INITIAL STUDY
AND DRAFT
MITIGATED NEGATIVE DECLARATION

BREA CANYON BUSINESS PARK

850 Brea Canyon Road
Diamond Bar, California 91789



PL 2017-169
General Plan Amendment
Zone Change
Tentative Parcel Map
Conditional Use Permit
Development Review
Comprehensive Sign Program
Shared Parking Permit

Lead Agency:
City of Diamond Bar
Community Development Department
21810 Copley Drive
Diamond Bar, California 91765

Applicant:
Lycoming, LLC
17777 Center Court Drive, Suite 725
Cerritos, California 90703
(626) 384-5000

September 2019

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1.0 INTRODUCTION

1.1 Introduction

In response to the City of Diamond Bar Community Development Department's (Department) receipt of a development application from Lycoming, LLC (Applicant[1]), dated December 4, 2017, for a privately-proposed development project located on an approximately 5.73-acre[2] property within the City of Diamond Bar (City or Lead Agency), this informational document, undertaken in compliance with the provisions of the California Environmental Quality Act (CEQA),[3] the Guidelines for the Implementation of the California Environmental Quality Act (State CEQA Guidelines),[4,5] and the City's statutory and regulatory obligations thereunder, identifies and describes the potential environmental effects associated with the approval or conditional approval of the proposed non-residential "Brea Canyon Business Park" (BCBP) multi-use project (31,988 gross square feet of general office space, 24,730 gross square feet of medical office space, and 61,743 gross square feet of hotel use) at 850 Brea Canyon Road (Diamond Bar, CA 91789), totaling approximately 118,471 gross square foot of new development,[6] 289 on-site parking spaces, 4 loading docks, and designated bicycle parking areas.

The basic purposes of CEQA include: (1) informing governmental decisionmakers and the public about the potential, significant environmental effects of proposed activities; (2) identifying the ways that environmental damage can be avoided or significantly reduced; (3) preventing significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds such changes to be feasible; (4) disclosing to the public the reasons why a governmental agency may approve a proposed project in the manner it so choses if significant effects are involved (Section 15002, State CEQA Guidelines).

Referencing Section 15002(i) of the State CEQA Guidelines: "CEQA applies in situations where a governmental agency can use its judgment in deciding whether and how to carry out or approve a project. A project subject to such judgmental controls is called a 'discretionary project.'"

As defined in Section 15357 therein: "'Discretionary project' means a project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations." In contrast, where the law requires a governmental agency to act on a project in a set way without allowing the agency to use its own judgment, the project is called "ministerial"

[1]/ All reference to the "Applicant" herein are intended to be inclusive of all subsequent holders of real property interests to the project site or portions thereof, including, but not limited to, successors, assignees, buyers, tenants, subtenants, leasees, and subleasees.

[2]/ Because the proposed project includes off-site street improvements extending beyond the limits of the project site, the actual project acreage exceeds the approximately 5.73 acres representing the extent of the Applicant's real property holdings relating thereto. Based on the absence of consensus as the precise manner of accounting for the off-site acreage associated with the proposed project (e.g., actual footprint of the physical street changes or the entirety of those rights-of-way so impacts and independent of any physical improvements thereto), that off-site acreage is described herein but the corresponding acreage is not numerically stated.

[3]/ As codified in Section 21000 et seq., Chapter 3, Division 13 of the California Public Resources Code.

[4]/ As codified in Title 14, Chapter 3, Section 15000 et seq. of the California Code of Regulations.

[5]/ Most recently updated and amended on December 28, 2018.

[6]/ By their nature, development projects are routinely subject to minor changes as architectural and engineering details progress. As a result, the proposed project's total square foot and that of each of the proposed buildings may be subject to minor variations, including di minimis increases or decreases in square footages and exterior dimensions.

and CEQA does not apply (Section 21080[b][1], CEQA; Sections 15002[i] and 15369, State CEQA Guidelines).[7] While projects can have both discretionary and ministerial components, the presence of discretionary actions relegates the totality of the proposed project to CEQA review.

