 percent from BAU levels, it does not explicitly define BAU. There is, however, a brief definition of BAU in CARB’s GHG inventory document (CARB, 2007). In that document CARB describes BAU as:

- BAU is based on GHG emissions estimates in the absence of policies and reduction measures, and
- BAU is based on forecasted demographic and economic growth.

In its White Paper, CAPCOA provides a more detailed definition of BAU compared to the above definition in CARB’s inventory document. In the White Paper BAU is defined as follows:

- The projection of GHGs into the future based on current technologies and regulations;

- The adoption of new GHG reduction regulations, e.g., CARB’s Scoping Plan measures, in the future establishes new BAU, i.e., the definition of BAU evolves over time; and
- BAU will normally define the CEQA no project alternative, but does not necessarily form the project baseline.

Based on the above definitions and discussions from the Working Group, SCAQMD staff defines BAU as the following

- Is used to project project’s future emissions (consistent with CAPCOA and CARB definitions), i.e., level from which GHG reductions must occur;
- Is based first and foremost on current regulatory requirements (consistent with CAPCOA and CARB definitions);
- Regulatory requirements may determine current technology, e.g., advanced technology may be available, but not required, such as combined cycle gas turbine;
- Will normally define the no project alternative (consistent with CAPCOA and CARB definitions); and
- May be used to establish a project’s CEQA baseline, only if consistent with CEQA Guidelines §15125.

The importance of BAU lies not only in the fact that it is a methodology for calculating a project’s future emissions, is also forms the emission level from which GHG emission reductions must occur. SCAQMD staff’s current GHG significance threshold proposal includes the Tier 4 compliance option 1 that establishes a performance standard of reducing GHG emissions 30 percent below the project’s projected BAU emissions through design features and/or mitigation measures. A 30 percent reduction from BAU is consistent with the target objectives of AB 32 and CARB’s Scoping Plan. The intent of the Tier 4 compliance option 1 is to provide a feasible target objective, that will not only contribute to achieving the AB 32 target objective, but will also contribute to achieving the 2050 target of the Governor’s Executive Order S-3-05, which establishes of target objective of reducing GHG emissions 80 percent below 1990 levels or a 90 percent reduction from current BAU estimates.

As recognized by CAPCOA and SCAQMD, BAU will evolve over time as the current regulatory framework changes to implement GHG reduction strategies, either statewide strategies, e.g., CARB’s Scoping Plan, or any future federal strategies. Evolving BAU creates two issues for the CEQA practitioner. First, staff’s proposed Tier 4 compliance option 1 target objective is unchanged from 30 percent, then over time as BAU changes to incorporate GHG reduction strategies, achieving the target objective will become more difficult. Second, any GHG significance thresholds that rely on BAU will have higher uncertainties because they rely on a constantly changing BAU, which may be difficult to define.

To resolve some of these issues of an evolving definition of BAU, SCAQMD staff recommends that a statewide definition be developed by CARB that is updated periodically. Until such time as a statewide definition of BAU is developed, the SCAQMD staff will rely on the above definition. Because the SCAQMD's staff's GHG significance proposal is considered to be an interim proposal, future updates or revisions to staff's proposal would also include updates to BAU or the target objective as BAU levels decline over time. It may be that a target objective percent reduction from BAU levels is a short-term GHG threshold proposal and may become less important in the future as other concepts are evaluated and more fully developed.

- GHG Source Categories to Analyze

Life Cycle Analysis

CEQA requires that the lead agency analyze direct and indirect impacts from a proposed project, giving due consideration to short-term and long-term effects (CEQA Guidelines 15126.2(a)). In the case of GHG pollutants a systems approach to evaluating the consequences of a particular product, process or activity may be more appropriate because of the long atmospheric lifetimes of the various GHGs (see Table 3-1). One of the most effective ways of evaluating GHGs using a systems approach is through the preparation of a life cycle analysis (LCA).

The goal of a life cycle analysis is to compare the full range of environmental damages assignable to products and services, to be able to choose the least burdensome one. The term 'life cycle' refers to the concept that a fair, holistic assessment requires the assessment of raw material production, manufacture, distribution, use and disposal including all intervening transportation steps necessary or caused by the product's existence. The sum of all those steps - or phases - is the life cycle of the product.

Performing a life cycle analysis may be difficult for a number of projects or processes because life cycle emission factors may not be well established for many activities or projects and the life cycle process itself may not be known or well-defined. SCAQMD staff, however, recommends that life cycle analyses be prepared for all projects undergoing a CEQA analysis, as this will produce a more defensible approach. If, however, any component of the life cycle analysis is unavailable, unknown, or not supported by scientific evidence, the lead agency should note such an analysis would be speculative pursuant to CEQA Guidelines §15145 and terminate discussion of that impact.

Direct/Indirect Impacts

Consistent with CEQA, indirect and direct impacts of the project, typically within California, are required to be analyzed in the CEQA document for a proposed project. The analysis of direct GHG impacts is relatively straightforward as onsite GHG sources or directly related offsite GHG sources, such as worker commute trips, are generally readily identifiable. Indirect GHG emission sources are less obvious, but may include some of the sources identified in the following paragraphs. In general,

for most projects information on direct and indirect emissions may be available, rather than a full life-cycle analysis of emissions. The lead agency has typically been expected to address emissions that are closely related and within the capacity of the project proponent to control and/or influence.

Direct Impacts - are primary effects that are caused by a project and occur at the same time and place, such as emissions from boilers, heaters, or other onsite emissions sources. Direct impacts generated by a project may include offsite sources directly related to the project such as emissions from worker commute trips, haul truck trips to import raw materials and/or export finished products or other goods.

Direct GHG emission impacts will include both construction and operation activities. Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, SCAQMD staff is recommending that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.

Indirect Impacts - The CEQA Guidelines define indirect impacts as the following: an indirect physical change in the environment...which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect change in the environment (CEQA Guidelines §15064 (d)(2)). Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems (CEQA Guidelines §15358)(a)(2)).

DRAFT STAFF INTERIM GHG SIGNIFICANCE THRESHOLD PROPOSAL

As indicated by the evolution of the staff proposal over time, SCAQMD has generally recommended a tiered decision tree approach to establishing a GHG significance threshold. In CAPCOA's White Paper, eight of the 12 significance threshold options are based on a tiered threshold approach (see also Table 2-2 in Chapter 2). A tiered GHG significance threshold approach is an appealing approach because it provides flexibility in determining whether or not GHG emissions from a project are significant typically using a single methodology to establish various tiers that can be based on the physical size of the project, land use type, or other characteristics. The tiered approach envisioned by SCAQMD staff would require quantification of GHG emissions for all projects that are subject to CEQA and quantification of the GHG reduction effectiveness of design parameters incorporated into the project and any mitigation measures imposed by the lead agency. It may even be necessary to

quantify GHG emissions, if any, for projects that would otherwise qualify for a categorical exemption to document that no “cumulative impact of successive projects of the same type in the same place, over time is significant” (CEQA Guidelines §15300.2(b), or that there is no “reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.” (CEQA Guidelines §15300.2(c)).

The CAPCOA White Paper also includes a discussion of a decision tree approach to tiering. Instead of using a single methodology to establish tiers, a decision tree approach would use multiple methodologies to demonstrate significance for a broad range of projects/plans that may be difficult to address using a single GHG significance threshold methodology. Using a decision tree approach promotes even greater flexibility in determining significance for a variety of project types.

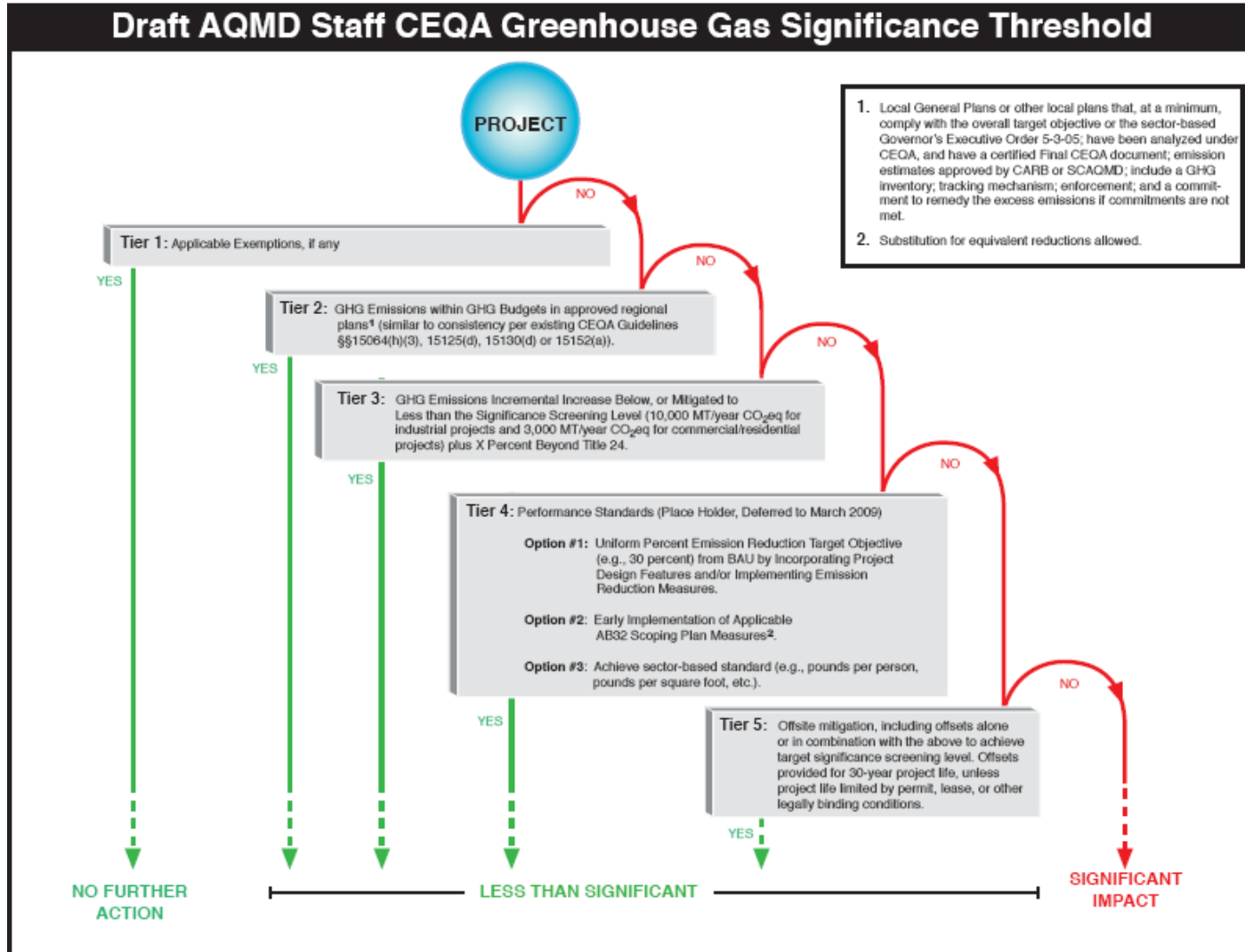
At the August 27, 2008 Working Group meeting #5, staff presented the revised interim GHG significance proposal #3, which included a tiered decision tree approach. Unlike the decision tree approach discussed in CAPCOA’s White Paper, some tiers include multiple approaches for determining whether a project’s GHG emissions are significant, rather than using a single different methodology for each tier.

For the purposes of determining whether or not GHG emissions from affected projects are significant, project emissions will include direct, indirect, and, to the extent information is available, life cycle emissions during construction and operation. Construction emissions will be amortized over the life of the project, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold tier. The following bullet points describe the basic structure of staff’s tiered GHG significance threshold proposal for stationary sources.

The components of revised staff proposal #3 are described in the following paragraphs and shown graphically in Figure 3-1.

- **Tier 1** – consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. For example, SB 97 specifically exempts a limited number of projects until it expires in 2010. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, then it would move to the next tier.
- **Tier 2** – consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines §§15064(h)(3), 15125(d), or 15152(a). The GHG reduction plan must, at a minimum, comply with AB 32 GHG reduction goals; include emissions estimates agreed upon by either CARB or the SCAQMD, have been analyzed under CEQA, and have a certified Final CEQA document. Further, the GHG reduction plan must include a GHG emissions inventory tracking mechanism; process to monitor progress in achieving GHG emission reduction targets, and a commitment to remedy the excess emissions if AB 32 goals are not met (enforcement).

Figure 3-1
 Revised Staff Proposal #3 Tiered Decision Tree Approach – August 27, 2008



If the proposed project is consistent with the local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan or there is no approved plan, the GHG reduction does not include all of the components described above, or there is no adopted GHG reduction plan, the project would move to tier 3.

- **Tier 3** – attempts to identify small projects that would not likely contribute to significant cumulative GHG impacts. However, because of the magnitude of increasing global temperatures from current and future GHG emissions, staff is recommending that all projects must implement some measure or measures to contribute to reducing GHG emissions. Therefore, Tier 3 includes a requirement that ~~all residential/commercial~~ projects with GHG emissions less than the screening level must include efficiency components that ~~reduce a certain~~ **X** percentage beyond the requirements of Title 24 (Part 6, California Code of Regulations), California's energy efficiency standards for residential and nonresidential buildings. Project proponents would also have to reduce by a specified percentage electricity demand from water use, primarily electricity used for water conveyance.

~~The most recently~~ **A past recommended** screening level proposed by staff was 6,500 MTCO₂eq./year. This screening level was derived using the SCAQMD's existing NO_x operational threshold as a basis. The daily NO_x operational significance threshold, 55 pounds per day was annualized, which results in 10 tons of NO_x per year.

Staff initially considered and then rejected a bifurcated screening level, that is one screening level for residential and commercial projects and a different screening level for industrial projects based on the URBEMIS modeling runs used to derive the 6,500 MTCO₃eq/yr screening level because GHG emissions from industrial were of the same magnitude as the GHG emissions from residential and commercial projects. Staff has reconsidered the bifurcated screening level approach as there is a more scientific basis for deriving the different screening levels.

SCAQMD staff is now recommending a bifurcated screening level approach to address two greatly differing project types: industrial projects as opposed to residential and commercial projects (which are largely indirect sources). The former category typically contains stationary source equipment whose emissions are largely permitted or regulated by the SCAQMD; whereas the latter category is mostly residential, commercial (may also include industrial) building structures that attract or generate mobile source emissions. In light of the GHG reductions needed to stabilize the climate while considering implementation resource requirements, the policy objective used to establish the screening thresholds is to capture projects that represent approximately 90 percent of GHG emissions from new sources. The following paragraphs describe the steps taken to derive the screening threshold values.

Industrial Projects: Since the majority of GHG emissions in the district are comprised of CO₂ emissions from burning natural gas rather than other types of fossil fuel, staff compiled reported annual natural gas consumption for 1,297 ~~115~~ permitted facilities for 2006-2007 and rank-ordered the facilities to estimate the 90th percentile of the cumulative natural gas usage for all permitted facilities. Operators of these facilities are required to report their emissions and associated throughput under the SCAQMD's Annual Emission Reporting (AER) Program if any of their criteria pollutant emissions exceed four tons per year (100 tons per year for CO) or if the facility has any reportable air toxics emission. Figure 3-2 shows that approximately 10 percent of facilities evaluated comprise more than 90 percent of the total natural gas consumption, which corresponds to 10,000 metric tons per year (tpy) of CO₂ emissions. This value represents a boiler with a rating of approximately 27 million British thermal units per hour (mmbtu/hour) of heat input, operating at ~~an 25-80~~ percent capacity factor. If the screening threshold of 10,000 MTCO₂eq./yr is implemented, based on the permitting activities for 2006-2007 it will result in at least 31 additional MNDs or EIRs being prepared by the SCAQMD as the lead agency unless another tier option is selected to demonstrate no significant impacts for GHG emissions. It should be noted that this analysis did not include other possible GHG pollutants such as methane, N₂O; a life-cycle analysis; mobile sources; or indirect electricity consumption. Therefore, under a 10,000 MTCO₂eq./yr screening level more projects would be required to go through an MND or EIR environmental analysis than is currently the case. Furthermore, when the SCAQMD acts as a lead agency, the stationary source equipment employed as part of the proposed project typically must comply with BACT or other SCAQMD rules, regulations, programs that require reducing criteria pollutants or air toxics. Therefore, staff is proposing to replace the 6,500 MTCO₂/yr screening level with the 10,000 MTCO₂eq/yr as the screening level in tier III for industrial projects when the SCAQMD is the lead agency for the project.

Residential and Commercial Projects: To achieve the same 90 percent GHG emission capture rate for this segment of projects GHG emissions from residential and commercial sectors were compared to the GHG emissions from the industrial sector including the in-state power plants. The draft AB32 scoping plan indicates that based on statewide 2002-2004 average GHG emissions, the residential and commercial sectors account for approximately nine percent of the total statewide GHG inventory, while the industrial sector (including instate power plants) accounts for approximately 30 percent of the statewide GHG emission inventory. The inventory methodology for both sectors includes only on-site energy use, consistent with the staff approach taken in deriving the 10,000 tpy threshold. Assuming similar emission characteristics also exist for the residential and commercial sector (i.e., large residential or commercial projects, although fewer in numbers, contribute substantially more to the total emissions), it is estimated that at a threshold of approximately 3,000 MTCO₂eq/yr emissions (10,000 x (9 percent / 30 percent)) would capture 90 percent of the GHG emissions from new residential or commercial projects. A series of sensitivity analyses was performed by the staff using URBEMIS to assess the likely project size for 3,000 MTCO₂eq/yr emissions. Table 3-3 illustrates various projects by size and shape.

