



**6831 HAWTHORN AVENUE PROJECT
LOS ANGELES, CA 90028**

UTILITY INFRASTRUCTURE TECHNICAL REPORT: WATER, WASTEWATER, AND ENERGY

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1. INTRODUCTION

1.1. PROJECT DESCRIPTION

The applicant proposes the demolition of an existing surface parking lot and construction of a new eight-story, 86-ft. mixed-use building, with 137 dwelling units; 1,207 sf. of restaurant space; automobile parking spaces located at grade and in two subterranean levels; and bicycle parking spaces.

1.2. SCOPE OF WORK

As a part of the environmental clearance pursuant to the California Environmental Quality Act (CEQA) for the Project, the purpose of this report is to analyze the potential impact of the Project to the existing water, wastewater, and energy infrastructure systems.

2. REGULATORY FRAMEWORK

2.1. WATER

The City of Los Angeles Department of Water and Power (LADWP) is responsible for providing water supply to the City while complying with Local, State, and Federal regulations.

Below are the State and Regional water supply regulations:

- California Code of Regulations (CCR), Title 20, Chapter 4, Article 4, Section 1605 establishes water efficiency standards for all new plumbing fixtures and Section 1608 prohibits the sale of fixtures that do not comply with the regulations.
- 2013 California Green Building Standards Code, CCR, Title 24, Part 11, adopted on January 1, 2014 (CALGreen), requires a water use reduction of 20% above the baseline cited in the CALGreen code book. The code applies to family homes, state buildings, health facilities, and commercial buildings.
- California Urban Water Management Planning Act of 1984 requires water suppliers to adopt an Urban Water Management Plan (UWMP).
- Metropolitan Water District (MWD) official reports and policies as outlined in its Regional UWMP, Water Surplus and Drought Management Plan, Water Supply Allocation Plan, and Integrated Resources Plan.
- LADWP's 2015 UWMP outlines the City's long-term water resources management strategy. The 2015 UWMP was approved by the LADWP Board of Water and Power Commissioners on June 7, 2016.
- Senate Bill 610 and Senate Bill 221, approved on October 9, 2001, require land use agencies to perform a detailed analysis of available water supply when approving

large developments. Historically, public water suppliers (PWS) simply provided a “will serve” letter to developers. SB 610, Public Resources Code (PRC) and Section 10910-10915 of the State Water Code requires lead agencies to request a Water Supply Assessment (WSA) from the local water purveyor prior to project approval. If the projected water demand associated with a proposed development is included in the most recent UWMP, the development is considered to have sufficient water supply per California Water Code Section 10910, and a WSA is not required. All projects that meet any of the following criteria require a WSA:

- 1) A proposed residential development of more than 500 dwelling units;
- 2) A proposed shopping center or business establishment of more than 500,000 square feet of floor space or employing more than 1,000 persons;
- 3) A proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons;
- 4) A proposed hotel or motel of more than 500 rooms;
- 5) A proposed industrial, manufacturing, or processing plant or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons;
- 6) A mixed-use project that falls in one or more of the above-identified categories; or
- 7) A project not falling in one of the above-identified categories but that would demand water equal or greater than the amount required by a 500-dwelling unit project.

As this project does not meet any of the above criteria, a WSA is not anticipated for this project.

2.2. WASTEWATER

The City of Los Angeles has one of the largest sewer systems in the world including more than 6,700 miles of sewers serving a population of more than four million. The Los Angeles sewer system is comprised of three systems: Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and Los Angeles Regional Sanitary Sewer System. To comply with Waste Discharge Requirements (WDRs), a Sewer System Management Plan (SSMP) was prepared for each of these systems.

The Project Site lies within the Hyperion Service Area served by the Hyperion Sanitary Sewer System. In January 2019, a Sewer System Management Plan (SSMP) was prepared for the Hyperion Sanitary Sewer System pursuant to the State Water Resources Control

Board's (SWRCB) May 2, 2006 Statewide General Waste Discharge Requirements (WDRs)¹.

Sewer permit allocation for projects that discharge into the Hyperion Treatment Plant is regulated by Ordinance No. 166,060 adopted by the City in 1990. The Ordinance established an additional annual allotment of 5.0 million gallons per day, of which 34.5 percent (1.725 million gallons per day) is allocated for priority projects, 8 percent (0.4 million gallons per day) for public benefit projects, and 57.5 percent (2.875 million gallons per day) for non-priority projects (of which 65 percent is for residential project and 35 percent for non-residential projects).

The City of Los Angeles Municipal Code (LAMC) includes regulations that allow the City to assure available sewer capacity for new projects and fees for improvements to the infrastructure system. LAMC Section 64.15 requires that the City perform a Sewer Capacity Availability Request (SCAR) when any person seeks a sewer permit to connect a property to the City's sewer collection system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR is an analysis of the existing sewer collection system to determine if there is adequate capacity existing in the sewer collection system to safely convey the newly generated sewage to the appropriate sewage treatment plant.

LAMC Section 64.11.2 requires the payment of fees for new connections to the sewer system to assure the sufficiency of sewer infrastructure. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage Facilities Charge is based upon wastewater flow strength, as well as volume. The determination of wastewater strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters (biological oxygen demand and suspended solids) for each type of land use. Fees paid to the Sewerage Facilities Charge fees are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes, including but not limited to industrial waste control and water reclamation purposes.

In addition, the City establishes design criteria for sewer systems to assure that new infrastructure provides sewer capacity and operating characteristics to meet City Standards (Bureau of Engineering Special Order No. SO06-0691). Per the Special Order, laterals sewers, which are sewers 18 inches or less in diameter, must be designated for a planning period of 100 years. The Special Order also requires that sewers be designated so that the

¹ City of Los Angeles Department of Public Works, LA Sanitation, Sewer System Management Plan, Hyperion Sanitary Sewer System, January 2019.

peak dry weather flow depth during their planning period shall not exceed one-half the pipe diameter.²

In 2006 the City approved the Integrated Resources Plan (IRP), which incorporates a Wastewater Facilities Plan.³ The Integrated Resources Program was developed to meet future wastewater needs of more than 4.3 million residents expected to live within the City by 2020. In order to meet future demands posed by increased wastewater generation, the City has chosen to expand its current overall treatment capacity, while maximizing the potential to reuse recycled water through irrigation and other approved uses.

In addition, the Bureau of Sanitation and LADWP have collaborated to develop The *One Water LA 2040 Plan* (Plan). The Plan takes a holistic and collaborative approach to consider all of the City's water resources from surface water, groundwater, potable water, wastewater, recycled water, dry-weather runoff, and stormwater as "One Water." Also, the Plan identifies multi-departmental and multi-agency integration opportunities to manage water in a more efficient, cost effective, and sustainable manner. The Plan represents the City's continued and improved commitment to proactively manage all its water resources and implement innovative solutions, driven by the Sustainable City pLAN. The Plan will help guide strategic decisions for integrated water projects, programs, and policies within the City.⁴

As part of the Plan, an updated Wastewater Facilities Plan (WWFP)The purpose of the WWFP is to guide LASAN with its decision making related to the implementation of system improvements to its wastewater collection and treatment facilities. The WWFP provides the underlying documentation to make informed decisions when considering investments to repair, replace, or enhance existing facilities and construct new water conveyance or treatment facilities through year 2040. This WWFP is an update of the Wastewater Facilities Plan that was included in the 2006 Water Integrated Resources Plan (Water IRP) This WWFP incorporates expansions, upgrades, and enhancements made since 2006 and builds upon Los Angeles Department of Water and Power's (LADWP) 2015 Urban Water Management Plan (UWMP). It is anticipated that the WWFP will be updated in approximately ten years to incorporate system modifications as well as changes in flow conditions, regulatory framework, and overall vision for wastewater system operations and water reuse.

