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April 30, 2024

VIA EMAIL

Los Angeles City Council
Planning and Land Use Management Committee
200 North Spring Street
Los Angeles, CA 90012

Re: **ENV-2019-5520-MND-1A**
Council File Nos. 24-0339

Honorable Councilmembers:

Our firm represents Appellants, the Castellammare Mesa Home Owners, the homeowners' organization serving the homes in the Castellammare neighborhood of Pacific Palisades, adjacent to and in the immediate vicinity of the proposed four home Project (the "Home Owners").

As set forth herein, City Planning's determinations regarding the propriety of Mitigated Negative Declaration No. ENV-2019-5520-MND (the "MND") are in error. The MND before you is clearly inadequate under the California Environmental Quality Act ("CEQA").

First, and as further discussed herein, a significant portion of the MND is not supported by substantial evidence. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1197. When an agency fails to proceed as required by CEQA, harmless error analysis is inapplicable. Such action constitutes abuse of discretion.

Furthermore, substantial evidence submitted by neighborhood residents, the Home Owners, Strumwasser & Woocher [Exhibit 6 to this letter], the California Department of Fish and Wildlife, and the California Coastal Commission supports a fair argument that the Project may have a significant effect on the environment. Accordingly, an Environmental Impact Report ("EIR") is necessary to comply with the CEQA requirements.

For the reasons discussed, and based upon all of the substantial evidence submitted by all parties to the City in support of the inadequacy of the MND, all of which is adopted and incorporated by this letter, the Home Owners' appeal should be granted.

I. Prefatory Statement

The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

CEQA requires strict compliance with the procedures and mandates of the statute. *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118.

The heart of CEQA is the Environmental Impact Report ("EIR"). *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214. A public agency must prepare an EIR whenever substantial evidence supports a fair argument that a proposed project may have a significant effect on the environment. The fair argument standard is a "low threshold" test, and public controversy concerning environmental effect of a project indicates that preparation of an EIR is desirable. *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75.

If there is substantial evidence that a project may have a significant effect on the environment, contrary evidence is not adequate to support a decision to dispense with an EIR. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317; 14 CCR §15384(a)(emphasis added)(substantial evidence means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, *even though other conclusions might also be reached*).

II. The MND Does Not Comply with CEQA

1. Aesthetics. As set forth by neighborhood residents and California Coastal Commission staff, the Project will have a substantial adverse effect on a scenic vista, protected by the Coastal Act; will conflict with the aesthetic requirements set forth in the *California Coastline Preservation and Recreation Plan*¹;

¹ Can be accessed at:

<https://archive.org/details/CaliforniaCoastlinePreservationAndRecreationPlan/page/n5/mode/2up>

and will conflict with the aesthetic requirements in the Brentwood-Pacific Palisades Community Plan regulations, all of which protect scenic views and impose requirements regarding scenic quality.

Despite the Coastal Act and *Coastline Preservation and Recreation Plan* requirements, and Coastal Commission staff's specific identification of such potential impacts, the MND fails to address the potential aesthetic impacts from caisson and/or pile exposure over the life of the development (to which, notably, the developer admits in response), just as one example. The MND also fails to evaluate for the aesthetic loss based upon vegetation clearance and removal, and visual obstruction from public roadways.

The MND makes absolutely no mention of the Coastal Act regulations or the *California Coastline Preservation and Recreation Plan* despite such being a requirements for a Coastal Development Permit (see *California Public Resources Code* §30251).

As set forth in the Home Owners' previous submissions to the City, this Project is located immediately inland from and upslope from Pacific Coast Highway (PCH) and Will Rogers State Beach and visible therefrom. The visibility of the site requires development to be avoided, or, if unavoidable, **minimized to the maximum extent possible**. To the contrary, the Project includes unnecessary accessory development, sprawling basements, and loss of vegetation, all in contravention of this policy goal.

Accordingly, substantial evidence supports a fair argument that the Project may have a significant effect on aesthetics, impacts which have not been analyzed or mitigated, in the MND.

2. Biology. As identified by the state of California Department of Fish and Wildlife ("CDFW"), California's Trustee Agency for fish and wildlife resources, the Project poses adverse environmental impacts on several biological resources, including monarch butterflies (a rare, threatened or endangered species under the CEQA Guidelines), the western mastiff bat, and nesting birds.

Rather than mitigating such identified impact, the MND improperly "supplements" its analysis with letter argument regarding why the MND need not include mitigation measures for these biological impacts. Disagreement among experts over the significance of an impact requires the agency to treat the environmental effect as significant and prepare an EIR. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317. Failing to do so constitutes abuse of discretion.

The MND further fails to include, as specifically required by CDFW, adequate mitigation for Lemonade Berry Scrub, a Sensitive Natural Community (CDFW 2021a), listed by the California Native Plant Society as having a rarity ranking of S3.

The MND also improperly fails to analyze “environmentally sensitive habitat areas” (“ESHA”), improperly deferring such analysis in contravention of the findings in *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918. The Coastal Commission has stated that their ecologist has determined the potential for ESHA to exist on the site.

Finally, the MND fails to discuss the natural ecological landscape at the Project site prior to unpermitted recent disturbances, also identified by Coastal Commission staff.

Substantial evidence supports a fair argument that the Project will have a significant impact on biology, impacts which have not been analyzed or mitigated, in the MND.

3. Geology and Soils. The MND, and Geotechnical Report on which it relies, fail to adequately assess the geology and soils impacts on the Project location, one of the most active landslides within the City of Los Angeles, with a long history of movement. As set forth in the reports submitted by neighborhood residents and the Home Owners, including the reports submitted by E.D. Michael, a licensed geologist, as well as Ardashes Kazarians, a civil engineer, the Project will cause substantial adverse impacts relating to landslides; and is located on a geologic unit that is unstable and will increase instability; potentially resulting in landslide, lateral spreading, subsidence, liquefaction, or collapse. [Exhibits 1, 2].

Ardashes Kazarians sets forth that the proposed construction of the retaining wall along Tramonto Drive will undermine the lateral support for the bulkhead piles which support Tramonto Drive, further putting at risk the condition of the roadway and the bulkhead which supports it. [Exhibit 2]. Both E.D. Michael and the Coastal Commission have identified the failure to provide appropriate measures for dealing with water, both groundwater (a de-watering system) and adequate drainage/utilities, all of which has been admitted by City departments.

The proposed grading would remove substantial portions of the landslide area and the development (structures and graded areas) would occupy almost

the entirety of the combined lots. In order to do so, the Project necessitates three Modifications of Building Ordinances (*i.e.*, three *deviations* from otherwise applicable Code safety regulations and requirements), including one to deviate from the otherwise required safety factor of 1.5, to achieve grading “compliance” with the City’s Grading Department.

There is no analysis provided to substantiate the conclusions reached in the MND, no slope density analysis to confirm grading amounts; no clearance requirements from proposed piles and caissons; no setback requirements from ridgelines.

Substantial evidence supports a fair argument that the Project will have a significant impact on geology and soils resources, impacts which have not been analyzed or mitigated, in the MND.

4. Hazards and Hazardous Materials. The Project poses a significant hazard to the public and the environment which will impair the response/emergency evacuation plan and routes for the approximately two hundred homes within the boundaries of the Home Owners’ organization therefore also posing a significant risk of loss, injury or death involving wildland fires. Such potential impact was also identified by Coastal Commission staff.² Nevertheless, no impact study, no evaluation of physical interference with the roads leading into and out of the area, no analysis of emergency response plans or emergency evacuation plans has been provided.

Substantial evidence supports a fair argument that the Project will have a significant impact on hazards and hazardous materials, impacts which have not been analyzed or mitigated, in the MND.

5. Hydrology and Water Quality. The Project will substantially alter the existing drainage pattern of both the Project site and area, the details of which are not included or analyzed in the MND. As set forth in the report by geologist Eugene D. Michael, the “stabilization” method for the landslide proposed fails to consider the dewatering mechanism necessary to achieve a stabilization result. [Exhibit 1]. As separately submitted by the Home Owners’ Evaluation Committee, the vast hydrology issues in the area which will be significantly impacted by the Projects have not been addressed.

Furthermore, the Project also provides no permanent drainage infrastructure, as also noted by Coastal Commission staff, and admitted to by the City of Los Angeles. To the contrary, the Project’s proposed drainage system

² See also, report by MAT Engineering. [Exhibit 5].

along Revello Drive connects to a City of Los Angeles constructed *temporary* drainage system on private property, meant to provide storm water drainage until the City engineered a permanent solution. [Exhibit 4]. No studies or analysis is provided in the MND regarding the sufficiency of this temporary drainage infrastructure.

Substantial evidence supports a fair argument that the Project will have a significant impact on hydrology and water quality, impacts which have not been analyzed or mitigated, in the MND.

6. Land Use and Planning. As set forth above, the Project will have a substantial adverse effect on scenic vista, protected by the Coastal Act; will conflict with the aesthetic requirements set forth in the *California Coastline Preservation and Recreation Plan*; and will conflict with the aesthetic requirements in the Brentwood-Pacific Palisades Community Plan regulations, all of which protect scenic views and impose requirements regarding scenic quality.

The Project is also inconsistent with the Brentwood-Pacific Palisades Community Plan which provides the following goals, purposes and policies:

- Need to minimize grading, limit land use intensity, and preserve natural topography in hillside areas;
- Need to protect environmentally sensitive areas, scenic views and scenic corridors;
- Need to restrict building on geologically sensitive areas;
- Limiting residential development on hillsides having more than a 15% slope;
- [Limiting] [c]onstruction of single-family homes that are out of scale with the character of the community;
- Preserving and enhancing the positive characteristics of existing residential neighborhoods while providing a variety of compatible new housing opportunities;
- Preserving and enhancing the positive characteristics of existing uses which provide the foundation for community identity, such as scale, height, bulk, setbacks and appearance;
- To preserve and enhance the varied and distinct residential character and integrity of existing residential neighborhood;
- To condition new development adjacent to or in the viewshed of State parkland to protect views from public lands and roadways;

- To limit the intensity and density in hillside areas to that which can reasonably be accommodated by infrastructure and natural topography;
- Consider the steepness of the topography and the suitability of the geology in any proposal for development within the Plan area;
- Require that any proposed development be designed to enhance and be compatible with adjacent development; and
- The scenic value of natural land forms should be preserved, enhanced and restored. Wherever feasible, development should be integrated with and be visually subordinate to natural features and terrain. Structures should be located to minimize intrusion into scenic open spaces by being clustered near other natural and manmade features such as tree masses, rock outcrops and existing structures.

The Project is in direct conflict with all of the above Brentwood-Pacific Palisades Community Plan goals, purposes, and policies. As set forth in the City's own Geology Soils Approval Letter for the Project, the Project is located in one of the most active landslides within the City of Los Angeles and has a long history of movement. Despite these realities, the Project proposes four sprawling basements; two of the basements are larger than the above ground portions of the home. The construction of the retaining wall, as proposed along Tramonto Drive, will undermine the lateral support for the bulkhead piles which support Tramonto Drive, further putting at risk the condition of the roadway and the bulkhead which supports it. There is insufficient information provided in the file regarding the sufficiency of the proposed landslide stabilization method as the Applicant's team has not taken into account all of the relevant factors, including an adequate dewatering mechanism necessary to achieve a stabilization result.

It is important to note that, as worded in the MND, it sounds as though the total grading is 29,148 cubic yards. It is not. As confirmed by geologist Eugene D. Michael, total grading (*i.e.*, the total volume of material excavated) is 62,942 cubic yards, even though after replacement by filling 29,148 cubic yards will remain on site.

The proposed grading would remove substantial portions of the landslide area and the development (structures and graded areas) would occupy almost the entirety of the combined lots. In order to do so, the Project necessitates three Modifications of Building Ordinances (*i.e.*, three *deviations* from otherwise applicable Code safety regulations and requirements), including one to deviate from the otherwise required safety factor of 1.5, to achieve grading "compliance" with the City's Grading Department.

The Project utterly fails to minimize grading or to limit the intensity and density in hillside areas to that which can reasonably be accommodated by infrastructure and natural topography. It does not even provide permanent drainage infrastructure. Its impacts on natural topography and existing infrastructure, including the roadways and drainage systems, are not only unreasonable and dangerous, but in conflict with applicable land use and planning regulations and policies.

In order to be legally adequate under CEQA, an MND cannot selectively pick and choose policies with which it deems a project to be consistent, but must identify and discuss all noted **inconsistencies**. *CEQA Guidelines* §15125(d); *L.A. CEQA Thresholds Guide*³.

Substantial evidence supports a fair argument that the Project will have a significant impact on land use and planning, impacts which have not been analyzed or mitigated, in the MND.

7. **Noise**. There is substantial evidence in the record that the Project will cause a noise impact, in particular with regard to construction noise. Such impacts are analyzed by Steve Rogers Acoustics. [Exhibit 3].

8. **Transportation**. There is substantial evidence in the record that the Project will cause a transportation impact. The MND is insufficient for all of the reasons set forth by MAT Engineering. [Exhibit 5].

Furthermore, the Project, including the proposed construction of the retaining wall along Tramonto Drive will undermine the lateral support for the bulkhead piles which support Tramonto Drive, putting at risk the condition of the roadway and the bulkhead which supports it. [Exhibit 2]. It fails to comply with the Streets and Highways Code for street vacation and Mobility Plan 2035 requirements, thereby increasing hazards to and from Revello and Tramonto and results in inadequate emergency access for the homeowners in this area as

³ The L.A. CEQA Threshold Guide with respect to “land use consistency” states: The determination of significance shall be made on a case-by-case basis, considering:

- Whether the proposal is **inconsistent** with the adopted land use/density designation in the Community Plan, redevelopment plan or specific plan for the site; and
- Whether the proposal is **inconsistent** with the General Plan or adopted environmental goals or policies contained in other applicable plans.

further described above and in comments from various groups and agencies regarding wildfire and transportation.

Substantial evidence supports a fair argument that the Project will have a significant impact on transportation, impacts which have not been analyzed or mitigated, in the MND.

9. Utilities and Service Systems. The Project provides no permanent drainage infrastructure and no information regarding how distributions conduits, systems, storage facilities, metering or billing would be made available, as also noted by Coastal Commission staff, and admitted to by the City of Los Angeles. To the contrary, the Project's proposed drainage system along Revello Drive connects to a City of Los Angeles constructed *temporary* drainage system on private property, meant to provide storm water drainage until the City engineered a permanent solution. [Exhibit 4]. Adequate studies or analysis are not provided in the MND regarding the sufficiency of this temporary drainage infrastructure, or any other infrastructure for that matter. To the contrary, there is only evidence that the infrastructure is insufficient.

Substantial evidence supports a fair argument that the Project will have a significant impact on utilities and service systems, impacts which have not been analyzed or mitigated, in the MND.

10. Wildfire. The Project is located in CAL FIRE's Fire Hazard Severity Zone. Nevertheless, the Project poses a significant hazard to the public and the environment which will impair the response/emergency evacuation plan and routes for the approximately two hundred homes within the boundaries of the Home Owners' organization therefore also posing a significant risk of loss, injury or death involving wildland fires, particularly during construction. Such potential impact was also identified by Coastal Commission staff and is elaborated in the report by MAT Engineering. [Exhibit 5]. Nevertheless, no impact study, no evaluation of physical interference with the roads leading into and out of the area, no analysis of emergency response plans or emergency evacuation plans has been provided.

Substantial evidence supports a fair argument that the Project will have a significant impact on wildfire, impacts which have not been analyzed or mitigated, in the MND.

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For the reasons discussed, the Home Owners' appeal should be granted.

Very truly yours,

LUNA & GLUSHON
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A handwritten signature in blue ink, appearing to read 'Kristina Kropp', is written over the printed name.

KRISTINA KROPP

Exhibit 1

INTERIM GEOLOGIC ANALYSIS OF REVELLO/TRAMONTO PROJECT

Castellammare Mesa Area
City of Los Angeles, California

Subject to Revision

E.D. Michael
PG 270; EG 157; HG 574
November 6, 2023

PART I - INTRODUCTION

This geologic analysis, prepared at the request of the Castellammare Mesa Home Owners (CMHO), considers the geologic character of the currently planned Revello Drive and Tramonto Drive Residential Project – Department of City Planning ENV-2019-5520-MND (RTP) as evidence of whether a mitigated negative declaration (MND) accepted for the project is appropriate. The circumstances are unusual. Four large single-family residences are planned in a slope underlain by debris¹ of the Tramonto landslide periodically active since its initial movement in 1936 according to Trigg and Richter (2019, p. 3).

The required initial study [14CCR §15063] by Dudek staff (2021), and its acceptance by the City Department of Planning under Bertoni (2022) and supplemented to some extent by private geotechnical consultants, appears to be the entire technical basis the City Planning Commission will recognize for its November 15 hearing to consider public comment on the matter.

Immediately adjacent to the debris on the east and west are several occupied residential properties. Adjacent to the north immediately below a displaced section of Tramonto Drive is the headscarp of the Tramonto landslide now supported by a vertical bulkhead wall of soldier piles, intervening concrete walls, and a series of tiebacks (also “rock bolts”) ranging up to about 30 feet in height about mid-point along the upper edge. Tramonto Drive provides the main vehicular access to the extensively developed upper Castellammare Mesa area. To the south is a section of Pacific Coast Highway along the Santa Monica Bay northern shore giving vehicular access from its intersection with Sunset boulevard westward to the City of Malibu and beyond to Point Mugu in Ventura County, a total distance of approximately 30 miles.

1.0 ANALYSIS PURPOSE

Generally, this analysis addresses the geotechnical legitimacy of a mitigated negative declaration (MND) for the RTP issued by the City Department of Planning as the project’s “lead agency” [14 CCR §15367] in terms of its geotechnical character and its implied environmental impact. At the outset, prior to City Planning Commission hearing now scheduled for November 15, it is appropriate to note that the Tramonto landslide and its study area are subject not only generally to the California Environmental Quality Act (CEQA), but also specific section of the California Coastal Act as well as the Alquist-Priolo Special Studies Zone Act, the latter because of its proximity to the active Malibu Coast fault zone.

However, the specific purpose of this analysis is to clarify the extent to which geotechnical documents submitted in support of the Planning Department’s MND for the RTP are sufficiently relevant and accurate. It is understood that generally a MND is issued for a project the environmental effect of which either is simply not so serious as to require a “master” or “focused” environmental impact report (EIR) under CEQA, or if not, such that its environmental effect can be

¹ In this context, “debris” refers to natural earth materials displaced during a “landslide,” a noun. In turn a landslide is defined as the downward and outward movement of a mass of earth material in response to gravity.

satisfactorily mitigated during and by construction to satisfy legislative concern. Here at issue then is whether the RTP geotechnical evidence in the record is sufficient to support the MND.

Therefore, essentially to be addressed then is the issue of whether the RTP geotechnical data available to the public to date reasonably support the departmental determination that:

“... 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 ...”

(*emphasis added*) [Pub. Res. Code §21046.5]. Hence, threshold issue is whether an MND is appropriate for the RTP.

In relation thereto, this analysis examines whether local geophysical conditions relevant to the RTP support departmental effective assertion that the developers’ adherence to: [i] Los Angeles City Municipal Code standards, particularly Chapter IX, Article 1, Division 70², and [ii] the related developer’s construction plans currently in circulation, together either assure or can be modified to assure the safety of the RTP during and subsequent to construction.

The semantic issue of whether it is literally the “whole record,” or alternatively, the whole of the record considered by the Department of Planning, is left for counsel’s consideration.

1.1 SCOPE

It is to be clearly understood that whether the record supports the issuance of grading or building permits herein is not at issue. Rather, the “whole record” relevant to the MND issuance appears to consist of: [i] reports of the developer’s principal geotechnical consultant, Stoney-Miller Consultants, Inc. issued between June 27, 2019 and March 9, 2023; [ii] a report by URS Incorporated by Goetz, *et al* (2010), [iii] various City Department of Building and Safety “Geology and Soils Report Approval Letters, [iv] an initial study as required under CEQA to be implemented under 14 CCR §15063 by Dudek staff (*supra*), and [v] a Department of Planning report by Bertoni, *et al.* (2022), generally approving the Dudek study.

In analyzing the record, considerable reliance is placed upon the work of McGill (1989) and inferences based on the early landslide study of the local area by Rutledge and Gould (1959) commonly referred to as the “Moran report.” In addition, supporting data from Kofoed, *et al.* (2005), and Michael (2003; 2005; 2006) are considered relevant. Beyond these formal studies, informal dewatering well records for the property of CMHO members Bart and Cindi Young at 17612 Tramonto Drive are considered to be especially significant.

1.2 LIMITATION

The data for this report have been largely provided by others because of limited time available to meet the CMHO November 6 deadline required for client review prior a forthcoming Planning Commission hearing. The lack of: [i] full-scale geologic maps and sections, particularly those of Goetz, *et al.* (2010), [ii] the RTP grading plan, and [iii] opportunity for discussions with departmental officials and/or RTP consultants for clarification of certain data may herein have resulted

² Recently, the City has with amendments adopted by reference the California Building Code [CCR Title 24, Vols. 1 and 2].

in a degree of uncertainty in interpretation. Without a grading plan, it is especially difficult to consider grading conditions as they evolve. At all times during grading, a very low safety factor of the debris mass underlain by the shear surface indicated by the magenta contours of Figure 1 must be assumed because there has been no remedial work concerning since the 1936 failure. The existing bulkhead supporting Tramonto Drive and the scarp of the 1936 slide scarp has no direct effect on the stability of the debris mass immediately adjacent downslope.