Figure 3-2

**Total Number of AER Facilities and Their Accumulative Reported NG Usage
FY 06-07**

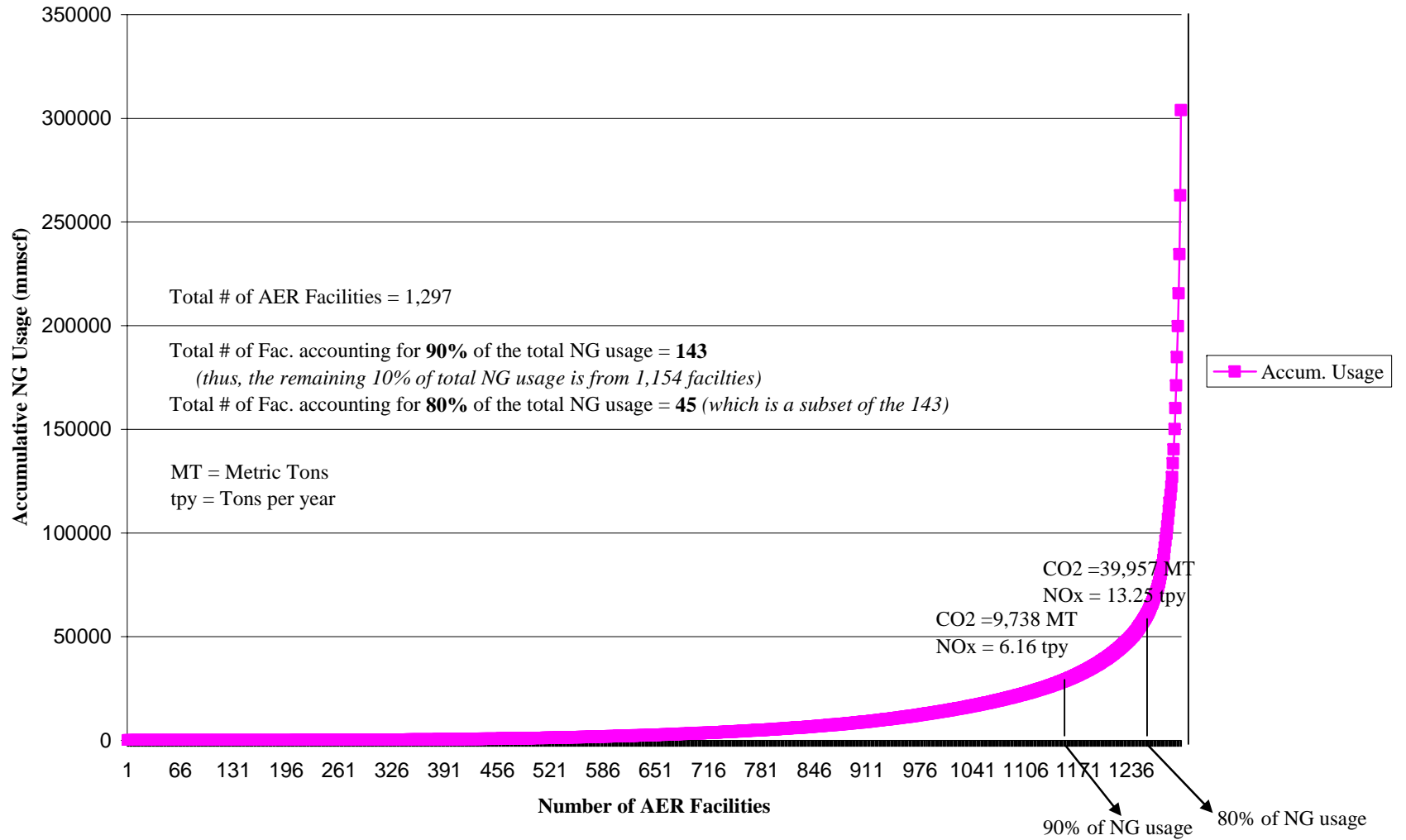


Table 3-3
URBEMIS Run Results for Residential/Commercial Projects Emitting Approximately 3,000 MTCO₂ per Year*

	Weighted Avg Trip Rate	Size	Area Source Emissions		Operational Emissions		TOTAL
			CO ₂ (tons/year)	CO ₂ (MT/year)	CO ₂ (tons/year)	CO ₂ (MT/year)	CO ₂ (MT/year)
Res - Single Unit	19.54	80 units	326.86	297.15	3003.56	2730.51	3027.65
Res - Apt	9.17	175 units	422.70	384.27	2971.95	2701.77	3086.05
Comm - Office	6.02	265,000 ft ²	387.41	352.19	2961.75	2692.50	3044.69
Comm - Bank	206.22	9,500 ft ²	14.38	13.07	3192.90	2902.64	2915.71
Single/Apt	19.54	35 units	379.59	345.08	2964.82	2695.29	3040.37
	9.17	100 units					
Office/Bank	6.02	170,000 ft ²	254.19	231.08	3042.71	2766.10	2997.18
	206.22	3,400 ft ²					
Office/Single	6.02	135,000 ft ²	355.13	322.85	2956.32	2687.56	3010.41
	19.54	40 units					
Office/Apt	6.02	135,000 ft ²	403.19	366.54	2952.34	2683.95	3050.48
	9.17	85 units					
Bank/Single	206.22	3,700 ft ²	202.81	184.37	3052.93	2775.39	2959.76
	19.54	50 units					
Bank/Apt	206.22	4,000 ft ²	248.12	225.56	3042.64	2766.04	2991.60
	9.17	100 units					
Single/Apt/Office	19.54	20 units	382.60	347.82	2945.26	2677.51	3025.33
	9.17	65 units					
	6.02	100,000 ft ²					
Single/Apt/Bank	19.54	20 units	241.78	219.80	3020.76	2746.15	2965.95
	9.17	65 units					
	206.22	3,550 ft ²					
						Avg CO ₂ (MT/year):	3009.60

*Offsite electricity use, water use, or other potential life cycle emissions not included.

As shown in Table 3-3, this threshold would represent a residential development of about 70 single-family dwelling units. It should be noted that the sensitivity analysis did not include GHG emissions from electricity use and water use. As a result, similar to the earlier discussion of industrial projects, this screening level of 3,000 MTCO₂eq/yr could capture development projects less than 70 single-family dwelling units.

In CAPCOA's White Paper, it is suggested that a thresholds of 900 MTCO₂eq/yr would capture 90 percent of all development projects, which should translate into at least 90 percent of GHG emissions from the residential and commercial sectors². According to CAPCOA 900 MTCO₂eq/yr equates to approximately 50 single-family dwelling units. This information appears to corroborate the SCAQMD staff's finding that the policy objective of capturing 90 percent of all GHG emissions for this region can be achieved with a screening level of 3000 MTCO₂eq/yr. Therefore, staff is recommending that this value be used by lead agencies for residential and commercial developments, including industrial parks, warehouses, etc.

- **Tier 4 – Decision Tree Options:** consists of three decision tree options to demonstrate that a project is not significant for GHG emissions. The three compliance options are as follows.

Compliance Option 1 – the lead agency would calculate GHG emissions for a project using a BAU methodology. Once GHG emissions are calculated, the project proponent would need to incorporate design features into the project and/or implement GHG mitigation measures to demonstrate a 30 percent reduction from BAU. Although a 30 percent reduction below BAU is consistent with the target objectives of AB 32, it will continue to reduce GHG emissions beyond 2020, thus, contributing to GHG reductions pursuant to the Governor's Executive Order S-3-05 (a 90 percent reduction compared to current GHG emissions). A 30 percent reduction is also considered to be an achievable GHG reduction target based on current technologies.

Compliance Option 2 – this option consists of early compliance with AB 32 through early implementation of CARB's Scoping Plan Measures. The intent of this compliance option is to accelerate GHG emission reductions from the various

² Although the CAPCOA White Paper implies that 900 metric tons per year equates to a 90 percent capture rate, there is no explicit information provided in the White Paper that demonstrates this correlation. Indeed, the CAPCOA authors state that 900 metric tons, which represents approximately 50 residential units, corresponds to widely divergent capture rate percentile rankings depending on the project location (see discussion on page 43 of the White Paper). Percentile rankings were based on a survey of four cities in California. A project of 900 metric tons per year representing a 90 percent capture rate appears to be a working assumption for which there appears to be no factual basis. Further, although not explicitly stated, it is assumed that the 900 metric tons were derived using the URBEMIS2007 model. It should be noted that that the URBEMIS2007 model only quantifies CO₂ emissions and direct emissions primarily from on-road mobile sources. It does not capture other GHG pollutants or indirect GHG emissions such as emissions from energy generation, water conveyance, etc. Therefore, it is likely that a 50-unit residential project would actually generate higher GHG emissions than 900 metric tons per year.

sectors subject to CARB’s Scoping Plan to eliminate GHG emission, especially for those GHGs that have a long atmospheric lifetime such as CO₂, sulfur hexafluoride, etc., to minimize future projected impacts to California from global climate change.

Compliance Option 3 – this compliance option consists of establishing sector-based performance standards. For example, it may be possible to use the 1990 inventory required under AB 32 to establish an efficiency standard such as pounds per person, pounds per worker, pounds per square feet, pounds per item manufactured, etc. When calculating GHG emissions from a project, if they are less than the established efficiency standard the project would not be significant relative to GHG emissions, while projects exceeding the efficiency standard would be significant.

If the lead agency or project proponent cannot achieve the performance standards on any of the compliance options in Tier 4, GHG emissions would be considered significant.

- **Tier 5** – under this tier, the lead agency would quantify GHG emissions from the project and the project proponent would implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level. In addition, the project proponent would be required to provide offsets for the life of the project, which is defined as 30 years. If the project proponent is unable to obtain sufficient offsets, incorporate design features, or implement GHG reduction mitigation measures to reduce GHG emission impacts to less than the screening level, then GHG emissions from the project would be considered significant. Since it is currently uncertain how offsite mitigation measures, including purchased offsets, interact with future AB 32 Scoping Plan measures, the AQMD would allow substitution of mitigation measures that include an enforceable commitment to provide mitigation prior to occurrence of emissions and to prevent mitigating the same emissions twice.

Mitigation Preference – If a project generates significant adverse impacts, CEQA Guidelines §15126.4 requires identification of mitigation measures to minimize potentially significant impacts. Because GHG emissions contribute to global change, mitigation measures could be implemented locally, nationally, or internationally and still provide global climate change benefits. Because reducing GHG emissions may provide co-benefits through concurrent reductions in criteria pollutants, when considering mitigation measures when the AQMD is the lead agency under CEQA, staff will implement mitigation measures that are real, quantifiable, verifiable, and surplus in the following order of preference.

- Incorporate GHG reduction features into the project design, e.g., increase a building’s energy efficiency, use materials with a lower global warming potential than conventional materials, purchase building materials locally, etc.
- Implement onsite measures that provide direct GHG emission reductions onsite, e.g., replace onsite combustion equipment (boilers, heaters, steam

generators, etc.) with more efficient combustion equipment, replace existing high global warming potential refrigerants with low global warming refrigerants, eliminate or minimize fugitive emissions, etc.

- Implement neighborhood mitigation measure projects that could include incentives for installing solar power, increasing energy efficiency by exceeding Title 24 building standards through replacing low efficiency water heaters with high efficiency water heaters, increasing building insulation, using fluorescent bulbs, replacing old inefficient refrigerators with efficient refrigerators using low global warming potential refrigerants, etc.
- Implement in-district mitigation measures such as any of the above identified GHG reduction measures; reducing vehicle miles traveled (VMT) through greater rideshare incentives, transit improvements, etc.
- Implement in-state mitigation measures, which could include any of the above measures.
- Implement out of state mitigation measure projects, which may include purchasing offsets if no other options are available.

CARB's Interim GHG Significance Threshold Proposal

In October 2008 CARB released its interim GHG significance threshold proposal and held a public workshop on October 27, 2008. CARB's threshold is considered to be an interim threshold because CARB staff intends to periodically review and change its threshold proposal as necessary. CARB's Preliminary Draft Staff Proposal (Proposal) states that non-zero GHG significance thresholds can be supported by substantial evidence. Further, different GHG significance thresholds may be established for different sectors. Therefore, as part of its initial interim GHG significance threshold proposal CARB is proposing two separate GHG significance thresholds, one for new industrial projects and another for residential/commercial projects subject to CEQA. CARB's proposal uses a tiered approach (see Table 3-4).

Table 3-4
 Comparison of CARB’s and AQMD’s Interim GHG Significance Thresholds Approaches

	<u>Stationary/Industrial Sector Projects</u>		<u>Residential/Commercial Sector Projects</u>	
	<u>CARB</u>	<u>AQMD</u>	<u>CARB</u>	<u>AQMD (Not Recommended at this Time)</u>
<u>Policy Objective</u>	<u>Capture 90% of statewide stationary project emissions</u>	<u>Capture 90% of district wide GHG emissions (industrial)</u>	<u>Capture X% of statewide residential/commercial project emissions</u>	<u>Capture 90% of district wide residential/commercial project GHG emissions</u>
<u>Exemption</u>	<u>Apply applicable exemption</u>	<u>Apply applicable exemption</u>	<u>Apply Applicable Exemption</u>	<u>Apply Applicable Exemption</u>
<u>Regional GHG Reduction Plan</u>	<u>N.A.</u>	<u>Project Consistent with Applicable GHG Reduction Plan with GHG inventorying, monitoring, enforcement, etc.</u>	<u>Project Consistent with Applicable GHG Reduction Plan with GHG inventorying, monitoring, enforcement, etc.</u>	<u>Project Consistent with Applicable GHG Reduction Plan with GHG inventorying, monitoring, enforcement, etc.</u>
<u>Thresholds</u>	<u>Project < 7,000 MTCO₂eq/yr & meets construction & transportation performance standards</u>	<u>GHG emissions from industrial project is < 10,000 MTCO₂eq/yr, includes construction emissions amortized over 30 years & added to operational GHG emissions</u>	<u>Project meets construction & operation performance tandards, e.g., energy, water use, waste & ransportation & < X MTCO₂eq/yr</u>	<u>Project is < 3,000 MTCO₂eq/yr & exceeds Title 24 Energy Efficiency Standards by X%, if applicable – construction emissions amortized over 30 years & added to operational GHG emissions</u>
<u>Performance Standards</u>	<u>See above</u>	<u>NA</u>	<u>See above</u>	<u>3 Compliance Options: 1) Reduce GHG emissions 30% below BAU; 2) Early Implement AB 32 Measure; 3) Comply with Performance Standard</u>
<u>Offsets</u>	<u>Offsite substitution allowed</u>	<u>Implement offsite mitigation for life of project, i.e., 30 years, with mitigation preference</u>	<u>Offsite substitution allowed</u>	<u>Implement offsite mitigation for life of project, i.e., 30 years with mitigation preference</u>
<u>Determination</u>	<u>GHG emissions significant, EIR is prepared, if meeting none of the above</u>	<u>GHG emissions significant, EIR is prepared, if meeting none of the above</u>	<u>GHG emissions significant, EIR is prepared, if meeting none of the above</u>	<u>GHG emissions significant, EIR is prepared, if meeting none of the above</u>

CARB’s interim GHG significance threshold for industrial sources was developed to capture “the vast majority (~90% statewide) of the GHG emissions from new industrial projects being subject to CEQA’s requirement to impose feasible mitigation.” According to CARB’s Proposal, CARB staff used data from a survey of industrial boilers performed by the Oak Ridge National Laboratory in which it was concluded that small boilers with an input capacity of 10 MMBtu/hr corresponded to 93 percent of total industrial boiler input capacity, or 4,660 MTCO₂e/yr. Using this result and accounting for process losses, purchased electricity, and water usage and wastewater discharge, CARB staff is recommending 7,000 MTCO₂eq/yr as a GHG significance threshold for industrial projects. The following bullet points summarize CARB’s proposed interim GHG significance threshold for industrial sources.

- Box 1 – Apply any applicable categorical or statutory exemptions. If the project does not qualify for an exemption, move to Box 2.
- Box 2 – The industrial project must meet both of the following performance standards or equivalent mitigation measures to be deemed insignificant for GHGs:
 - Construction – Project must meet an interim performance standard for construction- related emissions (performance standard not yet defined).
 - Transportation – Project must meet an interim performance standard for transportation (performance standard not yet defined).

AND

- Project with mitigation will emit no more than 7,000 MTCO₂eq/yr. If the project does not qualify for either of the performance standards or exceeds 7,000 MTCO₂eq/yr, move to Box 3.
- Box 3 – Project is deemed significant and an EIR must be prepared.
- CARB’s Preliminary Draft Proposal for Residential and Commercial projects is summarized in the following bullet points.
- Box 1 – Apply any applicable categorical or statutory exemptions. If the project does not qualify for an exemption, move to Box 2.
- Box 2 – Project complies with a previously approved plan that addresses GHG emissions and must: include a GHG reduction target consistent with AB 32; be consistent with transportation-related target adopted by CARB pursuant to SB 375; include a GHG inventory and mechanism for monitoring GHG emissions; include enforceable GHG requirements; include a mechanism for periodic updates to plan; and have a certified CEQA document. If the project is

consistent with a GHG plan that includes all of these elements, it is presumed to be insignificant for GHGs. If the project is not consistent with a GHG plan or there is no adopted GHG plan that includes all of the above elements, move to Box 3.

- Box 3 – The residential/commercial project must meet all of the following performance standards or equivalent mitigation measures to be deemed insignificant for GHGs:
 - Construction – Project must meet an interim performance standard for construction- related emissions (performance standard not yet defined).
 - Operations – Project must meet the following performance standards: energy use performance standard defined in CEC’s Tier II Energy Efficiency goal; an interim performance standard for water use (performance standard not yet defined); an interim performance standard for waste (performance standard not yet defined); and an interim performance standard for transportation (performance standard not yet defined).

AND

The project with performance standards or equivalent mitigation will emit no more than X MTCO₂eq/yr (criterion to be developed). If the project does not qualify for any one of the performance standards or exceeds X MTCO₂eq/yr, move to Box 4.

- Box 4 – Project is deemed significant and an EIR must be prepared.

For a detailed description of CARB’s interim GHG significance threshold proposal, refer to the following URL:
<http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf>.

CARB is currently accepting comments on its Draft Proposal and has scheduled a second public workshop on December 9, 2008. CARB staff currently anticipates taking their proposal to their Board in February 2009.

CHAPTER 4

CONSIDERATIONS WHEN ANALYZING GHG EMISSIONS

Introduction

GHG Analysis Recommendations

INTRODUCTION

As noted in Chapter 1, on June 19, 2008, OPR, in collaboration with the California Resources Agency, the California Environmental Protection Agency and the California Air Resources Board, released a *Technical Advisory* containing informal guidance for public agencies as they address the issue of climate change in their CEQA documents. With regard to analyzing GHG emission impacts OPR states,

“Each public agency that is a lead agency for complying with CEQA needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions. A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information... Lead agencies should determine whether greenhouse gases may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source.”

Other than this general advice, the *Technical Advisory* does not provide explicit details for quantifying GHG emissions.

CAPCOA’s White Paper provides a comprehensive discussion of modeling tools that are currently available for analyzing GHG emissions³. As indicated in the White Paper, no one model is currently available that is capable of estimating all of a project’s direct and indirect GHG emissions. It is likely, however, that the Urban Emissions (URBEMIS) Model will be the most commonly used model for calculating GHG emissions because it currently calculates CO2 emissions (in addition to criteria pollutant emissions) during both construction and operation of proposed projects, it is publicly available, and already widely used in California. Statewide use of the URBEMIS model would provide consistency throughout California with regard to quantifying GHG emissions. For a list of currently available models that calculate GHG emissions and summaries of the capabilities, advantages, and disadvantages of each model refer to Table 10 on pages 75 through 78 in the CAPCOA White Paper.

The purpose of this chapter is to provide more explicit guidance to CEQA practitioners with regard to quantifying GHG emissions than OPR’s *Technical Advisory*, while building on the information provided CAPCOA’s White Paper.

GHG ANALYSIS RECOMMENDATIONS

Direct/Indirect Impacts

As noted in Chapter 3 of this Guidance Document, consistent with CEQA, indirect and direct impacts of the project, typically within California, are required to be analyzed in the CEQA document for a proposed project. The analysis of direct GHG impacts is

³ For maximum transparency with regard to quantifying GHG emissions and disclosure to the public, SCAQMD staff recommends using only publicly available models.

relatively straightforward as onsite GHG sources or directly related offsite GHG sources, such as worker commute trips, are generally readily identifiable. Indirect GHG emission sources are less obvious, but may include some of the sources identified in the following paragraphs. In general, for most projects information on direct and indirect emissions may be available, rather than a full life-cycle analysis of emissions. The lead agency has typically been expected to address emissions that are closely related and within the capacity of the project proponent to control and/or influence.

Direct Impacts - are primary effects that are caused by a project and occur at the same time and place, such as emissions from boilers, heaters, or other onsite emissions sources. Direct impacts generated by a project may include offsite sources directly related to the project such as emissions from worker commute trips, haul truck trips to import raw materials and/or export finished products or other goods. The following paragraphs provide general guidance on quantifying direct GHG emissions.

CAPCOA's White Paper provides a comprehensive discussion of modeling tools that are currently available for analyzing GHG emissions. Further, no one model is currently available that is capable of estimating all of a project's direct and indirect GHG emissions. Although there are a number of modeling tools available to calculate GHG emissions the following discussion focuses on a combination of approaches using the URBEMIS model as the basis for analyzing GHG emission impacts. Other approaches for calculating GHG emissions can be used, as long as they are supported by scientific evidence and include publicly available information.

The URBEMIS model is a publicly available model that is currently used statewide to calculate criteria pollutant emissions from construction and operation activities for a wide variety of land use projects. The model is regularly updated through a collaboration of air pollution control agencies, including the SCAQMD, to reflect the most current data, methodologies, and emission factors for quantifying criteria pollutant emissions. The most current update to the model is URBEMIS2007 version 9.2.4, which quantifies CO₂ emissions in addition to criteria pollutant emissions.

Currently, there are several disadvantages to using the URBEMIS model to calculate GHG emissions from a proposed project and, as a result, it should not be the only tool used to calculate GHG emissions. For example, currently the URBEMIS model only quantifies CO₂ emissions and not other GHG pollutants, with the exception of methane from mobile sources, which is converted to CO₂eq. emissions. Since CO₂ emissions comprise the bulk of GHG emissions from most projects, URBEMIS GHG results are fairly representative of GHG emissions from a project.