The WWFP provides recommendations for each plant on how to best utilize the water reuse opportunities and provide environmental stewardship. Among the water reuse opportunities explored are non-potable reuse (NPR) and potable reuse, groundwater augmentation, raw water augmentation, and treated water augmentation. The WWFP used

² City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Planning CEQA Analysis in Los Angeles, M-Public Utilities, 2006. <http://www.environmentla.org/programs/thresholds/M-Public%20Utilities.pdf>

³ City of Los Angeles, Department of Public Works, LA Sewers Website, Integrated Resources Plan Facilities Plan, Summary Report, December 2006. <https://www.lacitysan.org/san/sandocview?docname=CNT025148>

⁴ One Water LA 2040 Executive Summary, <http://www.onewaterla.org>

a trigger-based CIP process for the future integration opportunities, which is similar to the approach that was used for the IRP.⁵

2.3. ENERGY

2.3.1. ELECTRICITY

The *2017 Power Strategic Long-Term Resource Plan (SLTRP)*⁶ document serves as a comprehensive 20 year roadmap that guides the Los Angeles Department of Water and Power's (LADWP) Power System in its efforts to supply reliable electricity in an environmentally responsible and cost effective manner. The 2017 SLTRP re-examines and expands its analysis on the 2016 Power Integrated Resource Plan (PIRP) recommended case with updates in line with latest regulatory framework, and updates to case scenario assumptions that include a 65 percent renewable portfolio standard by 2050.

The 2017 SLTRP provides detailed analysis and results of several new PIRP resource cases which investigated the economic and environmental impact of increased local solar and various levels of transportation electrification. In analyzing the PIRP cases and recommending a strategy to best meet the future electric needs of Los Angeles, the SLTRP uses system modeling tools to analyze and determine the long-term economic, environmental, and operational impact of alternative resource portfolios by simulating the integration of new resource alternatives within LADWP's existing mix of assets and providing the analytic results to inform the selection of a recommended case.

As a long-term planning process, the SLTRP examines a 20-year horizon in order to secure adequate supplies of electricity. The SLTRP also includes a general assessment of the revenue requirements and rate impacts that support the recommended resource plan through 2037.

Regulatory interpretations of primary regulations and state laws affecting the Power System, including AB 32, SB 1368, SB 1, SB 2 (1X), SB 350, SB 32, US EPA Rule 316(b), and US Clean Power Plan continue to evolve particularly with certification requirements of existing renewable projects and their applicability towards meeting in-state or out-of-state qualifications. 2017's SLTRP attempts to incorporate the latest interpretation of these major regulations and state laws.

2.3.2. NATURAL GAS

The *2018 California Gas Report*⁷ presents a comprehensive outlook for natural gas requirements and supplies for California through the year 2035. This report is prepared in even-numbered years, followed by a supplemental report in odd-numbered years, in compliance with California Public Utilities Commission Decision D.95-01-039. The

⁵ One Water LA 2040, Volume 2;

https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026205.pdf

⁶ LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017.

⁷ California Gas and Electric Utilities, 2018 California Gas Report, 2018.

projections in the California Gas Report are for long-term planning and do not necessarily reflect the day-to-day operational plans of the utilities.

California natural gas demand, including volumes not served by utility systems, is expected to decrease at a rate of 0.5 percent per year from 2018 to 2035. The forecast decline is a combination of moderate growth in the Natural Gas Vehicle (NGV) market and across-the-board declines in all other market segments: residential, commercial, electric generation, and industrial markets.

Residential gas demand is expected to decrease at an annual average rate of 1.4 percent. Demand in the commercial and industrial markets are expected to decline at an annual rate of 0.2 percent. Aggressive energy efficiency programs make a significant impact in managing growth in the residential, commercial, and industrial markets. For the purpose of load-following as well as backstopping intermittent renewable resource generation, gas-fired generation will continue to be the primary technology to meet the ever-growing demand for electric power.

In 2015, the state enacted legislation intended to improve air quality, provide aggressive reductions in energy dependency and boost the employment of renewable power. The first legislation, the 2015 Clean Energy and Pollution Reduction Act, also known as Senate Bill (SB) 350, requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030. SB 350 establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses by January 1, 2030. Second, the Energy Efficiency Act (AB 802) provides aggressive state directives to increase the energy efficiency of existing buildings, requires that access to building performance data for nonresidential buildings be provided by energy utilities and encourages pay-for-performance incentive-based programs. This paradigm shift will allow California building owners a better and more effective way to access whole-building information and at the same time will help to address climate change and deliver cost-effective savings for ratepayers. Last, the Energy Efficiency Act (AB 793) is intended to promote and provide incentives to residential or small and medium-sized business utility customers that acquire energy management technology for use in their home or place of business. AB 793 requires energy utilities to develop a plan to educate residential customers and small and medium business customers about the incentive program.⁸

Last, California Global Warming Solutions Act of 2006 (AB 32, as amended by SB 32) requires the state board to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030.⁹

⁸ C.A. Legislative Assembly, SB 32, 2015-2016.

⁹ C.A. Legislative Assembly, SB 32, 2015-2016.

3. ENVIRONMENTAL SETTING

The 6831 Hawthorn Avenue Project consists of two parcels on the north side of Hawthorn Avenue, and measures approximately 24,798 square feet. The existing site consists of a surface parking lot and is bound by Hawthorn Avenue to the south, an alley to the north, and adjacent surface parking lots to the east and west.

3.1. WATER

LADWP is responsible for providing water supply to the City while complying with County, State, and Federal regulations.

3.1.1. REGIONAL

Primary sources of water for the LADWP service area are the Los Angeles Aqueducts (LAA), State Water Project (supplied by MWD) and local groundwater. The Los Angeles Aqueduct has been the primary source of the City's water supply. In recent years, however, the amount of water supplies from the Los Angeles Aqueduct has been limited due to environmental concerns, and the City's water supply relied heavily (average of 57% in recent years) on the purchased water from MWD delivered from the Colorado River or from the Sacramento-San Joaquin Delta. Local ground water has been a reliable water source, providing an average of 12% of the total water supply, but there have been concerns in recent years due to declining groundwater level and contamination issues. Lastly, the City's recycled water supply is limited to specific projects within the City at this time.¹⁰

3.1.2. LOCAL

LADWP maintains water infrastructure to the Project Site. Based on available record data in Navigate LA, there appears to be a 6" water main in Hawthorn Avenue. The Project is anticipated to consist of connections in Hawthorn Avenue to serve the proposed building.

The existing condition does not appear to have any current connections to the public water main. It is expected that new connections will be installed to meet all Fire Department and Department of Building and Safety regulations to serve the proposed building. Multiple public fire hydrants exist in the vicinity of the Project Site. As the site is currently a surface parking lot with no structures, it is assumed no significant water demand exists on the Site.

3.2. WASTEWATER

3.2.1. REGIONAL

The Bureau of Sanitation (BOS) operates and maintains the wastewater treatment, reclamation and collection facilities serving most of the City of Los Angeles incorporated areas as well as several other cities and unincorporated areas in the Los Angeles basin and San Fernando Valley. The collection infrastructure consists of over 6,700 miles of local,

¹⁰ LADWP, 2015 Urban Water Management Plan, October 2016.

trunk, mainline and major interceptor sewers, five major outfall sewers, and 46 pumping plants. The wastewater generated by the Project ultimately flows to the Hyperion Treatment Plant (HTP) System. The existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (mgd) and the existing average daily flow for the system is approximately 260 mgd.¹¹

3.2.2. LOCAL

Sanitary sewer is provided by BOS. The Project currently has a wye connection in Hawthorn Avenue. There is an existing 8-inch vitrified clay (VCP) sanitary sewer in Hawthorn Avenue with a slope of 0.6%. The 50% d/D capacity of this pipe is approximately 280,862 gallons per day. This sewer flows east to an 8-inch sewer in Highland Avenue, and then flows south at a slope of 2.6%. The City sewer network ultimately conveys wastewater to the Hyperion Sewage Treatment Plant.