As noted, of particular concern is the lack of a grading plan, *i.e.*, a map showing “before and after” contours with house including basements, retaining walls, and backfills. Further, the evidence for what appear to be debris basal contours of different colors - light magenta and blue - , as shown in Figure 1 (Sec. 6.2.1, *infra*) the Stoney-Miller April 2020 (Pl. 1r) Geologic Map is of special interest. Apparently, they define the distribution of slump landslide asserted to have developed in 1936 (*op. cit.*) of which Rutledge and Gould (1959) apparently were unaware during their definitive study of the Tramonto landslide. Also of uncertain concern is the basis of the bifurcated branch of the Malibu Bowl fault at a point about 25 feet southwest of geologic section SM C-C' and encircled in Figure 1. On the other hand as essentially irrelevant for present purposes is detailed review of Department of Building and Safety Geology and Soils Report Approval Letters issues and SMC responses.

Finally, in terms of environmental concern, it is important to note that generally, as shown in Figure 1, roads indicated in either gray- or yellow-hued as undamaged and damaged City right-of-ways, respectively, are neither. Although within designated City right-of-ways and designate roadways, they do not define them. It is understood according to Bertoni (2022, p. 11) that Tramonto Drive and Revello Drive are designated City streets with 60 feet right-of-way widths and designated 36 feet roadway widths. Nevertheless, based simply on random observations, it appears that almost all roadways in the Castellammare Mesa frontal slope - *i.e.*, generally between Tramonto Drive and Pacific Coast Highway from the latter's intersection with Sunset Boulevard west to Getty Villa Drive - are about 20 feet \pm 1 foot in width.

1.3 RELEVANT LAW

CMHO members less familiar with current local conditions such as those now inferred or demonstrated for the subject RFP should be at least aware of the interrelationships of CMHO's legal and geotechnical status. Aside from the hierarchical character of: [i] CEQA legislation, [ii] administrative aspects under the California Coastal Commission [14 CCR Div. 5.5], [iii] the Los Angeles City Municipal Code, Article 1, Building Code, Division 70, Sections 91.7001-91.7016, all as modified, if at all, by the California Building Code (CBC) [24 CCR Part 2, Vols. 1 and 2].

The extent, if at all, to which testimony before the Planning Commission might affect the issued MND is uncertain. It is important, however, for CMHO to register its concerns, on grounds both technical and otherwise, regarding the RTP.

Further, as I understand it, unlike Planning Department matters, except in circumstances, the public does not have standing regarding with regard to decisions of the Department of Building and Safety. Consequently, in any legal or developmental issues that may arise, CMHO's right to review geotechnical documents may have to be established, preferably by CMHO counsel either through informal agreement or, it is understood, based on the California Public Records Act [GOV §6250, *et seq.*].

2.0 RTP DOCUMENTATION

Because of the forthcoming Planning Commission, hearing time is of the essence and the record reviewed for present purposes is not complete. In particular, the text of the seminal study of landslides in the Pacific Palisades in the Moran report by Rutledge and Gould (1959) has not been made available. Fortunately, sections of that report included in a consultant report study by Kofoed, *et al.* (2005) have been obtained through the efforts of CMHO member Cindi Young.

2.1 RTP-RELATED TECHNICAL REFERENCES

The documents at hand directly relevant to the RTP are those of: [i] Stoney-Miller Consultants submitted during the period of June 27, 2019 - March 9, 2023, [ii] responding Department of Building Safety Geology and Soils Approval Letters, and [iii] the URS study of Geotz, *et al.* (2010). It is surmised that the Stoney-Miller documents to date have been prepared initially as the basis for the Planning Commission to determine whether the MND for the RTP has been properly issued in lieu of a "full" CEQA-required environmental impact report (EIR).

2.1.1 Stoney-Miller Consultants, Inc. Reports

The Stoney-Miller documents currently available for this analysis - generally those issued as noted (Sec. 1.1, *supra*) - do not include a formal grading plan. In effect, they simply assert that: [i] grading will be accomplished as required for the various building sites and driveways, [ii] plans for support of graded slopes, house foundations, and retaining walls are to be provided according to notations, *viz*, "DESIGN PER STRUCTURAL ENGINEER," all of which apparently are to be based on whatever additional geotechnical data may be required prior or to issuing building permits. The extent to which these documents may be relevant to the issuance of building permits, or in fact render the RTP infeasible, is uncertain.

2.1.2 Dept. Building and Safety Geology and Soil Reports Approval Letters

The Department of Building and Safety routinely issues "Geology and Soil Reports Approval Letters" perhaps better referred to *e.g.* as "Geotechnical Report Review Letter," or "Geotechnical Correction Letter," as the case may be, that in any event are essentially departmental responses to reports of engineering geologists and/or geotechnical engineers regarding building permit applications that may: [i] question consultant reports with reference to compliance with City Municipal Code, and [ii] require additional information in adherence to specific standards.

It appears that the Stoney-Miller Consultants Inc. reports concerning the RTP, although as yet insufficient for the issuance of grading or building permits, may have been prepared in support of the ruling by the Department of Planning that the RTP as now proposed qualifies for approval based on a MND by effectively asserting that development of the RTP would not have a "significant effect" on the environment (Sec. 1.0, *supra*). Specifically, the Department of City Planning in its discretionary power has ruled, apparently based on the evidence at hand - presumably after the issuance of the report by Jensen and Liu (2020) - that although the RTP certainly will affect the local Castellammare Mesa area environment, such effect will not be so environmentally significant as to require a "full" or "focused" EIR.

2.1.3 URS Corporation Report

A report by the URS Corporation entitled, "Landside Stabilization Study, Tramonto Drive Landslide, Los Angeles, California," apparently concerns the redevelopment of a section of Revello Drive as a means of vehicular access to three of the four RTP residences. It is of particular inter-

est because it addresses the RTP problem of ground water. The Stoney-Miller geotechnical interpretation apparently relies on the URS interpretation of ground-water occurrence in considering RTP site slope stability.

2.2 RTP-AREA FORMAL REFERENCES

Landsliding became a civic issue in the City of Los Angeles partly as a result early on of using damaging expansive fill in grading house sites, and partly due to landsliding caused by improper grading procedures until the late 1960s when grading standards of the Uniform Building Code were adopted as part of the City's building code the need for became apparent when extensive residential development in the Santa Monica Mountains began in the late 1940s after the end of World War II in 1945.

Beginning with the City's Hillside ordinance promulgated in 1956(?) procedures were developed requiring both engineering geology geotechnical engineering reports. More or less in parallel with this, the State became concerned with landslides developing along Pacific Coast Highway which rise the Moran report by Rutledge and Gould (1959).

With more time for research and perhaps some investigative work a more detailed analysis of the subject RTP than can be offered here would be possible. However, it is asserted herein at the outset: The RTP is such that even with accomplishment of the latest requirements for the issuance of building permits as specified in Jensen and Liu (2020), the available data are insufficient to avoid adverse conditions in terms of slope stability in the event of proceeding with development of the RTP as now proposed.

2.2.1 Moran, Proctor, Mueser & Rutledge Consulting Report

Rutledge and Gould (1959), in their preparation of the Moran report, installed a number of exploratory borings mostly logged by drop-hammer sampling, and the installation of slope indicators and piezometers. Although having access to their Tramonto landslide cross-section and a geologic map of the Castellammare Mesa frontal area showing landslide debris contacts, the text of their report has not yet been obtained. A follow-up study of the Moran report by the California State Department of Public Works, (Staff, 1959) also is relevant to conditions concerning the Tramonto landslide.

2.2.2 U.S. Geological Survey Misc. Inv. Series Map I-1828

Basic geologic conditions in the coastal-Santa Monica and Pacific Palisades area are excellently presented by McGill (1989). In particular, his identification of wave-cut platforms underlying much of the Pacific Palisades area leads to the especially important conclusion of a perched ground-water condition in the Castellammare Mesa area Sec. 4.3.2.1, *infra*).

This in turn is particularly relevant with regard to conditions in the vicinity of the Tramonto landslide in providing the most detailed geologic interpretation of the local geologic formations. In particular, the formation from which the Tramonto landslide developed, identified as Martinez Formation by Rutledge and Gould (1959), McGill identifies as a section of the Topanga Canyon Formation of Yerkes and Campbell (1980). In the circumstances, McGill's interpretation is preferred.

3.0 CASTELLAMMARE MESA RESIDENTIAL DEVELOPMENT

Residential development of the Castellammare Mesa area began about 1926 some eight years, it is understood, before the City reportedly promulgated its first building code after the Richter Magnitude 6.4 Long Beach earthquake of March 10, 1933. Long Beach earthquake, and some thirty-three years before City adopted special building code grading standards as one condition for the issuance of building permits in ordinance-specified hillside areas. Such standards initially were derived from the Uniform Building Code, superseded about 1985 by the International Building Code. Recently, the City adopted by reference with amendments, CCR Title 24, Part, Volume 1 of 2, the California Building Code (CBC).

Initial grading in the Castellammare Mesa area, possibly about 1920, was for roadways in anticipation of residential development. At least rough grading of roads yet unpaved in both the frontal slope and the mesa area proper had been completed prior to 1928.

3.1 FRONTAL SLOPE RESIDENTIAL DEVELOPMENT

In 1928, about 10 houses had been constructed in the frontal slope and also the as a restaurant³ at the intersection of Porto Marina Way Drive and Pacific Coast Highway – then the Roosevelt Highway. By 1940, at least twenty houses had been constructed including two along the seaward side of Tramonto Drive. At the time, all were accessible only via Porto Marina Way, because Tramonto terminated at its intersection with the western end of Revello Drive. Earlier, residences must have utilized septic systems, and even in 1959 several may have been in operation west of the Thelma Todd restaurant (Rutledge and Gould, 1959, Drawing L-10).

In 1944, there were 20 – 25 residences in the Castellammare Mesa frontal area, including possibly two in the area now underlain by Tramonto landslide debris that, as noted by Trigg and Richter (2019, p. 3) apparently began eight years previously, in 1936, if not earlier. Whether there was connection to the Hyperion facility by that time is undetermined. By 1956 there had been constructed about 80 residences in the frontal area, and it seems certain that most if not all were then connected to the Hyperion plant.

3.2 MESA AREA RESIDENTIAL DEVELOPMENT

Curiously, in 1928 there was a house on the eastern side of what now is Notteargenta Road in the Castellammare Mesa area proper, i.e., the upper mesa surface of low relief, and depending on how the boundary is defined, two others at the northwestern-most point on Tramonto Drive. That early there may have been installed along Pacific Coast Highway a sewer main to which the frontal slope residences could have been connected, but of course, these houses in the upper mesa area must have been served by septic systems..

Other than those three houses, residential development of the mesa area proper began about 1949, probably having been delayed until the original Hyperion screening facility became a full secondary treatment plant in 1950. Even then however, the eastern end of Tramonto Drive had yet to be extended to Sunset Boulevard. It is understood that then as now there was no requirement that residences must be connected to the Hyperion system. Even today in the very extensively developed Pacific Palisades area some residences remain on septic systems.

³ Commonly referred to as the Thelma Todd restaurant.

In fact, it is uncertain whether any residences in Castellammare Mesa area now are served by on-site septic systems. It is understood that within the City of Los Angeles, there are about 11,000 properties currently that utilize them. However, an inquiry regarding whether any are located in the Castellammare Mesa area has as yet gone unanswered. In any event, by July, 1956, about 120 houses had been built in the mesa area proper, and almost certainly all are connected to what now is the Hyperion Water Reclamation Plant.

PART II – CASTELLAMMARE MESA AREA GEOLOGIC CONTEXT

The geologic character of the Castellammare Mesa area is quite well understood. For present purposes, it needs only to be outlined. Its civic character, both physical and economical, although relevant in terms of City governmental concerns, is of course important, is necessarily limited to a great extent by local geologic conditions that can be summarized as follows in a manner that necessarily is introductory. To properly understand the character of the RTP, and indeed its feasibility,⁴ as well as environmental significance, it is necessary to consider, however briefly, its geologic character.

4.0 AREAL GEOLOGY

The Tramonto landslide and the risk it presents cannot be sufficiently well understood without consideration of the basic geologic character of the local area. To begin with, Castellammare Mesa is not a mesa in the strict sense. Although having a mesa-like surface of low relief, it is not surrounded by high, steep cliffs which generally characterize mesa topography.

4.1 TOPOGRAPHY

The Castellammare Mesa has two distinctly different topographic expressions - upper nearly level area with wide streets and large lots and a relatively steep frontal slope with narrow streets and small lots, the disadvantages of which are offset by its virtually unexcelled beach and ocean views. The RTP development would largely combine the advantages of both.

4.1.1 Frontal Slope Topography

The southeast- to south-facing frontal slope of Castellammare Mesa along its base near the intersection of Sunset Boulevard and Pacific Coast Highway to the mouth of Parker Canyon, - a distance of about 0.6 miles ranges in height from about elevation 20 along the highway to elevations in the range of about 200 on the west to 300 on the east with the average gradient between 30% -35% percent, *i.e.* about 17 – 19 degrees from horizontal. The gradient of the Tramonto landslide slope is about 40% or about 22 degrees from horizontal. The total area of the frontal slope is roughly 35 acres. Prior to initial grading for roadways in anticipation of residential development, probably about 1920, the frontal slope was an irregular surface of minor stream channels due to ephemeral stream erosion from rain runoff. Somewhat surprisingly, there never developed any particularly deep channels.

4.1.2 Mesa Area Topography

The upper surface of the Castellammare Mesa area is roughly triangular with the apex on the north east at about elevation 360, and its basal edge ranging between elevation 250 and 300 generally about 30 to 50 feet south of Tramonto Drive. In sharp contrast to the frontal slope, the mesa area topography which slopes south-southwest with a gradient of about 6 percent, 3-4 degrees

⁴ Generally, its economic viability.

from horizontal is otherwise topographically virtually featureless. The area of the upper surface is roughly 30 acres.

4.2 GEOLOGIC FORMATIONS

Any kind of earth material that can be specifically characterized either physically or in terms of appearance can be defined as a geologic, although most are defined on the basis of their lithology. Commonly and for present purposes, three formations are defined, two of bedrock, and one of surficial landslide debris, with members based on time of occurrence.

4.2.1 Bedrock Formations

A bedrock formation generally consists of discrete mineral masses formed at depth either igneously by crystallization from fluid magma, or metamorphically under conditions of high heat and pressure, or by fragmental deposition as sediments, most commonly water. Most bedrock is "rock-like," meaning it has high cohesive strength and occurs in, and can be handled as, chunks.

For practical purposes, two sedimentary formations in the vicinity of the Tramonto landslide area are recognized: [i] the Sespe Formation of the lower to middle Tertiary Period, mostly more resistant cliff-forming sandstones and conglomerates, and [ii] the Topanga Canyon Formation, defined by Yerkes and Campbell (1980), mostly less resistant sandstones and siltstones of the middle to upper Tertiary Period. Initially, the local section of Topanga Canyon Formation was regarded by Rutledge and Gould (1959) as that of the Martinez Formation.

4.2.2 Surficial Formations

Surficial formations most commonly occur as friable to weakly cohesive masses of fragmental inorganic minerals formed at the surface. For present practical purposes two are defined as relevant for present purposes: younger historic landslide debris, and older prehistoric landslide debris. This distinction is based entirely on whether formed in a manner for which there is a historic record. For particular purposes, a further distinction can be made, *i.e.*, whether either is considered "active" meaning a mass that is observed to move periodically, or "inactive" meaning movement has not been observed, the distinction entirely arbitrary on the part of the observer.

For present purposes, the Tramonto landslide, actually its debris, is considered to be active and the contacts of the debris is generally shown in Figure 2. Figure 2 in terms of professional practice is rather unusual in showing inferred subsurface contours at the base of the debris without evidence, physical or otherwise, supporting it.

4.3 GEOLOGIC STRUCTURE

Geologic structure is the study of the manner in which geologic formations have been deformed during or subsequent to emplacement due to internal changes in stress and consequent mass thickening or elongation which in sedimentary sections causing folding, or rupture involving small-scale fracturing or large-scale faulting. Folding in local sections of the Sespe and Topanga Canyon formations is recognized, but for present purposes is regarded as unimportant. On the other hand, both fracturing and faulting are regarded as especially important.

4.3.1 Faults

A geologic fault is an incorporeal surface in the earth along which masses of earth, recognized either as parts of the same formation or as distinctly different formations, have moved, or been

“offset” in different directions. Where they have moved apart without touching, the faulting has been tensional. Where they have been in contact during movement, the faulting has been either pushing in compression, or sliding in shear, or almost necessarily, both. The faults of interest for present purposes are of this latter type.

4.3.1.1 Malibu Coast Fault

The Malibu Coast fault is apparently the most well-developed of a number of sub-parallel faults, most presumably active, that occur in a zone along the southern base of the Santa Monica Mountains. It commonly is regarded as a left-lateral high-angle oblique reverse fault meaning that the mass to the north has moved laterally outward and upward to left, northward, with respect to the mass to the south, according to McGill (*op. cit.*).

The Malibu Coast fault trace, *i.e.*, a line defined by the intersection of the incorporeal fault surface with the earth's surface, passes from the mouth of Potrero Canyon westward, passes offshore from Castellammare Mesa about 1,000 feet. It is of special interest for present purposes because southward components of seismic of force would tend to cause the Tramonto landslide debris mass to move seaward perhaps catastrophically.

4.3.1.2 Malibu Bowl Fault

The Malibu Bowl fault is a detachment fault recognized by Campbell, et al. (1966) along which a younger Tertiary section has been thrust over older an older Tertiary section in what now is the Santa Monica Mountains tectonic block. Locally a weaker and presumably more highly fractured section of the Topanga Canyon Formation has slid over less highly fractured a section of the Sespe Formation.

It seems clear that the Tramonto landslide has developed in an area of the Castellammare frontal slope that is underlain by a more highly fractured section Topanga Canyon Formation in contact with the a more competent Sespe section along the Malibu Bowl fault.

4.3.2 Local Tectonism

The term “tectonism” refers to the movements of the earth's vast tectonic plates. Island-like tabular masses of less dense feldspathic masses in effect floating in the more dense basaltic layer of the of the earth's crust. Movement of the North American tectonic plate along the San Andreas fault has in isolated fragment of it in which more or less independent forces have raised the coastal mountain ranges in California's coastal geomorphic province.

4.3.2.1 Santa Monica Mountains Block

The Santa Monica Mountains generally are regarded as a relatively small isolated tectonic block that began to rise, it has been postulated, about a million years BP, being thrust upward along a fault zone at the base of the southern mountain front. The Malibu Coast fault represents a well-developed segment of this frontal fault system.

The Santa Monica Mountains block rises in stages, and during intervening quiescent periods breaking ocean waves erode the shore and gradually form surface of relatively low relief, below the depth at which wave erosion is ineffective. The result of this process is the formation of a wave-cut surface commonly referred to as a wave-cut platform. Depending on the shore material's resistance to erosion and the period of tectonic quiescence, such a surface may become quite wide. McGill (1989, Sheet 2) has recognized three such platforms in the Pacific Palisades area.

4.3.2.2 Pacific Palisades Platform

An episode of Santa Monica Mountains block tectonic uplift thought to have begun about 97,000 years BP caused the emergence of the wave-cut surface developing at that time. McGill (1989, Sheet 2) who recognized it has called it the Pacific Palisades Platform. The bedrock surface underlying a thin section of marine sands overlain by 20 – 30 feet of fluvial deposits is an isolated segment of the Pacific Palisades Platform.

5.0 HYDROGEOLOGY

Hydrogeology may be defined as the scientific study of water that occurs in the subsurface under some set of persistent hydrologic conditions and commonly referred to as “ground water.” Although ground water temporarily in subsurface storage is included, hydrogeology primarily concerns the movement of ground water. In determining whether there is a risk of landsliding, it is important to understand the manner in which ground water occurs or is likely to occur. In considering such matters over the long term application of the hydrologic balance equation can be especially useful.

5.1 HYDROLOGIC BALANCE

The term ‘hydrologic balance’ refers to the movement of water through a specified volume of earth at the earth’s surface. In theory, in any given period, the amount of water entering that volume, corrected for storage changes in that volume must be equal to the amount of water leaving that volume. The purpose of the hydrologic balance commonly is to estimate increments of inflow and outflow during such period. In agrarian pursuits outflow commonly is a matter of most concern. Where slope instability is at issue, subsurface storage increase may be most important. But in any case, determining some variables of the hydrologic balance may offer a means for controlling others. For a block of the earth containing the Tramonto landslide debris, the following increments of the hydrologic balance apply

Inflow: rain infiltration; through-flow irrigation; line leakages; subsurface inflow, particularly from the north, and inflow from early septic systems assumed to have been eliminated .

Storage: ground water corrected for incremental change in saturated zones; changes in surface storage such as swimming pools and decorative ponds, with line storage volumes assumed constant.

Outflow: evapotranspiration; evaporation from standing surface waters and damp areas; subsurface flow to Santa Monica Bay; surface runoff from springs, rain, and dewatering

5.2 GROUND WATER OCCURRENCE AND MOVEMENT

Ground water either moves through the Castellammare Mesa area and to some extent is stored there. Generally in a particular area, groundwater may be stored as an aquifer, or in the case of Castellammare Mesa, an *effective* aquifer that through long-term observations of *effective* production and *effective* recharge it should be possible to predict how groundwater is likely to occur at any given time. As a practical matter, two effective aquifers can be defined for the Castellammare Mesa area.

There is no question that perched ground water on the Pacific Palisades Platform now flows on and into the Castellammare Mesa frontal slope. The pump inlet in the Young dewatering well is at a depth of about 30 feet, judged to be close to the base of marine sands deposited on the Pacific

ic Palisades Platform. Further, all ground water in the Castellammare Mesa area must flow southward.

5.2.1 Perched Ground Water

Ground water occurs and is partially retained at the base of a surface section of permeable fluvial deposits and underlying marine sands deposited on the Pacific Palisades Platform (Sec. 4.3.2.1, *supra*) defined by McGill (*op. cit.*). Because the bedrock formation underlying the platform surface - a section of the Miocene Topanga Canyon Formation - is less permeable, a certain increment of ground water flows over it in response to its seaward gradient rather than infiltrating - thus the term "perched" ground water is applied. The Young dewatering well at 17612 Tramonto Drive is designed to produce from this perched zone.