The proposed action also constitutes a "project"[8] and a "private project"[9] and can be generally described as a proposed, non-residential, mixed-use development, including a 4-story, 61,743 square foot, 109-room hotel (Hilton Hampton Inn & Suites), a 3-story, 47,828 square foot, general and medical office building, and a 1-story, 8,900 square foot, medical office building on a recently vacated site located to the north of the Pomona (SR-60) Freeway, south of Lycoming Street, and along the east side of Brea Canyon Road. The proposed project also includes a proposed street dedication, center-median improvements, and lane restriping along Brea Canyon Road between the Pomona (SR-60) Freeway on the south and inclusive of the 4-legs comprising the Brea Canyon Road/Lycoming Street intersection on the north.

The project site formerly operated as a recreational vehicle and boat storage lot. The project site, illustrating that former use, is presented in Figure 1 (Proposed "Brea Canyon Road Business Park" Site - 850 Brea Canyon Road, Diamond Bar, California 91789). That former use has since ceased operation and all prior vestiges thereof have been removed from the project site.

As presented by the Applicant, the proposed "Brea Canyon Business Park" is generally depicted in Figure 2 (Proposed "Brea Canyon Business Park" Project – Conceptual Site Plan). Although subject to further change and modification, the conceptual floor plans for the proposed project's three primary structures are presented in Figure 3 (Conceptual Floor Plan – Proposed 4-Story Hotel Building [Lot 3]), Figure 4 (Conceptual Floor Plan – Proposed 3-Story General and Medical Office Building [Lot 1]), and Figure 5 (Conceptual Floor Plan – Proposed 1-Story Medical Building [Lot 2]), respectively. The Applicant's proposed landscape plan is presented in Figure 6 (Proposed "Brea Canyon Business Park" Project – Conceptual Landscape Plan).

Since interior walls are moveable, the focus of this CEQA analysis is less on issues relating to interior design and more on the potential environmental effects of the overall development plan and the potential environmental impacts that the proposed project and its individual components may have on the larger environmental setting in which the BPBP is proposed.

Although subject to change and refinement, an architectural package detailing the proposed project is included herein as Appendix A (Brea Canyon Business Park – Conceptual Architectural Package [June 7, 2019]). Graphic illustrations include, but are not limited to, architectural renderings (Sheet T2), grading and drainage plans (Sheets C1 and C2), utility plans (Sheets 503), landscape and lighting plans (Sheets L-1 through L-10), site plans (Sheets A1.1 through A1.12), hotel floor plans

[7]/ Under certain circumstances, ministerial actions can themselves become subject to CEQA compliance. In order to ensure full public disclosure, other discretionary and/or ministerial actions associated with the proposed project include, but may not be limited to, issuance of grading, building, and related permits and issuance of individual electrical, gas, water, and sewer connections. The environmental impacts of all discretionary and/or ministerial actions that may be associated with the proposed project have been considered herein and have been made a part of the project's environmental review record.

[8]/ "'Project' means "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following: (a) An activity directly undertaken by any public agency. (b) An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies. (c) An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies" (Section 21065, CEQA).

[9]/ "Private project" means "a project which will be carried out by a person other than a governmental agency, but the project will need a discretionary approval from one or more governmental agencies for: (a) A contract or financial assistance, or (b) A lease, permit, license, certificate, or other entitlement for use" (Section 15377, State CEQA Guidelines).

(Sheets A2.1 through A2.6), roof plans (Sheet A3.1), hotel building elevations (Sheets A4.1 and 4.1C), medical building elevations (Sheets A4.2 and 4.2C), and medical office building elevations (Sheets A4.2, 4.2C, and A4.3C). In addition, conceptual landscape plans, including an arborist's tree report documenting existing mature trees located on the project site, are included in Appendix B (Brea Canyon Business Park – Conceptual Landscape Plans [July 12, 2019]).

The Applicant has identified three distinct land uses that will comprise the proposed project, including "office," "medical office," and "hotel." With regards thereto, the "City of Diamond Bar Municipal Code" (Municipal Code or MC) offers the following general definitions and/or descriptions thereof.