As mentioned above, the site is currently a surface parking lot with no structures; it is likewise understood that no significant wastewater generation exists on the Site.

3.3. ENERGY

3.3.1. ELECTRICITY

LADWP is responsible for providing power supply to the City while complying with County, State, and Federal regulations.

3.3.1.1. REGIONAL

LADWP's Power system is the nation's largest municipal electric utility and serves a 465-square-mile area in Los Angeles and much of the Owens Valley. The system supplies more than 26 million megawatt-hours (MWh) of electricity a year for the City of Los Angeles' 1.5 million residential and business customers as well as over 5,000 customers in the Owens Valley. LADWP has over 6,502 megawatts (MW) of generation capacity from a diverse mix of energy sources including Renewable energy, Natural Gas, Nuclear, Large Hydro, coal and other sources. The distribution network includes 6,752 miles of overhead distribution lines and 3,626 miles of underground distribution cables.¹²

3.3.1.2. LOCAL

Based on review of Navigate LA, it appears that the Project Site receives electric power service from LADWP via infrastructure in Hawthorn Avenue. Table 1 below summarizes the estimated existing electrical demands for the Site:

¹¹ City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewer System Management Plan Hyperion Sanitary Sewer System, January 2019.

¹² LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017.

Table 1 - Estimated Existing Electrical Demand			
Connection To:	Facility	Quantity	Electricity Demand ^(a) (kWhr/yr) ^(b)
Proposed Project Site	Parking Lot	24,798 SF	8,679
Existing Total Electricity Demand for Project Site			8,679
^(a) The average projected load based on estimates from CalEEMod.			
^(b) 1 kW (kilowatt) = 1,000 Watts.			

3.3.2. NATURAL GAS

Southern California Gas Company (SoCal Gas) is responsible for providing natural gas supply to the City and is regulated by the California Public Utilities Commission and other state and federal agencies.

3.3.2.1. REGIONAL

SoCal Gas is the principal distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange and storage services and also procurement services to most retail core customers. SoCal Gas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery (EOR) and electric generation (EG) customers in Southern California. SoCal Gas' natural gas system is the nation's largest natural gas distribution utility and serves a 20,000 square-mile area in Central and Southern California. The system supplies natural gas to 21.6 million customers through 5.9 million meters in more than 500 communities.¹³

3.3.2.2. LOCAL

Based on substructure maps provided by the City's Navigate LA database, there is a 2" gas main in Hawthorn Avenue. It is not known whether there are existing gas services for the existing Site. As the Site is a paved surface lot with no structures, it is understood that no significant gas demand exists on the Site.

¹³ California Gas and Electric Utilities, 2018 California Gas Report, 2018.
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4. SIGNIFICANCE THRESHOLDS

4.1. WATER

Appendix G of the State of California's California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines) provides a set of sample questions that address impacts with regard to water supply. These questions are as follows:

Would the project:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

In the context of the above questions from the Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (*L.A. CEQA Thresholds Guide*) states that the determination of significance with regard to impacts on water shall be made on a case-by-case basis, considering the following factors:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- 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
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

Based on these factors, the Project would have a significant impact if the City's water supplies would not adequately serve the Project or water distribution capacity would be inadequate to serve the proposed use after appropriate infrastructure improvements have been installed.

4.2. WASTEWATER

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to wastewater. These questions are as follows:

Would the project:

- 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?
- 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?

In the context of the above questions from the CEQA Guidelines, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant wastewater impact if:

- The project would cause a measurable increase in wastewater flows at 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
- 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.

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

4.3. ENERGY

Appendix F of the CEQA Guidelines states that the potentially significant energy implications of a project should be considered in an EIR. Environmental impacts, as noted in Appendix F, may include:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal. if appropriate, the energy intensiveness of materials may be discussed;
- The effects of the project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the project on peak and base period demands for electricity and other forms of energy;
- The degree to which the project complies with existing energy standards;
- The effects of the project on energy resources;

- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Appendix G of the CEQA Guidelines has the following questions:

- Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?
- Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

In the context of the above thresholds, the *L.A. CEQA Thresholds Guide* states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

Based on these factors, the Project would have a significant impact on energy resources if the project would result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities, or the design of the project fails to incorporate energy conservation measures that go beyond existing requirements.

5. METHODOLOGY

5.1. WATER

The methodology for determining the significance of a project as it relates to a project's impact on water supply and distribution infrastructure is based on the *L.A. CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures (if required). The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of major water infrastructure serving the Project site, including the type of facilities, location and sizes, and any planned improvements.
- Description of the water conditions for the Project area and known improvement plans.

Project Impacts

- Evaluate the Project's water demand, taking into account design or operational features that would reduce or offset water demand.
- Determine what improvements would be needed, if any, to adequately serve the Project.
- Describe the degree to which presently scheduled off-site improvements offset impacts.

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

The existing and proposed water demand is based upon available site and Project information and utilizes 120 percent of the BOS sewerage generation factors to conservatively account for water demand associated with project landscaping.

LADWP performed a hydraulic analysis of their water system to determine if adequate fire flow is available to the fire hydrants surrounding the Project Site. LADWP's approach consists of analyzing their water system model near the Project Site. Based on the results, LADWP determines whether they can meet the project fire hydrant flow needs based on existing infrastructure. See Exhibit 1 for the results of the Information of Fire Flow Availability Request (IFFAR).

In addition, LADWP performed a flow test to determine if available water conveyance exists for future development. LADWP's approach consists of data ranging from available static pressure (meaning how much pressure is available at the source before applying the project's demand), to the available pressure at the maximum demand needed for the project. Based on the results, LADWP determines whether they can meet the project needs based on existing infrastructure. See Exhibit 2 for the results of the Service Advisory Request (SAR) for Hawthorn Avenue.

5.2. WASTEWATER

The methodology for determining the significance of a project as it relates to a project's impact on wastewater collection and treatment infrastructure is based on the *L.A. CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures (if required). The following has been considered as part of the determination for this Project:

Environmental Setting

- Location of the Project and appropriate points of connection to the wastewater collection system on the pertinent Wye Map;

- Description of the existing wastewater system which would serve the Project, including its capacity and current flows.
- Summary of adopted wastewater-related plans and policies that are relevant to the Project area.

Project Impacts

- Evaluate the Project wastewater needs (anticipated daily average wastewater flow), taking into account design or operational features that would reduce or offset service impacts;
- Compare the Project's wastewater needs to the appropriate sewer's capacity and/or the wastewater flows anticipated in the Wastewater Facilities Plan or General Plan.

This report analyzes the potential impacts of the Project on the existing public sewer infrastructure by comparing the estimated Project wastewater generation with the calculated available capacity of the existing facilities.

Pursuant to LAMC Section 64.15 BOS Wastewater Engineering Division made a preliminary analysis of the local and regional sewer conditions to determine if available wastewater conveyance and treatment capacity exists for future development of the Project Site. BOS's approach consisted of the study of a worst-case scenario envisioning peak demands from the relevant facilities occurring simultaneously on the wastewater system. A combination of flow gauging data and computed results from the City's hydrodynamic model were used to project current and future impacts due to additional sewer discharge. The data used in this report are based on the findings of the BOS preliminary analysis. Refer to Exhibit 3 for the Wastewater Service Information Letter prepared by the City of Los Angeles Bureau of Sanitation providing additional context and evaluation, showing feasibility in accommodating the Project.

5.3. ENERGY

The methodology for determining the significance of a project as it relates to a project's impact on energy supply and distribution infrastructure is based on the *L.A. CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of the electricity and natural gas supply and distribution infrastructure serving the project site. Include plans for new transmission facilities or expansion of existing facilities; and
- Summary of adopted energy conservation plans and policies relevant to the project

Project Impacts

- Evaluation of the new energy supply and distribution systems which the project would require.
- Describe the energy conservation features that would be incorporated into project design and/or operation that go beyond City requirements, or that would reduce the energy demand typically expected for the type of project proposed.
- Consult with the DWP or The Gas Company, if necessary to gauge the anticipated supply and demand conditions at project buildout.