The equilibrium level in the Young well varies significantly during the year, and a daily two-hour schedule is employed to avoid over-pumping. As I understand it, the record of metered production over the past 11 years to September 15, 2023, indicates a total production of 471,110 gallons, or on average about 100 gallons per day although the actual production rate varies according to the equilibrium level at the beginning of the pumping cycle. Production from the Young well and several others could increase dewatering the perched zone significantly, especially if pumping were based on recovery and drawdown levels. For an average connected porosity of 20 percent, the volume dewatered over the past 13 years would be 314,913 cubic feet.

While these data cannot be directly related to levels of ground water in the Tramonto landslide debris or underlying bedrock sections, they do give some indication of the effective recharge generated in the upper Castellammare Mesa area. In this respect, it is worth noting that the recent drought that may now be ending is reported to have been the longest experienced in the local area since the 1500s.

5.2.2 Basal Ground Water

Necessarily, there exists a basal saturated ground water zone in hydrologic continuity with the adjacent bay water. Certainly, the level of this zone is above that of sea level, and may vary significantly both seasonally as well as with long-term rainfall cycles. The data received to date are insufficient to determine either the existing or the periodic elevations of the saturated basal zone underlying the Tramonto landslide debris mass.

5.3 LOCAL EFFECTIVE AQUIFER CONDITON

"Effective" is a useful term to describe the manner in which ground water affects conditions in the vicinity of the Tramonto landslide. Strictly speaking, an aquifer is defined as a natural subsurface water-saturated zone from which water can be produced or some economic purpose. Expanding "economic purpose" to mean reducing the risk of landsliding, saturated zones of ground water in the Castellammare Mesa area may be regarded effectively as aquifers.

5.4.1 Effective Aquifer Recharge

The term "recharge" refers to water that enters an aquifer and hence is available for withdrawal. Recharge water occurs naturally and can be supplied artificially. Although types of recharge in the Castellammare Mesa area must occur, data to estimate the types, volumes, and rates are not available, and probably have never been formally estimated. For present purposes, only recharge from the upper surface need be considered.

To a first approximation, aside from rainfall infiltration, recharge due to leaking water and sewer mains and pipes must occur. It is almost inconceivable that after some 70 – 75 years of the installation of these facilities that some leakage has developed, and unless apparent at the surface, it is unnoticed. Also, through-flow yard watering commonly occurs and can be a significant increment of recharge.

5.4.2 Effective Aquifer Loss

Perched ground water emerging where the Palisades Platform is truncated by the frontal slope by analogy is regarded as effective aquifer loss – effectively an element of hydrologic balance loss (Sect. 5.1, *supra*). Actually, of perched ground water flowing over the Pacific Palisades Platform as shown in Figure 1 eventually reaches the surface where the platform has been truncated by frontal slope erosion. Some of the perched ground water may then flow on the surface or otherwise descend the slope as shallow groundwater in thin sections of soil or permeable weathered surficial sections until either passing under Pacific Coast Highway or emerging near the base of frontal slope as spring water. As shown in the figure, McGill noted many springs in the nearby vicinity.

Perched ground water emerging somewhat farther east originally flowed over the Sespe Formation and the Malibu Bowl fault trace to enter an adjoining section of the Topanga Canyon Formation highly fractured as the result of being dragged over the Sespe Formation. As barbs along the fault contact show, the Topanga Canyon Formation at that location was dragged downward to the southeast over the Sespe Formation.



Figure 1. Perched Ground Water - Tramonto Landslide Relationship

5.5 DEWATERING

In 2012, a dewatering well was installed in the Young property at 17612 Tramonto Drive about 130 feet west of the nearest point of contact with the Tramonto landslide. The well is about 30 feet deep and penetrates a section fluvial alluvium over a section of marine sands with the casing

shoe close to, or actually on bedrock of the Pacific Palisades Platform. The well has 20 feet of 6-inch Schedule 80 PVC casing connected 10 feet of 0.010 slotted PVC well screen. Since its installation in 2012 has produced an average of approximately 100 gallons per day, for a constant 2-hour pumping period the Young dewatering produced 471,110 to the middle of September 2023, an average of about 100 gallons per day. With the pumping period based on the draw-down and recovery levels might be increased significantly.

Several similar dewatering wells could be helpful in maintaining the basal saturated zone at a safe elevation below the Tramonto landslide debris mass as confirmed by drilling, sampling, and slope indicator data. In the case of the Tramonto landslide it is mandatory to reduce the groundwater level to elevations below both the magenta and blue contours of Figure 2 presumed to be the bases of slumped debris and flow debris, respectively

6.0 ENGINEERING GEOLOGY ASPECTS

Geology is the scientific study of the earth's history *i.e.*, how the earth got the way it is, and , and *engineering geology* is defined as the application of such geologic principles to civil works, as bridges, dams, and large commercial buildings and similar structures. Further, *geotechnical engineering* is a branch of civil engineering that concerns the behavior and use of earth materials used in such construction particularly in hillside areas. Generally, the engineering geologist defines physical problems related to the use of earth materials used in civil works, and the geotechnical engineer solves them. A common engineering geology problem is that of recognizing landslides or conditions where landsliding might develop.

6.1 FRONTAL SLOPE LANDSLIDING

Much of the Castellammare Mesa frontal area is underlain landslide debris due mostly, it appears, to locally over-steepening slopes when grading slopes for home sites. Most of these slides appear to be flows in soil or surficial weathered bedrock sections exposed to subaerial conditions after emergence of the wave-cut Pacific Palisades Platform which, according to McGill (*op. cit.*) occurred 93,000 – 125,000 years BP. Since then the frontal slope has developed as a surface in which weathering has resulted in weakened bedrock sections probably ranging in thickness normal to the slope of about 10 – 20 feet.

Locally, small mudflows probably have occurred in the Castellammare frontal slope since emergence of the Pacific Palisades Platform, during especially intense rainstorms. However, it seems clear that numerous small slides have developed there since the late 1920s are the result of uncontrolled grading operations for building sites which produced oversteepened slopes and dumped excavated materials as uncompacted fills along roadways. However, the Tramonto landslide clearly has had a different origin.

6.2 TRAMONTO LANDSLIDE DEVELOPMENT

The Moran report by Rutledge and Gould (1959) initially was regarded as giving the evidence of initiating the Tramonto landslide in 1967 or 1968. It now comes as a surprise to consider evidence of a much earlier date for the initial movement.



Figure 2. Modified SMC Geologic Map, April 2020, Plate 1r.
Magenta and blue contours are interpreted to be basal contacts of the reported 1936 landslide of Trigg and Richter (2019, p. 3). The Malibu Bowl fault bifurcation point is encircled.

6.2.1 Reported Tramonto Landslide Initial Movement

Trigg and Richter (2019, p. 3, ¶ 2) assert:

“In 1936, 3.2 acres failed as a moderately deep slump landslide extending on former Roosevelt Highway (current PCH) from upslope at Tramonto Drive.”

It is inferred that this is based upon stereo-pair aerial photographs. In 1936, landslide nomenclature had not been developed to any great extent. Although early reports of landsliding probably

were not unusual, to describe one as a “slump” would indicate technical nomenclature regarding landslides phenomenon which, so far as is known, was yet to be developed. At that time, Karl Terzaghi, the “father of soil mechanics,” had begun his study of unstable slopes only a few years earlier, and reliable means of measuring strength of earth materials thus giving impetus to landslide interpretation and nomenclature – initially arising from the experimental design of airfield runways for heavy bombers during World War II - was yet to be developed.⁵

As shown in Figure 1, the magenta lines must represent inferred basal contours of slump debris in magenta and flow debris in blue must represent the base of the debris mass as it moved, generally as a flow, to the toe of the slide and beyond to eventually be deposited on Pacific Coast Highway

6.2.2 Current Movement

As shown in Geological Section 34 of Rutledge and Gould (1959), as late as October, 1958, the apparent scarp of the reported 1936 movement was only about 5 feet in height with its crown, *i.e.*, its upper edge, about 40 feet south of the southerly edge of Tramonto Drive at that time. Possibly unaware of the evidence for this 1936 movement, their Cross-section 34 shows the base of the debris as essentially linear with a thickness normal to the slide surface of about 65 feet near the scarp thinning down slope to about 40 feet above Pacific Coast Highway, all suggesting a planar “block glide” failure such as described by Varnes (1958, Pl. 1-g).

Nevertheless in a Stoney-Miller Consultants (SMC) Geologic Map designated Plate 1r and dated April 2020, herein Figure 1, shows what appears to be basal landslide debris contours with those in magenta indicating closed contours typical of a slump and blue contours typical of a the base of the resulting debris flow. Oddly enough, an explanation of these basal contours and different color are not given in the map, and no SMC port of the map’s date is available.

In passing, it is worth noting that although the geologic formation contacts shown in Figure 1, are essentially those of McGill (1989), the trace of his Malibu Bowl fault is bifurcated in Figure 1 at a point, encircled, about 80 feet upslope from where it is crossed by SMC geologic section line C-C'. Like the reported 1936 failure, the evidence for this is uncertain.

6.3 TRAMONTO LANDSLIDE CAUSE

Accepting as valid the initial movement of the Tramonto landslide in 1936, it must have occurred after thousands years of prior slope stability after emergence of McGill’s youngest wave-cut platform. For this state of affairs, a reasonable explanation of the landslide’s cause, although speculative, can be postulated. As noted (Sec. 6.2.1, *supra*), it is assumed that stereo-pair air photos are the evidence of the Tramonto landslide that in 1936, or possibly earlier.

At the time, here may have still been reliance on septic systems which must have been used in the 1920s. Speculating further, the Long Beach earthquake of 1933 may have caused unnoticed leakage in water lines and two years prior to the 1936 the rainfall total was especially high. In such circumstances, Tramonto landslide movement could have been initiated at that time, and it was only in 1936 that it was recognized. In any event, with advent of residential development in

⁵ In 1936, the reason the 12th Century tower of Pisa began leaning during its construction was still technically uncertain.

the upper Mesa area beginning in 1949, bringing with it increased ground water if for no other reason than through-flow yard watering, exacerbated the slope conditions of 1936 with the resulting 1956 movement that became the subject of study by Rutledge and Gould (1959).

The position of the Tramonto landside suggests that perched ground water now either directly entering the Tramonto landslide debris mass, as shown in Figure 2, or being deflected by the relatively impermeable Sespe Formation before passing into it, is the mechanism that initiated the Tramonto landslide.

6.4 TRAMONTO LANDSLIDE SAFETY FACTOR

The safety factor against landslide shear failure is calculated as the ratio of [i] the stress along a unit-wide “critical” surface, *i.e.*, generally along the steepest surface of shear either postulated or observed, tending to resist sliding, to [ii] the stress there tending to cause sliding. As a practical matter, a safety factor of 1.5 is considered suitable for purposes of construction. Based on the evidence of current periodic movement, the safety factor of the Tramonto landslide cannot now be much greater than 1.0, thereby calling into question the feasibility if not safety of conditions during construction efforts as now proposed. Further, the extent to which the proposed grading, even if completed, would alter the safety factor is uncertain.⁶

Nota Bene: In the interest of time, a review of aspects of the profession of geotechnical engineering is not included here but if necessary can be provided for the Planning Commission as an amendment.

PART III - MITIGATED NEGATIVE DECLARATIONS ISSUES

The subject RTF presents a very special and possibly unique developmental problem. It, or a similar modification, project is highly desirable in that it presents the possibility of stabilizing the Tramonto landslide at a cost balanced by the market value of the properties thus developed. But if for any reason unforeseen circumstances occur – *e.g.*, major seismic, Tramonto Drive bulkhead collapse, major slide movement during construction, *etc.*, the resulting conditions could be worse those than now exist and beyond the scope of remedy provided by a performance bond.

9.0 EXCESSIVE DEBRIS EXPORT PERIOD

An error in Dudek (2021, p. 21, Sec. 3.3.6) carried over into Turner (2022, pp. 10-11; pp. 17-18)) misunderstand the term “grading,” which is defined as: “... any excavating or filling or combination thereof ...”) (Mun. Code, Sec. 91.7003). Erroneously in Dudek (*ca.* p. 21, Sec. 3.3.6):

“As shown in Table 3, the total grading for the project, including that required for offsite street improvements, is approximately 29,148 CY, of which 28,341 CY is remedial grading and approximately 33,794 CY would be exported/transported from the Project site (inclusive of an allowance amount for the expansion of soil).”

To be clear, by “CY” is mean cubic yards, and since some materials is to be exported, the “total grading” must include that volume. By definition: “Grading is any excavation or filling or combination thereof “[LA City Mun. Code, Div 70, Sec. 91.7003]. Consequently the “total grading” is the sum of 29,148 CY and 33,794 CY, *i.e.*, **62,942 CY**.

⁶ Simply as a matter of information, there is no accepted method of calculating a factor of safety of a postulated flow failure.

Whether by Dudek's use of "expansion" is meant volume change in the chemical context such as the iron sulfite – iron sulfate transition is uncertain. In trucker's language, "break-out" refers to the volume increase due to voids that develop when loading excavated earth material. The truck loaded volume is invariably greater than the volume of the excavation from which the material was obtained. "Break-out" is the ratio of the truck load to the volume of the excavation from which the material was taken. Break-out for loose sand would be little more than 1.0 whereas for strong bedrock it could be as much as 50 percent or more.

Assuming a break-out of 10 percent for materials excavated from the mass of Tramonto landslide debris, and applying code requirements as well as reasonable values for typical variables such as traffic problems, mechanical breakdowns, and bad weather, exporting 33,794 CY would take somewhat *more than a year to accomplish*. Whether this should preclude regarding the RTP as a project to which a MND is applicable seems a cogent matter for the Planning Commission's consideration.

10.0 DESIGNED SLOPE INSTABILITY

After the 1936 landslide occurred the mass of landslide debris, D, came to rest along a surface of shear SS that is part of the surface shown by the magenta contours of Figure 2. At this time, a force M is acting to move D farther down S-S slope to the southwest is resisted by an equal force R acting to move D back up S-S, both normal to an intermediate surface of equilibrium, E-E.

If, say in 2024, secure with the blessings of the Department of Planning and the Department of Building and Safety that everything is hunky-dory, a contractor decides, arbitrarily, to excavate slide debris downslope of E-E, the effect would be to reduce R so that D then being greater would again move southwest hopefully slowly enough that the contractor can get of the way. Without a specific plan keyed to debris export problem is especially difficult and may require an *even longer period for debris export*.

11.0 QUESTIONABLE SHEAR PIN USE

As optimistically noted in Dudek Staff (2021 p. 1);

"...Per City approved recommendations, the Project includes certain ground that would remediate and eliminate any slope failures from occurring on the Project site. These ground improvements would consist of placing several rows of shear pins or piles at specific areas on the hillside as well as performing remedial grading to remove a certain amount of the landslide debris on the Project site. These piles would stabilize the Project site as well as support the proposed homes and roadways"

As a matter of speculation, shear pins would be constructed led in the same manner as soil nails except they would be installed vertically. However, rather than designed to provide tensile strength against lateral slope force, the shear pin is designed either to resist vertical load.

So far, it seems apparent from initial research, in terms of slope stability, that shear pins are not in common use. The discussion of shear pins by Trigg and Reichert (2020, App. G) is unclear. Although essentially calling for the expertise of a structural engineer - yet to be obtained, incidentally - use of a pin device in matters of slope stability involves not only its mechanical character, but also that of its environment. In the absence of the approval of a structural engineer there is no evidence that the RTP is even possible and consequently is beyond the MND requirement that such a problem can be remedied.

there is no evidence that the RTP is even possible and consequently is beyond the MND requirement that such a problem can be remedied.

11.1 QUESTIONABLE SHEAR PIN USE FOR STRUCTURAL SUPPORT

The idea of using pins to support foundation load - presumably as an economical approach to the problem of underlying uncompacted landslide debris too costly to remove and replace in a compacted condition - even though installed ".... above the 1.5 FOS surface per the Cornforth approach"⁷ is questionable. Although showing remarkable imagination, the matter as presented lacks demonstrated technical merit. The problem in this instance not considered is that in a slope mass, whether below or above a surface having a FOS (factor of safety) of 1.5, there is shear stress at all times including sections transverse to the pin shaft, and hence calling into question both its resistance to shear rupture and its bending moment. Again, the possible environmental impact is beyond proposed the remediation limitation of the MND.

11.2 QUESTIONABLE SHEAR PIN USE FOR GRADED SLOPE SUPPORT

Also apparently considered is the use of shear pins apparently to increase compaction of landslide debris moving downslope between deep-seated soldier piles. As a means of slope stabilization, the use of soldier piles - whether free-standing, or employing lagging, or fitted with some system such as rock anchors - is well established, although costly. In theory, depending on the mechanical analysis of the material to be supported, cast-in-place or pre-formed piles 2 - 4 feet in diameter set 5 - 10 feet apart on centers can support slopes of a granular material by increasing shear strength due to compaction when it is compressed when moving between piles downslope. However, diagrams for free-standing soldier-pile walls 20 - 30 feet high with "shear pins" inserted between are being considered, but cannot at this time be shown as possible.

12.0 MANDATORY TRAMONTO LANDSLIDE STABILIZATION

In the absence of demonstrating that the active Tramonto landslide debris can be stabilized in a manner consistent with the requirements of the MND that are feasible, issuance of the MND seems by definition to be inappropriate.



* * *

⁷ Whatever that is - no reference given.

Exhibit 2

Kazarians Engineering Services, Inc.

Civil & Structural Engineers

1528 Canada Blvd., Suite 206, Glendale, California 91208-2840

Tel: (818) 240-8763

November 1, 2023

Mr. Chris Ekstein, President
Castellammare Mesa Home Owners Association
PO Box 742,
Pacific Palisades, CA 90272-0742

Re: Tramonto-Revello proposed development
Subject: Structural Assessment

Dear Mr. Ekstein;

Per your request I visited the bulkhead along Tramonto Dr. and reviewed the available soil reports and proposed retaining wall / shoring design and the architectural plans for the proposed development of the vacant lot at the downhill portion of the bulk heads along the Tramonto Dr.

The walkthrough observation was conducted on May 25, 2023. The observation was limited to condition of the existing bulkheads and the impact of the proposed project on the bulkhead supporting the Tramonto Dr.

Physical Description:

The existing bulk head which consists of steel beam soldier piles, tie-backs and wood lagging and shotcrete had been constructed to support the Tramonto Dr., after a massive landslide occurred at that location. A wooden guard rail with variable height exist along the roadway. The guard rail is about 3ft away from the top of the soldier piles. For the purposes of this report it is assumed that the orientation of the Tramonto Dr. is East-West and the bulkhead is at the south side of the street. The landslide has occurred between 17532 Tramonto at the East and 17612 Tramonto Dr. at the West. Thus the bulkhead had been constructed between those two properties. The bulkhead soldier piles are shorter at the east end and the height of the soldier piles increase as bulkhead stretches toward west end. The soldier piles located toward the middle of the bulkhead have two rows of tiebacks and the remainder of the soldier piles have one row of tiebacks. The bulkhead had been constructed within the public right-of-way and it is located approximately 22ft from the southerly edge of the public right of way.

Observations:

From the existing level of the soil resting against the soldier piles and comparing the height and the location of the tie backs, it is obvious that subsequent landslides have occurred after the bulkhead was constructed. These landslides have occurred on the east and west of the soldier piles that have two rows of tie backs. The landslides had removed the lateral support of those soldier piles and thus they were undermined. The exposed parts of the steel soldier piles and the tie backs are rusted. The concrete cover of the steel casement is also exposed and rusted. It can be expected the steel soldier piles inside the concrete pile and the tie backs that are extended into the soil under the street is also rusted. The wooden guard rail does not comply with current code requirement for a guard rail.

The review of the latest version of the proposed plans for the development of the site along the Tramonto Dr. shows that the access driveway to the dwelling is parallel to the street and starts from the east end of the bulkhead and slopes down toward the west. The shoring and retaining wall design and section was prepared by DRS Engineering. It proposes 20 piles that supports the proposed retaining wall. In a table it shows that the shoring/retaining wall support piles are 3ft diameter, but on a separate page it reflects that the pile is designed as 4ft diameter. The profile view of the proposed piles shown on SK-2 reflect that some of the piles are embedded in bedrock and majority of the piles are embedded in the landslide debris. The section and plan detail of the retaining wall and pile which are shown on another sheet but referenced as SK-2 also, reflect that the pile is embedded in bedrock and are located next to the existing bulkhead piles. The new retaining wall is proposed to be located approximately 3ft in front of the existing bulkhead wall and the proposed piles are within that 3ft distance.

Conclusion and Recommendations:

Based on the on the site observation and review of the plans and the reports the following can be concluded:

1. Construction of the private driveway within the public right of way will prevent the widening of the street in the future which will eventually create traffic issues.
2. Drilling of the 4ft or 3ft diameter piles for the proposed retaining wall in close proximity of the bulkhead piles will undermine the bulkhead piles lateral support at time of construction
3. Although lagging is proposed between new piles the excavation and removal of the soil from downhill side of the bulkhead piles to construct the

proposed retaining wall undermine the lateral support of the bulkhead piles. The proposed retaining wall will not provide the required lateral support due to the fact that the embedment depth of the existing bulkhead piles are not known.

4. The proposed retaining wall and the shoring design should take the street traffic surcharge load into consideration. The surcharge load of the traffic is the added load that includes the weight of the vehicles using the street or the roadway. The provided calculation reflects value of Zero for the surcharge load.
5. The piles should also be designed as shear pins for the portion of the piles that are supporting the landslide debris and should all be embedded into the bedrock and no lateral support should be assumed for the section of the pile that are embedded in landslide debris.
6. Several Bulkhead Piles were already undermined due to subsequent landslides that happened after the installation of the bulkhead piles. The drilling for the proposed 3ft or 4ft diameter piles along with the excavation of the soil in order to install the wood lagging and construct the retaining wall by the use of heavy equipment will vibrate and excessively shake the ground and soil. Thus, the construction of the proposed driveway and the retaining wall will further exacerbate and undermine the bulkhead piles and support of the Tramonto Dr.
7. Some of the shear pins reflected on the soil report section drawings do not extend to 1.5 FOS plane line, especially those that are located downslope of the existing residence buildings located on Tramonto Dr.