To quantify mobile source emissions from on-road mobile sources, the URBEMIS model uses trip rate information from the Institute of Transportation Engineers Trip Generation Handbook (ITE, 2001) as the trip rate default factor for all land uses. ITE trip rate information is widely used and is considered legally defensible as they rely on substantial reports and surveys of trip rates in cities with little or no transit. As a result, the ITE trip rates are also considered to provide a conservative estimate of trip

rates and associated emissions. The model, however, treats each trip as a separate trip and doesn't consider that a single trip may be used for more than one purpose, referred to as "internalization." The model also does not fully account for interaction between land uses in its estimation of mobile source operational emissions. URBEMIS does allow the user to overwrite the default trip rates and characteristics with more project-specific data from a traffic study prepared for a project.

In spite of the disadvantages of the URBEMIS model described above, it can be used as the first step in quantifying GHG emissions for typical land use projects because it establishes default parameters for the most common emission sources from a project including construction equipment types and activity profiles, area of site disturbed during construction, building size, number vehicle trips, etc., if the level of information about the project is low. If more information about the project is available such as a precise profile of construction equipment and activity levels, number of vehicle trips based on a traffic study prepared for the project, etc., this information can be incorporated into the model. The model can then quantify CO₂ emissions from both construction and operation.

The URBEMIS construction analysis quantifies criteria pollutant and CO₂ emissions from both off-road sources (primarily construction equipment) and on-road sources (worker commute trips, haul truck trips, etc.). To further flesh out the construction analysis, the lead agency would have to identify emission factors for other GHG pollutants likely to be emitted during construction, i.e., methane and nitrous oxide⁴, for both off-road and on-road emissions sources and then quantify the GHG emission results using spreadsheets or other available tools.

The off-road CO₂ emission factors in the URBEMIS model are generated from CARB's off-road model (<http://www.arb.ca.gov/msei/offroad/offroad.htm>). Methane emission factors for off-road equipment can also be obtained from CARB's OFFROAD2007 model. CO₂ and methane emission factors for off-road equipment that are based on CARB's OFFROAD2007 model can also be found on the SCAQMD's CEQA webpages at the following URL: <http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html>. Other sources of off-road GHG emissions factors for equipment used in California may be used, as long as they are supported by scientific evidence and are publicly available.

The URBEMIS model is able to quantify mobile source CO₂ emissions during construction from on-road mobile sources such as construction worker commute trips, heavy-duty truck trips to haul away demolition debris, soil hauling to and from the site etc., and during operation, primarily vehicle trips using ITE's Trip Generation Manual (ITE, 2001). The on-road CO₂ emission factors in the URBEMIS model for both construction and operation are generated from CARB's on-road mobile source emissions model, EMFAC2007 (<http://www.arb.ca.gov/msei/onroad/onroad.htm>). Methane emission factors for on-road mobile sources can also be obtained from

⁴ Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are not combustion emissions, so would not normally be emitted during construction.

CARB's EMFAC2007 model. CO₂ and methane emission factors for on-road mobile sources that are based on CARB's EMFAC2007 model can also be found on the SCAQMD's CEQA webpages at the following URL: <http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html>.

The analysis of operation emissions from all types of land uses in the URBEMIS model focuses primarily on mobile source emissions and some area sources. The model does not quantify emissions from stationary sources. For stationary sources that require a permit from the SCAQMD, emission calculation procedures and methodologies are available in the SCAQMD's Best Available Control Technology Guidelines (<http://www.aqmd.gov/bact/partd7-9-2004update.pdf>). Examples of facilities that use stationary sources requiring a permit from the SCAQMD include: fossil fuel power plants⁵, cement plants, landfills, wastewater treatment plants, gas stations, dry cleaners and industrial boilers. The SCAQMD has procedures and methodologies for projects subject to SCAQMD permits to calculate criteria pollutants and air toxics. It is anticipated that these same procedures and methodologies could be extended to estimate a permitted facility's GHG calculations. For any stationary and area sources that do not require SCAQMD permits, the same methodologies used for permitted sources could be used. It will be necessary to contact the SCAQMD to obtain information on GHG emission calculation methodologies applicable to stationary source equipment.

Indirect Impacts - Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems (CEQA Guidelines §15358)(a)(2)). The examples of facilities that use stationary sources requiring a permit from the SCAQMD that may contribute to direct environmental impact (fossil fuel power plants, cement plants, landfills, wastewater treatment plants, gas stations, dry cleaners and industrial boilers) may also contribute to indirect impacts and, therefore, should be included, as necessary in the CEQA analysis of GHGs.

Quantification Methodologies and GHG Emission Factors

Methodologies for calculating GHG emissions and GHG emission factors are currently not readily available. Until such time as GHG calculation methodologies and emission factors become well established and more readily available, lead agencies may want to consult the following references to identify acceptable methodologies and emission factors.

1. The first useful reference for GHG emission factors for stationary sources is EPA's Air Pollutant (AP)-42, which is a compilation of air pollutant emission

⁵ According to CEQA Guidelines §15227, CEQA does not apply to projects outside of California. The California Attorney General's Office has rendered an opinion stating that the definition of the environment in CEQA does not stop at the borders of California. Further, California public agencies that take an action outside of California is still bound by the requirements of CEQA to prepare an EIR if the action may cause a significant effect on the environment.

factors for stationary point and area sources. Each of the first 13 chapters of AP-42 is dedicated to a specific source activity such as solid waste disposal, petroleum industry, and metallurgical industry. Since the publication of the fifth edition (and supplementals) in 2001, there have been a number of updates to the various specific stationary sources such as hot asphalt plants, organic liquid storage tanks, and coke production. In addition to the criteria pollutant emissions, some of the updated AP-42 chapters provide GHG emission factors for a variety of sources. For example, Chapter 15 of AP-42 focuses on GHG emissions from biogenic sources such as soils, termites, lightning, and enteric fermentation (animal digestive fermentation).

2. Second, the California Climate Action Registry (C-CAR) has prepared a General Reporting Protocol (GRP), which is a relatively easy-to-follow user's manual that outlines the principles, concepts, calculation methodologies and procedures required for effective participation in the California Registry. The appendices of the GRP provide GHG emissions factors, specifically CO₂, CH₄ and N₂O, for electricity use, mobile combustion and stationary combustion based on fuel usage type.
3. Third, a thorough internet search should be conducted to find reliable sources of emissions factors that would assist in accurately determining GHG emissions from a specific source being evaluated. Again, all potential GHGs, such as CO₂, CH₄ and N₂O, should be evaluated to the best of one's ability to locate dependable information.
4. Finally, a material balance approach also may provide reliable average emission estimates for specific sources. A material balance is when one accounts for (or "balances") all the materials going into and coming out of the process in order to make a credible emissions estimation. For some sources, a material balance may provide a better estimate of emissions especially in situations where a high percentage of material is lost to the atmosphere (e. g., sulfur in fuel, or solvent loss in an uncontrolled coating process.) In other cases, material balances may be inappropriate where material is consumed or chemically combined in the process, or where losses to the atmosphere are a small portion of the total process throughput.

Reporting GHG Emissions – Daily vs. Annual Emissions

The analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short term exposure effects on human health, e.g., one-hour and eight-hour. Since the half-life of CO₂ is approximately 100 years, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame (see also Table 3-1).

Typical GHG emission inventories (EPA5, ARB6, etc.) represent directly emitted GHGs during a given year. As a result, the current convention is to present GHG emissions as annual emissions. The URBEMIS model can be set to calculate annual emissions for a project. When using the URBEMIS model to calculate annual GHG emissions, it may be useful to modify the trip rate for each land use using a weighted trip rate average to more accurately reflect annualized trip rates. A weighted trip rate average reflects the trip rates during the week, as well as trip rates during Saturdays and Sundays. Trip rate information for weekdays and weekend days can be found in the ITE Trip Rate Handbook.

CHAPTER 5

CONCLUSION

Introduction

Future Action Items

INTRODUCTION

CEQA Guidelines §15064.7(a) encourages lead agencies to establish thresholds of significance to determine the significance of an environmental impact. Further, thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence (CEQA Guidelines §15064.7(b)). Staff's proposed interim GHG significance threshold proposal has been developed through a public process consisting of a series of Stakeholder Working Group meetings. Staff proposals have been modified over time based on written and oral feedback from the Working Group. Staff's intent was to reach consensus to the extent feasible, but for some items staff could not find common ground with some of the stakeholders.

The next immediate step for SCAQMD staff is to present a final interim GHG significance threshold proposal to the SCAQMD Governing Board for consideration. If the Governing Board approves staff's final interim GHG significance threshold proposal, then staff will embark on a number of short-term and intermediate term activities to provide outreach to public agencies that might use staff's interim GHG significance threshold to determine whether or not their projects' GHG emissions are significant, periodically revisit and revise as necessary the interim proposal, and accommodate stakeholders' requests for more information on GHG calculation methodologies and mitigation measures. The following sections provide discussions on future anticipated action items

FUTURE ACTION ITEMS

Interim GHG Significance Threshold Outreach Program

It is currently anticipated that staff's interim GHG significance threshold proposal will be presented to, and considered by the Board at the November 7, 2008 public hearing. Consistent with other significance threshold proposals adopted by the Governing Board, if the draft GHG significance threshold proposal is adopted, staff will meet with local cities, councils of governments, and leagues of cities to discuss the staff proposal and address any questions or concerns.

Once the interim GHG significance threshold is adopted, this Guidance Document will be posted on the SCAQMD's CEQA web pages. Staff will also send notice of the adoption of the staff proposal to all agencies, organizations, and individuals on the SCAQMD's CEQA "Interested Parties" mailing list. In addition, it is expected that staff will prepare and make available an informational brochure that summarizes information about the interim GHG significance proposal in addition to this Guidance Document.

Starting in January 2009, as part of its intergovernmental review (IGR) responsibilities under CEQA, where the SCAQMD reviews and CEQA documents prepared by other public agencies, SCAQMD will begin more thorough evaluations of CEQA documents with regard to their GHG analyses and the basis by which they make a determination of significance. Staff will begin recommending use of the staff's interim GHG significance threshold proposal or other available GHG significance thresholds based on substantial evidence in comment letters on notices of preparation of an EIR. As of March 1, 2009, staff will formally recommend use of staff's interim GHG significance threshold proposal or other available GHG significance thresholds based on substantial evidence in comment letters on NDs and MNDs. As of July 1, 2009, staff will formally recommend use of staff's interim GHG significance threshold proposal or other available GHG significance thresholds based on substantial evidence in comment letters on EIRs.

Compile Lists of GHG Design Features and Mitigation Measures

CEQA Guidelines §15126.4 requires an EIR to “describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” Ideally, it is desirable to avoid impacts altogether through incorporating design features into the proposed project. Because staff's recommended interim GHG significance threshold includes performance standards (see tier 4 compliance options 1 and 3) or a project proponent may try to reduce GHG emissions to less than the applicable screening levels, mitigation measures or design features are important components of the overall GHG significance threshold strategy. As a result, a number of GHG Working Group stakeholders has requested that SCAQMD compile lists of design features or mitigation measures to assist with reducing GHG emissions for all land use types.

In response to the request from GHG Working Group stakeholders to develop GHG design features and mitigation measures, over the next year SCAQMD staff will compile lists of GHG reduction strategies, including control efficiencies, by sector and make the lists available online with other recommended mitigation measures. There is already a robust body of mitigation measures available (see in particular the CAPCOA bullet point discussion below), but in most cases, they do not include control efficiencies. SCAQMD staff will use the following mitigation sources as a basis from which to compile mitigation strategies.

- **CEQA Guidelines, Appendix F** – this appendix includes a list of general energy conservation measures that may be used as a basis to identify GHG reduction strategies. The measures do not contain GHG control efficiencies, so they would need further review to determine if control efficiencies are available.
- **CAPCOA White Paper** – this document provides a comprehensive discussion of GHG reduction strategies and specific mitigation measures are listed in Table 16 in Appendix B. The mitigation measures are grouped by emissions source type, such as transportation measures, parking measures, commercial and residential design features, etc. Table 16 also provides other useful information about each

mitigation measure including source of each measure, comments and descriptions about each control measure, etc. Most importantly, for many of the mitigation measures CAPCOA has included an emission reduction score. In most cases, the emission reduction score is given as a range. As a result, further evaluation would be necessary to provide a single more precise emission reduction score or a defensible average. Otherwise, it is likely that the high end of the emission reduction score would be used.

- CARB** - is actively working to develop and adopt GHG protocols to support the Climate Change Program. CARB is working in collaboration with other agencies and organizations, including the California Climate Action Registry, to adopt consistent and standardized methods to accurately report GHG emissions. There are two kinds of GHG protocols, a reporting protocol and a project protocol. The project protocol may be useful as it sets standards and provides specific guidance to define GHG reduction projects and quantify and report GHG reductions from project activities. Some example protocols include manure management and urban forestry. It is expected that additional protocols will be developed and adopted by CARB. It is also expected that CARB's Scoping Plan may provide guidance on regulatory guidance that could be used to develop GHG emission reduction measures. GHG reduction strategies that may also serve as GHG mitigation measures to be developed by CARB over the next two years are shown in Table 5-1.

Table 5-1
California Air Resources Board GHG Emission Reduction Strategies

Strategy	Description of Strategy
Other Light Duty Vehicle Technology	New standards would be adopted to phase in beginning in the 2017 model year
Hydrofluorocarbon Reduction	1) Ban retail sale of HFC in small cans; 2) Require that only low global warming potential (GWP) refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.
Transportation Refrigeration Units, Off-Road Electrification, Port Electrification	Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.
Manure Management	San Joaquin Valley Rule 4570 (adopted 6/15/06) reduces volatile organic compounds from confined animal facilities through implementation of control options.
Alternative Fuels: Biodiesel Blends	CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.

Table 5-1 (Concluded)
California Air Resources Board GHG Emission Reduction Strategies

Strategy	Description of Strategy
Alternative Fuels: Ethanol	Increased use of ethanol fuel.
Heavy-Duty Vehicle Emission Reduction Measures	Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.
Reduced Venting and Leaks in Oil and Gas Systems	Rule considered for adoption by the Air Pollution Control Districts for improved management practices.
Hydrogen Highway	The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.
Achieve 50% Statewide Recycling Goal	Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. According to the California Integrated Waste Management Board, in 2005 the statewide waste diversion rate was 52 percent. ⁶
Landfill Methane Capture	Install direct gas use or electricity projects at landfills to capture and use emitted methane.
Zero Waste - High Recycling	Additional recycling beyond the State's 50% recycling goal.

- CEC and CPUC – These agencies are actively developing GHG emission reduction strategies that may also be used to develop GHG mitigation measures for specific energy production sources. Examples of CEC and CPUC GHG emission reduction strategies are shown in Table 5-2.

Other sources of potential GHG emission reduction measures will be evaluated and incorporated, as applicable into any GHG mitigation measure lists developed by the SCAQMD.

⁶ CIWMB, 2007; <http://www.ciwmb.ca.gov/LGCentral/Rates/Diversion/2005/Default.htm>

Table 5-2
GHG Emission Reduction Strategies Implemented by CEC and CPUC

Strategy	Description of Strategy
ENERGY COMMISSION (CEC)	
Building Energy Efficiency Standards in Place and in Progress	Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).
Appliance Energy Efficiency Standards in Place and in Progress	Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).
Cement Manufacturing	Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.
Municipal Utility Strategies	Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon intensive generation.
Alternative Fuels: non-Petroleum Fuels	Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.
PUBLIC UTILITIES COMMISSION (PUC)	
Accelerated Renewable Portfolio Standard (33 percent by 2020)	The Governor has set a goal of achieving 33 percent renewables in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.
California Solar Initiative	The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.
Investor-Owned Utility	This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.

Periodically Review the Interim GHG Significance Threshold

SCAQMD staff will periodically review and revise staff's GHG proposal to incorporate applicable updated information on GHGs and GHG reduction strategies resulting from regulatory requirements or advances in technology. Some areas of the current proposal that may be reevaluated include the tier 3 screening levels, and the tier 4 compliance option 1 GHG reduction target objective. Further, staff will evaluate whether or not sector based performance standards can be developed for tier 4 compliance option 3.

If a statewide GHG significance threshold is developed by CARB, staff will review that threshold and report to the Governing Board [by March 2009 considering such a](#)

~~threshold for adoption regarding any implementation issues and ways to transition into the recommended GHG significance threshold within six months of formal approval by the CARB Board.~~

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APPENDIX A

WORKING GROUP MEMBERS AND CONTRIBUTORS

WORKING GROUP MEMBERS AND AFFILIATION:

Greg M Adams	Los Angeles County Sanitation District
James Arnone	Latham and Watkins
Jonathan Evans	Center for Biological Diversity
Doug T. Feremenga	San Bernardino County Land Use Planning Department
Mark Grey	Building Industry Association (BIA) of Southern California
Gretchen Hardison	City of Los Angeles, Environmental Affairs
Mike Harrod	Riverside County Planning Department
Michael Hendrix	Association of Environmental Professionals
Thomas Jelenic	Port of Long Beach
Ruby Maldonado	Orange County Planning Department
Bill La Marr	California Small Business Alliance
Julia Lester	Dairies/California Farmers Bureau
Shari Libicki	Green Developers Coalition
Lena Maun-DeSantis	Port of Los Angeles
Daniel Mc Givney	Southern California Alliance of Public Owned Treatment Works
Clayton Miller	Construction Industry Air Quality Coalition (CIAQC)
Jonathan Nadler	Southern California Association of Governments
Peter Okurowski	California Environmental Associates
Bill Piazza	Los Angeles Unified School District
Bill Quinn	California Council for Environmental and Economic Balance (CCEEB)
Cathy Reheis-Boyd	Western States Petroleum Association
Janill L Richards	California Department of Justice, Public Rights Division, Environment Section
Jamesine Rogers	California Air Resources Board (CARB)
Terry Roberts	Office of Planning and Research (OPR)
David Somers	City of Los Angeles - Planning
Debbie Stevens	Refineries
Jocelyn Thompson	Weston, Benshoof, Rochefort, Rubalcava, MacCuish Attorneys at Law
Carla Walecka	Realtors Committee on Air Quality (RCAQ)
Lee Wallace	The Gas Company

INVITED AS MEMBERS BUT HAVE NOT ATTENDED:

Rick Bishop	Western Riverside Council of Governments
Adrene K Briones	City of Los Angeles, LADWP
Rick Cameron	Port of Long Beach
Bahram Fazeli	Communities for a Better Environment (CBE)
Daniel Fierros	Los Angeles County Regional Planning, Impacts Analysis Section
Timothy Grabiell	Natural Resources Defense Council (NRDC)
Andrea M Hricko	USC Keck School of Medicine, Environmental Health Sciences Center
Angela Johnson Meszaras	California Environmental Rights Alliance
Janea Scott	Environmental Defense Fund
Martin Shlageter	Coalition for Clean Air (CCA)
Bryan Speegle	Orange County Planning Department

ALTERNATES AND AFFILIATION:

Jeannie Blakeslee	CARB
Frank Caponi	Los Angeles County Sanitation District
Andrew Cheung	Los Angeles Unified School District
Mark Elliott	CCEEB
Jay Golida	Los Angeles Unified School District
Andy Henderson	BIA of Southern California
Carrie Hyke	San Bernardino County Land Use Planning Department
Michael Lewis	CIAQC
John Pastore	Southern California Alliance of Public Owned Treatment Works
Sharon Rubalcava	Weston, Benshoof, Rochefort, Rubalcava, MacCuish Attorneys at Law
Andrew Skanchy	Latham and Watkins
Justis Stewart	SCAG
Allyson Teramoto	Port of Long Beach
Cindy Thielman-Braun	Riverside County Planning Department
Matt Vespa	Center for Biological Diversity
Michael Wang	WSPA

INTERESTED PARTIES:

Lysa Aposhian	Sanitation Districts of Los Angeles
Gregory K Arifian	MWH Americas Inc
Leila Barker	LADWP
Jack Bean	Tesoro
Joe Becca	Universal Studios
Aaron Dean Burdick	ICF International
Curtis L. Coleman	Law Offices of Curtis L. Coleman
Keith Cooper	ICF Jones & Stokes
Kris Flaig	LA Bureau of Sanitation, Department of Public Works, Regulatory Affairs
Howard D Gollay	Southern California Edison
Bill Gorham	ENSR Consulting and Engineering
Jay Grady	California Portland Cement Co.
Patrick Griffith	Los Angeles Unified School District
Tony Held	ICF, Jones & Stokes
Miles T. Heller	BP
Jonathan A. Hershey	City of Los Angeles
Vijaya Jammalamadaka	Santa Barbara County APCD
Stephen L Jenkins	Michael Brandman Associates
Robert Jenne	CARB
Diana Kitching	LA City Department of Planning
Chandra Knott	City of Irvine
Vladimir Kogan	Orange County Sanitation District, Air Quality & Special Projects Div.
Leslie Krinsk	CARB
Martin Ledwitz	Southern California Edison
Rina Leung	City of Rancho Cucamonga
Serena Lin	Environmental Defense Fund
Allen Lind	CCEEB
Sung Key Ma	Riverside County Waste Management Department
Josh Margolis	Cantor Cole

Marty Meisler	Metropolitan Water District
Denise Michelson	BP
Vince Mirabella	Michael Brandman Associates
Danielle K Morone	Gatzke Dillon & Ballance LLP
Pang Mueller	Tesoro Refining & Marketing Co - Los Angeles Refinery
Krishna Nand	City of Vernon
Jan Nguyen	Exxon Mobil
Maurice Oillataguerre	City of Glendale Public Works Dept.
Lynn Perkinson	URS Corp.
Haseeb Qureshi	Urban Crossroads
Ron Ricks	BP
Leonard Scandura	San Joaquin Valley APCD
Darren W Stroud	Valero Energy Corporation
Ryan Taylor	Brian F. Associates
Greg Tholen	Bay Area Air Quality Management District (BAAQMD)
Dave Vintze	BAAQMD
Sarah Weldon	California Environmental Associates
Darcy Wheelles	California Environmental Associates
Janet Whittich	CCEEB
A.L. Wilson	Southern California Edison
Cori Wilson	Michael Brandman Associates
Lisa Wunder	The Port of Los Angeles
Robert A Wyman Jr.	Latham & Watkins
Rick Zbur	Latham & Watkins
Michael H Zischke	Cox Castle & Nicholson LLP

APPENDIX B

SUMMARIES OF WORKING GROUP MEETINGS

WORKING GROUP MEETING #1 (APRIL 30, 2008)

At the first Working Group meeting SCAQMD staff presented the Working Group with a number of policy objectives and design criteria for consideration to establish the framework for developing a GHG significance threshold. Policy objectives include the following concepts. First, the GHG significance threshold should minimize environmental degradation, that is, it should not make impacts worse. To this end, it may be useful to develop a GHG significance threshold that achieves GHG emissions reductions that are consistent with the goals of AB 32 estimated to be approximately 30 percent reduction of GHG emissions from business-as-usual. Although CEQA or a GHG significance threshold established pursuant to CEQA may be useful tools in reducing GHG emissions, they would act in parallel with regulatory requirements, e.g., AB 32, but they do not replace them. As a result, there is no requirement that a GHG significance threshold must reduce GHG emissions consistent with AB 32 or EO S-3-05.

In addition to policy considerations, a number of GHG significance threshold design criteria were also considered. An important consideration in developing a GHG significance threshold is the potential administrative burden it may create on lead agencies through increased resource impacts such as increased costs and staff if the significance threshold is established too low. For example, a zero threshold might result in eliminating or substantially reducing the number of projects that qualify for a categorical exemption, a negative declaration, or a mitigated negative declaration. Other design considerations discussed included establishing a single GHG threshold, such as a “bright line” numerical threshold or multiple thresholds, such as the tiered approaches identified by CAPCOA, etc.

WORKING GROUP MEETING #2 (MAY 28, 2008)

At the second Working Group meeting, staff presented design criteria recommendations based on the discussion at the first Working Group meeting and correspondence received subsequent to the first Working Group meeting. With regard to analyzing life cycle GHG emissions, staff’s initial recommendation was to exclude an analysis of life cycle emissions because life cycle process are not well established. Instead, the GHG emissions analysis should focus on direct and indirect impacts, consistent with current CEQA requirements (CEQA Guidelines §15064(d)). Feedback from the Working Group suggested that a CEQA analysis may be considered deficient without making an effort to conduct a life cycle analysis. Further, if life cycle emissions data are not available, the lead agency should note this consider further analysis speculative and terminate the discussion (CEQA Guidelines §15145).

Another design criteria recommendation made by staff was to take into consideration the administrative burden and resources impacts when establishing a GHG significance threshold. Staff recommended that the GHG significance threshold

should not be set too low, which could result in all projects going through the EIR process. It was pointed out that requiring an EIR for all projects does not necessarily result in more mitigation, no meaningful mitigation may be available for small projects, and it may provide a disincentive for implementing mitigation if the measures are unable to reduce GHG impacts to less than significant.

Other design criteria recommended by staff included analyzing the six Kyoto GHGs, any GHG significance threshold established would be considered interim and would be periodically evaluated and updated as necessary, etc. Staff also introduced the concept of preferred GHG mitigation strategies using a hierarchy from the most to least preferred strategies as shown below.

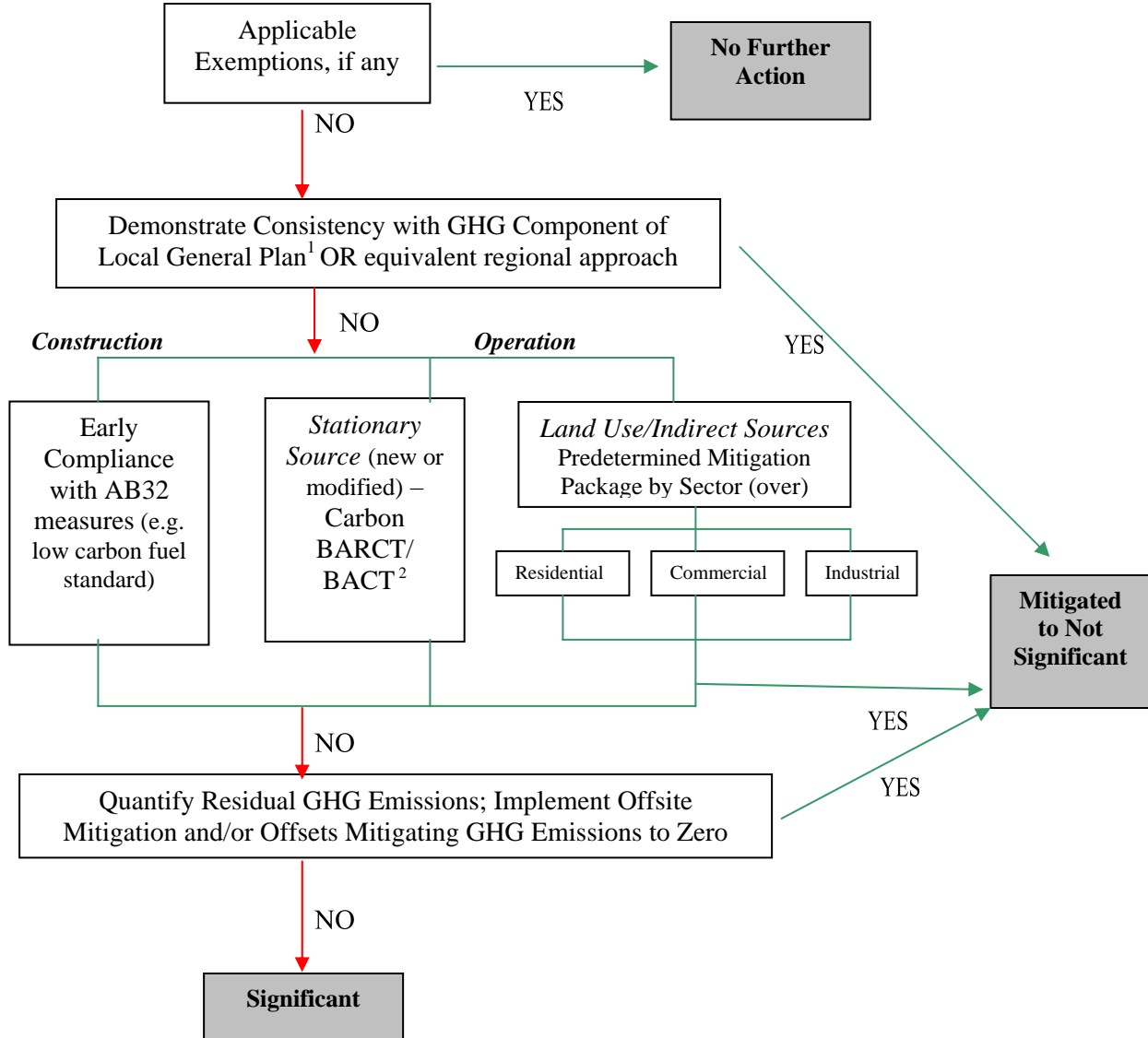
1. Incorporate GHG reduction strategies into project design
2. Mitigate GHGs from other onsite sources for modification projects
3. Mitigate offsite GHG emission reduction projects
4. Mitigate both construction & operational GHG impacts
5. Consider feasible mitigation based on economic factors (cost) pursuant to CEQA Guidelines §15364
6. Purchase acceptable GHG offsets with preference toward GHG reduction projects occurring in-basin or in-state (offset cost a consideration). The following points should be considered:
 - a. Offset market still developing, so it is necessary to ensure offsets are obtained from a credible source
 - b. Offsets should be provided for at least 10 years of project operation (see SJVAPCD indirect source Rule 9510 §6.2 mitigation requirements)

Finally, SCAQMD staff introduced the initial staff proposal. The initial staff proposal consisted of a tiered approach, similar to CAPCOA's Approach 2 with mandatory GHG mitigation measures. Each tier of this proposal is briefly described in the following bullet points and shown graphically in Figure B-1.

- The first tier consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. For example, SB 97 specifically exempts a limited number of projects until it expires in 2010. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, then move to the next tier.

Figure B-1
Initial Staff Proposal – Proposed Tiered Approach – May 28, 2008

Significance determination of Cumulative Impacts from GHG emissions:



1. Local General Plans, at a minimum, must comply with AB32 reduction goals; have been analyzed under CEQA, and have a certified Final CEQA document; emission estimates approved by CARB or SCAQMD; include a GHG inventory tracking mechanism; and a commitment to remedy the excess emissions if AB32 goals are not met.
2. SCAQMD will work with CAPCOA to develop a list of mitigation measures.

- The second tier consists of determining whether or not the project is consistent with a GHG reduction plan that is part of a local general plan for example. The GHG reduction plan must, at a minimum, comply with AB 32 reduction goals; include emission estimates approved by CARB or SCAQMD, have been analyzed under CEQA, and have a certified Final CEQA document. Further, the GHG reduction plan must include a GHG inventory tracking mechanism; process to monitor progress in achieving GHG emission reduction targets, and a commitment to remedy the excess emissions if AB 32 goals are not met (enforcement). If the proposed project is consistent with the local GHG reduction plan, it is not significant for GHG emissions.

The concept of consistency with a GHG reduction plan, is similar to the concept of consistency in CEQA Guidelines §15125(d). If the proposed project does not comply with the local GHG reduction plan or no GHG reduction plan has been adopted, then move to the third tier.

- Under the third tier there are three options that can be used to demonstrate that a project would not have significant emissions. The first significance option is early compliance with AB 32 Scoping Plan measures. The second significance option, primarily for stationary source equipment, would be to install carbon best available retrofit control technology (BARCT) or best available control technology (BACT). Carbon BARCT/BACT would be established by the SCAQMD. The third significance option for industrial, commercial, and residential land use projects would be to implement a menu of prescribed mitigation measures. Mitigation measures would be developed for each land use sector by SCAQMD staff. Implementing one of these three options would result in a determination that GHG emission impacts from the proposed project are not significant. If the proposed project is unable to implement any one of these three options or cannot fully implement any option, then it would move to the fourth tier.
- Under the fourth tier, the lead agency would quantify GHG emissions from the project and implement offsite mitigation (GHG reduction projects) or purchase offsets. Under this tier, GHG emission impacts the lead agency would be required to mitigate or offset GHG emissions to zero. If GHG emissions can be offset to zero, GHG emissions from the project are concluded to be insignificant. If GHG impacts cannot be reduced to zero, the project is concluded to be significant for GHGs.

WORKING GROUP MEETING #3 (JUNE 19, 2008)

Subsequent to Working Group meeting #2, SCAQMD staff received feedback on the initial staff proposal. Issues and concerns raised by the stakeholders on the initial staff proposal were addressed at the third Working Group meeting and are summarized in the following bullet points.

- The staff proposal does not explicitly state any quantitative or qualitative target objectives. If there are no explicit target objectives, how is it possible to determine whether or not a project is insignificant for GHG emissions?

- Concerns were raised regarding the lack of detail relative to the sector-specific mitigation measures and the potentially lengthy lag time between implementing the GHG significance threshold and developing the mitigation measures.
- For most projects, GHG emissions would not need to be calculated as long as the prescribed menu of sector-specific mitigation measures is implemented. Without quantifying GHG emissions and the control efficiencies of the mitigation measures, a project would be vulnerable to a “Fair Argument” that GHG emissions are still significant even after implementing prescribed mitigation measures.
- A CEQA document may be vulnerable in court if control efficiencies of mitigation measures are not identified.
- Is the staff proposal really a zero GHG significance?

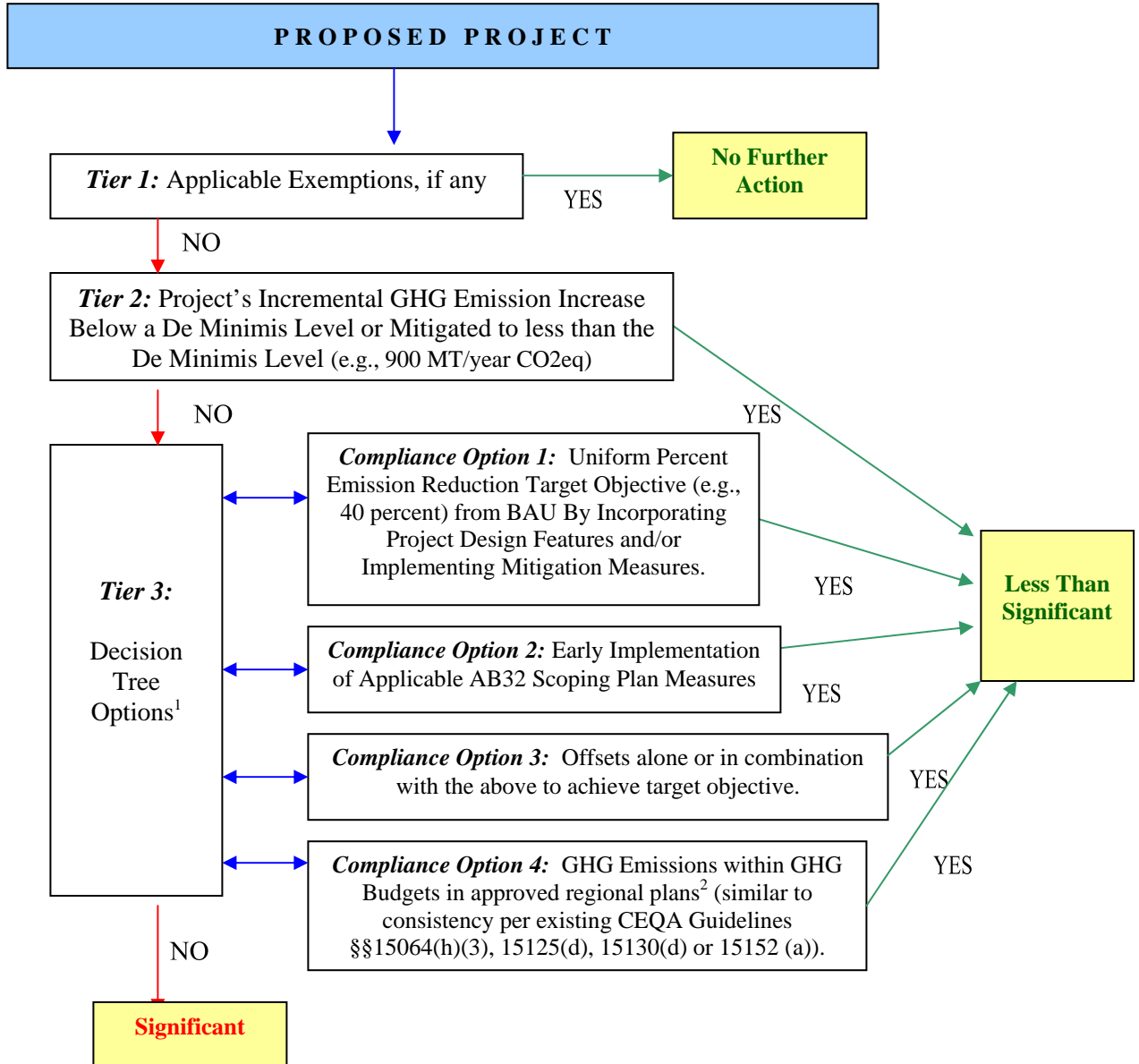
Based on Working Group feedback, staff presented revised staff proposal #1, which consisted of a tiered decision tree approach. The components of revised staff proposal #1 are described in the following bullet points and shown graphically in Figure B-2. As shown in Figure B-2, some of the tier components of the revised staff proposal are similar to those in the initial staff proposal.

- **Tier 1** – no change from the initial proposal.
- **Tier 2** – is a new component of the revised staff proposal. Tier 2 attempts to identify small projects that would not likely contribute to significant cumulative GHG impacts. The de minimis or screening level of 900 metric tons per year is the level that is estimated by CAPCOA to capture 90 percent of the residential units or office space in pending application lists⁷. CAPCOA infers that projects that emit less than 900 metric ton per year would not likely be considered cumulatively considerable. Further, the 900 metric ton per year level would capture 90 percent

⁷ Although the CAPCOA White Paper implies that 900 metric tons per year equates to a 90 percent capture rate, there is no explicit information provided in the White Paper that demonstrates this correlation. Indeed, the CAPCOA authors state that 900 metric tons, which represents approximately 50 residential units, corresponds to widely divergent capture rate percentile rankings depending on the project location (see discussion on page 43 of the White Paper). Percentile rankings were based on a survey of four cities in California. A project of 900 metric tons per year representing a 90 percent capture rate appears to be a working assumption for which there appears to be no factual basis. Further, although not explicitly stated, it is assumed that the 900 metric tons were derived using the URBEMIS2007 model. It should be noted that that the URBEMIS2007 model only quantifies CO₂ emissions and direct emissions primarily from on-road mobile sources. It does not capture other GHG pollutants or indirect GHG emissions such as emissions from energy generation, water conveyance, etc. Therefore, it is likely that a 50-unit residential project would actually generate higher GHG emissions than 900 metric tons per year.

Figure B-2
 Revised Staff Proposal #1 Tiered Decision Tree Approach – June 19, 2008

Significance Determination of Cumulative Impacts from GHG Emissions:



1. Substitution for equivalent reductions allowed.
2. Local General Plans or other local plans local plans that, at a minimum, comply with the overall target objective or the sector-based CARB Scoping Plan; have been analyzed under CEQA, and have a certified Final CEQA document; emission estimates approved by CARB or SCAQMD; include a GHG inventory; tracking mechanism; enforcement; and a commitment to remedy the excess emissions if commitments are not met.

of all pending projects, which means that 90 percent of all projects would have to implement GHG reduction measures.

If a project is less than 900 MT/year CO₂eq or can mitigate to less than 900 MT/year CO₂eq, it would be considered insignificant for GHGs. Projects larger than 900 MT/year CO₂eq would move to tier 3.