This report analyzes the potential impacts of the Project on existing energy infrastructure by comparing the estimated Project energy demand with the available capacity. Will-serve letters from LADWP and SoCal Gas (Exhibits 4 and 5) demonstrate the availability of sufficient energy resources to supply the Project's demand.

6. PROJECT IMPACTS

6.1. CONSTRUCTION

6.1.1. WATER

Water demand for construction of the Project would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Based on a review of construction projects of similar size and duration, a conservative estimate of construction water use ranges from 1,000 to 2,000 gallons per day (gpd). Although temporary construction water use would be greater than the existing water consumption at the Project Site, it is anticipated that the existing water infrastructure would meet the limited and temporary water demand associated with construction of the Project. Impacts on the water infrastructure due to construction activity would therefore be less than significant.

The Project will also require construction of new, on-site water distribution lines to serve new buildings and facilities of the proposed Project. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the water distribution lines below surface and would be limited to on-site water distribution, and minor off-site work associated with connections to the public main. Prior to ground disturbance, Project contractors would coordinate with LADWP to identify the locations and depth of all lines. Further, LADWP would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service and are typically responsible for the installation of new meters and main connections. Therefore, Project impacts on water associated with construction activities would be less than significant.

6.1.2. WASTEWATER

Construction activities for the Project would not result in wastewater generation as construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the City's wastewater system. Thus, wastewater generation from Project construction activities is not anticipated to cause a measurable increase in wastewater flows. Therefore, Project impacts associated with construction-period wastewater generation would be less than significant.

The Project will require construction of new on-site infrastructure to serve the new buildings. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for connections to public infrastructure. Installation of wastewater infrastructure will be limited to on-site wastewater distribution, and minor off-site work associated with connections to the public main. No upgrades to the public main are presently anticipated. A Construction Management Plan would be implemented to reduce any temporary pedestrian and traffic impacts. The contractor would implement the Construction Management Plan, which would ensure safe pedestrian access and vehicle travel and emergency vehicle access throughout the construction phase. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. Therefore, Project impacts on wastewater associated with construction activities would be less than significant.

6.1.3. ENERGY

Electrical power would be consumed to construct the new buildings and facilities of the proposed Project. Typical uses include temporary power for lighting, equipment, construction trailers, etc. Overall, demolition and construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. Therefore, impacts on electricity supply associated with short-term construction activities would be less than significant.

No natural gas usage is expected to occur during construction. Therefore, impacts on natural gas supply associated with short-term construction activities would be less than significant.

Construction impacts associated with the Project's electrical and gas infrastructure upgrades would primarily be confined to trenching. Infrastructure improvements will comply with all applicable LADWP, SoCalGas, and City of LA requirements, which are expected to and would in fact mitigate impact to existing energy systems and adjacent properties. As stated above, to reduce any temporary pedestrian access and traffic impacts during any necessary off-site energy infrastructure improvements, a construction management plan would be implemented to ensure safe pedestrian and vehicular travel. Therefore, Project impacts on energy infrastructure associated with construction activities would be less than significant.

6.2. OPERATION

6.2.1. WATER

6.2.1.1. INFRASTRUCTURE CAPACITY

When analyzing the Project for infrastructure capacity, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Nevertheless, conservative analysis for both fire suppression and domestic water flows has been completed by LADWP for the Project. See Exhibit 1 and Exhibit 2 for the results of the IFFAR and SAR, respectively, which together demonstrate that adequate water infrastructure capacity exists.

6.2.1.2. FIRE WATER DEMAND

According to information available in Navigate LA, the Project is currently zoned as "Regional Commercial". Based on fire flow standards set forth in Section 57.507.3 of the LAMC, as well as correspondence with the City's Fire Inspector, the Project has a required minimum fire flow of 4,000-6000 gallons per minute (gpm) from four to six hydrants flowing simultaneously with a residual pressure of 20 pounds per square inch (psi). This translates to a required flow of 1,000 gpm for each hydrant. An IFFAR was submitted to LADWP regarding available fire hydrant flow to demonstrate compliance. The results indicate six hydrants flowing simultaneously with 1,500 gpm each. The results show that the Project Site currently has adequate fire flow available to demonstrate compliance with Section 57.507.3 of the LAMC.

Furthermore, LAMC Section 57.513, Supplemental Fire Protection, states that:

Where the Chief determines that any or all of the supplemental fire protection equipment or systems described in this section may be substituted in lieu of the requirements of this chapter with respect to any facility, structure, group of structures or premises, the person owning or having control thereof shall either conform to the requirements of this chapter or shall install such supplemental equipment or systems. Where the Chief determines that any or all of such equipment or systems is necessary in addition to the requirements of this chapter as to any facility, structure, group of structures or premises, the owner thereof shall install such required equipment or systems.

The Project will incorporate a fire sprinkler suppression system to reduce or eliminate the public hydrant demands, which will be subject to Fire Department review and approval during the design and permitting of the Project. Based on Section 94.2020.0 of the LAMC that adopts by reference NFPA 14-2013 including Section 7.10.1.1.5, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building would be 1,250 gpm. As noted, an SAR was submitted to LADWP to determine if the existing public water

infrastructure could meet the demands of the Project. Based upon the SAR results, the existing infrastructure is sufficient to meet the demands of the project. The Project’s fire flow impacts to water infrastructure would be less than significant.

6.2.1.3. DOMESTIC WATER DEMAND

Water consumption estimates have been prepared based on 120 percent of the City of LA Bureau of Sanitation sewerage generation factors and are summarized in Table 2 below. As mentioned, the approved SAR which is inclusive of anticipated domestic water demands shows that the existing infrastructure is sufficient to meet the water demand of the Project. Therefore, the Project’s impacts on water supply would be less than significant.

Table 2 – Estimated Proposed Water Consumption				
Building Use	Water Consumption (GPD) ^(a)	Units	Quantity	Total Consumption (GPD)
APT - BACHELOR	90	DU	54	4,860
1 BDR APT	132	DU	56	7,392
2 BDR APT	180	DU	20	3,600
3 BDR APT	228	DU	7	1,596
RESTAURANT: FAST FOOD INDOOR SEAT	36	SEAT	40	1,440
SWIMMING POOL ^(c)	8.98	CF	1350	12,118
Total Estimated Proposed Water Consumption			TOTAL (GPD)	31,006
<p>^(a) The average daily flow based on 120% of City of Los Angeles sewerage generation factors. Swimming pool flow based on volume (1 CF = 7.48 gallons)</p> <p>^(b) 30 sf / seat is used to determine seat count</p> <p>^(c) This analysis considers the condition in which the entire pool volume is discharged, which is a conservative analysis but may not be representative of daily operation. 600 GPD can be taken as a typical value for daily consumption based on the implementation of backwash filters.</p>				

6.2.1.4. SEWER GENERATION

In accordance with the *L.A. CEQA Thresholds Guide*, the base estimated sewer flows were based on the sewer generation factors for the Project’s uses. Based on the type of use and generation factors, the Project will generate up to approximately 25,838 gallons per day (gpd) of wastewater (when considering the possibility of emptying and filling the swimming pool). Wastewater generation estimates have been prepared based on the City of LA Bureau of Sanitation sewerage generation factors for residential and commercial categories and are summarized in Table 3 below.