In conclusion, the development as proposed will undermine the bulkhead structure and the Tramonto Dr. and will exacerbate the existing situation.

The following are the recommendations to be considered:

1. Move the driveway out of the public right of way and construct within the private property. This will allow to construct a permanent retaining wall to support the roadway / public right of way along the Tramonto Dr.
2. All the temporary shoring / permanent piles should be designed for the traffic surcharge and shear pin loads.
3. The height of the retaining wall should be enough to provide sufficient lateral support to the existing bulkhead piles.

Address: 17600 Tramonto Dr., Pacific Palisades,
Client: Castellammare Mesa Home Owners Association
Structural Assessment Report

4. The bulkhead piles that were undermined due to the subsequent landslides after original construction should have the second row of the tie backs.
5. All piles should be embedded in bedrock and beyond the 1.5 FOS plane line.
6. Refer to Item #24 of the Soil Approval letter dated 09/14/2020 in regards to removal of the lateral support of any existing building foundation system and lateral support of public right of way.

LIMITATIONS:

Site observations were limited to surface conditions that were visible and accessible at the time of our visit. Investigative methods such as subsurface exploration or destructive testing were not employed during the course of this evaluation. While not anticipated, it is possible that data produced from such additional studies could modify the conclusions of this report.

In carrying out this investigation, we have employed structural engineering procedures, and our professional opinions and conclusions are made in accordance with generally accepted principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

Please do not hesitate to call me at (818) 240-8763 if you have any questions in this regard.

Sincerely,

A. Kazarians

Ardashes Kazarians, P.E.
Registered Civil Eng. #36687

Exhibit 3



April 23, 2024

Kristina Kropp, Esq
Luna & Glushon
16255 Ventura Boulevard, Suite 950
Encino, CA 91436
kkropp@lunaglushon.com

Subject: **Revello Drive & Tramonto Drive Residential Project
Review of Noise & Vibration Impact Analyses in the Initial Study**

Dear Kristina:

We have reviewed the Initial Study for the Revello Drive & Tramonto Drive Residential Project (July 2021) prepared by Dudek for The City of Los Angeles Department of City Planning and provide here our comments on the noise and vibration sections.

1. BACKGROUND

The Project is construction of four new single-family houses on a 1.35-acre site in the Pacific Palisades area of the City of Los Angeles, CA, surrounded by existing single-family homes – including some that are immediately adjacent to the Project site. According to the Project description in the Initial Study, construction would last for approximately three years, with up to 80 construction workers accessing the site per workday throughout that period. And according to the Noise section (XIII) of the Environmental Impacts Analysis in the Initial Study, construction hours would be 7:00 AM – 9:00 PM, Monday through Friday and 8:00 AM – 6:00 PM on Saturdays. Construction activities would be prohibited on Sundays and Federal holidays.

The analysis presented in the Initial Study concludes that impacts of noise and vibration associated with the Project are less than significant, with no need for mitigation. The purpose of our review is to confirm the accuracy of the analysis and validity of the preparers' less-than-significant finding for noise and vibration impacts.

2. THRESHOLDS OF SIGNIFICANCE

a) Department of City Planning CEQA Thresholds Guide

According to the City's current Thresholds Guide for analysis of construction noise and vibration in the preparation of CEQA clearances, a significant impact would occur if:

Daytime Construction Noise

The noise of construction activities lasting more than one day would exceed ambient exterior noise levels by 10 dBA or more at noise-sensitive uses.

The noise of construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.

Construction Vibration – Building Damage

Project construction activities cause ground-borne vibration levels to exceed:

- 0.5 peak particle velocity (PPV) at the nearest off-site reinforced concrete, steel, or timber building.



- Exceed 0.3 PPV at the nearest off-site engineered concrete and masonry building
- Exceed 0.2 PPV at the nearest off-site non-engineered timber and masonry building
- Exceed 0.12 PPV at buildings extremely susceptible to vibration damage, such as historic buildings.

Construction Vibration – Human Annoyance

Project construction activities cause ground-borne vibration levels to exceed 72 VdB at off-site sensitive uses, including residential uses.

b) Los Angeles Municipal Code

Section 41.40 of the Los Angeles Municipal Code (LAMC) prohibits construction activities that could disturb persons sleeping in a residential use between the hours of 9:00 PM and 7:00AM.

In addition, Section 112.05 of the LAMC prescribes the following noise limits at a distance of 50-feet for power tools/equipment operated between the hours of 7:00 AM and 10:00 PM:

- 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;
- 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;
- 65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

These limits apply to the extent that achieving them is technically feasible through the use of mufflers, shields, sound barriers and/or other noise reduction techniques.

3. PROJECT NOISE IMPACTS ARE UNDERSTATED IN THE INITIAL STUDY

We have identified several areas where the analysis in the Initial Study downplays the significance of noise impact during the construction phase of the project. In some cases, this is because the analysis has relied on incorrect source noise data and/or metrics that make construction equipment noise levels appear lower than they should be. In other instances, a relevant significance threshold has been overlooked and a significant source of off-site noise generated by the Project has been omitted.

The net result is that the less-than-significant finding for noise in the Initial Study is not justified, for the reasons detailed in the following paragraphs:

a) Auger Drill Rig is Not Included in Construction Noise Analysis

According to the Project Description in the Initial Study, construction of the Project will require a total of approximately 300 piles. As described in the Noise section (XIII) of the Environmental Impacts Analysis, these would be bored (rather than driven) piles, formed by placing concrete and steel in large cylindrical holes drilled using an auger.

Because of the large number of bored piles in the Project, use of an auger drill should be a key component of the construction noise analysis. But the calculations presented in Appendix A of the Initial Study do not include auger drill rig noise, substituting a generic “drill rig” noise source in its place.



According to the noise emission table in Appendix A (which is taken from the FHWA Roadway Construction Noise Model) the noise of an auger drill rig is 84 dBA at 50-feet, which makes this piece of equipment the loudest single construction noise source in the Project. The reference noise level of a drill rig truck is significantly lower, at 79 dBA.

b) Incorrect Noise Metric Used for Comparison with LAMC Noise Limits

The noise limit of 75 dBA at 50-feet for construction equipment in Section 112.05 of the LAMC is a maximum noise level – often denoted as “Lmax”. The reference noise levels from the FHWA Roadway Construction Noise Model are Lmax values at 50-feet, so it follows that these should be compared (either directly, or after application of an appropriate noise control adjustment) to the 75 dBA LAMC noise limit.

However, the noise analysis presented in the Initial Study (Section XIII, Table 10) compares the “equivalent” noise level of each piece of equipment to the LAMC noise limit. Equivalent noise level – often denoted as “Leq” – is an averaging metric, calculated for construction projects by applying a “usage factor” to the Lmax reference value.

Usage factor is the percentage of time during the work period that the equipment is operating under full load or near full power. In this Project, usage factors in the noise analysis range from 16% to 50%, which translates to Leq values that are between 3 and 8 dBA lower than the Lmax reference values.

Using the correct Lmax noise data, with a 5 dBA noise control reduction applied (as appropriate, for use of mufflers), we find that there are a total of seven construction noise sources in the Project that do not meet the LAMC 75 dBA noise limit at 50-feet, as follows:

Equipment Type	Lmax @ 50-ft (dBA)*	Noise Control (dBA)	Net Lmax @ 50-ft (dBA)	Exceeds 75 dBA @ 50-ft?
Grader	82	-5	77	YES
Excavator	81	-5	76	YES
Auger Drill Rig	84	-5	79	YES
Generator Set	81	-5	76	YES
Crane	81	-5	76	YES
Concrete Pump Truck	81	-5	76	YES
Cement & Mortar Mixer	79	0	79	YES
* Lmax equipment noise levels are the "actual measured Lmax" from FHWA Roadway Construction Noise Model reference document. No "actual measured Lmax" data is available for the grader; data for a dozer is used in its place.				

So, the conclusion on page 107 of the Initial Study that “the Project would not exceed thresholds set forth in LAMC Section 112.05” is incorrect. In fact, without additional mitigation measures (such as sound barriers) the noise impact of the construction equipment listed above would exceed the LAMC significance threshold and should therefore be considered significant.

c) City CEQA Thresholds are not Considered

The City’s current CEQA Thresholds state that the noise received at sensitive uses as a result of construction lasting more than 10 days in any three-month period should not exceed existing



ambient noise levels by more than 5 dBA. And according to Appendix A of the Initial Study, the existing ambient noise level in the vicinity of the project site is 54.7 dBA (Leq), which means that the City's CEQA threshold (rounded to the nearest decibel for convenience) is 60 dBA.

With usage factors (default values from the FHWA Roadway Construction Noise Model) and noise controls taken into account – and including the auger drill rig reference noise level in place of the generic “drill rig” data – we calculate the following noise levels at various distances for each phase of the Project:

Construction Phase	Received Noise Level (Leq, dBA)				
	@ 50-ft	@ 100-ft	@ 150-ft	@200-ft	300-ft
Site Preparation	72	66	62	60	56
Grading/Excavation	78	72	68	66	62
Building Construction	79	73	69	67	63
Paving	79	73	69	67	63
Architectural Coating	71	65	61	59	55

As the table above shows, any home within 150-feet of construction activity on the Project site should be expected to receive a level of construction noise that exceeds the 60 dBA threshold during all phases of construction. Even at 300-feet away, the 60 dBA threshold would be exceeded as a result of construction activity during the lengthy Grading/Excavation, Building Construction and Paving phases.

Given the close proximity of homes to the Project site, we conclude that construction noise impact would be significant when gauged against the City's current CEQA Thresholds.

d) “No Mitigation Required” Conclusion is Inaccurate

Section 6 “Mitigations” of Appendix A states that:

“All construction air quality and noise impacts are less than significant without mitigation. Therefore, no mitigation is required.”

For the reasons outlined in the preceding paragraphs, we believe this statement is inaccurate as it applies to noise. Our analysis shows that mitigation would be required to reduce noise from construction of the Project to less-than-significant levels. In some cases, it may be feasible to achieve the necessary degree of mitigation; in others, it may not.

e) Noise of Off-Site Construction Traffic is Not Evaluated

According to the Project Description, the project would include approximately 33,794 cubic yards (CY) of export earth material and the only types of trucks permitted for hauling earth in a hillside development project are 10-wheeler dump trucks with a capacity of 10 CY.

This means that removal of earth material from the site would require almost 6,800 truck trips (total of inbound and outbound) along the haul route, in addition to everyday construction traffic generated by the Project (material delivery, workers' vehicles, etc.).

And yet the noise analysis in the Initial Report does not address the impact of off-site construction-related traffic, which is a significant omission given the thousands of additional trips expected to be generated by the Project during the construction phases.



4. PROJECT VIBRATION IMPACTS ARE NOT PROPERLY ANALYZED

a) Absence of Quantitative Analysis

There is no quantitative analysis in the Initial Study of vibration generated by construction of the Project. Instead, the Noise section (XIII) of the Environmental Impact Analysis addresses this aspect of the Project as follows:

"...it is anticipated that vibration generated during construction of the Project would not cause damage to buildings nor affect sensitive receptors. Therefore, construction impacts associated with vibration would be less than significant."

This statement is not supported by any calculations or published references and falls short of the standard required for a CEQA evaluation.

b) Potentially Significant Vibration Impacts Overlooked

We believe that the Project has the potential for significant vibration impacts during construction, particularly with regard to human annoyance caused by groundborne vibration, that are not identified in the Initial Study. This is a significant oversight for a project in which heavy construction could occur very close (within 50-feet) of adjacent homes.

Using the reference data and methodology prescribed by the FTA Transit Noise and Vibration Impact Assessment Manual, we have calculated the following groundborne vibration levels at various distances from typical construction equipment and activities expected to be included the Project as follows:

Equipment Type	Lv @ 25-ft (VdB)*	Lv @ 50-ft (VdB)	Lv @ 75-ft (VdB)
Vibratory Roller	94	85	80
Caisson Drilling (Similar to Auger)	87	78	73
Loaded Truck	86	77	72
* Source: FTA Transit Noise and Vibration Impact Assessment Manual, September 2018			

The vibration level estimates at distances of 25- and 50-feet exceed the City's 72 VdB CEQA threshold for residential uses, indicating that vibration impact at those homes closest to the construction activity on the Project site would be significant.

Even for residential uses at a distance of 75-feet, certain construction activities (use of a vibratory roller during the Paving phase and auger drilling during the Grading/Excavation and Building Construction phases) would have the potential to generate significant vibration impact.

5. CONCLUSIONS

We find that the noise and vibration analysis presented in the Initial Study for the Revello Drive and Tramonto Drive Residential Project does not adequately support the preparer's finding that noise and vibration impacts will be less than significant, with no need for mitigation.

Our own evaluation leads us to the opposite conclusion – that construction of the Project (as described in the Initial Study, with no noise mitigation) would result in significant noise and vibration impacts, including:



- 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.
- Generation of excessive groundborne vibration or groundborne noise levels.

Yours sincerely,

Steve Rogers Acoustics, LLC



Steve Rogers
Principal



Steve Rogers, Principal

Curriculum Vitae

Experience

Steve Rogers Acoustics, LLC
Los Angeles, California 2005 – Present

Principal

SRA was formed to offer architects, attorneys, developers, environmental consultants and planners a source of high-quality acoustical consulting, with a strong emphasis on attentive and responsive service. Current and recent projects include: Environmental Impact Reports for the Hermosa Beach Oil Project, Baldwin Hills Oilfield and Port of Long Beach Middle Harbor Redevelopment, Indiana Street Freeway Noise Impact Study, Santa Monica College Performing Arts Center and Concorde Music Group's headquarters in Beverly Hills.

Veneklasen Associates, Inc.
Santa Monica, California 1995 – 2005

Associate Principal

Over the course of a decade with the acoustics group at VA, Steve served as project manager and main point of client contact for the firm's largest and highest-profile projects, including the Getty Center in Los Angeles, the Aquarium of the Pacific in Long Beach, Lloyd D. George Federal Courthouse in Las Vegas and numerous landmark office headquarters buildings.

Hann Tucker Associates
Woking, Surrey, UK 1988 – 1995

Senior Consultant

During his seven years with HTA (at the time, Europe's largest independent acoustical consulting firm) Steve gained broad experience in all aspects of acoustical consulting and exposure to a wide range of project types, including office buildings, hotels, recording studios, performing arts venues, courthouses and schools.

Education

University of Surrey, Guildford, Surrey, United Kingdom
BSc (with Honors) Physics and Modern Acoustics, 1986

Professional Affiliations

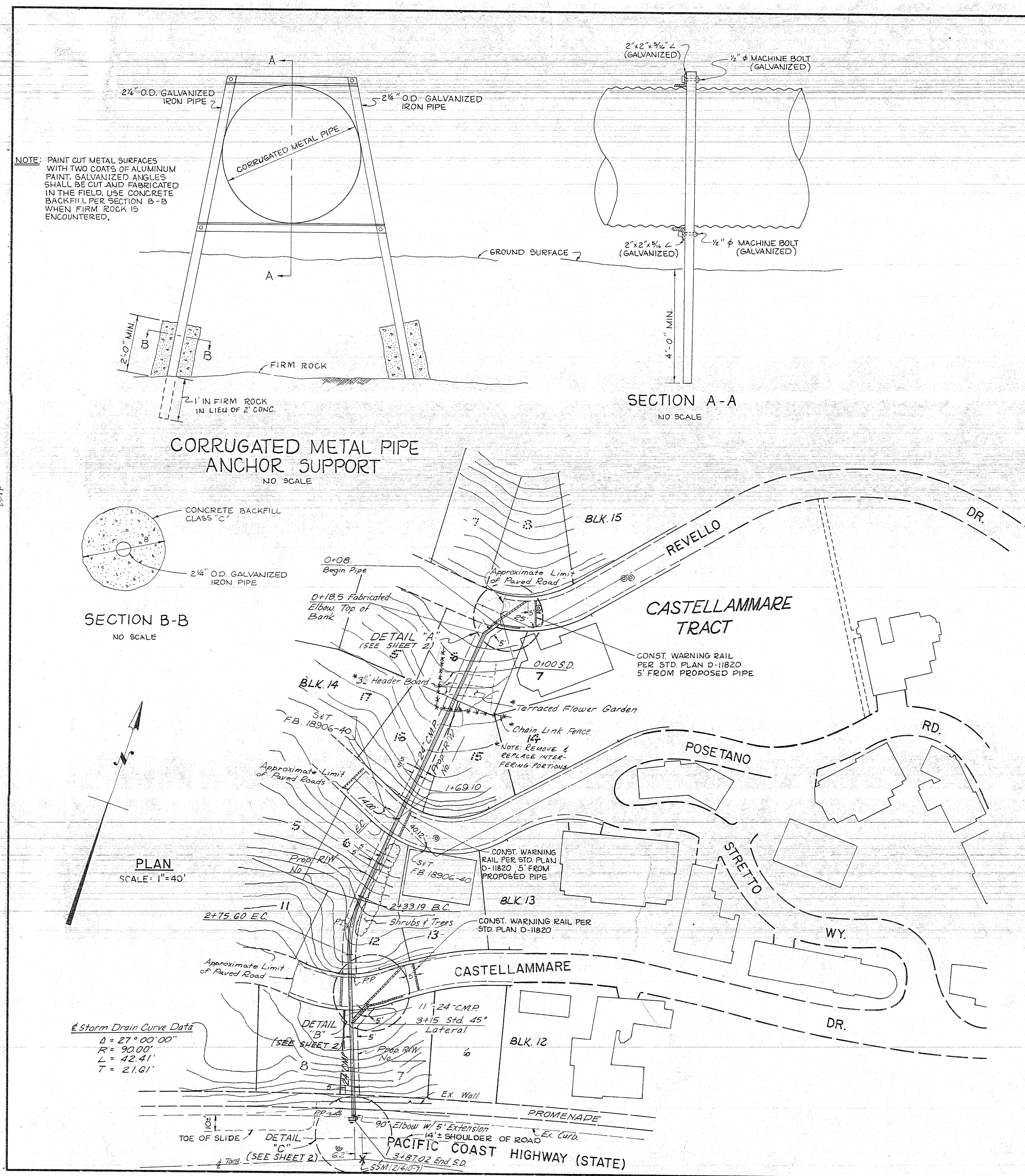
- National Council of Acoustical Consultants
- Institute of Noise Control Engineering
- American Institute of Architects (Allied Affiliate)

Exhibit 4

DESIGNED BY M. Young
DRAWN BY M. Young & David
CHECKED BY D. Hanson
SUPERVISED BY L. Lai
REVIEWED BY D. Ball

No. 1000
1000
1000
1000
1000

WORK ACCEPTED & COMPLETED
CITY ENGINEER
DIV. OF PUBLIC WORKS
STREET MAINTENANCE DIV.
SEWER
CONSTRUCTION CHANGES RECORDED
DATE
BY



LIST OF STANDARD PLANS

NO.	DESCRIPTION
B-3765 (REV. NO. 1)	NOTICE TO CONTRACTORS - COMPREHENSIVE

PLAN AND PROFILE
OF STORM DRAIN (TEMPORARY)
IN
RIGHT OF WAY (200 FEET WEST
OF STRETTO WAY)
FROM
REVELLO DRIVE
TO
PACIFIC COAST HIGHWAY (STATE)

CITY OF LOS ANGELES
LYALL A. PARDEE CITY ENGINEER

DATUM NOTE
U. S. G. S. DATUM EFFECTIVE JULY 1, 1925 ORIGIN NO. 52228 DEDUCT 5.7TH FEET TO ADJUST TO DATUM PLANE IN USE PRIOR TO SAID DATE.

REFERENCES
FIELD BOOK NO. 18906 - 26/30 38/42 48/52 40123 - 297/312
DATE OF SURVEY 10/22/69
DISTRICT MAP NO. 7216 R/W MAP NO. _____
ASSESSMENT MAP NO. _____ DIV. 1158
DRAINAGE MAP NO. 522
SUPERSEDES PLAN/PROFILE NO. _____

NOTICE TO CONTRACTORS
THIS IMPROVEMENT ALSO INCLUDES WORK CALLED FOR ON THE FOLLOWING SPECIAL PLANS AND PROFILES:
STREET IMP. PROFILE: NONE
SEWER PLANS: NONE
STORM DRAIN PLANS: HEREON
STRUCTURAL PLANS: NONE
STREET LIGHTING PLANS: NONE
EXISTING MANHOLES TO BE RESET: STORM DRAIN _____ SEWER _____ W.B. _____

1. STATE DIVISION OF HIGHWAYS ENCROACHMENT PERMIT NUMBER _____ IS ON FILE AT THE WEST LOS ANGELES DISTRICT OFFICE OF THE BUREAU OF ENGINEERING.

2. THE CONTRACTOR SHALL NOTIFY THE PERMIT DEPARTMENT OF THE STATE DIVISION OF HIGHWAYS BY PHONE (620-3030) EXTENSION 3660 AT LEAST 48 HOURS IN ADVANCE OF DOING ANY WORK IN PACIFIC COAST HIGHWAY AND COMPLY WITH ALL THE PROVISIONS OF THE PERMIT.

3. SPECIFICATIONS - ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH "STANDARD SPECIFICATIONS" FOR PUBLIC WORKS CONSTRUCTION (1967 EDITION) & THE 1968 & 1969 SUPPLEMENTS, STD. PLAN E-3765 (REV. NO. 1).