- Tier 3 Decision Tree Options – consists of four decision tree options to demonstrate that a project is not significant for GHG emissions. The four compliance options are as follows.

Compliance Option 1 – the lead agency would calculate GHG emissions for a project using a business-as-usual (BAU) methodology. Once GHG emissions are calculated, the project proponent would have to incorporate design features into the project and/or implement GHG mitigation measures to demonstrate a 40 percent reduction from BAU. A 40 percent reduction below BAU was selected for the following reason. To comply with the AB 32 requirement of reducing GHG emissions to 1990 levels, an approximately 30 percent reduction from current BAU is necessary.

Since CEQA is not applicable to all GHG emission sources, i.e., existing projects that are not undergoing expansion or modifications, staff chose a 40 percent reduction below BAU requirement, which goes beyond the target GHG reduction objective of AB 32, but is still a potentially feasible GHG reduction for a variety of different projects.

Compliance Option 2 – this option is the same as the early compliance with AB 32 option in the third tier of the initial staff proposal.

Compliance Option 3 – this option is similar to the fourth tier of the initial staff proposal where GHG emissions would be reduced through offsite GHG reduction projects and/or use of offsets. This compliance option, however, would require offsetting GHG emissions by the same target objective as compliance option 1, that is, 40 percent below BAU instead of reducing GHG emissions to less than the de minimis or screening level.

Compliance Option 4 – this option is the same as the consistency with the greenhouse gas reduction plan component in the second tier of the initial staff proposal.

If the lead agency or project proponent cannot implement any of the compliance options in Tier 3, GHG emissions would be considered significant.

WORKING GROUP MEETING #4 (JULY 30, 2008)

Subsequent to Working Group meeting #3, SCAQMD staff received feedback on the revised staff proposal #1. Issues and concerns raised by the stakeholders on the initial

staff proposal were addressed at the third Working Group meeting and are summarized in the following bullet points.

- Compliance with a GHG reduction plan should not be a compliance option in Tier 3, but should be its own tier, earlier in the tiering process.
- There is a large disconnect between screening level and remaining emissions under the Tier 4 compliance options. For example, large projects that can reduce GHG emissions by the target objective of 40 percent would do so, which means GHG emissions would not be significant, could have substantially higher emissions than projects with GHG emissions less than the screening level.
- Compliance with a target objective should not be through offsets alone. Because of the uncertainties regarding the validity of offsets, preferred mitigation should consist of actual GHG emission reductions.
- The Tier 3 compliance option 1, GHG emissions reductions from BAU, is not the proper metric for determining significance. How can a lead agency be sure that the projected BAU emissions for a project are not artificially inflated to make it easier to achieve the required target objective?
- The Tier 3 compliance option 1, reducing GHG emission reductions from BAU, could penalize projects in environmentally progressive areas where BAU may be much lower than in other areas, thus, making it more difficult to achieve the target objectives.

Based on Working Group feedback and internal discussions, staff presented revised staff proposal #2, which further refined the previous tiered decision tree approach. The components of revised staff proposal #2 are described in the following bullet points and shown graphically in Figure B-3. As shown in Figure B-3, some of the tier components of the revised staff proposal are similar to those in the initial staff proposal.

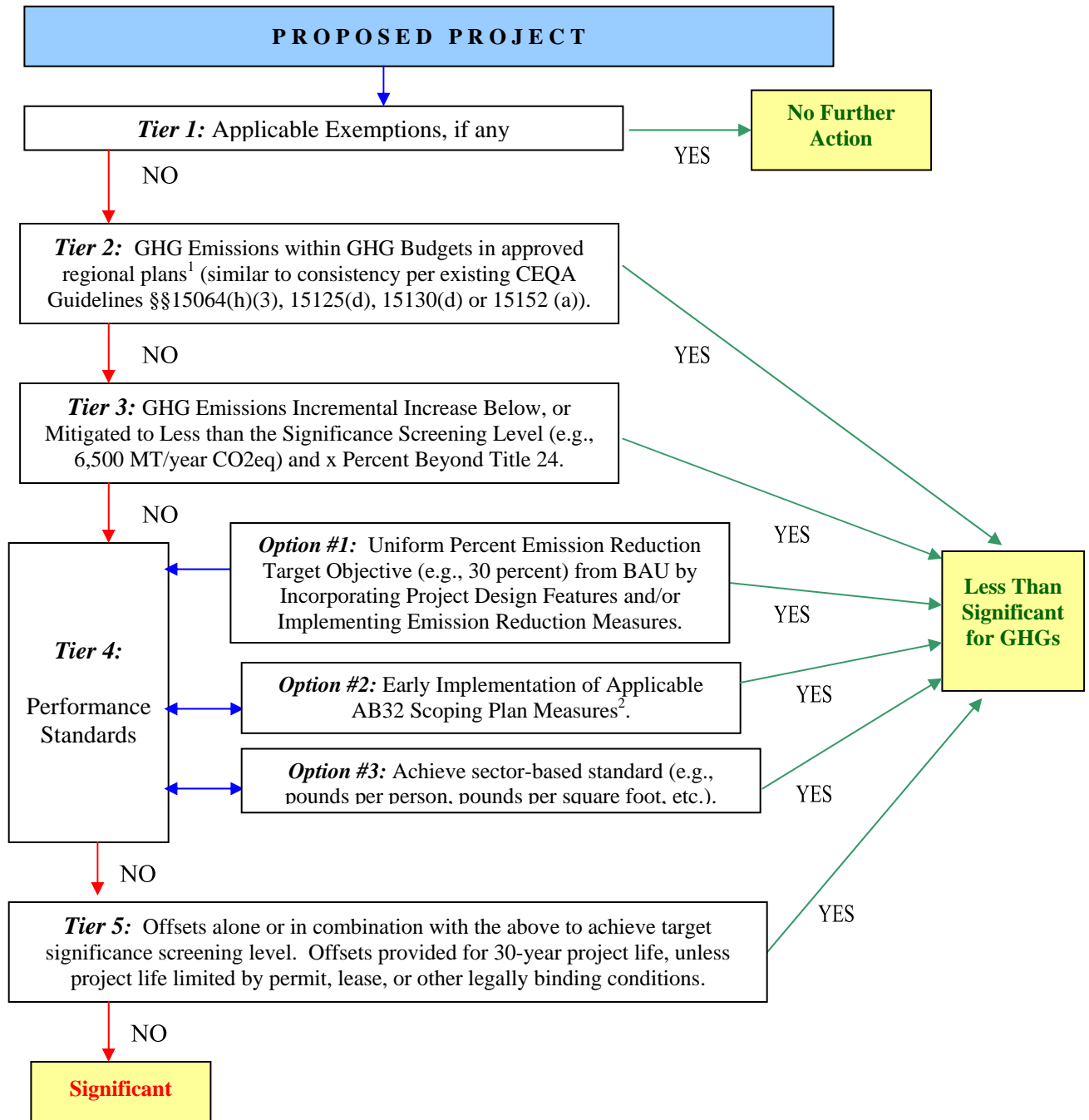
- **Tier 1** – no change from the initial proposal.
- **Tier 2** – compliance option 4 in Tier 3 has been moved back a stand-alone tier.
- **Tier 3** – the screening level that was previously Tier 2 has been moved to Tier 3. In response to feedback from the Working Group, the screening level has been increased to 6,500 MT/year CO₂eq. The new screening level was derived using the SCAQMD's existing NO_x operational threshold as a basis. The daily NO_x operational significance threshold, 55 pounds per day was annualized, which results in 10 tons of NO_x per year. Using the URBEMIS2007 model, staff initially modeled a mixed-use project that emits just under 10 tons per year to determine what the equivalent CO₂ emissions would be. Resulting CO₂ emissions from the mixed use project were approximately 6,500 MT/year CO₂. To further corroborate the 6,500 MT/year CO₂ staff performed 19 modeling runs on a variety of projects including residential, commercial, industrial, and various combinations of land uses. In addition, since the analysis was an annual

analysis, a weighted trip rate was derived for each land use category to obtain a more accurate estimate of trip rates throughout the week. Although the results from the 19 modeling runs were approximately 16 percent higher than staff's original estimate of 6,500 MT/year CO₂, 7,304 to 7,723 MT/year CO₂, staff continued to recommend the 6,500 MT/year CO₂ provides a margin of safety when deriving CO₂ emissions based on the annualized NO_x level of 10 tons per year and when evaluating different types of land use projects.

Projects with GHG emissions less than the screening level are considered to be small projects, that is, they would not likely be considered cumulatively considerable. However, because of the magnitude of increasing global temperatures from current and future GHG emissions, staff recommended that all projects must implement some measure or measures to contribute to reducing GHG emissions. Therefore, Tier 3 includes a requirement that all projects with GHG emissions less than the screening level must include efficiency components that reduce to a certain percentage beyond the requirements of Title 24 (Part 6, California Code of Regulations), California's energy efficiency standards for residential and nonresidential buildings.

- Tier 4 Performance Standards – Tier 3 from the revised staff proposal #1 has been moved to Tier 4 and renamed.

Figure B-3
 Proposed Tiered Decision Tree Approach – July 30, 2008
Significance Determination of Cumulative Impacts from GHG Emissions:



1. Local General Plans or other local plans local plans that, at a minimum, comply with the overall target objective or the sector-based CARB Scoping Plan; have been analyzed under CEQA, and have a certified Final CEQA document; emission estimates approved by CARB or SCAQMD; include a GHG inventory; tracking mechanism; enforcement; and a commitment to remedy the excess emissions if commitments are not met.
2. Substitution for equivalent reductions allowed.

Compliance Option 1 – is essentially the same as the previously recommended, except that the target objective has been changed from reducing GHG emissions 40 percent below BAU to 30 percent below BAU to be more consistent with AB 32 target objectives.

Compliance Option 2 - – no change from the previous proposal.

Compliance Option 3 – this is a new compliance option and consists of establishing sector-based performance standards. For example, it may be possible to use the 1990 inventory required under AB32 to establish an efficiency standard such as pounds per person, pounds per worker, pounds per square feet, pounds per item manufactured, etc. When calculating GHGs from a project, if they are less than the established efficiency standard the project would not be significant relative to GHG emissions, while projects exceeding the efficiency standard would be significant.

Projects that cannot comply with any of the compliance options in Tier 4 would then move on to Tier 5.

- **Tier 5** – consists generally of the Tier 3 compliance option 3 from the previous staff proposal. The only difference is that the project proponent would be required to provide offsets for the life of the project, which is defined as 30 years. If the project proponent is unable to obtain sufficient offsets, incorporate design features, or implement GHG reduction mitigation measures, then GHG emissions from the project would be considered significant.

WORKING GROUP MEETING #5 (AUGUST 27, 2008)

Subsequent to Working Group meeting #3, SCAQMD staff received feedback on the revised staff proposal #2. Issues and concerns raised by the stakeholders on the initial staff proposal were addressed at the third Working Group meeting and are summarized in the following bullet points.

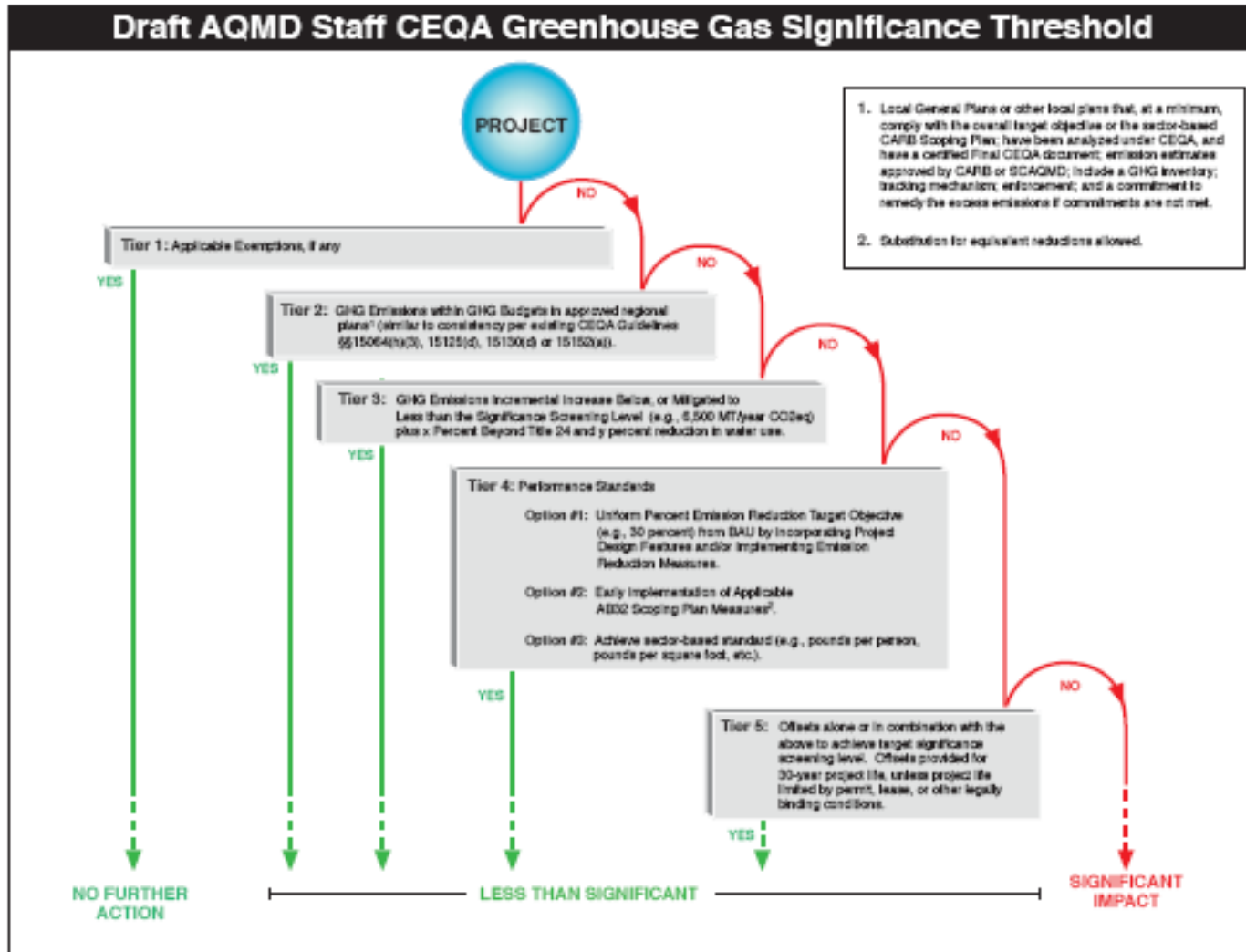
- A recommendation was made to modify the target objective of Tier 5 to be consistent with the target objective of Tier 4 compliance option 1, that is require emissions to be offset 30 percent from BAU rather than offset down to the screening level.
- A Working Group member asked for clarification on the early implementation of applicable AB 32 Scoping Plan measures in Tier 4-Option 2. In addition, a question was asked regarding whether or not this compliance option was applicable after the requirements of AB 32 have become effective.

At Working Group meeting #5, staff presented revised staff proposal #3, which consisted primarily of minor refinements to the previous tiered decision tree approach

in revised staff proposal #2. The components of revised staff proposal #3 are shown graphically in Figure B-4.

Aside from changing the graphic layout of the staff proposal to make it easier to understand, revised staff proposal #3 has only one minor modification. A second energy efficiency requirement has been added to the screening level in Tier 3. In addition to requiring projects to go a certain percentage beyond Title 24, projects would also have to reduce by a specified percentage electricity demand from water use, primarily electricity used for water conveyance.

Figure B-4
 Revised Staff Proposal #3 Tiered Decision Tree Approach – August 27, 2008





South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM₁₀	150 lbs/day	150 lbs/day
PM_{2.5}	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants ^d		
NO₂ 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM₁₀ 24-hour average annual average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM_{2.5} 24-hour average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation)	
SO₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m ³ (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 µg/m ³ (state) 0.15 µg/m ³ (federal)	

^a Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million µg/m³ = microgram per cubic meter ≥ = greater than or equal to
 MT/yr CO₂eq = metric tons per year of CO₂ equivalents > = greater than

Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events

CATEGORIES

Programs Emergency Backup Generators

Type Information

Disclaimer

The guidance that follows is intended to help provide an understanding of the California Air Resources Board (CARB) regulations that apply to the use of back-up engines for power during Public Safety Power Shutoff (PSPS) events. This guidance was developed in consultation with local air districts and does not alter or replace any specific requirements of applicable State or local regulations. Users should contact the air district in which the back-up reciprocating engine will be operated to ensure compliance with applicable regulatory and permitting requirements.

Background Regarding PSPS Events

Wildfires in California are occurring more often and are more destructive than ever. Fifteen of the 20 most destructive wildfires in the state's history have occurred since 2000; ten of the most destructive fires have occurred since 2015.^[1] The state's fire season is now almost year round.^[2] More than 25 million acres of California wildlands are classified under very high or extreme fire threat.^[3] Approximately 25 percent of the state's population – 11 million people – lives in a high-risk area.^[4] Within these high-risk fire areas, there are approximately 4.2 million wooden utility poles and 200,000 miles of overhead electric distribution lines.^[5] These distribution networks have caused devastating wildfires, resulting in the loss of human life and billions of dollars in property damage over the past several years.



To reduce the risk of wildfires caused by electricity transmission and distribution networks – and the associated public health and safety impacts – State law and California Public Utilities Commission (CPUC) regulations require California's Investor-Owned Utilities (IOUs) to develop Wildfire Mitigation Plans (WMP).^[6] The purpose of WMPs is to

systematically reduce the risk of wildfires ignited by utility infrastructure over the next 10 years and beyond through a clearly articulated statewide vision to coordinate efforts, evaluate mitigation options, and assess progress.^[7] Strategies in WMPs include: vegetation management (e.g. clearing vegetation growth near power lines), system hardening (e.g. installation of insulated conductors), and, as a last resort, de-energization of transmission and distribution systems (also referred to as Public Safety Power Shutoffs or PSPS events). The design of the utility system, the vegetation, terrain, and weather conditions each play a role in the utility companies' decisions to de-energize their infrastructure.

Since 2013, when San Diego Gas and Electric Company first began de-energizing its lines to proactively prevent wildfires, California's IOUs have de-energized their lines on nearly 30 days, with each PSPS event lasting an average of more than 30 hours.^[8] The number of people impacted by each PSPS event, to date, varies greatly, ranging from very few customers to thousands.^[9] PSPS events affect primarily rural and suburban areas with a high fire risk throughout the State.^[10] However, because of the design of California's electricity transmission and distribution network, PSPS events may also impact people living in highly urbanized areas remote from high-risk fire areas.

When a utility provider de-energizes its power lines, the risk of the system sparking a wildfire is greatly reduced. However, power loss has many negative impacts, especially to vulnerable populations (including residential customers that rely on reliable electric service to power life-saving medical devices), medical and emergency service providers (including hospitals, fire departments and police stations), and important public service providers (such as water agencies, gas stations and grocery stores). In order to mitigate the damage of power loss, many of these critical service providers may rely on back-up engines to replace lost grid power. Additionally, many businesses may use back-up engines to avoid catastrophic system disruptions and to minimize economic disruption that could result from prolonged power outages. This use of back-up engines may result in air quality and public health impacts, as discussed further herein.

Use of Back-up Engines to Provide Power During PSPS Events



When electric utilities de-energize their electric lines, the demand for back-up power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed

of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts). The following sections discuss the requirements applicable to such engines.

Requirements Applicable to Stationary Engines

Air District Permitting and Rule Requirements

Stationary back-up engines are often subject to air district requirements. These requirements vary by air district, and they may include permitting requirements, emission limits, and operational restrictions. Owners and operators of stationary back-up engines should contact the air district in which the engine would be operated to ensure that such engines are operated in accordance with applicable air district rules and requirements.