Table 3 – Estimated Proposed Wastewater Generation				
Building Use	Sewage Generation (GPD) ^(a)	Units	Quantity	Total Generation (GPD)
APT - BACHELOR	75	DU	54	4,050
1 BDR APT	110	DU	56	6,160
2 BDR APT	150	DU	20	3,000
3 BDR APT	180	DU	7	1,330
RESTAURANT: FAST FOOD INDOOR SEAT	30	SEAT	40	1,200
SWIMMING POOL ^(c)	7.48	CF	1350	10,098
Total Estimated Proposed Wastewater Generation			TOTAL (GPD)	25,838
<p>^(a) The average daily flow based on 100% of City of Los Angeles sewerage generation factors. Swimming pool flow based on volume (1 CF = 7.48 gallons)</p> <p>^(b) 30 sf / seat is used to determine seat count</p> <p>^(c) This analysis considers the condition in which the entire pool volume is discharged, which is a conservative analysis but may not be representative of daily operation. 500 GPD can be taken as a typical value for daily generation based on the implementation of backwash filters.</p>				

A Wastewater Services Information Request (WWSI) letter was submitted to see whether the existing public infrastructure can accommodate the Project. The Bureau of Sanitation has analyzed the Project demands in conjunction with existing conditions and forecasted growth. Refer to Exhibit 3 for the response letter from the Bureau of Sanitation – Wastewater Engineering Services Division. The Project has since reduced the proposed number of dwelling units, as well as the total proposed restaurant/café space since this analysis was performed, which means that the Project proposes less wastewater generation than what had been analyzed. Accordingly, it is anticipated that the likelihood of potential impacts is likewise reduced.

As further discussed below, the existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (consisting of 450 mgd at the Hyperion Treatment Plant, 80 mgd at the Donald C. Tillman Water Reclamation Plant, Reclamation Plant, and 20 mgd at the Los Angeles–Glendale Water Reclamation Plant).¹⁴ The Project’s proposed wastewater generation is approximately 0.026 mgd. This is equal to far less than one percent of the Hyperion Treatment Plant’s capacity where the Project’s wastewater would be treated. Consequently, impacts on wastewater treatment capacity are less than significant.

As stated above, the existing capacity of the 8-inch sewer line in Hawthorn Ave is approximately 280,862 gallons per day. The project’s anticipated net increase in sewage

¹⁴ City of Los Angeles Department of Public Works, Bureau of Sanitation, Water Reclamation Plants, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p?_adf.ctrl-state=oe81wklid_4&_afLoop=28344654751341747#!, accessed May 15, 2020.

generation is approximately 25,838 gallons per day, or approximately 9.2% of the pipe’s 50% d/D capacity. Due to this fact, and the additional information and context provided in the response letter provided by the Bureau of Sanitation – Wastewater Engineering Services Division, impacts on wastewater infrastructure would be less than significant.

6.2.2. ENERGY

6.2.2.1. ELECTRICITY

The Project will increase the demand for electricity resources. Based on analysis performed using CalEEMod software, the estimated projected electrical loads are provided in Table 4 below.

Table 4 - Estimated Proposed Electrical Demand			
Connection To:	Facility	Quantity	Electricity Demand ^(a) (kWhr/yr) ^(b)
Proposed Project Site	Residential ^(c)	137 DU	542,531
	Restaurant ^(d)	1,207 SF	53,409
	Enclosed Parking with Elevator	145 Spaces	339,880
Total Proposed Electricity Demand for Project Site			935,820
Existing Total Electricity Demand for Project Site			8,679
Net Increase in Electricity Demand for Project Site Due to Project			927,141
^(a) The average projected load based on estimates from CalEEMod. ^(b) 1 kW (kilowatt) = 1,000 Watts. ^(c) All residential units classified as “Apartments High Rise” ^(d) All restaurant space classified as “Fast Food Restaurant w/o Drive Thru”			

A Will Serve letter request was sent to LADWP to determine if there is sufficient capacity to serve the Project. Based on the response from LADWP (see Exhibit 4), impacts related to electrical services would be less than significant.

6.2.2.2. NATURAL GAS.

The Project will increase the demand for natural gas resources. Based on analysis performed using CalEEMod software, the estimated projected natural gas loads are provided in Table 5 below:

Table 5 - Estimated Proposed Natural Gas Demand			
Connection To:	Facility	Quantity	Natural Gas Demand ^(a) (cf/yr)
Proposed Project Site	Residential ^(b)	137 DU	1,230,721
	Restaurant ^(c)	1,207 SF	272,144
	Enclosed Parking with Elevator	145 Spaces	0
Total Proposed Natural Gas Demand for Project Site			1,502,865
Existing Total Natural Gas Demand for Project Site			0
Net Increase in Natural Gas Demand for Project Site Due to Project			1,502,865
(a) The average projected load based on estimates from CalEEMod. 1 cf = 1.026 kBTU.			
(b) All residential units classified as “Apartments High Rise”			
(c) Restaurant Space classified as “Fast Food Restaurant w/o Drive Thru”			

A Will Serve letter request was sent to the gas company to determine if there is sufficient capacity to serve the Project. Based on the response from SoCalGas (see Exhibit 5), available capacity to serve the project exists. As such, impacts related to gas would be less than significant.

6.3. CUMULATIVE IMPACTS

6.3.1 WATER

The geographic context for the cumulative impact analysis on water supply is the LADWP service area (i.e., the City). LADWP, as a public water service provider, is required to prepare and periodically update an Urban Water Management Plan to plan and provide for water supplies to serve existing and projected demands. The 2015 UWMP prepared by LADWP accounts for existing development within the City, as well as projected growth through the year 2040.

Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. The types of projects that are subject to the requirements of Senate Bill 610 tend to be larger projects that may or may not have been included within the growth projections of the 2015 UWMP. The water supply assessment for projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Furthermore, through LADWP's 2015 UWMP process and the City's Securing L.A.'s Water Supply, the City will meet all new demand for water due to projected population growth to the year of 2040, through a combination of water conservation and water recycling. These plans outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies. LADWP is planning to achieve these goals by expanding its water conservation program. To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.

Compliance of the Project and future development projects with regulatory requirements that promote water conservation such as the Los Angeles Municipal Code, including the City's Green Building Code, as well as AB 32, would also assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, it is anticipated that LADWP would be able to supply the water demands of the Project as well as future growth. Therefore, cumulative impacts on water supply would be less than significant.

6.3.2 WASTEWATER

The Proposed Project will result in the additional generation of sewer flow. However, as discussed above the Bureau of Sanitation will conduct an analysis of existing and planned capacity and will determine that adequate capacity exists to serve the Project. Related projects connecting to the same sewer system are required to obtain a sewer connection permit and submit a Sewer Capacity Availability Request to the Bureau of Sanitation as part of the related project's development review. Impact determination will be provided following the completion of the SCAR analysis. If system upgrades are required as a result of a given project's additional flow, arrangements would be made between the related project and the Bureau of Sanitation to construct the necessary improvements.

Wastewater generated by the Proposed Project would be conveyed via the existing wastewater conveyance systems for treatment at the Hyperion Treatment Plant system. As previously stated, based on information from the Bureau of Sanitation, the existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (mgd) and the existing average daily flow for the system is approximately 260 mgd.¹⁵ The estimated wastewater generation of the Proposed Project (25,838 gpd) is less than the available capacity in the system and roughly 0.52% of the allotted annual wastewater flow increase for the Hyperion Treatment Plant. It is expected that the related projects would also be required to adhere to the Bureau of Sanitation's annual wastewater flow increase allotment.

Based on these forecasts the Project's increase in wastewater generation would be adequately accommodated within the Hyperion Service Area. In addition, the City Bureau

¹⁵ City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewer System Management Plan Hyperion Sanitary Sewer System, January 2019.

of Sanitation's analysis confirms that the Hyperion Treatment Plant has sufficient capacity and regulatory allotment for the Proposed Project. Thus, operation of the Project would have a less than significant impact on wastewater treatment facilities.