4. ALL CORRUGATED METAL PIPE DEFLECTIONS GREATER THAN FIVE DEGREES SHALL BE MADE WITH SHOP FABRICATED ELBOWS.

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET, DETAILS, & STORM DRAIN PLAN
2	STORM DRAIN PROFILE & DETAILS

BENCH MARKS

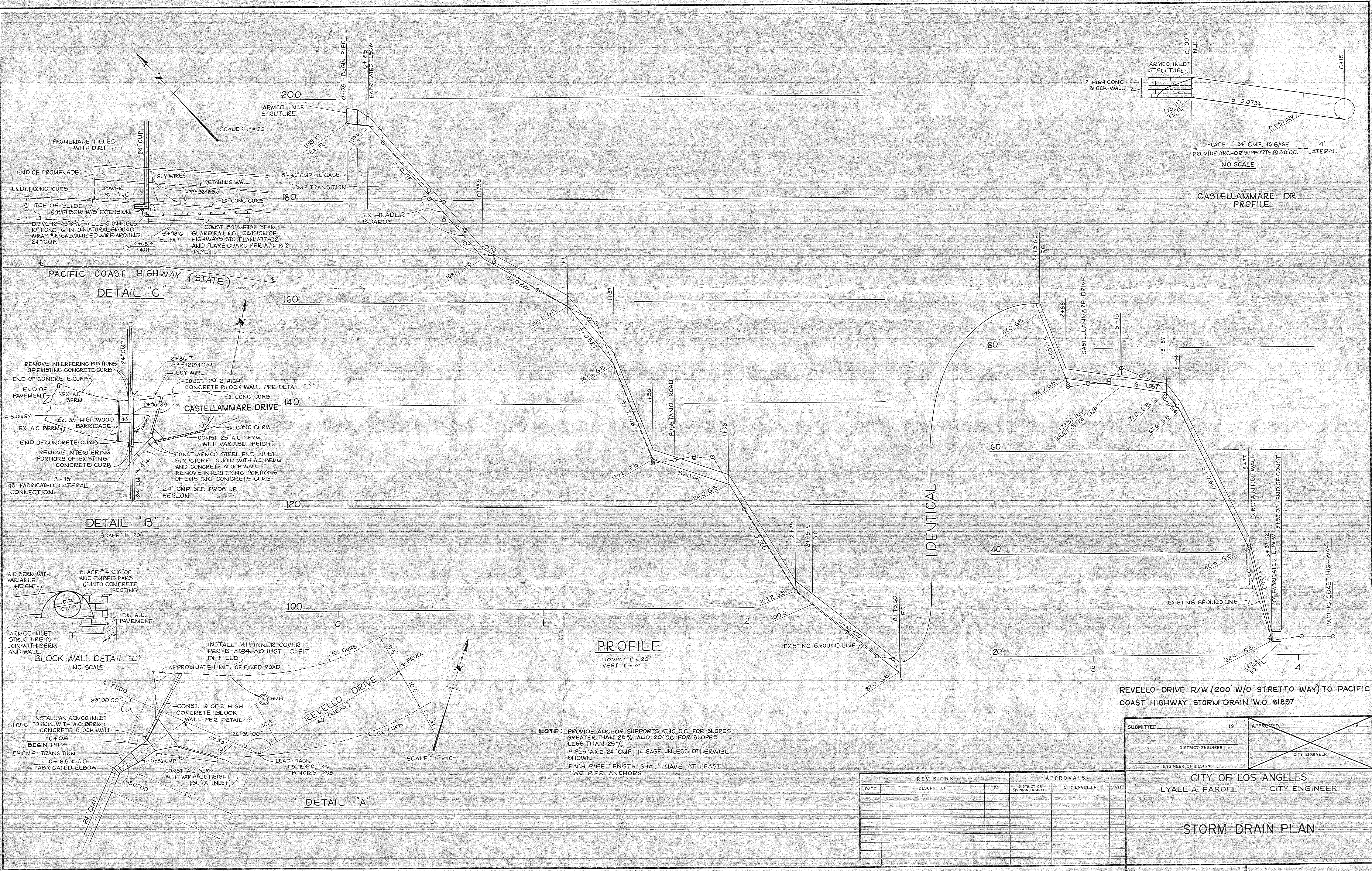
- SPK. N. CURB REVELLO DR. AT BASE CON. STAIR 'M' OF C.B. OPP. HOUSE # 17560. REF. F.B. 22582-58 ELEV. 174.347
- SPIKE ON N. CURB REVELLO DR. @ B.C. OPPOSITE E. WALL HOUSE # 17520. REF. F.B. 22582-59 ELEV. 197.509
- NAIL IN LEAD N. CURB POSETANO ROAD 20.2' W/O W. BLDG. LINE PRODUCED TO HOUSE # 17538. REF. F.B. 40123-306 ELEV. 129.735
- SPK. IN S. CURB POSETANO RD. WEST BLDG. LINE TO HOUSE # 17538. REF. F.B. 40123-306 ELEV. 128.82
- NAIL IN LEAD 1ST STEP ON CONC. STAIR N. SIDE PACIFIC COAST HWY. 455' & 50' CASTELLAMMARE OVERHEAD BRIDGE. REF. F.B. 40123-306 ELEV. 24.25
- U.S.C. & G.S. DISC. J-576-1939 @ CASTELLAMMARE OVERHEAD BRIDGE IN TOP OF E. END OF S. RETAINING WALL 50' E/O & OF OVERHEAD WALK. REF. F.B. 4-03730-63 ELEV. 22.297
- SPK. S.E. COR TOP LANDING MALIBU WALK 2' W/O W. CURB CASTELLAMMARE DR. REF. F.B. 22582-44 ELEV. 93.764
- SPK. E. CURB CASTELLAMMARE DR. 60' N. OF COR POST OF STEEL FENCE N.E. COR HOUSE # 17519 (AT BASE P.P. 121840-M). REF. F.B. 22582-45 ELEV. 72.946

KEY MAP
SCALE: 1" = 200'

REVELLO DRIVE R/W (200' W/O STRETTO WAY) TO PACIFIC COAST HIGHWAY STORM DRAIN W.O. 81897

REVISIONS			APPROVALS			APPROVALS			SUBMITTED	
DATE	DESCRIPTION	BY	DISTRICT OR DIVISION ENGINEER	CITY ENGINEER	DATE	DIV. BUREAU OR DEPT.	ENGINEER	DATE	BY	19
						STREET AND FREEWAY SEWER			DISTRICT ENGINEER	
						STORM DRAIN			ENGINEER OF DESIGN	
						BRIDGE AND STRUCTURAL			APPROVED	19
						UTILITY AND ESTIMATING			CITY ENGINEER	
						STREET LIGHTING				
						TRAFFIC				

SHEET NO. 1 OF 2 SHEETS



NOTE: PROVIDE ANCHOR SUPPORTS AT 10' O.C. FOR SLOPES GREATER THAN 25% AND 20' O.C. FOR SLOPES LESS THAN 25%. PIPES ARE 24" CMP, 16 GAGE UNLESS OTHERWISE SHOWN. EACH PIPE LENGTH SHALL HAVE AT LEAST TWO PIPE ANCHORS.

REVISIONS			APPROVALS		
DATE	DESCRIPTION	BY	DISTRICT OR DIVISION ENGINEER	CITY ENGINEER	DATE

SUBMITTED	19	APPROVED	19
DISTRICT ENGINEER		CITY ENGINEER	
ENGINEER OF DESIGN			

CITY OF LOS ANGELES
LYALL A. PARDEE CITY ENGINEER

STORM DRAIN PLAN

Exhibit 5



April 30, 2024

Ms. Kimberly Feder
CASTELLAMMARE MESA HOMEOWNERS ASSOCIATION
17907 Tramonto Drive
Pacific Palisades, CA 90272

**Subject: Revello Drive & Tramonto Drive Residential Project Traffic & Transportation
Evaluation Peer Review, City of Los Angeles, California**

Dear Kim,

MAT Engineering, Inc. (Consultant) has conducted a peer review of the transportation/traffic-related analysis and evaluation for the Revello Drive & Tramonto Drive Residential Project and provides the following comments.

The proposed project generally consists of development of four (4) large homes within an existing sloped area along Tramonto Drive and Revello Drive in the Pacific Palisades area of the City of Los Angeles. Construction of the four homes will also require consolidation of twelve (12) existing lots.

The proposed project will also include a 200-foot extension of Revello Drive to the west from its existing easterly terminus to provide vehicular access to three (3) of the proposed residences which front Revello Drive. Additionally, a turnaround will be provided.

MAT Engineering Inc. has reviewed the following documents as it relates to transportation and traffic elements of the proposed project:

- Revello Drive and Tramonto Drive Initial Study (Dudek, July 2021);
- Traffic Management Plan for the proposed project;
- VMT (Vehicle Miles Traveled) Analysis for the proposed project; and
- Wildfire evaluation checklist contained in the Initial Study for the proposed project.

Comment 1:

How does the proposed turnaround on the narrow Revello Drive accommodate vehicle movements? It is recommended a truck and vehicle turning maneuver exhibit be prepared to show the movement and turning maneuvers for vehicles utilizing the turnaround.

Comment 2:

The Vehicle Miles Traveled (VMT) analysis sheets appear to show each project evaluated as a separate home. Since piecemealing of projects is not allowed in CEQA, the VMT calculation sheets require assessment of the proposed project as a whole with 4 homes.

Comment 3:

The transportation analysis does not appear to evaluate the potential traffic-related issues during the construction phase of the project and the potential for slow-moving trucks blocking the roadway and creating a safety hazard by limiting emergency access to the area. Even though efforts will be made to minimize these impacts, the impacts might not be fully mitigatable and hence require an Environmental Impact Report (EIR) for the project instead of a Mitigated Negative Declaration (MND). It appears no feasible measure has been identified which can fully mitigate the potential for trucks and construction vehicles negatively impacting access for residents and emergency vehicles.

Comment 4:

It is understood that Revello Drive will be extended approximately 200 feet with an upward slope. This roadway profile would potentially make it infeasible for Revello Drive to be further extended and reconnected which would likely be required to provide access to future homes built on the adjacent vacant lots and parcels along Revello Drive.

Once the project is constructed, making any further modifications to Tramonto Drive and Revello Drive will be much more challenging, if not impossible.

Comment 5:

According to the Project Description, the project would include approximately 33,794 cubic yards (CY) of export earth material and the only types of trucks permitted for hauling earth in a hillside development project are 10-wheeler dump trucks with a capacity of 10 CY.

This means that removal of earth material from the site would require almost 6,800 truck trips (total of inbound and outbound) along the haul route, in addition to everyday construction traffic generated by the Project (material delivery, workers' vehicles, etc.). This calculation does not include the bulldozers, backhoes, wheel loaders, graders, roadway pavers, cement mixers, pile drivers and trucks capable of hauling the machines and materials necessary to install the shear pins, tiebacks and other possible solutions.

To provide a better understanding of the magnitude of the construction trips for the reader, please provide a numerical quantification of construction truck and worker trips for each construction phase since the area would likely require extensive earth work to accommodate the homes and also the roadway extension.

Comment 6:

The Castellamare Mesa area has limited points of access. One from Porto Marina Way connecting to State Route 1 and another via Tramonto Drive connecting to Los Liones Drive and Sunset Boulevard. Both roadways have limited and narrow widths with sharp turns which can potentially result in blockage of access by slow-moving trucks during construction activities of the project.

Even without the added project's construction traffic, based on a recent site visit, in some areas, the narrow roadways in the community are further constricted and impacted by vehicles parking on the street or existing construction taking place at homes in the area.

Continued availability of emergency access to the area becomes even more critical when considering the nature of the area being designated as a High Fire Severity Zone, along with its susceptibility to slope failure and landslide hazards which are also discussed and acknowledged in the Initial Study.

Comment 7:

Revello Drive and Tramonto Drive at the bulkhead are currently narrow to the point where two vehicles cannot pass each other when vehicles are parked in front of their homes. These two roads constitute the primary haul routes for the thousands of heavy construction vehicles proposed in the project plan. Pedestrian traffic with their pets (which is common throughout the day) will also impede movement of vehicles on the narrow segments along the bulkhead shoring on Tramonto and create a traffic bottleneck resulting in conflicts between pedestrian and vehicle traffic.

It is understood that Tramonto Drive will include a sidewalk along the existing bulkhead shoring. If this improvement is planned within the existing right-of-way and pavement width, it will prevent the road from being widened in future to its original width of 36 feet which would provide adequate vehicle travel going both way and a protected pedestrian sidewalk. Once the project is constructed, making any

further modifications to Tramonto Drive and Revello Drive will be much more challenging, if not impossible.

Comment 8:

Since the roadways are narrow, the cumulative effect of the project construction traffic and its addition to the other existing and planned construction activities in the area is even more critical. How would the added project construction traffic be planned around other construction activities in the area to ensure minimal interference and avoid roadway blockage and the safety of pedestrians who walk this neighborhood daily?

Comment 9:

Page 12 of the Initial Study: Transportation is not identified as an element that is potentially affected by the project. Considering the limited roadway access and narrow roadway widths, the project construction traffic might adversely affect safety by resulting in longer response times for emergency vehicles and residents in the area.

Comment 10:

As identified in the Initial Study, the environmental document should evaluate both potential on-site and off-site impacts resulting from the proposed project. This could include the effect of project construction activities on off-site and surrounding roadways and access.

Comment 11:

As stated on Page 13 of the Initial Study, 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.

The project construction traffic could impede the movement of emergency vehicles and affect response time. Since this can be considered a potentially significant impact, further analysis and investigation and preparation of an EIR could be warranted.

As acknowledged in the Initial Study, even a potentially significant impact would require preparation of an EIR.

Comment 12:

As identified on page 20 of the Initial Study, approximately 33,794 cubic yards of earth work is required for the project. On average, a truck can hold approximately 10 to 15 cubic yards, requiring a total of approximately 6,758 truck trips (3,379 inbound trips and 3,379 outbound trips). This can be a substantial number of truck trips depending on the duration of the construction. This also does not appear to include vehicle worker trips or the earthwork quantities related to the extension of Revello Drive. Per the Initial study, up to 80 workers are expected per day. This would result in approximately 160 trips per day (80 inbound trips and 80 outbound trips), not accounting for workers leaving for lunch breaks, etc.

Comment 13:

Please provide a quantification of the number of worker vehicles. This will assist in determining the number of parking spaces required to ensure the parking and staging exhibits contained in the Traffic Management Plan show adequate parking for the workers and construction-related vehicles since at this point, it is not known or quantified how many vehicles can be expected.

Comment 14:

Transportation Section of the Initial Study Page 116: The Initial Study identifies a less than significant impact for emergency access. Even though the project might not significantly impact emergency access after its construction, the construction activities will limit and adversely affect emergency access to the area due to narrow roadways and limited access to the area by slow-moving construction vehicles blocking emergency vehicle access on narrow roadways. This could be considered potentially significant impact and require further analysis and investigation.

Comment 15:

The Traffic Management Plan (TMP) for the project states that projects in hillside communities on streets less than 24-feet wide would require a TMP. However, the Initial Study appears to state 20-feet as the threshold.

Comment 16:

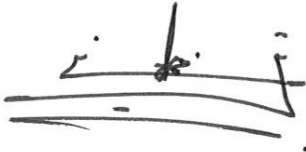
The Chabad of Pacifica Palisades is generally located on the corner of Sunset Boulevard and Los Lions Drive. The construction traffic and activities of the project would need to be coordinated with events at this and other nearby facilities and schools to ensure construction traffic does not occur when events are held. The Traffic Management Plan for the project does not appear to address traffic conflicts between the project construction traffic and the traffic associated with the Chabad and other nearby facilities which might produce a surge of traffic in a short period of time.

Attachment A shows field photos of the narrow roadways and circulation system being blocked and further constricted by other construction projects and equipment in the area as well as congestion observed on the roadway system. These serve as examples of how even smaller projects have been able to impede traffic flow in the area.

MAT Engineering Inc. appreciates the opportunity to provide this review. If you have any questions, please contact us at 949-344-1828 or at@matengineering.com.

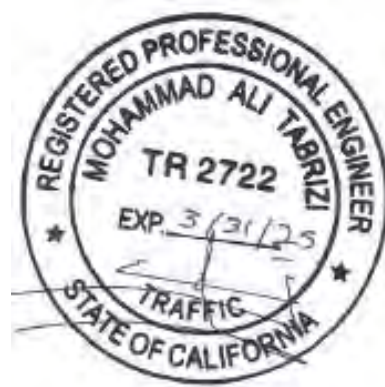
Respectfully submitted,

MAT ENGINEERING, INC.



Alex Tabrizi, PE, TE

President



Attachment A

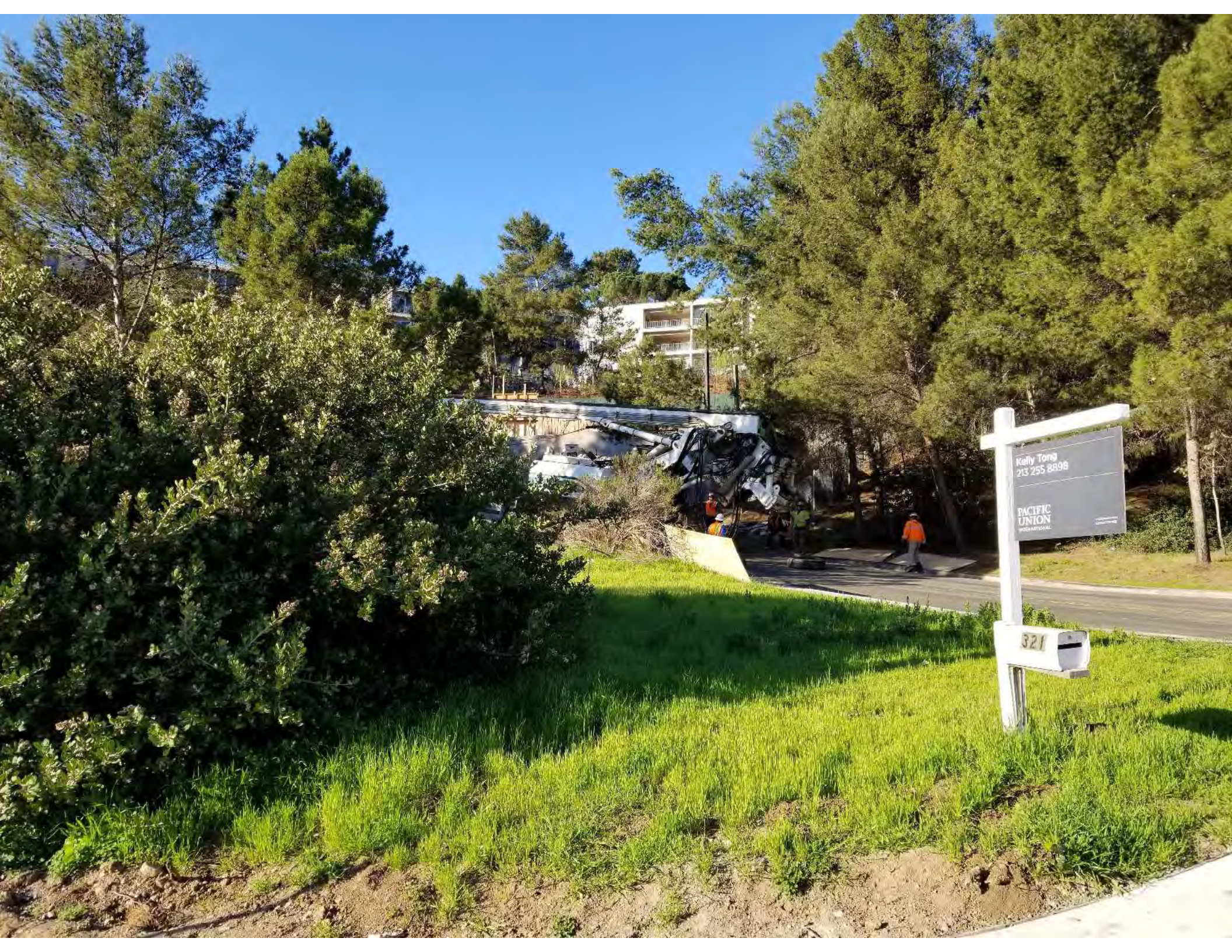
Field Photos



Kelly Tong
213 255 8898

PACIFIC
UNION
INTERNATIONAL

321



Kelly Tong
213 235 8896

PACIFIC
UNION
INTERNATIONAL

321





Exhibit 6

Caroline Chiappetti
Bryce Gee
Dale Larson
Julia Michel †
Beverly Grossman Palmer
Salvador Pérez
Michael J. Strumwasser

Senior Counsel:
Andrea Sheridan Ordin
Fredric D. Woocher

† Also admitted to practice
in Washington

April 30, 2024

Los Angeles City Council
Planning and Land Use Management Committee
c/o City Clerk
200 N. Spring Street
Los Angeles, CA 90012

Via online submission portal

**Re: Council File #24-0339, 17538, 17544, 17550 Tramonto Drive;
17532, 17540, 17548 Revello Drive; 17523, 17529 Revello;
17537, 17541, 17547 Revello Drive**

To the Honorable Councilmember Harris-Dawson, Councilmember Lee,
Councilmember Yaroslavsky, Councilmember Padilla, and Councilmember Hutt:

This firm writes on behalf of the Castellammare Mesa Home Owners Association (CMHOA) to comment upon the inadequacy of the environmental analysis of the wildfire risks of the proposed housing project under the California Environmental Quality Act (CEQA), and to demonstrate how the approval of new residential construction in this very high fire severity zone is improper under state law due to the inadequate roadway width on Revello for fire access purposes.

The proposed construction of these residences on a landslide zone in a state-designated Very High Fire Hazard Severity Zone (VHFHSZ) has been analyzed in an inadequate Mitigated Negative Declaration (MND), which entirely fails to disclose the significant impacts posed by the construction in a VHFSZ without adequate emergency access for fire and evacuation.