- **Hotel**. As defined in Section 3.16.020 (Definitions) in Chapter 3.16 (Transient Occupancy Tax) in Title 3 (Revenue and Finance) of the Municipal Code, a "hotel" is defined as "any structure or any portion of any such structure, which is occupied or intended or designed for occupancy by transients for dwelling, lodging or sleeping purposes, and includes any hotel, inn, tourist home or house, motel, studio hotel, bachelor hotel, lodginghouse, roominghouse, apartment house, dormitory, public or private club, mobile home or house trailer at a fixed location, or other similar structure or portion thereof." Absent therefrom is either any express accommodations for or prohibition concerning the incorporation of "kitchen" and/or "kitchenette" facilities therein.[10]

  Absent from that definition of "hotel" is an explicit limitation concerning maximum allowable length of stay (e.g., "transient lodging"). The allowable term of occupancy can, however, be construed from the definition of "transient" therein. As defined in Section 3.16.020 (Definition) in Chapter 3.16 (Transient Occupancy Tax) in Title 4 (Health and Safety) of the MC:

  > Transient means any person who exercises occupancy or is entitled to occupancy by reason of concession, permit, right of access, license or other agreement for a period of 30 consecutive calendar days or less, counting portions of calendar days as full days. Any such person so occupying space in a hotel shall be deemed to be a transient until the period of 30 days has expired unless there is an agreement in writing between the operator and the occupant providing for a longer period of occupancy. In determining whether a person is a transient, uninterrupted periods of time extending both prior and subsequent to the effective date of Ordinance No. 14 (1989) may be considered.

  As further defined in Section 22.80.020 (Definitions of Specialized Terms and Phrases) in Title 22 (Development Code) "hotels" and "motels" include those "[f]acilities with guest rooms or suites, provided with or without kitchen facilities, rented to the general public for transient lodging (less than 30 days). Hotels provide access to most guest rooms from an interior walkway, and typically include a variety of services in addition to lodging; for example, restaurants, meeting facilities, personal services, etc. Motels provide access to most guest rooms from an exterior walkway. Also includes accessory guest facilities such as swimming pools, tennis courts, indoor athletic facilities, accessory retail uses, etc." Although the Municipal Code makes no distinction between those facilities, some or all of the guest rooms associated with the proposed hotel use will include "kitchens" and/or "kitchenettes."[11]

[10]/ As defined in Section 22.08.020 of the MC, a "kitchen or kitchenette" is defined as "[a]n area designed and/or used for the preparation of food, which includes any three of the following features: (1) Cooking or food heating equipment, including a hot plate, microwave, oven, or range; (2) A refrigerator or other device for cold storage; (3) Cabinets, shelves, or other facilities for storage of food and/or utensils; or (4) A sink and water supply."

[11]/ The "2016 California Building Standards Code" (2016 CBC), as codified in Part 2 in Title 24 of the California Code of Regulations (CCR) defines a "kitchen or kitchenette" as "[a] room, space or area with equipment for the

Although providing limited-term (less than 30 days) accommodations for its guests, "transient lodging" is distinguishable from a "residential" use within the City. As noted in Section 8.16.020 (Definitions) in Chapter 8.16 (Solid Waste and Recyclable Material Collection) in Title 8 (Health and Safety) of the MC: "Notwithstanding any provision to the contrary herein, in the Diamond Bar Municipal Code, or otherwise, for purposes of this chapter, premises upon which the following uses are occurring shall not be deemed to be residential premises, and rather shall be deemed to be commercial premises: Assisted living facilities, convalescent homes, dormitories, extended stay motels, hotels, motels, and any other businesses not specifically listed at which residency is transient in nature and hence should be classified as commercial premises as determined by city on a case by case basis."

As further noted in Section 8.12.1640 (Definitions) in Division 5 (Storm Water and Urban Runoff Pollution Control) in Title 8 (Health and Safety) of the MC: "Commercial development means any development on private land that is not heavy industrial or residential. The category includes, but is not limited to: hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, plant nurseries, multi-apartment buildings, car wash facilities, mini-malls and other business complexes, shopping malls, hotels, office buildings, public warehouses and other light industrial complexes." As such, the proposed project can be appropriately categorized as a mixed-use commercial development project.