6.3.3 ENERGY

The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCal Gas' service area. The geographic context for transportation energy use is the City of Los Angeles. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Buildout of the Project, the related projects, and additional growth forecasted to occur in the City would increase electricity consumption during project construction and operation and, thus, cumulatively increase the need for energy supplies and infrastructure capacity, such as new or expanded energy facilities. LADWP forecasts that its total energy sales in the 2024-2025 fiscal year (the project buildout year) will be 23,286 gigawatt-hours (GWh) of electricity.¹⁶ Based on the Project's estimated net new electrical consumption of 1.00 GWh/year, the project would account for approximately 0.004% of LADWP's projected sales for the Project's build-out year. Although future development would result in the irreversible use of renewable and non-renewable electricity resources during project construction and operation which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with growth expectations for LADWP's service area. Furthermore, like the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Accordingly, the Project's contribution to cumulative impacts related to electricity consumption would not be cumulatively considerable and, thus, would be less than significant.

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. As described in LADWP's 2017 Power Integrated Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards. LADWP has indicated that the Power Integrated Resource Plan incorporates the estimated electricity requirement for the Project. The Power Integrated Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for

¹⁶ LADWP, 2017 Power Integrated Resource Plan, Appendix A, Table A-1.

the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. As such, the Project's contribution to cumulative impacts with respect to electricity infrastructure would not be cumulatively considerable and, thus, would be less than significant.

Buildout of the Project and related projects in SoCal Gas' service area is expected to increase natural gas consumption during project construction and operation and, thus, cumulatively increase the need for natural gas supplies and infrastructure capacity. Based on the 2018 California Gas Report, the California Energy Commission estimates natural gas capacity within SoCal Gas' planning area will be approximately 3,775 million cubic feet/day in 2024, of which approximately 1,178 million cubic feet/day is currently unallocated.¹⁷ The Project would account for significantly less than 0.01 percent of the 2024 forecasted consumption in SoCalGas's planning area. SoCalGas' forecasts consider projected population growth and development based on local and regional plans. Although future development projects would result in the irreversible use of natural gas resources which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SoCalGas' service area. Furthermore, like the Project, during project construction and operation other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Accordingly, the Project's contribution to cumulative impacts related to natural gas consumption would not be cumulatively considerable and, thus, would be less than significant.

Natural gas infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. As such, cumulative impacts with respect to natural gas infrastructure would not be cumulatively considerable and, thus, would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report no significant impacts have been identified to water, wastewater, or energy infrastructure for this Project.

¹⁷ California Gas and Electric Utilities, 2018 California Gas Report, p. 103.

EXHIBITS

EXHIBIT 1

LADWP “Information of Fire Flow Availability Request” (IFFAR) Results



City of Los Angeles

Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement 4000 GPM from four hydrants flowing simultaneously Water Service Map No.: 148-183
 LAFD Signature: _____
 Date Signed: _____

Applicant: Dan Haefeli
 Company Name: KPFF Consulting Engineers
 Address: 700 South Flower St., Los Angeles, CA 90017
 Telephone: 213-418-0201
 Email Address: daniel.haefeli@kpff.com

	F-82477	F-35911	F-35917
Location:	Hawthorn Avenue	Orange Drive	Highland Avenue
Distance from Nearest Pipe Location (feet):	16	40	31
Hydrant Size:	2 1/2 x 4D	2 1/2 x 4D	4D
Water Main Size (in):	6"	8"	8"
Static Pressure (psi):	94	88	95
Residual Pressure (psi):	68	61	69
Flow at 20 psi (gpm):	1500	1500	1500

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: _____ ECMR No. W20200617004
 Project Site Address: 6831 Hawthorn Avenue, Los Angeles CA 90028
 Please run all 6 hydrants simultaneously. See application #2 for additional hydrant numbers.

Each Fire hydrants can provide 1500gpm simultaneously with 6 Fire hydrants operating.

Water Purveyor: Los Angeles Department of Water & Power Date: 6/22/20

Signature: _____ Title: CE Associate

**Requests must be made by submitting this completed application, along with a \$230.00 check payable to:
 "Los Angeles Department of Water and Power", and mailed to:
 Los Angeles Department of Water and Power
 Distribution Engineering Section - Water
 Attn: Business Arrangements
 P.O. Box 51111 - Room 1425
 Los Angeles, CA 90051-5700**

* If you have any questions, please contact us at (213) 367-2130 or visit our web site at <http://www.ladwp.com>.

RECEIVED WDE
JUN 15 2020



City of Los Angeles

Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement 4000 GPM from four hydrants flowing simultaneously Water Service Map No.: 148-183
 LAFD Signature: _____
 Date Signed: _____

Applicant: Dan Haefeli
 Company Name: KPFF Consulting Engineers
 Address: 700 South Flower St., Los Angeles, CA 90017
 Telephone: 213-418-0201
 Email Address: daniel.haefeli@kpff.com

	F-35916	F-44666	F-43137
Location:	Highland Avenue	Highland Avenue	Highland Avenue
Distance from Nearest Pipe Location (feet):	31	31	19
Hydrant Size:	4D	4D	4D
Water Main Size (in):	8"	8"	12"
Static Pressure (psi):	99	92	92
Residual Pressure (psi):	72	65	65
Flow at 20 psi (gpm):	1500	1500	1500

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: _____ ECMR No. W20200617005

Project Site Address: 6831 Hawthorn Avenue, Los Angeles CA 90028

Please run all 6 hydrants simultaneously. See application #1 for additional hydrant numbers.

Each Fire hydrants can provide 1500gpm simultaneously with 6 Fire hydrants operating.

Water Purveyor: Los Angeles Department of Water & Power

Date: 6/22/20

Signature: _____

Title: CE Associate

Requests must be made by submitting this completed application, along with a \$215.00 check payable to:

"Los Angeles Department of Water and Power", and mailed to:

Los Angeles Department of Water and Power

Distribution Engineering Section - Water

Attn: Business Arrangements

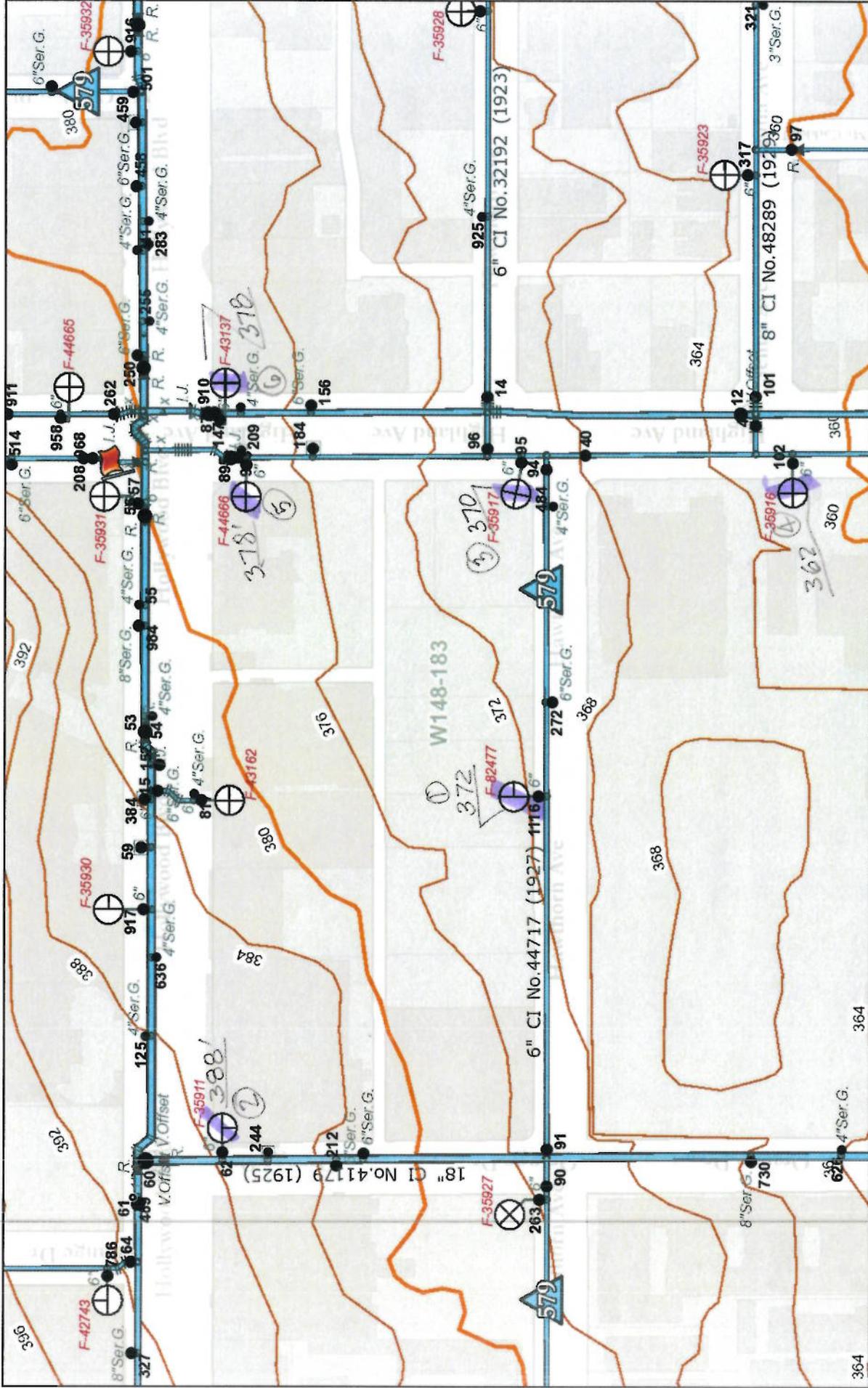
P.O. Box 51111 - Room 1425

Los Angeles, CA 90051-5700

* If you have any questions, please contact us at (213) 367-2130 or visit our web site at <http://www.ladwp.com>.

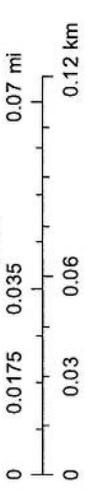
RECEIVED WDE
JUN 1 2020

Viewer Map



June 22, 2020

1:2,257



Hydrant Location Exhibit

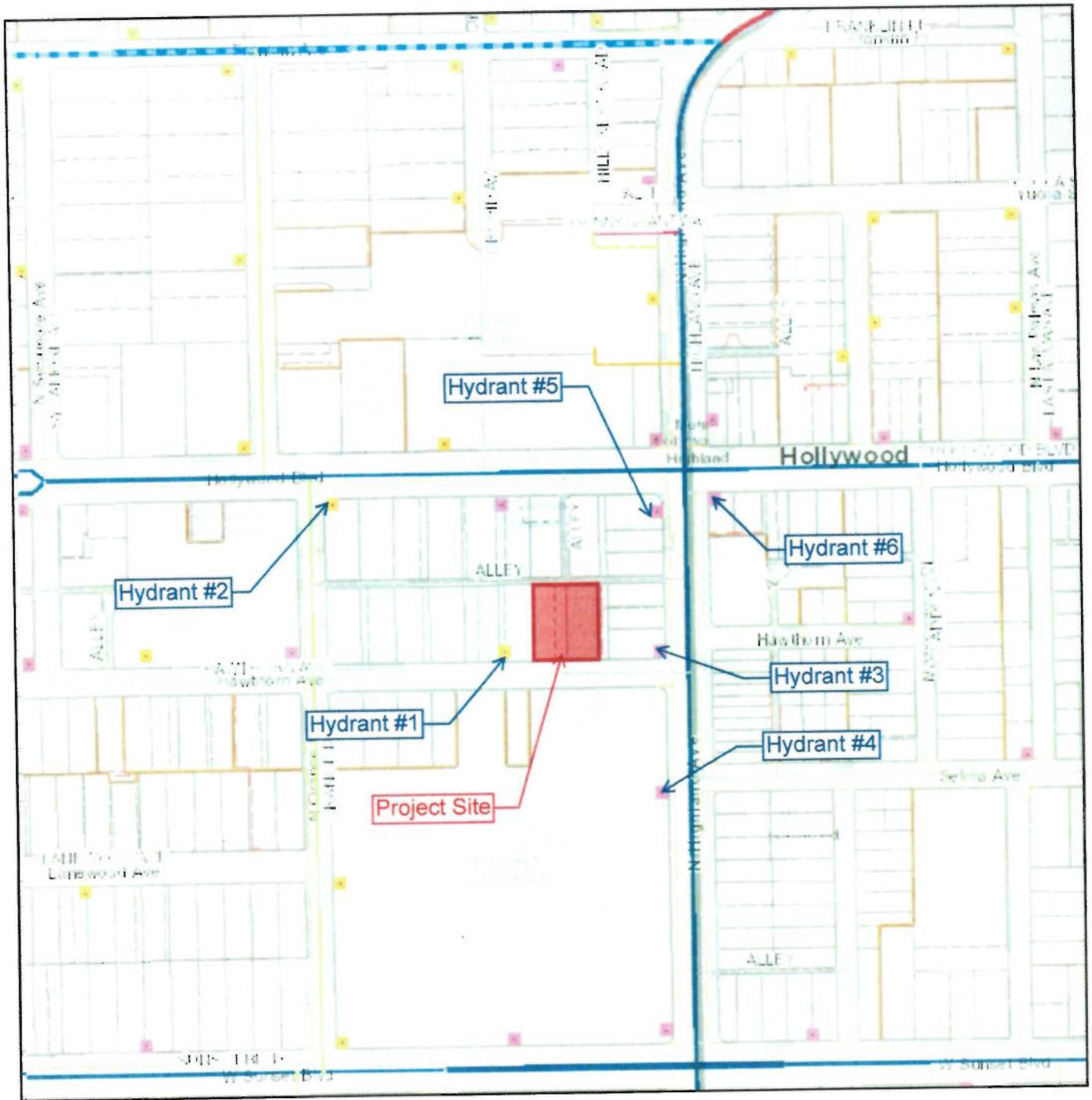


EXHIBIT 2

LADWP “Service Advisory Report” (SAR) Results and Water Will Serve Letter



City of Los Angeles

Los Angeles Department of Water and Power - Water System



SAR NUMBER 85929

Fire Service Pressure Flow ReportSERVICE NUMBER **634443**

For: 6831 HAWTHORN AVE Approved Date: **6-12-2020**

Proposed Service 6 INCH off of the

6 inch main in HAWTHORN AVE on the NORTH side approximately

250 feet WEST of WEST of HIGHLAND AVE The System maximum pressure is

95 psi based on street curb elevation of 371 feet above sea level at this location.

The distance from the DWP street main to the property line is 16 feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	65				
325	64				
470	63				
585	62				
685	61				
775	60				
855	59				
930	58				
995	57				
1065	56				
1125	55				
1185	54				
1240	53				
1295	52				
1350	51				
1400	50				

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

These values are subject to change due to changes in system facilities or demands.

Notes: With 700 gpm simultaneous flow from 6" domestic service

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 06-12-20. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WESTERN (213) 367-1225**

ELIA SUN
Prepared by

ELIA SUN
Approved by

148-183
Water Service Map



CUSTOMERS FIRST

Eric Garcetti, Mayor

Board of Commissioners

Mel Levine, President

Cynthia McClain-Hill, Vice President

Jill Banks Barad

Nicole Neeman Brady

Susana Reyes

Susan A. Rodriguez, Secretary

RECEIVED KPFF - L.A.

CC: _____

Martin L. Adams, General Manager and Chief Engineer

JUL 06 2020

JOB # _____

FILE # _____

May 28, 2020

Map No. 148-183

Mr. Dan Haefeli
KPFF
700 South Flower Street, Suite 2100
Los Angeles, California 90017

Dear Mr. Haefeli:

Subject: Water Availability - Will Serve
6831 Hawthorn Avenue
APN: 5548-006-001 & 002, Hollywood Bonnie Brier Tract, Lots 7 & 9

This is in reply to your request regarding water availability for the above-mentioned location. This property can be supplied with water from the municipal system subject to the Water System rules of the Los Angeles Department of Water and Power (LADWP). It is also subject to all conditions set by LADWP.