The proposed single-family homes are located on Tramonto and Revello Drives, and all properties are located in the designated Hillside areas and in Bureau of Engineering Special Grading Areas. While these conditions alone would raise concerns, additional documented roadway deficiencies exist on both Tramonto and Revello. For purposes of this letter, we will focus on Revello and the area that has been described as the “Revello Pinch.”

The Revello Pinch is an artifact of the devastating 1965 Revello Slide, which caused significant damage just east of the area proposed for construction. The below photo from the Los Angeles Public Library collection depicts a home at 17400 Revello after the slide.



The Revello slide significantly damaged Revello Drive just to the east of the proposed developments on Revello. The attached Exhibit 1 is an October 2021 letter (omitting exhibits) from Greg Demos, one of the applicant’s representatives, discussing, *inter alia*, the Revello Pinch. Mr. Demos explains that as a result of the City’s reconstruction of Revello and the surrounding sloped area and the placement of the bulkhead to stabilize the slope, the resultant roadway is only about 13 to 15 feet wide for a 200-foot section. Moreover, “this section of roadway was never restored to its pre-landslide grade so there is a dip approximately 9 feet deep at the lowest point.” The dip may be even greater than Mr. Demos asserted, and could be as deep at 12 feet at the lowest point.

Included as an exhibit to Mr. Demos' letter is a series of present-day photographs of the conditions at the Revello Pinch, which are included as Exhibit 2 hereto. In addition, Mr. Demos provided a survey of the Revello Pinch, showing roadway width of 13.8 feet, which is attached as Exhibit 3. As the photos and survey make clear, it is beyond dispute that this portion of Revello is extremely constrained and presents traffic hazards by virtue of its choke point prohibiting passage of inbound and outgoing vehicles and including what the applicant admits itself is a "blind turn" just west of the Pinch.

In light of the project's location and admitted reliance upon Revello Drive to access the Revello parcels (most of the proposed development; see Traffic Management Plan), the MND's analysis of wildlife and hazards is deficient. The MND's cursory analysis of wildfire acknowledges that "the Project site and surrounding area is within a VHFHSZ." In consideration of the question whether the project would "substantially impair" emergency evacuation plans, the MND contends that "plans would be submitted for review and approval to ensure that all new development has adequate emergency access and escape routes in compliance with City regulations." In the Hazards and Hazardous Materials analysis, the MND elaborates in its findings of "less than significant impact" on emergency access and "expose people or structures...to a significant risk of loss, injury or death involving wildland fires," that the "Transportation Management Plan" would "ensure the Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan," and that plans would be submitted to DOT and LAFD "for review and approval to ensure that all new development has adequate emergency access and escape routes." Finally, under Transportation, the MND checks "less than significant impact" for the questions whether the project will "substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections)" and "result in inadequate emergency access."

Notably absent from the MND is any discussion of the Revello Pinch or any of the existing conditions on Revello. The MND does not discuss the blind turn on Revello. It does not disclose Revello's well-below-substandard width. It does not discuss the challenging 9-foot dip in the pinch point. If the purpose of CEQA is to ensure that decisionmakers are presented with relevant information about the environmental consequences of their actions, the MND is an abject failure on this topic. No reader would ever be aware that the very road proposed as construction access to all of the three of the proposed Revello homes presents unusual circumstances posing a risk of traffic blocking either inbound emergency response vehicles or outbound evacuating residents, workers, and future residents. Of course, as the MND fails to even mention these conditions, no mitigation is proposed for them. The attached Transportation Management Plan does not discuss them at all and indeed relies extensively on Revello for construction access to the properties.

This absence is in spite of Mr. Demos' own pleas to the City in October 2021 that "the City's inability to access and timely respond to a brush fire that starts on one or more of these properties [accessed by Revello] could have a catastrophic impact on this area." Mr. Demos requested that the City restore this 200 foot section of Revello "to its intended public use (i.e., the roadway condition prior to the 1965 Revello Landslide.)." Mr. Demos requested that the City "immediately perform the necessary inspections and analysis, as required, in order to determine and provide its opinion regarding whether or not the roadway traversing in front of 17464-17480 Revello Drive is 'in safe and passable condition'." Mr. Demos' letter concluded with an unambiguous request that the City "immediately" perform necessary work to improve the right of way.

Moreover, not only does the MND fail to disclose *any* facts regarding the Revello Pinch and the hazardous conditions it presents in wildfire conditions, the MND fails to disclose the roadway's inconsistency with applicable state regulations concerning fire safe development in *all* VHFHSZ areas, statewide. As of July 2021, Public Resources Code section 4290 requires that the state regulations on "minimum fire safety standards" in the VHFHSZ shall apply "to the perimeters and access to all residential . . . building construction . . . within lands classified and designated as very high fire hazard severity zones." The regulations do not apply to pre-1991 building permit applications, but otherwise apply to all approvals (including as of July 2021) approvals by local government in the VHFHSZ. The regulations must include, by command of the Legislature "road standards for fire equipment access."

Attached as Exhibit 4 are the regulations set forth at Title 14, sections 1270.00-1276.04, which were approved by the Office of Administrative Law in April 2023, and which are known as the State Minimum Fire Safe Regulations. These regulations make clear that the state has determined that in the VHFHSZ, ensuring adequate ingress and egress is a major concern when considering new developments in the VHFHSZ. "Roads . . . whether public or private . . . shall provide for safe access for emergency wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with [the requirements of the regulations]." (Cal. Code Regs., tit. 14, § 1273.00.) "All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this article or additional requirements are mandated by local jurisdictions." (Id., § 1273.01(a).) Traffic lane is defined as "[t]he portion of a road or driveway that provides a single line of vehicle travel." (Id., § 1270.01(ff).) Moreover, road surfaces "shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds." (Id., § 1273.02(a).)

It is beyond dispute that Revello does not satisfy the State Minimum Fire Safe Regulations ingress and egress requirements. The 200-foot section of roadway scarcely has one traffic lane, let alone two 10-foot lanes. As Mr. Demos' photos (exhibit 2) make clear, there is scarcely room for one construction vehicle to traverse the Pinch. The use of this 200-foot stretch as a sole evacuation point, both for existing residences on Revello and for the construction workers and the future residents on Revello, is flatly inconsistent with these state law requirements.

Taken together, Mr. Demos' admissions and pleas to the City to evaluate and restore the full roadway width on Revello, and the unambiguous evidence that access to the project is not consistent with the applicable State Minimum Fire Safe Regulations, is more than a "fair argument" that the Project may have unmitigated impacts on Wildfire, Hazards and Hazardous Materials, and Traffic. The MND does not satisfy CEQA's obligations in this critical life and safety area.

Finally, the project simply cannot be approved absent compliance with state law requirements for safe egress and emergency access in the VHFHSZ. Without a plan to address the Revello Pinch, further development in this area is unsafe and cannot be permitted.

Accordingly, the City must accept the CMHOA's appeal and find the MND inadequate, sending the project back for the more comprehensive environmental analysis in an EIR that is required for a project in this sensitive location and with the attendant risks of development in a VHFHSZ and on a landslide.

Yours very truly,

STRUMWASSER & WOOCHELL LLP

A handwritten signature in black ink, appearing to read "Beverly Grossman Palmer".

Beverly Grossman Palmer

Exhibit 1



October 29, 2021

Department of Public Works, Bureau of Engineering
West Los Angeles District Office
c/o Oscar Gutierrez
1828 Sawtell Blvd., 3rd Floor
Los Angeles, CA 90025
oscar.gutierrez@lacity.org
ted.allen@lacity.org
michael.patonai@lacity.org

Mr. Gutierrez,

I am proposing to develop four single-family homes located at 17538-17550 Tramonto Drive ("SHP House 1"), 17532-17548 Revello Drive ("SHP House 2"), 17523-17529 Revello Drive ("JDR House 1"), 17533-17547 Revello Drive ("JDR House 2"), collectively referred to as the "proposed development". The attached site plan (see Exhibit 1) conceptually illustrates the proposed development, which is currently going through the entitlement and permitting processes. All of the referenced exhibits herein can be accessed and downloaded via the link at the bottom this letter.

On September 20, 2021, Planning held a public hearing for this proposed development with a public comment period to ensue over the following four weeks. I have been in close contact with the Castellammare Homeowners (CMHO) Board over the past few months regarding the scope of my proposed development as well as the scope of their requests contained in their October 14, 2021 letter to Planning, the BOE, the Councilmember's Office ("CD 11"), which I've reattached for your reference (see Exhibit 2). I write in response to and largely in support of this letter.

Below is a brief historical summary of the Castellammare Mesa area as it pertains to the Ordinance referenced below. The CMHO Board and I would like to meet with the BOE and CD 11 to discuss their intentions regarding the specific requests made in both of our letters. Please let me/us know a time that works best for the City so that all the relevant parties can participate in order to have a productive meeting. I can be reached by email at gregdemos@demosdevelopment.com or by phone at (646) 265-5158.

The Castellammare Mesa Area

As you may know, back in the early 1920s a series of roads were cut into the hillside traversing the area now known as the Castellammare Mesa Area. Shortly thereafter, this area was subdivided into a series of small lots that are zoned almost exclusively for single-family homes. Most of these lots are less than 5,000 square feet so this area allows for a greater density of single-family homes than what is currently allowed today (i.e. minimum lot sizes are required to be at least 5,000 square feet). Moreover, this subdivision was approved by the County/City based on certain roadway infrastructure that would allow vehicles and pedestrians direct and safe access to all of

these subdivided properties. Since then, real estate taxes have been assessed by the County and paid by respective property owners in this area based on their understanding that these roadways would be maintained and, if required, a portion of the tax proceeds collected by the County would be used to repair and/or restore such roadways, which obviously has not been the case.

The Tramonto Landslide

In 1936, 3.2 acres failed as a moderately deep slump landslide, extending onto former Roosevelt Highway (current PCH) from upslope at Tramonto Drive. The Tramonto Landslide is reported to have periodically reactivated and enlarged to the west and east, ultimately truncating and closing a portion of Castellammare Drive, Posetano Road, Revello Drive, and Tramonto Drive by 1959. No development or street reconstruction has occurred within the limits of the failure, except for the bulkhead shoring wall at the failure headscarp restoring Tramonto Drive in 1969 (further reinforced in 1981) and the installation of an aboveground storm drain pipe at the eastern terminus of Revello Drive that traverses this hillside along the eastern slide margin down to the PCH. Outside of the failure area to the north, west, and east, sporadic new development occurred and filled in throughout the community over the decades.

The Tramonto Drive Bulkhead

I've attached an as-built plan and elevation view of this bulkhead that was prepared by the City in 2006 (see Exhibit 4) along with a table, which was created by the City on 11/08/2005, that quantifies the displacement of material at certain pile locations from 1981 to 2006 (see Exhibit 5). For example, there was 12.0 feet of material displaced in front of Pile 50, which also coincides with the illustrations shown in the 2006 as-built plans. These plans and table also suggest this bulkhead was faced with a shotcrete wall. However, I want to clarify that this is not a conventional shotcrete wall that is 12" thick and reinforced with steel but rather a very thin veneer, which appears to have no real purpose other than to keep the soil from pushing between the lagging. I've attached a series of pictures of this bulkhead and the "shotcrete" wall that were produced by the City through my request for information in 2019 (see Exhibit 6).

Furthermore, this seaward facing bulkhead was constructed of steel (concrete encased) piles and timber lagging. It is only about 800 feet away from the ocean and has been exposed to the elements and salt-air for approximately 52 years. Since 1981, it appears this bulkhead has performed well. However, given the foregoing concerns, I think the CMHO Board's scope of requests are very reasonable. I also want to point out that the wood railing at the top of this bulkhead is very unsafe and many pieces of wood are rotted (see Exhibit 7). I often see people try to climb over the railing or step on the lower horizontal rail. Some of these pieces have already given way. If this were to happen when someone tries to maneuver over or step on this railing then they could easily lose their balance and fall approximately 30 feet over this bulkhead. This railing should be replaced immediately as its current condition presents a serious safety concern.

Finally, I want to make my position clear regarding this matter. Based on my geo. consultants and structural engineers' assessments (by extension of their submitted/published reports, plans and calculations), the integrity of this Tramonto bulkhead will not be undermined by my proposed development. My team of consultants have performed extensive analysis and research over the past five years on the Tramonto landslide, including analysis that considered the precise sequence for which the proposed work will need to be performed to ensure the stability of this bulkhead.

The Revello Landslide & Revello Drive Bulkhead

In 1965, another landslide event (the "Revello Landslide") occurred approximately 500 feet to the east of the Tramonto Landslide from Revello Drive to Castellammare Drive with the headscarp being located along the public right-of-way ("ROW") fronting 17464-17470 Revello Drive and part of

17476 Revello Drive. This section of roadway, which was significantly damaged by this landslide event, was inadequately restored shortly thereafter. In particular, the City improperly located a timber bulkhead shoring wall, which varies in height from 1 to 4.5 feet, on the south side of the street that is approximately 7 to 11 feet away from the southern ROW boundary. In doing so, it created a much narrower street than was necessary. The grade conditions between this bulkhead and the southern ROW boundary descend away from the bulkhead no more than 4 feet. Thus, had the City properly located this bulkhead along the southern ROW boundary it would have resulted in a bulkhead height that is no more than approximately 8 feet (at its highest point) and a paved roadway width of 20 feet. The current paved roadway width is approximately 13 to 15 feet for a section that is 200 feet long.

In addition, this section of roadway was never restored to its pre-landslide grade so there is a dip approximately 9 feet deep at the lowest point. To allow upstream water run-off to traverse/bypass this dip, a 36" diameter steel pipe, which spans approximately 150 feet, was installed aboveground on the north side of the street. The City also located/installed this storm drain pipe without any diversion which created a blind corner in front of 17476 Revello (see referenced pictures and the solid blue line in the attached survey). For your reference, I've attached: (a) an aerial photograph taken in 2017 showing the limits of this substandard roadway section (see Exhibit 8); (b) an aerial photograph taken in approximately 1930 showing the original condition of same section of roadway (see Exhibit 9); (c) several pictures taken by the City over the past few decades of the existing conditions you now see today, which were recently produced by the City in response to my request for information (see Exhibit 10); and (d) a copy of the survey performed by the owner of 17464/17470 Revello, which also includes my annotations (see Exhibit 11).

This section of roadway is currently used to access two existing single-family homes located at 17476-17482 Revello Drive and 17520 Revello Drive as well as approximately 22 vacant lots on this street that are covered with heavy brush. As you may also know, these vacant lots, especially those located within the Tramonto Landslide, have notoriously been a place for transient people to loiter, illegally trespass on property and engage in nefarious activities. This area is a very high severity fire zone and many of the current residents in this community are older so emergency and life-safety response vehicles/units must have the ability to quickly access and traverse all parts of this neighborhood.

Given the current condition and width of this section of roadway, it has been recently brought to my attention that certain community members, who are opposing my proposed development, are speculating that firetrucks and other life-safety response vehicles cannot access any property along and to the west of this Revello bulkhead, including those properties referenced above. I do not believe this to be the case. However, needless to say, the City's inability to access and timely respond to a brush fire that starts on one or more of these properties could have a catastrophic impact on this area so I'm passing their comments on to the City as an abundance of caution. I ask that the City look into this matter and advise if this is, in fact, the case.

In 1963, the City issued Ordinance No. 125282 (see Exhibit 3) in order to withdraw certain streets, or portions thereof, and other public places from public use, including Tramonto Drive, Revello Drive, Posetano Road and Castellammare Drive. I've attached a copy of the Ordinance for your reference. Please let me know if this Ordinance is still in effect. If not, please provide documentation to substantiate any and all changes thereto as well as any new ordinances that came into effect as a result. According to this Ordinance, "[t]he Board of Public Works is hereby authorized and directed to return the above mentioned streets or any portion thereof to public use when, in its opinion, the said streets or any portion thereof are in a safe and passable condition." [emphasis added]

In 2020, the Revello Landslide was almost entirely remediated by the One Coast project (17331-17333 Tramonto Drive) and the Sea View Villas project (17325 Castellammare Drive). The only unremediated portion remaining is at the headscarp situated across 17464-17470 Revello Drive and part of 17476 Revello Drive. As such, I believe the portion of roadway fronting these specific properties are now "in a safe and passable condition" and therefore the City should restore and return this section of roadway to its intended public use (i.e. the roadway condition prior to the 1965 Revello Landslide).

As such, the CMHO Board, the list of undersigning community members, which I'm told is now close to 100 people and counting, and I ask that the City immediately perform the necessary inspections and analysis, as required, in order to determine and provide its opinion regarding whether or not the roadway traversing in front of 17464-17480 Revello Drive is "in safe and passable condition" such that it can be returned to its intended public use. Please provide us with a copy of the City's findings and analyses once completed so we can retain these documents for our records. In the event the City determines this portion of roadway is "in safe and passable condition" then we ask the City to immediately take the necessary steps to procure permits and perform the work and improvements within the right-of-way as required and as needed without stoppage or delay until this section of roadway is returned to its intended public use.

Sincerely,
Greg Demos

Download Link for Exhibits
<https://app.box.com/s/jhnngn5pabrcci89q6ru09n9p45ogskxz>

with a copy to:
Los Angeles City Planning Department
c/o Makan Baranghoori
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Los Angeles, CA 90012
makan.baranghoori@lacity.org

Mike Bonin, Councilmember, 11th District
c/o Chad Molnar
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The Castellammare Home Owners Association
c/o Cindi Young, Board President
P. O. Box 742
Pacific Palisades, CA 90272
cyoung@youngcompany.com
fredvogler@aol.com

Section 2 of the
Castellammare Mesa Home
Owners Association (CMHOA)
Comments

Council File #24-0339

Exhibit 2







blind
corner









Section 3 of the
Castellammare Mesa Home
Owners Association (CMHOA)
Comments

Council File #24-0339

Exhibit 3

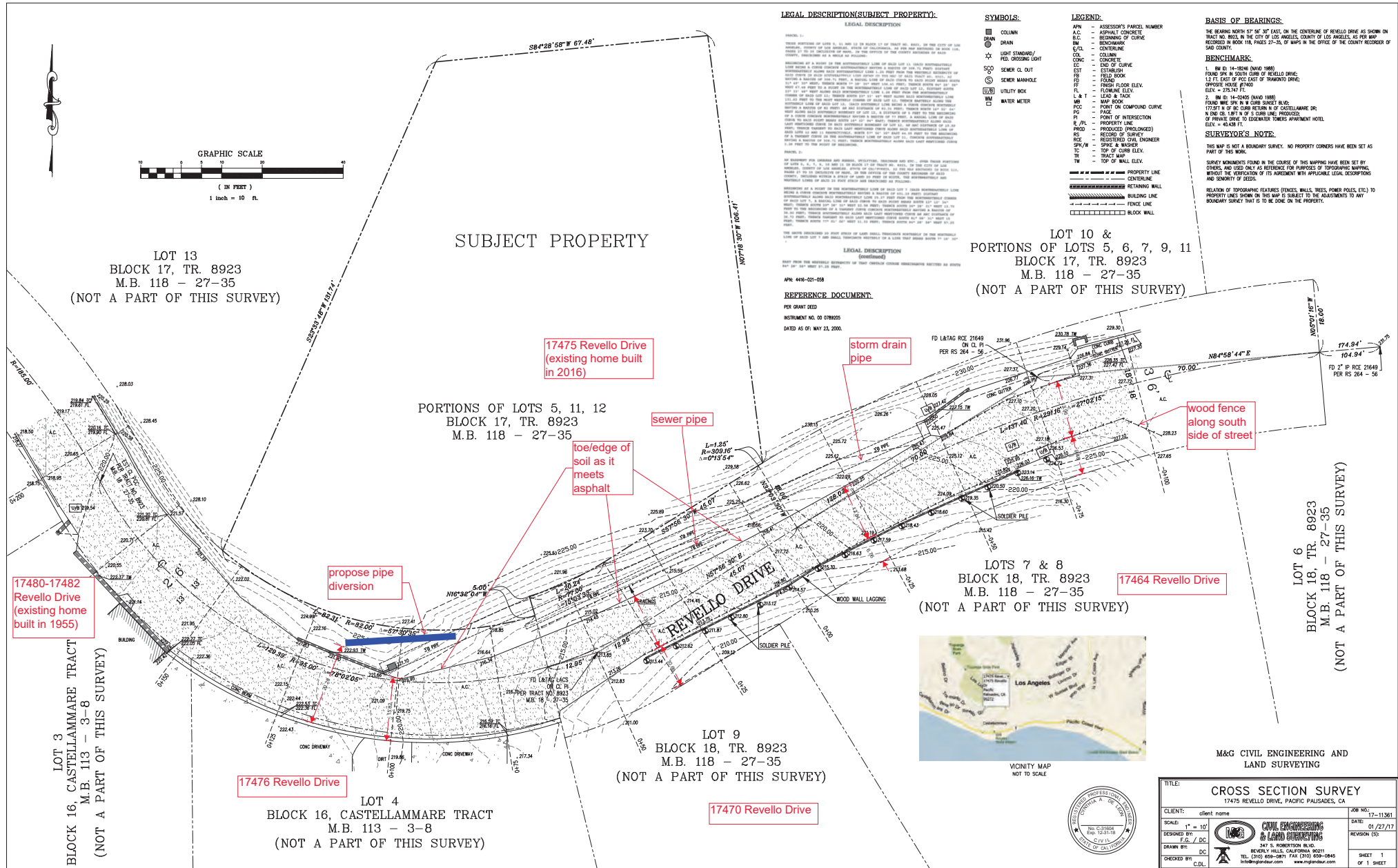


Exhibit 4

State of California Office of Administrative Law

In re:
Board of Forestry and Fire Protection

Regulatory Action:

Title 14, California Code of Regulations

Adopt sections: 1270.08, 1276.03
Amend sections: 1270.00, 1270.01
(Renumbered to 1270.02
and Amended), 1270.02
(Renumbered to 1270.03
and Amended), 1270.03
(Renumbered to 1270.04
and Amended), 1270.04
(Renumbered to 1270.05
and Amended), 1270.05
(Renumbered to 1270.06
and Amended), 1270.06
(Renumbered to 1270.07
and Amended), 1271.00
(Renumbered to 1270.01
and Amended), 1273.00,
1273.01, 1273.02, 1273.03,
1273.04, 1273.05, 1273.06,
1273.07, 1273.08, 1273.09,
1274.00, 1274.01, 1274.02,
1274.03, 1274.04, 1275.00,
1275.01, 1275.02, 1275.03,
1275.04, 1276.00, 1276.01,
1276.02, 1276.03
(Renumbered to 1276.05
and Amended), 1276.04

Repeal sections:

**NOTICE OF APPROVAL OF REGULATORY
ACTION**

Government Code Section 11349.3

OAL Matter Number: 2022-0819-02

OAL Matter Type: Regular (S)

This action adopts, amends, and repeals regulations to implement minimum fire safety standards related to defensible space applicable to the perimeters and access to all residential, commercial, and industrial building construction and to land in a State Responsibility Area (SRA) and Local Responsibility Area (LRA) Very High Fire Hazard Severity Zone (VHFHSZ), particularly with respect to fuel breaks, greenbelts near communities, and preservation of undeveloped ridgelines.