Airborne Toxic Control Measure for Stationary Compression Ignition Engines

CARB's Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines^[11] (Stationary Engine ATCM) establishes emission limits and operational restrictions for stationary compression-ignition engines rated at greater than 50 brake horsepower (bhp). Portable engines, as defined by the Stationary Engine ATCM, and spark-ignition engines are not subject to the requirements of the Stationary Engine ATCM.^[12]

The Stationary Engine ATCM allows for the use of older, more polluting, "emergency standby engines."^[13] However, because these emergency standby engines can emit significantly more DPM than newer, state-of-the-art equipment, the Stationary Engine ATCM limits their use during non-emergency activities such as maintenance and testing. The most polluting engines are limited to 20 hours of maintenance and testing operations each year.^[14] Engines with lower emissions are afforded additional maintenance and testing hours per the ATCM and air district approval.



The Stationary Engine ATCM allows owners and operators of emergency standby engines to use those engines to provide electrical power when a facility experiences the loss of normal electrical service that is beyond the reasonable control of the facility.^[15]

Electrical service loss resulting from PSPS events is beyond the reasonable control of most back-up engine owners and operators, and therefore, appropriately- permitted emergency standby engines may be operated to provide electrical power during such an event pursuant to the Stationary Engine ATCM.

Requirements Applicable to Portable Engines

Air District Permitting and Rule Requirements

Like stationary back-up engines, portable back-up engines may also be subject to air district requirements. These requirements vary by air district, and may include permitting requirements, emission limits and operational restrictions. Portable engines may be permitted by the air district for use at multiple locations within a single facility or may be permitted for use in multiple locations across the air district.

Owners and operators of portable back-up engines should contact the air district in which the engine would be operated to ensure that such engines are operated in accordance with applicable air district rules and requirements.

Voluntary Portable Equipment Registration Program In Lieu of Air District Permits

To facilitate the use of portable engines,^[16] CARB's Portable Equipment Registration Program (PERP)^[17] allows an owner or operator of a portable engine to voluntarily apply for a statewide registration, allowing the engine to be operated anywhere in the state without the need for air district permits. PERP-registered engines are exempt from district permitting when operated in compliance with the PERP requirements – which include the ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower or Greater (Portable Diesel Engine ATCM), discussed in the following section.

Statewide registration under PERP is not valid where engines are “used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment” except during, “unforeseen interruptions of electrical power from the serving utility.”^[18] At this time, CARB staff believes that PSPS events qualify as “unforeseen interruptions of electrical power” for purposes of PERP. Accordingly, PERP-registered engines may be used during a PSPS event by most owners or operators to provide primary or supplemental power.



It is important to note a significant caveat regarding the use of PERP. PERP registrations are not valid if the engine is part of a stationary source. If CARB or an air district determines that an engine is used as part of a stationary source, the PERP registration is not valid at that location, and an air district permit may be required. Engines that reside at the same location for 12 consecutive months are, by definition not portable.^[19] Additionally, engines that routinely return to the same location to serve the same function may be considered by the air districts to be “part of a stationary source”. Owners or operators of portable engines consult the air district to ensure that a PERP registration is valid.

Use of Unregistered/Unpermitted Portable Engines Operated During Emergency Events

PERP allows for the temporary operation of otherwise unregistered and/or unpermitted engines^[20] during an “Emergency Event” so long as certain conditions are met. “Emergency Event” means a “situation arising from sudden and reasonably unforeseen natural disaster such as earthquake, flood, fire, or other unforeseen events beyond the control of the portable engine or equipment unit operator... that threatens public health and safety and that requires the immediate temporary operation of portable engines or equipment units to help alleviate the threat to public health and safety.”^[21] CARB staff believes that PSPS events generally qualify as unforeseen events for purposes of PERP, and therefore use of unregistered portable engines may be allowed for the duration of a PSPS event – but only if necessary to alleviate a threat to public health and safety.

Under PERP, engines may be operated during an Emergency Event only if:

- The engine to be used is certified to meet a California or federal emission control standard;
- The owner or operator demonstrates that there is an immediate temporary need to operate the engine to help alleviate a threat to public health and safety that is the result of a reasonably unforeseen event, that is beyond the control of the owner or operator;
- The owner or operator notifies CARB within 24 hours of commencing operation; and
- The engine is operated only for duration of the Emergency Event, or up to 12 months, whichever comes first.



Notification to CARB is completed by submitting a Form 40 “Notification of Operation in an Emergency Event.”^[22] In response to receiving a Form 40 submittal, CARB, in consultation with the local air district, may refute that an Emergency Event exists, in

which case operation of the engine must cease immediately.^[23] Misrepresentation of an Emergency Event and failure to cease operation is a violation of PERP.^[24]

As a practical matter, CARB forwards copies of the Form 40s it receives to the appropriate air districts and works closely with the air districts to ensure that operation during an Emergency Event complies with the requirements of PERP, including the requirement that unregistered engines are only operated as necessary to alleviate threats to public health and safety.

CARB ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater

CARB's Portable Diesel Engine ATCM^[25] establishes requirements for portable diesel engines, including "Emergency-use Engines."^[26] As explained further herein, Emergency-use Engines that comply with the Portable Diesel Engine ATCM may be used to provide back-up power during PSPS events, subject to the terms and conditions of the applicable air district permit or PERP registration.^[27]

Portable Diesel Engine ATCM Provisions for the Use of Designated "Emergency-use Engines" During Emergencies and Emergency Events

The Portable Diesel Engine ATCM allows owners of certain portable engines to be designated as "Emergency-use Engines" in air district permits or PERP registrations. Designated "Emergency-use Engines"^[28] are limited to operation only during an "Emergency" or "Emergency Event", and are also exempt from the portable diesel engine phase out schedule and the fleet-average emission standard option. While seemingly similar, the definitions of Emergency and Emergency Event are distinct.

- "Emergency"^[29] includes the failure or loss of all or part of normal electrical power service, which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and which is demonstrated by the owner or operator to the air district Air Pollution Control Officer's (APCO) satisfaction to have been beyond the reasonable control of the owner or operator.



CARB staff believes that PSPS events meet the definition of "Emergency" under the Portable Diesel Engine ATCM. However, owners or operators of such engines must make appropriate demonstrations to the APCO prior to commencing operation of such engines.

- “Emergency Event”^[30] refers to a situation arising from a sudden and reasonably unforeseen natural disaster such as an earthquake, flood, fire, or other unforeseen event that requires the use of portable engines to help alleviate the threat to public health and safety.

CARB staff believes that PSPS events are generally unforeseen events for purposes of the Portable Diesel Engine ATCM, and certified portable engines may be used help alleviate the threat to public health and safety during such events.

The Portable Diesel Engine ATCM exempts engines used exclusively in “Emergency Events”^[31] Nonetheless, such engines may be subject to air district rules, including the requirement to obtain an air district permit.

Portable Diesel Engine ATCM Provisions for the Use of Designated “Low-use Engines” During Emergency Events

The Portable Diesel Engine ATCM allows owners of certain portable engines to be designated as “Low-use Engines”^[32] in air district permits or PERP registrations. Designated “Low-use Engines” are limited to 200 hours of operation per year, except that the hours of operation used for a qualifying “Emergency Event” (i.e. as needed to protect public health and safety) are not counted toward the allowed annual hours of operation. All hours of operation for other uses, (i.e. to provide electrical power not related to protecting public health and safety) are counted toward the 200 annual hours of operation limit.

Use of Small Generators (under 50 bhp)

Small off-road engines, such as those used in small generators sold at retail stores, are required to be certified by CARB to be able to be sold in California. CARB does not establish in-use restrictions for such certified engines, and small generators are generally exempt from air district rules. Owners of small generators should check with the air district in which they would be used to determine if the air district has established usage limitations or permit requirements.



Monitoring the Need for Public Safety Power Shutoffs and the Use of Back-up Power Sources

CARB, in partnership with California's air districts, is committed to reducing the health risks from air pollution. Protecting the public from wildfire is a public health concern not only for those directly impacted by catastrophic fires, but also for those breathing smoke, often for weeks at a time, while the fire is brought under control and extinguished. While PSPS events reduce utility liability and protect the public from health risks associated with wildfire, they also expose local populations to more diesel exhaust. This impact is especially significant to sensitive populations, including children, the elderly and people with chronic respiratory conditions.

In the short-term, utilities may rely on PSPS events because they have not sufficiently invested in equipment and procedures needed to prevent their infrastructure from starting wildfires. As California's electric utilities implement the vegetation management, system-hardening, and other non-PSPS actions identified in their WMPs, the need for widespread electricity line de-energization – and consequently the need to use back-up engines – is expected to decrease.

CARB staff will monitor the progress utilities are making to implement their WMPs, as well as the frequency of PSPS events, and it will work with the air districts to understand the extent to which back-up engines are used, both by commercial and residential customers, during PSPS events. If the frequency and duration of PSPS events does not decline with time (e.g., if utilities do not make timely system improvements), CARB staff will explore opportunities to ensure that back-up power is produced using the cleanest technologies available. Air districts may also assess the need to modify permitting requirements, emission limits and operational restrictions to address PSPS events.

CARB will work with the air districts and the public to identify approaches to reduce emissions from back-up engines. Many zero and near-zero emission technologies are available today to provide back-up power. Certain emerging technologies, such as battery electric storage (which can be combined with solar electric generation), fuel cells, and natural gas fueled engines may be useful in meeting the back-up power needs of California residents and some businesses. CARB will continue to encourage the development and use of these clean technologies, especially in areas subject to PSPS events.



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1. Wildfires and Climate Change: California's Energy Future, A Report from Governor Newsom's Strike Force April 12, 2019, <https://www.gov.ca.gov/wp-content/uploads/2019/04/Wildfires-and-Climate...>

2. Id.
3. Id.
4. Id.
5. California Public Utilities Commission, Press Release, November 26, 2018, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M244/K299/24429954...>
6. While CPUC requires IOUs to prepare WMPs, municipally owned utilities may also de-energize their lines during fire-risk conditions. This guidance would cover PSPS-related back-up engines in those instances, as well.
7. California Public Utilities Commission, Utility Wildfire Mitigation Strategy, September 17, 2019, page 3, https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/New...
8. CPUC, De-Energization (PSPS), <https://www.cpuc.ca.gov/deenergization/>
9. In September 2017, San Diego Gas and Electric Company de-energized parts of its system affecting only three commercial customers. One year later, Pacific Gas and Electric Company de-energized parts of its system, causing more than 60,000 residential and commercial customers to lose power. Data on PSPS events can be downloaded from CPUC's website at: <https://www.cpuc.ca.gov/deenergization/>.
10. Fire threat maps are available online at: <https://www.cpuc.ca.gov/firethreatmaps/>
11. Title 17, California Code of Regulations (Cal. Code Regs.) section 93115, et seq.
12. The Stationary Engine ATCM distinguishes between portable and stationary engines. For example, engines with indicators of portability that remain at the same facility location for more than 12 consecutive rolling months or 365 rolling days, whichever occurs first, not including time spent in a storage facility, are deemed stationary engines and are subject to the requirements of the Stationary Engine ATCM. 17 Cal. Code Regs. § 93115.4(a)(57); 17 Cal. Code Regs. § 93115.4(a)(72).
13. 17 Cal. Code Regs. § 93115.4(a)(29).
14. If the engine fails during maintenance and testing hours, the Stationary Engine ATCM allows the Air Pollution Control Officer of the air district in which it is located to allow additional operation needed to repair the failure, without counting those additional hours towards the annual limitation. 17 Cal. Code Regs. § 93115.4(a)(47)(D).
15. 17 Cal. Code Regs. § 93115.4(a)(30).
16. See 13 Cal. Code Regs. § 2452(dd) for the complete definition of "Portable" established by the PERP regulation. By definition, an engine is not portable if (among other things) such engine is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. In this case, the engine is considered to be a stationary engine, is subject to the Stationary Engine ATCM, and may require an air district permit.
17. 13 Cal. Code Regs. § 2450, et seq.
18. 13 Cal. Code Regs. § 2453(m)(4)(E).
19. See 13 Cal. Code Regs. § 2452(dd).
20. See 13 Cal. Code Regs. § 2455(c) for the specific regulatory provisions.
21. 13 Cal. Code Regs. § 2452(j).
22. PERP registration and reporting forms, including the Form 40, are available online at: <https://ww2.arb.ca.gov/resources/documents/perp-application-record-keep...>
23. 13 Cal. Code Regs. § 2455(c).
24. Id.
25. 17 Cal. Code Regs. § 93116, et seq.
26. As with the PERP regulation, the Portable Diesel Engine ATCM excludes engines that are attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months from the definition of "Portable." See 17 Cal. Code Regs. § 93116.2(a)(29).



27. In air districts where no permitting requirement exists for a portable engine, such engine may be used without an air district permit to operate or PERP registration. In these areas, if the engine has a valid PERP registration, the owner or operator of such engine shall comply with the conditions established by the PERP registration.
28. See 17 Cal. Code Regs. § 93116.2(a)(15) for the complete definition of “Emergency-use Engines” established in the Portable Diesel Engine ATCM.
29. See 17 Cal. Code Regs. § 93116.2(a)(12) for the complete definition of “Emergency” established in the Portable Diesel Engine ATCM.
30. See 17 Cal. Code Regs. § 93116.2(a)(13) for the complete definition of “Emergency Event” established in the Portable Diesel Engine ATCM.
31. See 17 Cal. Code Regs. § 93116.1(b)(14).
32. See 17 Cal. Code Regs. § 93116.2(a)(23) for the complete definition of “Low-use Engine” in the Portable Diesel Engine ATCM.

DOCUMENTS

PSPS Back-Up Power Guidance
PDF · 282 KB

(800) 242-4450 | helpline@arb.ca.gov
1001 I Street, Sacramento, CA 95814
P.O. Box 2815, Sacramento, CA 95812



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Emission Impact: Additional Generator Usage Associated with Power Outage

January 30, 2020

This report has been reviewed by the staff of the California Air Resources Board. The contents do not necessarily reflect the views and policies of the California Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

Summary

For public safety, it may be necessary for utilities to turn off electricity when gusty winds and dry conditions, combined with a heightened fire risk, are forecasted. This is called a “Public Safety Power Shutoff” or “PSPS”. According to CPUC de-energization report¹, in October 2019, there have been almost 806 PSPS events that have impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. Data also indicates that on average each of these customers had about 43 hours of power outage in October 2019.

Following the PSPS events, many households and businesses in California started operating their back-up generators to provide power for their day-to-day operations. Generators used during power outage will increase emissions as compared to an average day. Staff assessment indicated that with 973,000 customers impacted by PSPS events in October 2019, approximately 125,000 back-up generators were used by customers to provide electricity during power outage. Assuming 50 hours of operation per generator during month of October 2019, staff estimated excess emissions from the use of generators which are summarized in Table 1.

Table 1: Population and excess emissions from the use of electricity power generators during October 2019 PSPS events.

Generator Type		NOx (tons)	PM (tons)	Diesel PM (tons)	Additional Generators Running in PSPS
Portable	Gasoline Less than 25 hp	24.3	10.6		122,000
	Diesel above 25 hp <i>Non-Rental Generator</i>	7.3	0.30	0.30	381
	Diesel above 25 hp <i>Rental Generator</i>	9.1	0.30	0.30	582
Permitted Stationary Back-Up Generators (Assuming 30% Load Factor)		125.7	8.3	8.3	1,810
Non-permitted generators ²		N/A	N/A	N/A	N/A
Total		166.4	19.4	8.9	124,774

¹ <https://www.cpuc.ca.gov/deenergization/>

² This analysis does not include emissions estimates from non-permitted generators such as the residential standby natural gas powered generators with power rating of less than 50 hp (e.g, a 22 kW Guardian Series home standby generator by Generac). At this point there is no information available on their population and sales. According to discussion with industry, it is assumed that most of these generator are powered by natural gas.

To put these numbers into context, 9 tons of diesel PM is equivalent to emissions from almost 29,000 heavy duty diesel trucks (above 14,000 lbs.) driving on California roadways for the period of one month (on average each truck drives around 3,000 miles per month).

The calculations described in the rest of the document outlines the assumptions used to estimate potential emissions impact from the use of gasoline and diesel generators during PSPS events.

Small Gasoline Powered Generators (less than 25 hp)

Population

Based on 2018 California State University Fullerton (CSUF) Survey³ for small off-road (SORE) equipment, about one out of 8 households own a generator in California. For a population of 973,000 households, about 122,000 generators will likely to be used to provide additional power during the power shut-off period.

Emission Factors

According to data provided by manufacturers as part of the SORE Evaporative Reporting Requirement⁴, generators have an average horsepower of 3.5 hp of which when combined with a load factor of 0.68, derived from OFFROAD2007⁵, results in an effective power of 2.4 hp. To determine emission factors, we used emissions data from SORE exhaust certification database. Table 2 shows the derived emission factors along with weighted average emission factors across all horsepower bins.

Table 2: Exhaust emission factors (g/bhp-hr) for gasoline powered generator less than 25 hp

Equipment	Tech Type	Horsepower	Percent Population	HC (g/bhp-hr)	NOX (g/bhp-hr)	PM (g/bhp-hr)
Generator Sets	G2-CARB	0 – 2	5%	27.860	0.900	0.600
	G4-CARB	2 – 5	82%	5.634	1.484	0.740
		5 – 15	9%	2.885	1.975	0.140
		15 – 25	3%	3.390	1.422	0.140
	G4-FI	15 – 25	1%	1.074	2.125	0.140
Population Weighted Average				6.296	1.505	0.655

Using the effective power and emission factors described earlier, staff estimated excess emissions as well emissions during 50 hours of generators operation (5 days with 10 hours a day operation). For example, with 122,000 generators operating for 50 hours during power shutoff, staff estimated excess emissions of 24.3 tons of NOx, 101.5 tons of THC, and 10.6 tons of PM. The calculation below outlines the assumptions used for this emissions impact assessment. Obviously, a more refined estimate can be made with additional information.

³ Survey of Small Off-Road Engines (SORE) Operating within California: Results from Surveys with Four Statewide Populations, Submitted May 15, 2019, Prepared by the Social Science Research Center (SSRC) at CSU, Fullerton.

⁴ https://ww3.arb.ca.gov/msprog/mailouts/ecars1805/ecars1805.pdf?_ga=2.15158582.1846785299.1570743950-1632999103.1458687259

⁵ <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-archives>

Portable Diesel Generators (above 25 hp)

Portable diesel generators are generally much larger and supply more power than gasoline generators, and could be used during PSPS events to supply power to larger facilities (such as schools, industrial facilities, or buildings). Table 3 provides CARB's latest population, activity, and emissions associated diesel portable generators registered under CARB's PERP program⁶.

Table 3: Emissions and Population of Diesel portable generators registered under CARB's PERP program

	Population (statewide)	Annual Activity (hours)	NOx (tons/yr)	PM (tons/yr)	PM25 (tons/yr)
Portable Equipment - Non-Rental Generator	5,081	1,299	2,537	99	91
Portable Equipment - Rental Generator	7,764	1,392	3,363	123	113

For assessing the emissions impact associated with this event, this analysis will assume that the percent of businesses that use generators and backup generators that are impacted by the PSPS is roughly proportional to the percent of households impacted (about 973,000 households out of 13,000,000 in California, or about 7.5 percent of the population of generators in the state). Table 4 shows the excess emissions from the use of portable diesel power generators during PSPS events assuming 50 hours of operations.

Table 4: Population and excess emissions from the use of portable diesel powered generators during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	PM2.5 (tons)
Portable Equipment - Non-Rental Generator	381	7.3	0.30	0.30
Portable Equipment - Rental Generator	582	9.1	0.30	0.30
Total	964	16.45	0.61	0.61

Permitted Stationary Back-Up Generators (BUG)

Population

Data on permitted stationary back-up generators were provided to CARB by several air districts. Staff used the facility ID from the districts permit data to find the address of the facility that the stationary BUGs are operating and determined whether those BUGs were impacted by the PSPS events or not. Using this process, staff determined that almost 1,810 stationary BUGs across California were impacted by the October 2019 PSPS events.