Should you require additional information, please contact Ms. Cynthia Taylor at (213) 367-1306. Correspondence may be addressed to:

LADWP
P.O. Box 51111, Room 1425
Los Angeles, California 90051-5700

Sincerely,


Liz Gonzalez
Manager - Business Arrangements
Water Distribution Engineering

CT:md
c: Ms. Cynthia Taylor

EXHIBIT 3

City of Los Angeles “Wastewater Services Information” Letter

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ASSISTANT DIRECTORS

TIMEYIN DAFETA
HYPERION EXECUTIVE PLANT MANAGER

**WASTEWATER ENGINEERING
SERVICES DIVISION**
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

June 26, 2020

Mr. Daniel Haefeli
KPF Consulting Engineers
700 S Flower Street, #2100
Los Angeles, CA 90017

Dear Mr. Haefeli,

6831 HAWTHORN - WASTEWATER SERVICES INFORMATION REQUEST

This is in response to your May 26, 2020 letter requesting a review of your proposed mixed-use project located at 6831 Hawthorn Ave, Los Angeles, CA 90028. The project will consist of residential and commercial use. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
<i>Proposed</i>			
Residential: APT - Studio	75 GPD/DU	56 DU	4,200
Residential: APT-1 BDRM	110 GPD/DU	56 DU	6,160
Residential: APT-2 BDRM	150 GPD/DU	21 DU	3,150
Residential: APT-3 BDRM	190 GPD/DU	7 DU	1,330

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AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

Cafe	720 GPD/1000 SQ.FT	1,714 SQ.FT	1,235
Restaurant	30 GPD/SEAT	57 SEATS	1,710
Swimming Pool	7.48 GPD/CF	1350 CF	10,098
Total			27,883

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 8-inch line on Hawthorn Ave. The sewage from the existing 8-inch line feeds into a 14-inch line on De Longpre Ave before discharging into a 30-inch sewer line on Las Palmas Ave. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 8-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
8	Hawthorn Ave	*	280,862 GPD
14	De Longpre Ave	20	721,163 GPD
30	Las Palmas Ave	15	15.07 MGD

* No gauging available

Based on estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer lacks sufficient capacity, then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at the time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

All sanitary wastewater ejectors and fire tank overflow ejectors shall be designed, operated, and maintained as separate systems. All sanitary wastewater ejectors with ejection rates greater than 30 GPM shall be reviewed and must be approved by LASAN WESD staff prior to other City plan check approvals. Lateral connection of development shall adhere to Bureau of Engineering Sewer Design Manual Section F 480.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org.

STORMWATER REQUIREMENTS

LA Sanitation, Stormwater Program is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

In accordance with the Municipal Separate Storm Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2012-0175, NPDES No. CAS004001) and the

City of Los Angeles Stormwater and Urban Runoff Pollution Control requirements (Chapter VI, Article 4.4, of the Los Angeles Municipal Code), the Project shall comply with all mandatory provisions to the Stormwater Pollution Control Measures for Development Planning (also known as Low Impact Development [LID] Ordinance). Prior to issuance of grading or building permits, the applicant shall submit a LID Plan to the City of Los Angeles, Public Works, LA Sanitation, Stormwater Program for review and approval. The LID Plan shall be prepared consistent with the requirements of the Planning and Land Development Handbook for Low Impact Development.

Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lacitysan.org. It is advised that input regarding LID requirements be received in the preliminary design phases of the project from plan-checking staff. Additional information regarding LID requirements can be found at: www.lacitysan.org or by visiting the stormwater public counter at 201 N. Figueroa, 2nd Fl, Suite 280.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-way to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements. Green Street standard plans can be found at: www.eng2.lacity.org/techdocs/stdplans/

CONSTRUCTION REQUIREMENTS

All construction sites are required to implement a minimum set of BMPs for erosion control, sediment control, non-stormwater management, and waste management. In addition, construction sites with active grading permits are required to prepare and implement a Wet Weather Erosion Control Plan during the rainy season between October 1 and April 15. Construction sites that disturb more than one-acre of land are subject to the NPDES Construction General Permit issued by the State of California, and are required to prepare, submit, and implement the Storm Water Pollution Prevention Plan (SWPPP).

If there are questions regarding the stormwater requirements, please call WPP's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 2nd Fl, Suite 280.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect

associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of \$1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact LA Sanitation Solid Resources Recycling hotline 213-922-8300.

Sincerely,



Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

AP/CD: ga

Attachment: Figure 1 - Sewer Map

c: Michael Scaduto, LASAN
Alfredo Magallanes, LASAN
Wing Tam, LASAN
Ryan Thiha, LASAN
Christopher DeMonbrun, LASAN



Legend

- Project Location
- Discharge
- Secondary Lines
- Primary Lines
- Streets

Gauges, d/D

- < 0.25
- 0.25 - 0.50
- 0.50 - 0.75
- > 0.75

Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

Figure 1
6831 Hawthorn Ave
Sewer Map

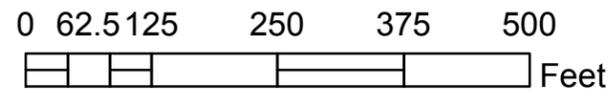


EXHIBIT 4

LADWP Approved Power Will-Serve Letter



POWER SYSTEM
ENGINEERING
DIVISION

NEW BUSINESS & CUSTOMER
SUPPORT SUBSECTION

METROPOLITAN SERVICE PLANNING

2633 Artesian Street, Suite 250, Los Angeles CA 90031 (213) 367-6000 FAX: (213) 367-6089

George P. Nino
District Engineer

June 12, 2020

Mr. Daniel Haefeli
KPFF
700 South Flower Street, Suite 2100
Los Angeles, CA 90017

Dear Mr. Haefeli:

6831 Hawthorn Ave.

This is in response to your letter dated June 12, 2020 regarding electric service for the proposed project at the above address.

Electric service is available and will be provided in accordance with the Department of Water and Power Rules and Regulations. The estimated power requirement for this proposed project is part of the total load growth forecast for the City and has been taken into account in the planned growth of the power system

If you have any questions regarding this matter, please call Mr. Victor Rios at (213) 367-8004.

Sincerely,

George Nino/AV

GEORGE P. NINO
District Engineer
Metro West Service Planning

EXHIBIT 5

SoCal Gas Approved Will-Serve Letter



701 N. Bullis Rd.
Compton, CA 90224-9099

June 1, 2020

Kpff
700 South Flower Street Suite 2100
Los Angeles, CA 90017
Attn: Dan Haefeli

Subject: Will Serve - 6831 Hawthorn Ave Los Angeles, CA 90028

Thank you for inquiring about the availability of natural gas service for your project. We are pleased to inform you that Southern California Gas Company (SoCalGas) has facilities in the area where the above named project is being proposed. The service would be in accordance with SoCalGas' policies and extension rules on file with the California Public Utilities Commission (CPUC) at the time contractual arrangements are made.

This letter should not be considered a contractual commitment to serve the proposed project, and is only provided for informational purposes only. The availability of natural gas service is based upon natural gas supply conditions and is subject to changes in law or regulation. As a public utility, SoCalGas is under the jurisdiction of the Commission and certain federal regulatory agencies, and gas service will be provided in accordance with the rules and regulations in effect at the time service is provided. Natural gas service is also subject to environmental regulations, which could affect the construction of a main or service line extension (for example, if hazardous wastes were encountered in the process of installing the line). Applicable regulations will be determined once a contract with SoCalGas is executed.

If you need assistance choosing the appropriate gas equipment for your project, or would like to discuss the most effective applications of energy efficiency techniques, please contact our area Service Center at 800-427-2200.

Thank you again for choosing clean, reliable, and safe natural gas, your best energy value.

Sincerely,

Jason Sum

Jason Sum
Pipeline Planning Assistant
SoCalGas-Compton HQ