OAL approves this regulatory action pursuant to section 11349.3 of the Government Code. This regulatory action becomes effective on 4/1/2023.

Date: January 31, 2023



Digitally signed by Mark
Storm
Date: 2023.01.31 14:08:55
-08'00'

Mark Storm
Senior Attorney

For: Kenneth J. Pogue
Director

Original: Edith Hannigan, Executive
Officer

NOTICE PUBLICATION/REGULATIONS SUBMISSION

STD. 400 (REV. 10/2019)

REGULAR

For use by Secretary of State only

OAL FILE NUMBERS	NOTICE FILE NUMBER Z-2021-0413-05	REGULATORY ACTION NUMBER 2022-0819-02S	EMERGENCY NUMBER
For use by Office of Administrative Law (OAL) only			
NOTICE		REGULATIONS	

ENDORSED - FILED
In the office of the Secretary of State
of the State of California**JAN 31 2023***2:57 PM*OFFICE OF ADMIN. LAW
2022 AUG 19 PM 1:26AGENCY WITH RULEMAKING AUTHORITY
Board of Forestry and Fire Protection

AGENCY FILE NUMBER (If any)

A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)

1 SUBJECT OF NOTICE		TITLE(S)	FIRST SECTION AFFECTED	2 REQUESTED PUBLICATION DATE
3 NOTICE TYPE <input type="checkbox"/> Notice re Proposed Regulatory Action <input type="checkbox"/> Other		4 AGENCY CONTACT PERSON	TELEPHONE NUMBER	FAX NUMBER (Optional)
OAL USE ONLY	ACTION ON PROPOSED NOTICE <input type="checkbox"/> Approved as Submitted <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Disapproved/Withdrawn		NOTICE REGISTER NUMBER 2021, 17-Z	PUBLICATION DATE 4/23/2021

B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)

1a SUBJECT OF REGULATION(S) State Minimum Fire Safe Regulations, 2021		1b ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)	
2 SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) (Including title 26, if toxics related)			
SECTION(S) AFFECTED (List all section number(s) individually. Attach additional sheet if needed.)		ADOPT SS 1270.08, 1276.05 SEE ATTACHMENT	
		AMEND see attachment	
TITLE(S) 14		REPEAL SS 1271.00	
3 TYPE OF FILING			
<input checked="" type="checkbox"/> Regular Rulemaking (Gov. Code §11346)		<input type="checkbox"/> Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.	
<input type="checkbox"/> Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§11349.3, 11349.4)		<input type="checkbox"/> Emergency Readopt (Gov. Code, §11346.1(h))	
<input type="checkbox"/> Emergency (Gov. Code, §11346.1(b))		<input type="checkbox"/> File & Print	
<input type="checkbox"/> Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, §11346.1)		<input type="checkbox"/> Other (Specify) _____	
<input type="checkbox"/> Changes Without Regulatory Effect (Cal. Code Regs., title 1, §100)		<input type="checkbox"/> Print Only	
4 ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, §44 and Gov. Code §11347.1) January 3-19, 2022 and May 10-27, 2022			
5 EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, §100)			
<input checked="" type="checkbox"/> Effective January 1, April 1, July 1, or October 1 (Gov. Code §11343.4(a))		<input type="checkbox"/> Effective on filing with Secretary of State	
<input type="checkbox"/> Effective other (Specify) _____		<input type="checkbox"/> §100 Changes Without Regulatory Effect	
6 CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY			
<input checked="" type="checkbox"/> Department of Finance (Form STD. 399) (SAM §6660)		<input type="checkbox"/> Fair Political Practices Commission	
<input type="checkbox"/> Other (Specify) _____		<input checked="" type="checkbox"/> State Fire Marshal	
7 CONTACT PERSON Edith Hannigan		TELEPHONE NUMBER (916) 862-0120	FAX NUMBER (Optional) E-MAIL ADDRESS (Optional) edith.hannigan@bof.ca.gov

8 I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.

SIGNATURE OF AGENCY DESIGNATED BY

DATE **8/19/2022**TYPED NAME AND TITLE OF SIGNATORY
Edith Hannigan, Executive Officer

For use by Office of Administrative Law (OAL) only

ENDORSED APPROVED**JAN 31 2023****Office of Administrative Law**

2022-0819-02S BOFFP
Form 400 Attachment B.2.

ADOPT

1270.08, 1276.03

AMEND

1270.00, 1270.01 (Renumbered to 1270.02 and Amended), 1270.02 (Renumbered to 1270.03 and Amended), 1270.03 (Renumbered to 1270.04 and Amended), 1270.04 (Renumbered to 1270.05 and Amended), 1270.05 (Renumbered to 1270.06 and Amended), 1270.06 (Renumbered to 1270.07 and Amended), 1271.00 (Renumbered to 1270.01 and Amended), 1273.00, 1273.01, 1273.02, 1273.03, 1273.04, 1273.05, 1273.06, 1273.07, 1273.08, 1273.09, 1274.00, 1274.01, 1274.02, 1274.03, 1274.04, 1275.00, 1275.01, 1275.02, 1275.03, 1275.04, 1276.00, 1276.01, 1276.02, 1276.03 (Renumbered to 1276.05 and Amended), 1276.04

REPEAL

Title 14 of the California Code of Regulations (14 CCR),

Division 1.5, Chapter 7

Subchapter 2, Articles 1-5

"DRAFT State Minimum Fire Safe Regulations, 2021"

Subchapter 2. ~~SRA/VHFHSZ~~ State Minimum Fire Safe Regulations

Article 1. Administration

§ 1270.00. Title.

~~These regulations~~ Subchapter 2 shall be known as the "~~SRA/VHFHSZ~~
State Minimum Fire Safe Regulations," and shall constitute the
~~basic minimum~~ Wildfire protection standards of the California
Board of Forestry and Fire Protection.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4102, 4126, 4127 and 4290, Public Resources
Code.

§ 1270.01. Definitions ~~Purpose~~

The following definitions are applicable to Subchapter 2.

(a) Agriculture: Land used for agricultural purposes as defined
in a Local Jurisdiction's zoning ordinances.

(b) Board: California Board of Forestry and Fire Protection.

(c) Building: Any Structure used or intended for supporting or
sheltering any use or Occupancy, except those classified as
Utility and Miscellaneous Group U.

(d) CAL FIRE: California Department of Forestry and Fire

1 Protection.

2 (e) Dead-end Road: A Road that has only one point of vehicular
3 ingress/egress, including cul-de-sacs and Roads that loop back
4 on themselves

5 (f) Defensible Space: The area within the perimeter of a
6 parcel, Development, neighborhood or community where basic
7 wildland fire protection practices and measures are implemented,
8 providing the key point of defense from an approaching Wildfire
9 or defense against encroaching Wildfires or escaping Structure
10 fires. The perimeter as used in this regulation is the area
11 encompassing the parcel or parcels proposed for construction
12 and/or Development, excluding the physical Structure itself. The
13 area is characterized by the establishment and maintenance of
14 emergency vehicle access, emergency water reserves, Road names
15 and Building identification, and fuel modification measures.

16 (g) Development: As defined in section 66418.1 of the California
17 Government Code.

18 (h) Director: Director of the Department of Forestry and Fire
19 Protection or their designee.

20 (i) Driveway: A vehicular pathway that serves no more than four
21 (4) Residential Units and any number of non-commercial or non-
22 industrial Utility or Miscellaneous Group U Buildings on each
23 parcel. A Driveway shall not serve commercial or industrial uses
24 at any size or scale.

25 (j) Exception: An alternative to the specified standard
26 requested by the applicant that may be necessary due to health,

safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.

(k) Fire Apparatus: A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.

(l) Fire Authority: A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.

(m) Fire Hydrant: A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.

(n) Fuel Break: A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.

(o) Greenbelts: open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.

(p) Greenways: Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

(q) Hammerhead/T: A "T" shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.

(r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.

(s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.

(t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.

(u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.

(v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.

(w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons.

1 Manufactured homes, mobile homes, and factory-built housing are
2 considered Residential Units.

3 (x) Ridgeline: The line of intersection of two opposing slope
4 aspects running parallel to the long axis of the highest
5 elevation of land; or an area of higher ground separating two
6 adjacent streams or watersheds.

7 (y) Road: A public or private vehicular pathway to more than
8 four (4) Residential Units, or to any industrial or commercial
9 Occupancy.

10 (z) Road or Driveway Structures: Bridges, culverts, and other
11 appurtenant Structures which supplement the Traffic Lane or
12 Shoulders.

13 (aa) Same Practical Effect: As used in this subchapter, means an
14 Exception or alternative with the capability of applying
15 accepted wildland fire suppression strategies and tactics, and
16 provisions for fire fighter safety, including:

17 (1) access for emergency wildland fire equipment,

18 (2) safe civilian evacuation,

19 (3) signing that avoids delays in emergency equipment
20 response,

21 (4) available and accessible water to effectively attack
22 Wildfire or defend a Structure from Wildfire, and

23 (5) fuel modification sufficient for civilian and fire
24 fighter safety.

25 (bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.

26 (cc) State Responsibility Area (SRA): As defined in Public

Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.

(dd) Strategic Ridgeline: a Ridgeline identified pursuant to § 1276.02(a) that may support fire suppression activities or where the preservation of the Ridgeline as an Undeveloped Ridgeline would reduce fire risk and improve fire protection.

(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.

(ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.

(gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.

(hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

(ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.

(jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.

(kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.

(ll) Vertical Curve: A curve at a high or low point of a Road that provides a gradual transition between two Road grades or slopes.

(mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).

(nn) Wildfire: Has the same meaning as "forest fire" in Public Resources Code Section 4103.

~~(a) These regulations have been prepared and adopted for the purpose of establishing minimum Wildfire protection standards in conjunction with building, construction and development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones as defined in Government Code S 51177(i) (VHFHSZ).~~

~~(b) The future design and construction of structures, subdivisions and developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter wildfire protection measures as specified in the following articles.~~

~~(c) These measures shall provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification. The fire protection standards which follow shall specify the minimums for such measures.~~

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.02. Purpose.—Scope

(a) Subchapter 2 has been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).

(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.

(c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. Subchapter 2 specifies the minimums for such measures.

~~(a) These regulations shall apply to:~~

~~(1) the perimeters and access to all residential, commercial, and industrial building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b.);~~

~~(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory built housing, as defined in Health and Safety Code sections 18001.8, 18007,~~

~~18008, and 19971;~~

~~(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and~~

~~(4) applications for building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the buildings were not imposed as part of the approval of the parcel or tentative map.~~

~~(b) These regulations do not apply where an application for a building permit is filed after January 1, 1991 for building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.~~

~~(c) Affected activities include, but are not limited to:~~

~~(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);~~

~~(2) application for a building permit for new construction not relating to an existing structure;~~

~~(3) application for a use permit;~~

~~(4) Road construction, including construction of a road that does not currently exist, or extension of an existing road.~~

~~(f) EXEMPTION: Roads used solely for agricultural, mining, or the management and harvesting of wood products.~~

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.03. Scope. Provisions for Application of The Regulations

(a) Subchapter 2 shall apply to:

(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection

(b).

(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;

(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and

(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.

(b) Subchapter 2 does not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or

1 tentative map (if the final map for the tentative map is
2 approved within the time prescribed by the local ordinance)
3 approved prior to January 1, 1991, to the extent that conditions
4 relating to the perimeters and access to the Buildings were
5 imposed by the parcel map or final tentative map approved prior
6 to January 1, 1991.

7 (c) Affected activities include, but are not limited to:

8 (1) permitting or approval of new parcels, excluding lot
9 line adjustments as specified in Government Code (GC) section
10 66412(d);

11 (2) application for a Building permit for new construction
12 not relating to an existing Structure;

13 (3) application for a use permit;

14 (4) Road construction including construction of a Road that
15 does not currently exist, or extension of an existing Road.

16 (d) The standards in Subchapter 2 applicable to Roads shall not
17 apply to Roads used solely for Agriculture; mining; or the
18 management of timberland or harvesting of forest products.

19 ~~This Subchapter shall be applied as follows:~~

20 ~~(a) the local jurisdictions shall provide the Director of~~
21 ~~the California Department of Forestry and Fire Protection (CAL~~
22 ~~FIRE) or their designee with notice of applications for building~~
23 ~~permits, tentative parcel maps, tentative maps, and installation~~
24 ~~or use permits for construction or development within the SRA.~~

25 ~~(b) the Director or their designee may review and make fire~~
26 ~~protection recommendations on applicable construction or~~

~~development permits or maps provided by the Local Jurisdiction.~~

~~(c) the local jurisdiction shall ensure that the applicable sections of this subchapter become a condition of approval of any applicable construction or development permit or map.~~

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

~~§ 1270.0304~~ Provisions for Application of these Regulations

This Subchapter shall be applied as follows:

(a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA, or if after July, 1 2021, the VHFHSZ.

(b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the Local Jurisdiction.

(c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.0405. Local Regulations Ordinances.

(a) Subchapter 2 shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, Subchapter 2 does not supersede local regulations which equal or exceed the standards of this Subchapter. ~~Nothing contained in these regulations shall be considered as abrogating the provisions of any ordinance, rule, or regulation of any state or local jurisdiction provided that such ordinance, rule, regulation or general plan element is equal to or more stringent than these minimum standards.~~

(b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter. ~~The Board may certify local ordinances as equaling or exceeding these regulations when they provide the same practical effect.~~

(c) A Local Jurisdiction shall not apply exemptions to Subchapter 2 that are not enumerated in Subchapter 2. Exceptions requested and approved in conformance with § 1270.07 (Exceptions to Standards) may be granted on a case-by-case basis. ~~Counties may submit their local ordinances for certification via email to the Board.~~

~~(d) The Board's certification of local ordinances pursuant to this section is rendered invalid when previously certified ordinances are subsequently amended by local jurisdictions without Board re-certification of the amended ordinances. The~~

Board's regulations supersede the amended local ordinance(s) when the amended local ordinance(s) are not re-certified by the Board. Amendments made by local jurisdictions to previously certified ordinances shall be submitted for re-certification.

(d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.056. Inspections.

Inspections shall conform to the following requirements:

(a) Inspections in the SRA shall be made by:

(1) the Director, or

(2) Local Jurisdictions that have assumed state fire protection responsibility on SRA lands, or

(3) Local Jurisdictions where the inspection duties have been formally delegated by CAL FIRE the Director to the Local Jurisdictions, pursuant to subsection (b).

(b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:

(1) The Local Jurisdiction represents that they have appropriate resources to perform the delegated inspection authority.

(2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or

1 restricted.

2 (3) The Local Jurisdiction consents to the delegation of
3 inspection authority.

4 (4) The Director may revoke the delegation at any time.

5 (5) The delegation of inspection authority, and any
6 subsequent revocation of the delegation, shall be documented in
7 writing, and retained on file at the CAL FIRE Unit headquarters
8 that administers SRA fire protection in the area.

9 ~~Inspections made under 14 CCR § 1270.05(a)(2) or 14 CCR §~~
10 ~~1270.05(a)(3) shall occur only when these regulations are~~
11 ~~incorporated into local ordinance in one of the following~~
12 ~~manners:~~

13 ~~(1) these regulations have been incorporated verbatim or by~~
14 ~~reference into that jurisdiction's permitting or approval~~
15 ~~process for the activities described in 14 CCR § 1270.02; or~~

16 ~~(2) the local ordinances have been certified pursuant to 14 CCR~~
17 ~~§ 1270.04;~~

18 (c) Inspections in the VHFHSZ shall be made by the Local
19 Jurisdiction. Nothing in this section abrogates CAL FIRE's
20 authority to inspect and enforce state forest and fire laws even
21 when the inspection duties have been delegated pursuant to this
22 section.

23 (d) Nothing in this section abrogates CAL FIRE's authority to
24 inspect and enforce state forest and fire laws in the SRA even
25 when the inspection duties have been delegated pursuant to this
26 section. Reports of violations shall be provided to the CAL FIRE

~~Unit headquarters that administers SRA fire protection in the
Local Jurisdiction.~~

(e) Reports of violations within the SRA shall be provided to
the CAL FIRE Unit headquarters that administers SRA fire
protection in the Local Jurisdiction. ~~When inspections are
conducted, they shall occur prior to: the issuance of the use
permit or certificate of occupancy; the recordation of the
parcel map or final map; the filing of a notice of completion;
or the final inspection of any project or building permit.~~

(f) When inspections are conducted, they shall occur prior to:
the issuance of the use permit or certificate of Occupancy; the
recordation of the parcel map or final map; the filing of a
notice of completion; or the final inspection of any project or
Building permit.

Note: Authority cited: Section 4111, 4119 and 4290, Public
Resources Code. Reference: Sections 4102, 4119, 4125, 4290 and
4291, Public Resources Code.

§ 1270.067. Exceptions to Standards.

(a) Upon request by the applicant, an ~~e~~Exceptions to standards
within this ~~s~~Subchapter ~~or to Local Jurisdiction certified~~
~~ordinances~~ may be allowed by the ~~inspection~~ Inspection entity in
accordance with ~~listed in~~ 14 CCR § 1270.056 (Inspections) where
the Exceptions provide the ~~same practical effect~~ Same Practical
Effect as these regulations towards providing Defensible Space.

1 Exceptions granted by the ~~inspection entity~~ Local Jurisdiction
2 listed in 14 CCR § 1270.056, shall be made on a case-by-case
3 basis only. ~~Exceptions granted~~ Exceptions granted by the
4 ~~inspection entity~~ Local Jurisdiction listed in 14 CCR § 1270.05
5 listed in 14 CCR § 1270.06 shall be forwarded to the
6 appropriate CAL FIRE unit headquarters ~~Unit Office~~ that
7 administers SRA fire protection in that Local Jurisdiction, or
8 the county in which the Local Jurisdiction is located and shall
9 be retained on file at the Unit Office.

10 (b) Requests for an ~~e~~Exception shall be made in writing to the
11 ~~inspection entity~~ Local Jurisdiction listed in 14 CCR §
12 1270.0506—by the applicant or the applicant's authorized
13 representative.

14 At a minimum, the request shall state the specific
15 section(s) for which an ~~e~~Exception is requested; material facts
16 supporting the contention of the applicant; the details of the
17 Exception proposed; and a map showing the proposed location and
18 siting of the ~~e~~Exception. Local Jurisdictions listed in §
19 1270.0506 (Inspections) may establish additional procedures or
20 requirements for ~~e~~Exception requests.

21 (c) Where an Exception is not granted by the inspection entity,
22 the applicant may appeal such denial to the Local Jurisdiction.
23 The Local Jurisdiction may establish or utilize an appeal
24 process consistent with existing local building or planning
25 department appeal processes.

26 (d) Before the Local ~~j~~Jurisdiction makes a determination on an

1 appeal, the inspector shall be consulted and shall provide to
2 that Local Jurisdiction ~~local jurisdiction~~ documentation
3 outlining the effects of the requested Exception on ~~w~~Wildfire
4 protection.

5 (e) If an appeal is granted, the Local ~~j~~Jurisdiction shall make
6 findings that the decision meets the intent of providing
7 Defensible Space consistent with these regulations. Such
8 findings shall include a statement of reasons for the decision.
9 A written copy of these findings shall be provided to the CAL
10 FIRE Unit headquarters that administers SRA fire protection in
11 that ~~local~~ Local ~~j~~Jurisdiction.

12 Note: Authority cited: Section 4290, Public Resources Code.
13 Reference: Sections 4290 and 4291, Public Resources Code.

14
15 § 1270.08. Distance Measurements ~~Requests for Exceptions.~~

16 All specified or referenced distances are measured along the
17 ground, unless otherwise stated.

18 Note: Authority cited: Section 4290, Public Resources Code.
19 Reference: Sections 4290 and 4291, Public Resources Code.