Emission Factors

Additionally, using actual emission factors for each diesel BUG engines provided in the districts' stationary BUGs database (i.e., stationary BUGs permit database), staff assumed a work based emission factors of 0.44 g/bhp-hr for PM and 6.7 g/bhp-hr for NOx, based on averaging of a

⁶ <https://ww2.arb.ca.gov/our-work/programs/portable-equipment-registration-program-perp>

sample of permitted diesel powered backup generators in the state. The analysis also indicated that an average permitted back-up generator has a power rating of ~ 627 hp and they can go up as high as 4,400 hp which when combined with a load factor assumption of 30% resulted in an effective power of 188 hp. Table 5 provides a summary of excess emissions associated with the stationary BUGs impacted by the PSPS events.

Table 5: Population and excess emissions from the use of diesel powered stationary back-up generators (BUG) during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	Diesel PM (tons)
Permitted Stationary Back-Up Generators	1,810	126	8.3	8.3

Greenhouse Gas CEQA
Significance Threshold
Stakeholder Working Group #14

November 19, 2009

SCAQMD

Diamond Bar, California

Agenda Item #2 - Proposed Residential/Commercial Thresholds – Screening Values (Tier III)

- Staff GHG ST recommendation – two options
- Lead agencies would select 1 of the 2 options:
 - ✓ GHG ST Option #1: By land use type
 - Residential: 3500 tpy CO₂e
 - Commercial: 1400 tpy CO₂e
 - Mixed use: 3000 tpy CO₂e
 - ✓ GHG ST Option #2: Combined approach (all 3 land use types)
 - 3000 tpy CO₂e for all land use projects

Agenda Item #2 – Proposed Residential/Commercial Thresholds – Screening Values (Tier III) *(Concluded)*

- OPR 2007-2008 database of 711 projects survey results:
 - ✓ GHG STs based on 90% emission capture rate
 - ✓ Project capture rate Option 1
 - Residential = 34 %
 - Commercial = 39%
 - Mixed use = 34%
 - ✓ Project capture rate Option 2 = 34%
- 17% (120 projects) more EIRs prepared (assumes no additional GHG mitigation measures)

Agenda Item #3 – Proposed Performance Standards (Tier IV)

- Tier IV Compliance Option #1: Reduction Target (%)
 - ✓ Max % reduction (land use sector reduction-23.9%, Scoping Plan overall reduction-28%)
 - ✓ Target updated as AB32 Scoping Plan revised
 - ✓ Residual emissions not to exceed 25,000 mty CO₂e
 - ✓ Base case scenario to be defined

BAAQMD Table 3 – 2020 Land Use Sector GHG Emission Reductions from State Regulations and AB 32 Measures

Affected Emissions Source	California Legislation	% Reduction from 2020 GHG inventory	End Use Sector (% of Bay Area LU Inventory)	Scaled % Emissions Reduction (credit)
Mobile	AB 1493 (Pavley)	19.7%	On road passenger/light truck transportation (45%)	8.9%
	LCFS	7.2%	On road passenger/light truck transportation (45%)	3.2%
	LCFS	7.2%	On road Heavy/Medium Duty Transportation (5%)	0.4%
	Heavy/Medium Duty Efficiency	2.9%	On road Heavy/Medium Duty Transportation (5%)	0.2%
	Passenger Vehicle Efficiency	2.8%	On road passenger/light truck transportation (45%)	1.3%
Area	Energy-Efficiency Measures	9.5%	Natural gas (Residential, 10%)	1.0%
	Energy-Efficiency Measures	9.5%	Natural gas (Residential, 10%)	1.0%
Indirect	Renewable Portfolio Standard	21.0%	Electricity (excluding cogen) (17%)	3.5%
	Energy-Efficiency Measures	15.7%	Electricity (26%)	4.0%
	Solar Roofs	1.5%	Electricity (excluding cogen) (17%)	0.2%
Total credits given to land use-driven emission inventory sectors from Scoping Plan measures				23.9%

Notes: AB = Assembly Bill; LCFS = Low Carbon Fuel Standard; SB = Senate Bill; RPS = Renewable Portfolio Standard

Agenda Item #3 – Proposed Performance Standards (Tier IV) *(Continued)*

- Tier IV Compliance Option #2: Efficiency Target
 - ✓ 4.6 mt CO₂e per SP* for project level threshold (land use emissions only) & total residual emissions not to exceed 25,000 mty CO₂e
 - ✓ 6.6 mt CO₂e per SP for plan level threshold (all sectors)
- Sample calculations

*sp (service population)= population+employment

BAAQMD Table 7 – California 2020 GHG Emissions, Population Projections and GHG Efficiency Thresholds - All Inventory Sectors

All Inventory Sectors Greenhouse Gas Emissions Target	426,500,000
Population	44,135,923
Employment	20,194,661
California Service Population (Population + Employment)	64,330,584
AB 32 Goal GHG emissions (metric tons CO ₂ e)/SP ¹	6.6
Notes: AB = Assembly Bill; CO ₂ e = carbon dioxide equivalent; GHG = greenhouse gas; SP = service population.	
¹ Greenhouse gas efficiency levels were calculated using only the “land use-related” sectors of ARB’s emissions inventory.	

Agenda Item #4 – Base Case Scenario

- Pre-defined to avoid gaming the system
 - ✓ Final project type
 - ✓ Final project location
 - ✓ Same projected future year inventory methodology and assumptions as the most recent AB32 Scoping Plan for estimating project emissions
 - ✓ Vehicle trips, trip lengths, and density
- Base case derived using land use emission calculation models with default emission rates (pre-AB32 Scoping Plan)

Comparison Between SCAQMD & BAAQMD Proposed GHG STs (MTCO₂e/yr)

Category	SCAQMD	BAAQMD
Construction	30-yr amortization applied to operational ST	None recommended at this time
Stationary Sources Operation	10,000	10,000
Land Use Projects		
Numerical (Tier 3)	R = 3,500; C = 1,400; M = 3,000	
	Or RCM = 3,000	RCM = 1,100
Performance Std (Tier 4)		
Compliance Option #1 - % Reduction	28%	None
Compliance Option #3 - GHGs/unit		
Project Level	4.6/SP/yr	4.6/SP/yr
General Plans, etc.	6.6/SP/yr	6.6/SP/yr
Maximum Emission Limit	25,000	None
R = Residential; C = Commercial; M = Mixed Use; SP = Service Population (jobs + residents)		

Agenda Items #5, #6, & #7

- Other topics?
- Closing remarks
- Other business
- Next working group meeting scheduled for 12/17/09, 10:00 a.m.



Working Group Meeting #1

Proposed Amended Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines

Proposed Amended Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

Proposed Amended Rule 1472 – Requirements For Facilities With Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines

December 10, 2020, 1:00 p.m.

Join Zoom Meeting

<https://scaqmd.zoom.us/j/92386239548>

Zoom Webinar ID: 923 8623 9548

Teleconference Dial-In: +1 (669) 900-6833

If the Zoom link does not work, please cut and paste it into your browser

Agenda

Background

Rule Development Process

Current Requirements Emergency
Standby Engines

Public Safety Power Shutoff (PSPS)

Rule Comparisons and State Airborne Toxic
Control Measure (ATCM) Requirements

Next Steps

Today's Working Group Meeting

- First Working Group Meeting in a series of future meetings
- Objective is to provide background information about the rulemaking process and regulatory requirements
- Staff is not providing any recommendations today
- Encourage stakeholder comments

Background

- During the 2020 legislative session SB 1099 – Emergency backup generators: critical facilities: exemptions was introduced but was not passed
- Through the legislative process, staff worked with supporters to develop a possible regulatory pathway to address their concerns
- Concerns generally focused on the need for increased use of emergency standby engines at critical facilities due to wildfires and other natural disasters

Key Comments from Supporters of SB1099

- Comments were primarily from water districts and hospitals
- Two general comments:
 - Need for regulatory certainty and relief if an emergency standby engine exceeded allowable usage hours under certain circumstances
 - Need for additional testing and maintenance hours for older higher emitting emergency standby engines

Proposed Rulemaking

- The purpose of this rulemaking process is to work with stakeholders to identify regulatory pathways to address stakeholder comments identified through SB 1099
- Initial thoughts are that proposed rulemaking will focus on:
 - Use of emergency standby engines at essential public services and health facilities during certain events
 - Health facility as defined in Section 1250 of the California Health and Safety Code
- Through the rulemaking staff will discuss types of certain events, initial thoughts are Public Safety Power Shutoffs (PSPS) and possibly wildfires

Rule 1302 Essential Public Services Include:

- Sewage treatment facilities
- Prisons
- Police facilities
- Fire fighting facilities
- Schools
- Hospitals
- Construction and operation of landfill gas control or processing facility
- Water delivery operations
- Public transit

Rule Development Process



South Coast AQMD's rulemaking process is designed to be collaborative



Objective is to build consensus and to work through key issues



All stakeholders are encouraged to participate in the rulemaking process



Working Groups generally meet monthly

Overview of Rule Development Process



Key Milestone Dates in Rulemaking Process



- Preliminary schedule, subject to change
- California Environmental Quality Act (CEQA) compliance required
 - Significant environmental impacts require additional CEQA analysis which may extend rulemaking process
- Draft Rule and Draft Staff Report released 30 days before Public Hearing
 - Socioeconomic impact analysis
 - Substantial rule changes which impact emissions will require re-noticing of Public Hearing

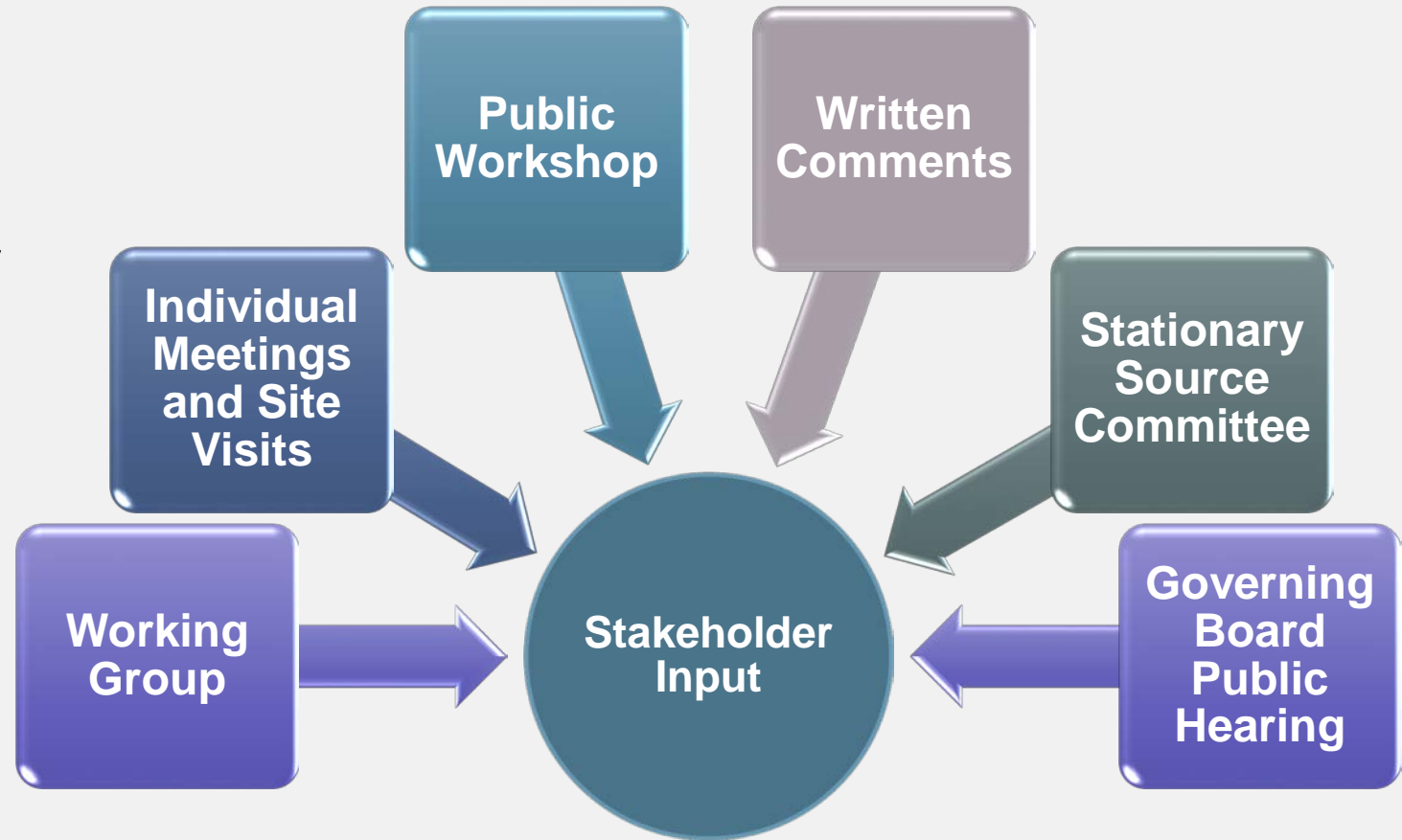
* Generally two months prior to the Public Hearing, staff will brief the Stationary Source Committee. Anticipated briefing

Working Group Meetings

- Working Group Meetings are a key component of the rule development process
- Comprised of representatives from industry, equipment suppliers, community and environmental groups, other agencies, and other interested parties
- Working Group Meetings are generally held monthly and throughout the rule development process
- Objectives of Working Group Meetings:
 - Build consensus and work through issues
 - Exchange information and understanding of key issues
 - Collaboration and create a dialogue with stakeholders

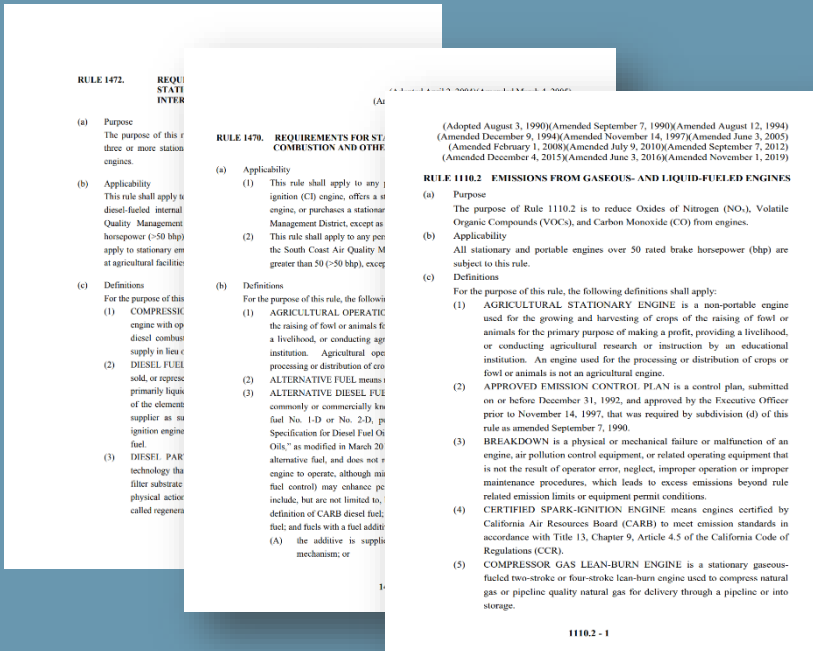
Stakeholder Input

- Stakeholders can provide input throughout the rulemaking process
- Early input is strongly encouraged
 - Provides staff the opportunity to try to resolve issues
- Variety of ways for stakeholders to provide input



Current Requirements for Emergency Standby Engines

- Three main rules that establish existing requirements for emergency standby engines:
 - Rule 1110.2 - Emissions from Gaseous- and Liquid-Fueled Engines
 - Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
 - Rule 1472 - Requirements For Facilities With Multiple Stationary Emergency Standby Diesel-fueled Internal Combustion Engines



Rule 1110.2 Requirements

(Adopted August 3, 1990)(Amended September 7, 1990)(Amended August 12, 1994)
(Amended December 9, 1994)(Amended November 14, 1997)(Amended June 3, 2005)
(Amended February 1, 2008)(Amended July 9, 2010)(Amended September 7, 2012)
(Amended December 4, 2015)(Amended June 3, 2016)(Amended November 1, 2019)

RULE 1110.2 EMISSIONS FROM GASEOUS- AND LIQUID-FUELED ENGINES

(a) Purpose

The purpose of Rule 1110.2 is to reduce Oxides of Nitrogen (NO_x), Volatile Organic Compounds (VOCs), and Carbon Monoxide (CO) from engines.

(b) Applicability

All stationary and portable engines over 50 rated brake horsepower (bhp) are subject to this rule.

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) **AGRICULTURAL STATIONARY ENGINE** is a non-portable engine used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. An engine used for the processing or distribution of crops or fowl or animals is not an agricultural engine.
- (2) **APPROVED EMISSION CONTROL PLAN** is a control plan, submitted on or before December 31, 1992, and approved by the Executive Officer prior to November 14, 1997, that was required by subdivision (d) of this rule as amended September 7, 1990.
- (3) **BREAKDOWN** is a physical or mechanical failure or malfunction of an engine, air pollution control equipment, or related operating equipment that is not the result of operator error, neglect, improper operation or improper maintenance procedures, which leads to excess emissions beyond rule related emission limits or equipment permit conditions.
- (4) **CERTIFIED SPARK-IGNITION ENGINE** means engines certified by California Air Resources Board (CARB) to meet emission standards in accordance with Title 13, Chapter 9, Article 4.5 of the California Code of Regulations (CCR).
- (5) **COMPRESSOR GAS LEAN-BURN ENGINE** is a stationary gaseous-fueled two-stroke or four-stroke lean-burn engine used to compress natural gas or pipeline quality natural gas for delivery through a pipeline or into storage.

1110.2 - 1

- Establishes NO_x, VOC, and CO emission limits for stationary and portable engines > 50 bhp
- Requires emissions testing, monitoring, reporting, and recordkeeping
- Includes specific exemptions for emergency standby engines

NO_x

11 ppmv*

VOC

30 ppmv*

CO

250 ppmv*

* Parts per million by volume, corrected to 15% oxygen

➤ Rule 1110.2 Requirements for Emergency Standby Engines

- Includes specific exemptions for emergency standby engines
- Defines emergency standby engine as an engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair

Exemption for Emergency Standby Engines

- Currently exempts emergency standby engines, engines used for fire-fighting and flood control, and any other emergency engine approved by the Executive Officer from meeting NO_x, VOC, and CO emission limits provided:
 - Engine has a permit condition that limits the operation to 200 hours or less per year as determined by an elapsed time meter
- Exempted emergency standby engines also exempted from monitoring, testing, recordkeeping, and reporting requirements
- Operating hours includes all operations:
 - Emergency use
 - Maintenance
 - Testing



Stakeholder Comments Related to Rule 1110.2

- Need for regulatory certainty and relief if an emergency standby engine exceeds 200 hours under certain circumstances
- Some stakeholders are concerned about increased usage of emergency standby engines due to PSPS events
- Under the current regulatory structure, if an operator exceeds the 200 hours they can petition the Hearing Board

Public Safety Power Shutoff

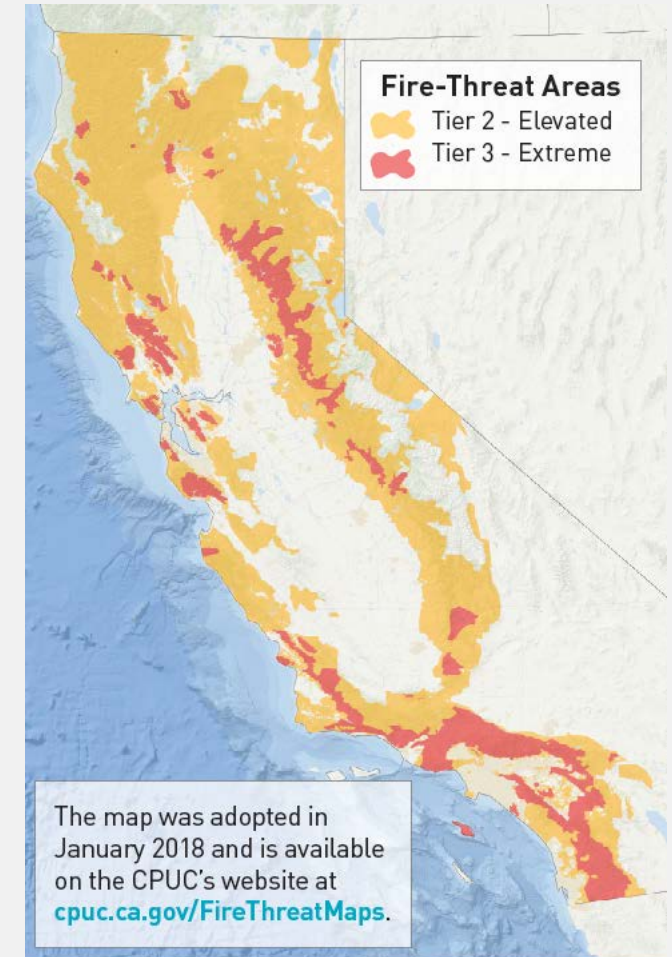
A PSPS occurs in response to severe weather where power is turned off to help prevent a wildfire and keep communities safe

- Over the past decade, California has experienced increased wildfires
 - Roughly half of the most destructive fires in California history are attributed to power lines
- In 2012, California Public Utilities Code Sections 451 and 399.2(a) provides electric utilities the authority to shut off electric power in order to protect public safety



Public Safety Power Shutoff Program

- Electricity providers continually monitor for extreme weather threats and high fire danger
- PSPS events are considered after taking a combination of criteria into account including:
 - “Extreme” fire danger threat level
 - Red flag warning
 - Sustained winds
 - Low humidity levels
 - Site-specific conditions
 - Critically dry vegetation
 - Real-time observations



General Process for PSPS Event

Planning and Monitoring	4-7 Days Ahead	When extreme weather is forecasted, begin planning for potential PSPS
	3 Days Ahead	Send initial notifications about possible PSPS event to local governments, first responders, hospitals, and other critical infrastructure and service providers
	2 Days Ahead	Send initial notifications to customers and update notifications to local government and agencies
	1 Day Ahead	Send update notifications
Outage	Day of Power Shutoff	When extreme fire weather is present and dangerous conditions validated by field resources; notify local government, agencies, and customers of power shutoff
	Power Restoration	Inspections begin when extreme weather subsides to safe levels and conditions validated by field resource. When power is restored, agencies and customers notified of power restoration

Duration of PSPS Events

- From January 2019 to December 2019, Southern California Edison reported 158 of their circuits underwent a PSPS event
 - Sum of PSPS durations per circuit ranging from less than hour to 154 hours
- Table below depicts circuits with PSPS durations totaling over 120 hours
- PSPS hours vary for specific locations within the circuit

Circuit Name	Location	Number of PSPS Events	Average Duration (Hours)	Total Duration (Hours)
Acosta	San Bernardino County	3	45	135
Calstate	San Bernardino County	4	30	120
Club Oaks	San Bernardino County	3	45	136
Energy	Los Angeles County	4	35	141
Shovel	Los Angeles County	4	38	154

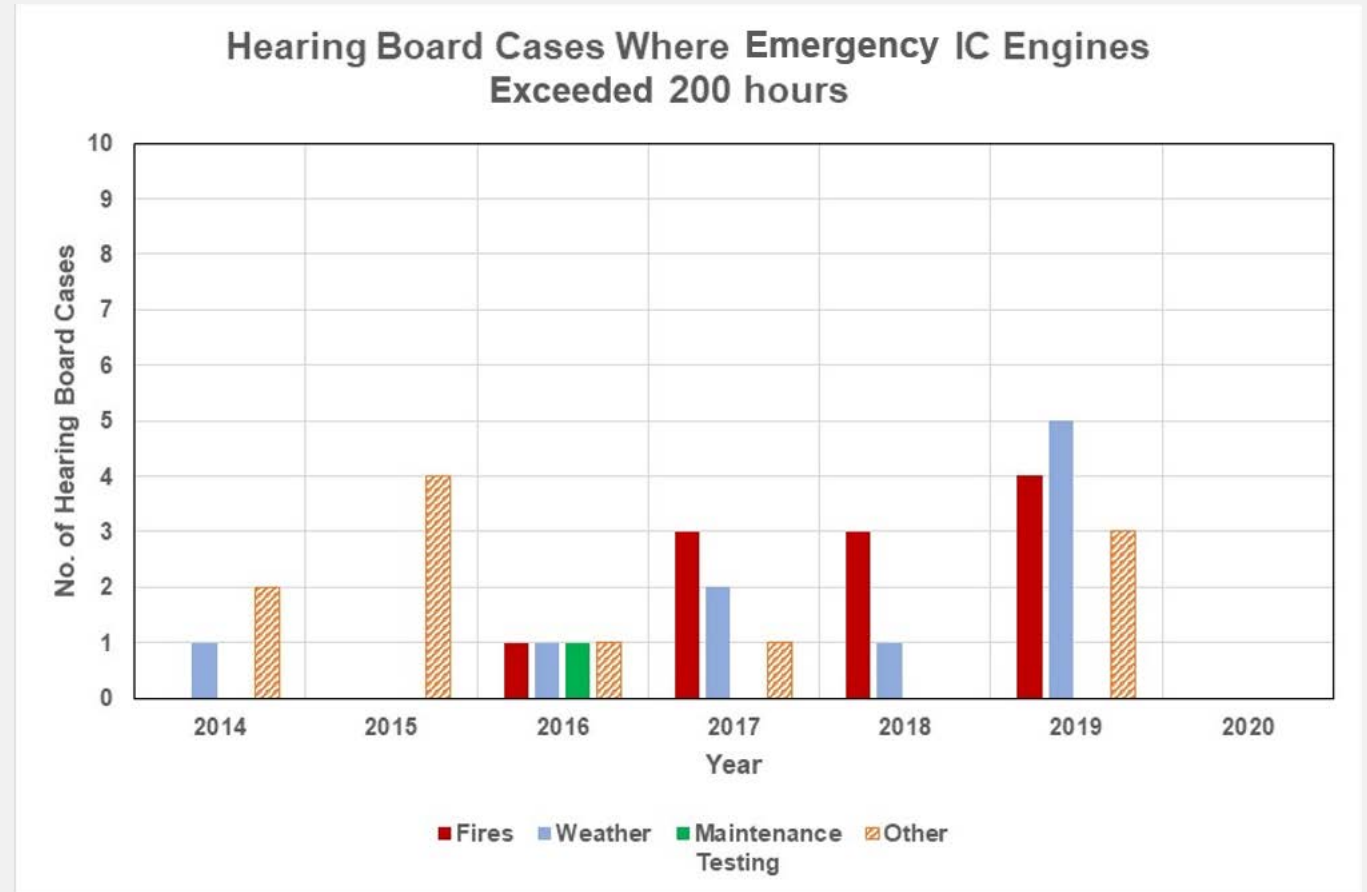
South Coast AQMD's Hearing Board

*Quasi-judicial board
authorized to provide
relief from South Coast
AQMD regulations under
certain circumstances*

- Authorized to hear:
 - Petitions for variances and Orders for Abatement
 - Appeals from granting of permits, permit conditions, permit denials and suspensions, denials of emission reduction credits and pollution control plans
 - Appeals by third parties
- Not authorized to:
 - Modify rules
 - Exempt businesses from compliance with a rule
 - Grant variances from violation of the public nuisance law
 - Review violation notices
- Listens to all sides of a case before weighing evidence to reach a decision

Hearing Board Activity

- Since January 2014, 33 cases for emergency standby engines were filed with the Hearing Board for exceeding 200 hours limit
 - 11 – fire related
 - 10 – weather related
 - 1 – maintenance/testing
 - 11 – other reasons
- Total emergency engine universe at ~13,700 permitted units



Rule 303 - Hearing Board Fees

- All applicants must pay a filing fee for each petition of \$1,300 to \$2,000, depending on type of variance
- When variance is granted, there is a minimum fee of \$204.66 after excess fee is remitted
- Establishes method to calculate excess emission fees
- Table I - Schedule of Excess Emission Fees
 - \$3,771.10 per ton oxides of nitrogen
 - \$4,397.67 per ton of particulate matter

Background for Rule 1470 and 1472

- Diesel particulate matter (PM) from internal combustion engines was designated as a carcinogen by CARB in 1998
- Rules 1470 and 1472 are designed to reduce diesel particulate from engines
 - Both rules are designed to implement and supplement the State ATCM for diesel engines
 - Both rules have specific requirements for emergency standby engines
- Emergency standby engines are currently exempt from health risk requirements under Rule 1401 – Toxics New Source Review

Rule 1470 Requirements

(Adopted April 2, 2004)(Amended March 4, 2005)
(Amended November 3, 2006)(Amended June 1, 2007)
(Amended May 4, 2012)

RULE 1470. REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION AND OTHER COMPRESSION IGNITION ENGINES

(a) Applicability

- (1) This rule shall apply to any person who either sells a stationary compression ignition (CI) engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in the South Coast Air Quality Management District, except as provided in subdivision (h).
- (2) This rule shall apply to any person who owns or operates a stationary CI engine in the South Coast Air Quality Management District with a rated brake horsepower greater than 50 (>50 bhp), except as provided in subdivision (h).

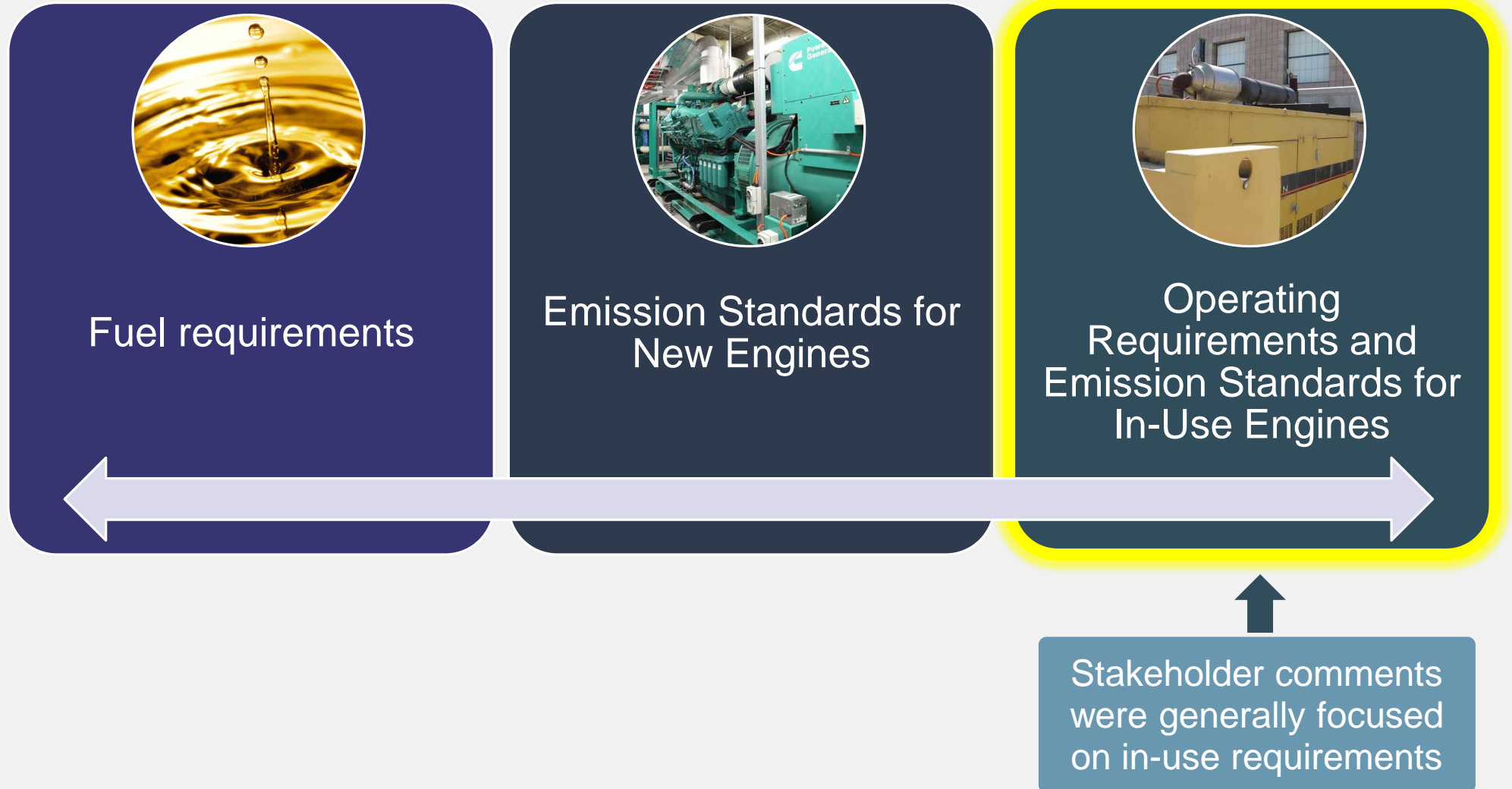
(b) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) **AGRICULTURAL OPERATIONS** means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.
- (2) **ALTERNATIVE FUEL** means natural gas, propane, ethanol, or methanol.
- (3) **ALTERNATIVE DIESEL FUEL** means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM Standard Specification for Diesel Fuel Oils D975-11, "Standard Specification for Diesel Fuel Oils," as modified in March 2011, which is incorporated herein by reference, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends that do not meet the definition of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:
 - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism; or

- Purpose of Rule 1470 is to reduce diesel PM emissions from new and in-use engines \geq 50 brake horsepower (bhp)
- Rule 1470 establishes requirements for prime and emergency standby engines

Requirements for Emergency Standby Engines



➤ Rule 1470 Operating Requirements and Emission Standards for In-Use Engines

- Established limits for non-emergency operating requirements for in-use engines within 500 feet of a school including maintenance and testing
- Engines located at an essential public service or health facility may install an engine exhaust back pressure relief device under certain conditions
- Establishes limits on maintenance and testing hours which vary based on the PM emission rate of the engine

Rule 1470 Maintenance and Testing Hours

- Annual maintenance and testing of engines cannot exceed:

Engines	Hours	PM Emission Rate (g/bhp-hr)
In-use	20*	> 0.4 g
	30	>0.15 and \leq 0.4
	50	>0.01 and \leq 0.15
	100	\leq 0.01
New	50	\leq 0.15

*10 additional hours of operation allowed at health facilities (defined by CHSC, Section 1250)

Rule 1472 Requirements

(Adopted March 7, 2008)

RULE 1472. REQUIREMENTS FOR FACILITIES WITH MULTIPLE STATIONARY EMERGENCY STANDBY DIESEL-FUELED INTERNAL COMBUSTION ENGINES

- (a) Purpose
The purpose of this rule is to reduce diesel PM emissions from facilities with three or more stationary emergency standby diesel-fueled internal combustion engines.
- (b) Applicability
This rule shall apply to facilities with three or more stationary emergency standby diesel-fueled internal combustion engines operating in the South Coast Air Quality Management District and each is rated at greater than 50 brake horsepower (>50 bhp), except as provided in subdivision (j). This rule shall not apply to stationary emergency standby diesel-fueled internal combustion engines at agricultural facilities.
- (c) Definitions
For the purpose of this rule, the following definitions shall apply:
- (1) COMPRESSION IGNITION (CI) ENGINE means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.
 - (2) DIESEL FUEL means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons – organic compounds consisting exclusively of the elements carbon and hydrogen – that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine. For the purposes of this rule, diesel fuel shall include jet fuel.
 - (3) DIESEL PARTICULATE FILTER (DPF) means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removing the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

1472 - 1

- Reduce diesel PM emissions from facilities with three or more stationary emergency standby engines
- Supplements Rule 1470 by requiring facilities with three or more engines to meet a specific risk level (referenced as an “Engine Group Index”)
 - Facilities exceeding Engine Group Index required to reduce diesel PM emissions
- References the testing hours in Rule 1470

Stakeholder Comments Related to Rule 1470

- A water district has commented that up to 10 additional testing hours are needed for the most restrictive engine category (engines with a PM emission rate > 0.4 g/bhp-hour)
- Staff may have limitations on allowing additional testing hours

Implementation of the State ATCM

- Rule 1470 implements State Airborne Toxic Control Measure (ATCM) requirements for Stationary Compression Ignition Engines such as
 - Emission standards and operating requirements for In-Use Stationary Emergency Stand-By Engines
 - Limits on maintenance and testing hours [definition (b)(43)] of engines
- California Health and Safety Code Section 39666 requires local air districts to implement and enforce the ATCMs or adopt and enforce equally effective or more stringent ATCMs requirements than those adopted by the state board

▸ Areas Where Rule 1470 and 1472 are More Stringent than the State ATCM

- Two general areas where Rule 1470 is more stringent than the State ATCM
 - Annual limits for maintenance and testing hours for health facilities
 - New engines less than 50 meters from a sensitive receptor*
- Rule 1472 goes beyond the State ATCM by establishing additional requirements for facilities with three or more engines

*Sensitive receptor means any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Comparison Between Rule 1470 and the ATCM for Testing Hours at Health Facilities

- Rule 1470 allows fewer testing hours for engines with a PM emission rate > 0.15 g/bhp-hour at health facilities than the ATCM

Engine	Diesel PM Emission Rate (g/bhp-hr)	Rule 1470	State ATCM
In-use	> 0.4 g	30 hours	Up to 40 hours
In-use	>0.15 and ≤ 0.4 g	30 hours	Up to 40 hours for health facilities
In-use	>0.01 and ≤ 0.15	50 hours	50 hours
In-use	≤ 0.01	100 hours	100 hours
New	≤ 0.15	50 hours	50 hours
New	≤ 0.01	50 hours	Up to 100 hours

Comparison Between Rule 1470 and the ATCM for PM Emission Limits for New Engines

- Rule 1470 establishes lower PM limits for new engines less than 50 meters from a sensitive receptor than the ATCM

Engine Size	Rule 1470	State ATCM
$50 < \text{HP} < 175$	0.15 g/bhp-hr	0.15 g/bhp-hr
$175 \leq \text{HP} \leq 750$	0.01 g/bhp-hr	0.15 g/bhp-hr
$> 750 \text{ HP}$	0.075 g/bhp-hr 0.02 g/bhp-hr	0.15 g/bhp-hr

Comparison Between Rule 1472 and the ATCM for In-Use Requirements for Multiple Engines at a Facility

- State ATCM does not establish in-use PM or health risk requirements for facilities with multiple engines
- Rule 1472 goes beyond the State ATCM by requiring facilities to meet an Engine Group Index, which is based on health risk
- Rule 1472 allows three compliance options:
 - Reduce Engine Group Index to less than or equal to 1.0
 - All engines meet a diesel PM emission rate less than or equal to 0.15 g/bhp-hr
 - Emit diesel PM at weighted average rate of less than or equal to 0.15 g/bhp-hr for all engines within engine group

Comparison of Rule 1110.2, Rule 1470, and Rule 1472

	Rule 1110.2	Rule 1470	Rule 1472
Applicability	All stationary and portable engines > 50 bhp	Stationary compression ignition engines > 50 bhp	Facilities with three or more stationary compression ignition engines > 50 bhp
Fuel Types	All fuel types	Diesel-fueled only	Diesel-fueled only
Pollutants Regulated	NOx, CO, and VOC	Diesel PM (toxic air contaminant)	Diesel PM (toxic air contaminant)
Emergency Engines	Exempt if operating < 200 hours/year	Establishes testing hours depending on how diesel PM emissions	Establishes compliance plan requirements and Engine Group Index calculations

Next Steps

- Staff will discuss possible rule concepts at next Working Group Meeting
- Next Working Group Meeting in early February

Rule Contacts

Proposed Amended Rules 1110.2, 1470, and 1472

Tiffani To
Assistant Air Quality Specialist
909-396-2738
tto@aqmd.gov

Michael Laybourn
Program Supervisor
(909) 396-3066
mlaybourn@aqmd.gov

Jillian Wong
Planning and Rules Manager
(909) 396-3176
jwong1@aqmd.gov

Susan Nakamura
Assistant DEO
(909) 396-3105
snakamura@aqmd.gov