20
21 ~~§ 1271.00. Definitions.~~

22 ~~Agriculture: Land used for agricultural purposes as defined in a~~
23 ~~Local Jurisdiction's zoning ordinances.~~

24 ~~Building: Any Structure used or intended for supporting or~~
25 ~~sheltering any use or Occupancy, except Utility and~~
26 ~~Miscellaneous Group U Buildings.~~

~~CAL FIRE: California Department of Forestry and Fire Protection.~~

~~Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped Roads.~~

~~Defensible space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, road names and building identification, and fuel modification measures.~~

~~Development: As defined in section 66418.1 of the California Government Code.~~

~~Director: Director of the Department of Forestry and Fire Protection or their designee.~~

~~Driveway: A vehicular access that serves up to two (2) parcels with no more than two (2) Residential Units and any number of non-commercial or industrial Buildings on each parcel.~~

~~Distance Measurements: All specified or referenced distances are measured along the ground, unless otherwise stated.~~

~~EXCEPTION: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other~~

~~limiting conditions, such as recorded historical sites, that provides mitigation of the problem.~~

~~Fire valve: see hydrant.~~

~~Fuel modification area: An area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.~~

~~Greenbelts: A facility or land use, designed for a use other than fire protection, which will slow or resist the spread of a Wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.~~

~~Hammerhead/T: A road or driveway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the Road that serves it.~~

~~Hydrant: A valved connection on a water supply or storage system, having either one two and a half (2 1/2) inch or one four and a half (4 1/2) inch outlet, with male American National Fire Hose Screw Threads (NH), used to supply Fire Apparatus and hoses with water.~~

~~Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.~~

~~Occupancy: The purpose for which a building, or part thereof, is used or intended to be used.~~

~~One-way road: A minimum of one traffic lane width designed for traffic flow in one direction only.~~

~~Residential unit: Any Building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for one or more persons. Manufactured homes, mobilehomes, and factory-built housing are considered residential units for the purposes of mandatory measures required in 14 CCR § 1270.01(c).~~

~~Road: Vehicular access to more than two (2) parcels; more than four (4) Residential Units; or access to any industrial or commercial occupancy. Includes public and private streets and lanes.~~

~~Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the traffic lane or Shoulders.~~

~~Same Practical Effect: As used in this subchapter, means an exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:~~

~~(a) access for emergency wildland fire equipment,~~

~~(b) safe civilian evacuation,~~

~~(c) signing that avoids delays in emergency equipment response,~~

~~(d) available and accessible water to effectively attack wildfire or defend a structure from wildfire, and~~

~~(e) fuel modification sufficient for civilian and fire fighter safety.~~

~~Shoulder: Vehicular access adjacent to the traffic lane.~~

~~State Board of Forestry and Fire Protection (Board): As defined in Public Resources Code section 730.~~

~~State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.~~

~~Structure: That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.~~

~~Subdivision: As defined in section 66424 of the Government Code.~~

~~Traffic lane: The portion of a road or driveway that provides a single line of vehicle travel.~~

~~Turnaround: A road or driveway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.~~

~~Turnouts: A widening in a Road or Driveway to allow vehicles to pass.~~

~~Utility and Miscellaneous Group U Building: A structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.~~

~~Vertical clearance: The minimum specified height of a bridge or overhead projection above the road or driveway.~~

1 ~~Wildfire: As defined in Public Resources Code Section 4103 and~~
2 ~~4104.~~

3 ~~Note: Authority cited: Section 4290, Public Resources Code.~~

4 ~~Reference: Sections 4290 and 4291, Public Resources Code.~~

5
6 Article 2. ~~Emergency Access~~ Ingress and Egress

7 § 1273.00. Intent.

8 Roads, and ~~d~~Driveways, whether public or private, unless
9 exempted under 14 CCR § 1270.0203(d), shall provide for safe
10 access for emergency ~~w~~Wildfire equipment and civilian evacuation
11 concurrently, and shall provide unobstructed traffic circulation
12 during a ~~w~~Wildfire emergency consistent with 14 CCR §§ 1273.00
13 through 1273.09.

14
15 Note: Authority cited: Section 4290, Public Resources Code.

16 Reference: Sections 4290 and 4291, Public Resources Code.

17
18 § 1273.01. Width

19 (a) All Roads shall be constructed to provide a minimum of two
20 ten (10) foot traffic lanes, not including Shoulder and
21 striping. These traffic lanes shall provide for two-way traffic
22 flow to support emergency vehicle and civilian egress, unless
23 other standards are provided in this article or additional
24 requirements are mandated by ~~local jurisdictions~~ Local
25 Jurisdictions or local subdivision requirements. Vertical

clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All ~~one-way roads~~ One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including ~~shoulders~~ Shoulders. The ~~local jurisdiction~~ Local Jurisdiction may approve ~~one-way roads~~ One-way Roads.

(1) All One-way Roads shall, at both ends, connect to a Road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) ~~residential units~~ Residential Units.

(2) In no case shall a ~~one-way road~~ One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each ~~one-way road~~ One-way Road.

(c) All Driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13' 6").

Note: Authority cited: Section 4290, Public Resources Code.
Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.02. Road Surfaces.

(a) Roads shall be designed and maintained to support the imposed load of ~~f~~Fire ~~a~~Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) ~~Driveways and road and driveway structures~~ Road and Driveway Structures shall be designed and maintained to support at least

40,000 pounds.

(c) Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction ~~local authority having jurisdiction~~.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.03. Grades.

(a) At no point shall the grade for all ~~roads~~ and ~~driveways~~ exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the ~~local authority having jurisdiction~~ Local Jurisdiction and with mitigations to provide for ~~same~~ practical effect.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.04. Radius.

(a) No ~~road~~ or ~~road~~ ~~structure~~ shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in ~~roadways~~, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.05. Turnarounds.

(a) Turnarounds are required on ~~driveways and dead-end roads~~
Driveways and Dead-end Roads.

(b) The minimum turning radius for a turnaround shall be forty
(40) feet, not including parking, in accordance with the figures
in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is
used instead, the top of the "T" shall be a minimum of sixty
(60) feet in length.

(c) Driveways exceeding 150 feet in length, but less than 800
feet in length, shall provide a turnout near the midpoint of the
~~driveway~~ Driveway. Where the Driveway exceeds 800 feet, turnouts
shall be provided no more than 400 feet apart.

(d) A turnaround shall be provided on ~~driveways~~ Driveways over
300 feet in length and shall be within fifty (50) feet of the
Building.

(d) Each ~~dead-end road~~ Dead-end Road shall have a turnaround
constructed at its terminus. Where parcels are zoned five (5)
acres or larger, turnarounds shall be provided at a maximum of
1,320 foot intervals.

(e) Figure A. Turnarounds on Roads with two ten-foot traffic
lanes.

Figure A/Image 1 is a visual representation of paragraph (b).

[editorial note: no change to the images in this section]

(f) Figure B. Turnarounds on driveways with one ten-foot traffic

lane.

Figure B/Image 2 is a visual representation of paragraph (b).

[editorial note: no change to the images in this section]

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.06 ~~Roadway~~ Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.07 Road and Driveway Structures.

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, ~~one-way road~~ One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.

(b) Where a bridge or an elevated surface is part of a ~~fire apparatus~~ Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by

reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of Fire Apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.

(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.

(d) A bridge with only one traffic lane may be authorized by the ~~local jurisdiction~~ Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

Note: Authority cited: Section 4290, Public Resources Code.
Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.08 Dead-end Roads

(a) The maximum length of a ~~dead-end road~~ Dead-end Road, including all ~~dead-end roads~~ Dead-end Roads accessed from that ~~dead-end road~~ Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

- parcels zoned for less than one acre - 800 feet
- parcels zoned for 1 acre to 4.99 acres - 1,320 feet
- parcels zoned for 5 acres to 19.99 acres - 2,640 feet

1 parcels zoned for 20 acres or larger - 5,280 feet

2 All lengths shall be measured from the edge of the ~~read~~ Road
3 surface at the intersection that begins the ~~read~~ Road to the end
4 of the ~~read~~ Road surface at its farthest point. Where a Dead-end
5 Road crosses areas of differing zoned parcel sizes requiring
6 different length limits, the shortest allowable length shall
7 apply.

8 (b) See 14 CCR § 1273.05 for Dead-end Road turnaround
9 requirements.

10 Note: Authority cited: Section 4290, Public Resources Code.

11 Reference: Sections 4290 and 4291, Public Resources Code.

12
13 § 1273.09 Gate Entrances.

14 (a) Gate entrances shall be at least two (2) feet wider than the
15 width of the traffic lane(s) serving that gate and a minimum
16 width of fourteen (14) feet unobstructed horizontal clearance
17 and unobstructed vertical clearance of thirteen feet, six inches
18 (13' 6").

19 (b) All gates providing access from a ~~read~~ Road to a ~~driveway~~
20 Driveway shall be located at least thirty (30) feet from the
21 Roadway and shall open to allow a vehicle to stop without
22 obstructing traffic on that ~~read~~ Road.

23 (c) Where a ~~one-way read~~ One-way Road with a single traffic lane
24 provides access to a gated entrance, a forty (40) foot turning
25 radius shall be used.

(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Note: Authority cited: Section 4290, Public Resources Code.
Reference: Sections 4290 and 4291, Public Resources Code.

Article 3. Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved ~~roads~~ Roads and ~~buildings~~ Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the ~~road~~ Road. This section shall not restrict the size of letters or numbers appearing on Road signs for other purposes.

Note: Authority cited: Section 4290, Public Resources Code.
Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.01. Road Signs.

(a) Newly constructed or approved ~~roads~~ Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each ~~local jurisdiction~~ Local Jurisdiction. This

section does not require any entity to rename or renumber existing Roads, nor shall a ~~read~~ Road providing access only to a single commercial or industrial ~~occupancy~~ Occupancy require naming or numbering.

(b) The size of letters, numbers, and symbols for ~~read~~ Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

Note: Authority cited: Section 4290, Public Resources Code.
Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.

(b) Signs required by this article identifying intersecting ~~roads~~ Roads shall be placed at the intersection of those ~~roads~~ Roads.

(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, Dead-end Roads, One-way Roads, or single lane conditions, shall be placed:

(±1) at the intersection preceding the traffic access limitation, and

(±2) no more than one hundred (100) feet before such traffic

access limitation.

(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.03. Addresses for Buildings.

(a) All ~~buildings~~ Buildings shall be issued an address by the ~~local jurisdiction~~ Local Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U ~~buildings~~ Buildings are not required to have a separate address; however, each ~~residential unit within a building~~ Residential Unit within a Building shall be separately identified.

(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.

(c) Addresses for residential ~~buildings~~ Buildings shall be reflectorized.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All Buildings shall have a permanently posted address which shall be plainly legible and visible from the ~~read~~ Road fronting

the property.

(b) Where access is by means of a private ~~read~~ Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.

(c) Address signs along One-way ~~reads~~ Roads shall be visible from both directions.

(d) Where multiple addresses are required at a single Driveway, they shall be mounted on a single sign or post.

(e) Where a ~~read~~ Road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest ~~read~~ Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.

(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

Article 4 Emergency Water Standards.

§ 1275.00. Intent.

Emergency water for ~~w~~Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a ~~w~~Wildfire or defend property from a ~~w~~Wildfire.

1 Note: Authority cited: Section 4290, Public Resources Code.
2 Reference: Sections 4290 and 4291, Public Resources Code.

3
4 § 1275.01. Application.

5 The provisions of this article shall apply in the tentative and
6 parcel map process when new parcels are approved by the ~~local~~
7 Local Jurisdiction ~~having authority~~.

8
9 Note: Authority cited: Section 4290, Public Resources Code.
10 Reference: Sections 4290 and 4291, Public Resources Code.

11
12 § 1275.02. Water Supply.

13 (a) When a water supply for ~~S~~structure defense is required to be
14 installed, such protection shall be installed and made
15 serviceable prior to and during the time of construction except
16 when alternative methods of protection are provided and approved
17 by the Local Jurisdiction ~~local authority having jurisdiction~~.

18 (b) Water systems equaling or exceeding the California Fire
19 Code, California Code of Regulations title 24, part 9, or, where
20 a municipal-type water supply is unavailable, National Fire
21 Protection Association (NFPA) 1142, "Standard on Water Supplies
22 for Suburban and Rural Fire Fighting," 2017 Edition, hereby
23 incorporated by reference, shall be accepted as meeting the
24 requirements of this article.

25 (c) Such emergency water may be provided in a fire agency mobile

1 water tender, or naturally occurring or man made containment
2 Structure, as long as the specified quantity is immediately
3 available.

4 (d) Nothing in this article prohibits the combined storage of
5 emergency ~~w~~Wildfire and structural firefighting water supplies
6 unless so prohibited by local ordinance or specified by the
7 local fire agency.

8 (e) Where freeze or crash protection is required by ~~±~~Local
9 ~~±~~Jurisdictions having authority, such protection measures shall
10 be provided.

11
12 Note: Authority cited: Section 4290, Public Resources Code.

13 Reference: Sections 4290 and 4291, Public Resources Code.

14
15 § 1275.03. Hydrants ~~and Fire Valves~~

16 (a) The Fire ~~±~~Hydrant ~~or fire valve~~ shall be eighteen (18)
17 inches above the finished surface. Its location in relation to
18 the ~~±~~Road or ~~d~~Riveway and to the ~~±~~Building(s) or ~~±~~Structure(s)
19 it serves shall comply with California Fire Code, California
20 Code of Regulations title 24, part 9, Chapter 5, and Appendix C.

21 (b) The Fire ~~±~~Hydrant head shall be a two and half (2 1/2) inch
22 National Hose male thread with cap for pressure and gravity flow
23 systems and four and a half (4 1/2) inch for draft systems.

24 (c) Fire Hydrants shall be wet or dry barrel and have suitable
25 freeze or crash protection as required by the ~~±~~Local

1 ~~J~~Jurisdiction.

2
3 Note: Authority cited: Section 4290, Public Resources Code.

4 Reference: Sections 4290 and 4291, Public Resources Code.

5
6 § 1275.04. Signing of Water Sources.

7 (a) Each Fire ~~h~~Hydrant, ~~fire valve~~, or access to water shall be
8 identified as follows:

9 (1) if located along a ~~d~~Driveway, a reflectorized blue marker,
10 with a minimum dimension of three (3) inches shall be located on
11 the ~~d~~Driveway address sign and mounted on a fire retardant post,
12 or

13 (2) if located along a ~~read~~ Road,

14 (~~1~~) a reflectorized blue marker, with a minimum dimension of
15 three (3) inches, shall be mounted on a fire retardant post. The
16 sign post shall be within three (3) feet of said Fire ~~h~~Hydrant
17 ~~or fire valve~~, with the sign no less than three (3) feet nor
18 greater than five (5) feet above ground, in a horizontal
19 position and visible from the ~~d~~Driveway, or

20 (~~2~~) as specified in the State Fire Marshal's Guidelines for
21 Fire Hydrant Markings Along State Highways and Freeways, May
22 1988.

23
24 Note: Authority cited: Section 4290, Public Resources Code.

25 Reference: Sections 4290 and 4291, Public Resources Code.

1 Article 5. Building Siting, Setbacks, and Fuel Modification ~~Fuel~~
2 ~~Modification Standards~~

3 § 1276.00. Intent

4 ~~To reduce the intensity of a wildfire by reducing the volume~~
5 ~~and density of flammable vegetation, the strategic siting of~~
6 ~~fuel modification and greenbelts shall provide for increased~~
7 ~~safety for emergency fire equipment and evacuating civilians by~~
8 ~~its utilization around structures and roads, including~~
9 ~~driveways, and a point of attack or defense from a wildfire. To~~
10 reduce the intensity of a Wildfire, reducing the volume and
11 density of flammable vegetation around Development through
12 strategic fuel modification, parcel siting and Building
13 setbacks, and the protection of Undeveloped Ridgelines shall
14 provide for increased safety for emergency fire equipment,
15 including evacuating civilians, and a point of attack or defense
16 from a Wildfire.

17 Note: Authority cited: Section 4290, Public Resources Code.

18 Reference: Sections 4290 and 4291, Public Resources Code.

19
20 § 1276.01. Building and Parcel Siting and Setbacks. ~~Setback for~~
21 ~~Structure Defensible Space~~

22 (a) All parcels shall provide a minimum thirty (30) foot setback
23 for all Buildings from all property lines and/or the center of
24 a Road, except as provided for in subsection (b).

25 (b) A reduction in the minimum setback shall be based upon When

~~a thirty (30) foot setback is not possible for practical reasons, which may include but are not limited to, parcel dimensions or size; topographic limitations; Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints or other easements, and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:~~

~~(i) Same practical effect requirements shall reduce the likelihood of home to home ignition.~~

~~(ii) Same practical effect options may include, but are not limited to:~~

(1) non-combustible block walls or fences; or

(2) five (5) feet of non-combustible material extending five (5) feet horizontally around the structure from the furthest extent of the Building; or

(3) installing hardscape landscaping; or

(4) reducing a reduction of exposed windows on the side of the sStructure with a less than thirty (30) foot setback;

or

(5) the most protective additional Structure hardening such as those required requirements in the California Building Code, California Code of Regulations title Title 24, part Part 2, Chapter 7A, as required by the Local Jurisdiction.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

1
2 § 1276.02. Ridgelines. Maintenance of Defensible Space Measures.

3 (a) The Local Jurisdiction shall identify Strategic Ridgelines,
4 if any, to reduce fire risk and improve fire protection
5 through an assessment of the following factors:

6 (1) Topography;

7 (2) Vegetation;

8 (3) Proximity to any existing or proposed residential,
9 commercial, or industrial land uses;

10 (4) Construction where mass grading may significantly alter
11 the topography resulting in the elimination of Ridgeline fire
12 risks;

13 (5) Ability to support effective fire suppression; and

14 (6) Other factors, if any, deemed relevant by the Local
15 Jurisdiction.

16 (b) Preservation of Undeveloped Ridgelines identified as
17 strategically important shall be required pursuant to this
18 section.

19 (c) New Buildings on Undeveloped Ridgelines identified as
20 strategically important are prohibited, as described in
21 subsections (c)(1), (c)(2), and (c)(3).

22 (1) New Residential Units are prohibited within or at the
23 top of drainages or other topographic features common to
24 Ridgelines that act as chimneys to funnel convective heat from
25 Wildfires.

1 (2) Nothing in this subsection shall be construed to alter
2 the extent to which utility infrastructure, including but not
3 limited to wireless telecommunications facilities, as defined
4 in Government Code section 65850.6, subdivision (d)(2), or
5 Storage Group S or Utility and Miscellaneous Group U Structures,
6 may be constructed on Undeveloped Ridgelines.

7 (3) Local Jurisdictions may approve Buildings on Strategic
8 Ridgelines where Development activities such as mass grading
9 will significantly alter the topography that results in the
10 elimination of Ridgeline fire risks.

11 (d) The Local Jurisdiction may implement further specific
12 requirements to preserve Undeveloped Ridgelines.

13 ~~To ensure continued maintenance of commonly owned properties in~~
14 ~~conformance with these standards and to assure continued~~
15 ~~availability, access, and utilization of the Defensible Space~~
16 ~~provided by these standards during a wildfire, provisions for~~
17 ~~annual maintenance shall be provided in emergency access~~
18 ~~covenants or similar binding agreements.~~

19 Note: Authority cited: Section 4290, Public Resources Code.

20 Reference: Sections 4290 and 4291, Public Resources Code.

21
22 ~~§ 1276.03. Fuel Breaks Disposal of Flammable Vegetation and~~
23 ~~Fuels.~~

24 (a) When Building construction meets the following criteria, the
25 Local Jurisdiction shall determine the need and location for

Fuel Breaks in consultation with the Fire Authority:

(1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or

(2) an application for a change of zoning increasing zoning intensity or density; or

(3) an application for a change in use permit increasing use intensity or density.

(b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.

(c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.

(d) Fuel Breaks may be required at locations such as, but not limited to:

(1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;

(2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation

1 safety, or support fire suppression tactics;

2 (3) Directly adjacent to a Hazardous Land Use to limit the
3 spread of fire from such uses, reduce radiant and convective
4 heat exposure, or support fire suppression tactics;

5 (4) Strategically located along Ridgelines, in Greenbelts,
6 or other locations to reduce radiant and convective heat
7 exposure, ember impacts, or support community level fire
8 suppression tactics.

9 (e) Fuel Breaks shall be completed prior to the commencement of
10 any permitted construction.

11 (f) Fuel Breaks shall be constructed using the most ecologically
12 and site appropriate treatment option, such as, but not limited
13 to, prescribed burning, manual treatment, mechanical treatment,
14 prescribed herbivory, and targeted ground application of
15 herbicides.

16 (g) Where a Local Jurisdiction requires Fuel Breaks, maintenance
17 mechanisms shall be established to ensure the fire behavior
18 objectives and thresholds are maintained over time.

19 (h) The mechanisms required shall be binding upon the property
20 for which the Fuel Break is established, shall ensure adequate
21 maintenance levels, and may include written legal agreements;
22 permanent fees, taxes, or assessments; assessments through a
23 homeowners' association; or other funding mechanisms.

24 ~~Disposal, including chipping, burying, burning or removal to a~~
25 ~~site approved by the local jurisdiction, of flammable vegetation~~

1 ~~and fuels caused by site development and construction, road and~~
2 ~~driveway construction, and fuel modification shall be completed~~
3 ~~prior to completion of Road construction or final inspection of~~
4 ~~a building permit.~~

5 Note: Authority cited: Section 4290, Public Resources Code.

6 Reference: Sections 4290 and 4291, Public Resources Code.

7
8 § 1276.04. Greenbelts, Greenways, Open Spaces and Parks

9 Greenbelts

10 (a) Where a Greenbelt, Greenway, open space, park, landscaped or
11 natural area, or portions thereof, is intended to serve as a
12 Fuel Break, the space or relevant portion thereof shall conform
13 with the requirements in § 1276.03 (Fuel Breaks).

14
15 ~~Subdivision and other Developments, which propose greenbelts as~~
16 ~~a part of the development plan, shall locate said greenbelts~~
17 ~~strategically as a separation between wildland fuels and~~
18 ~~structures. The locations shall be approved by the local~~
19 ~~authority having jurisdiction and may be consistent with the CAL~~
20 ~~FIRE Unit Fire Management Plan or Contract County Fire Plan.~~

21 Note: Authority cited: Section 4290, Public Resources Code.

22 Reference: Sections 4290 and 4291, Public Resources Code.

1 § 1276.05 Disposal of Flammable Vegetation and uels

2 The disposal, including burning or removal to site approved by
3 the Local Jurisdiction, in consultation with the Fire
4 Authority, of flammable vegetation and fuel caused by site
5 construction, Road, and Driveway construct on shall be in
6 accordance with all applicable laws and regulat ons.

7
8 Note: Authority cited: Section 4290, Publi Resources Code.

9 Reference: Sections 4290 and 4291, Public Reso :ces Code.