- **Office**. Excluding "temporary offices," the Municipal Code differentiates between "administrative/business," "production," and "professional" office types. Notwithstanding those distinctions presented in Chapter 22.80 (Definitions) in Title 22 (Development Code) of the MC, the term "general offices" has been used herein to encompass each of those office types.

  - ◊ **Administrative/Business Offices**. "Establishments providing direct services to consumers, including insurance agencies, real estate offices, post offices (not including bulk mailing distribution centers, which are included under 'vehicle and freight terminals'). Does not include: Medical offices (see 'medical services—clinics and laboratories'); or offices that are incidental and accessory to another business or sales activity that is the primary use. Incidental offices that are customarily accessory to another use are allowed as part of an approved primary use."

  - ◊ **Production Offices**. "Office-type facilities occupied by businesses engaged in the production of intellectual property. These uses include: [1] Advertising agencies; [2] Architectural, engineering, planning and surveying services; [3] Computer software production and programming services; [4] Educational, scientific and research organizations; [5] Media postproduction services; [6] Photography and commercial art studios; [and] [7] Writers and artists offices. Does not include: Medical offices (see 'medical services—clinics and laboratories') or offices that are incidental and accessory to another business or sales activity that is the primary use. Incidental offices that are customarily accessory to another use are allowed as part of an approved primary use."

  - ◊ **Professional Offices**. "Professional or government offices including: [1] Accounting, auditing and bookkeeping services; [2] Attorneys; [3] Counseling services; [4] Court reporting services; [5] Data processing services; [6] Detective agencies and similar services; [7] Employment, stenographic, secretarial and word processing services; [8] Government offices; [9] Literary and talent agencies; [and] [10] Management and public

preparation of food." That definition appears so broad as to define any space that includes a sink, a microwave oven, and a refrigerator as constituting a "kitchen or kitchenette."

relations services. Does not include: Medical offices (see 'medical services—clinics and laboratories') or offices that are incidental and accessory to another business or sales activity that is the primary use. Incidental offices that are customarily accessory to another use are allowed as part of an approved primary use."

- **Medical Office**. While the term "medical office" is not expressly defined therein, the term is distinguished from other types of "offices" and directly associated with the provision of "medical services." As defined in Section 22.80.020 (Definitions of Specialized Terms and Phrases) in Article VI (Development Code Definitions) in Title 22 (Development Code) of the MC, "medical services – clinics and laboratories" are defined as "[f]acilities primarily engaged in furnishing outpatient medical, mental health, surgical and other personal health services, but which are separate from hospitals, including: [1] Health management organizations (HMOs); [2] Medical and dental laboratories; [3] Medical, dental and psychiatric offices; [4] Out-patient care facilities; [5] Other allied health services; [and] [6] Counseling services by other than medical doctors or psychiatrists are included under 'offices.'"

  Within the broad meaning of Section 8.12.340 (Definitions) in Division 3 (Noise Control) in Title 8 (Health and Safety) of the MC, a "medical office" may constitute a "health care institution," defined as "any hospital, convalescent home, or other similar facilities which provide health care, medical treatment, room, board or other services for the ill, retarded or convalescent." Not all "health care institutions" are, however, "medical offices."

For identification and property tax purposes, all real property within the County has been assigned an "assessor's parcel number" (APN) by the Los Angeles County Assessor's Office, designed by book, page, and parcel in which that parcel is recorded. As illustrated in Figure 7 (Proposed "Brea Canyon Road Business Park" Project Site - Assessor's Parcel Map), the subject property has been assigned APN 8719-013-017 (Book 8719, Page 13, Parcel 17).

As proposed, project approval would require a number of discretionary actions from the City. Those discretionary approvals include but may not be limited to:

- **General Plan Amendment** (GPA). Based on the land-use plans and policies contained in the "City of Diamond Bar General Plan," as initially adopted on July 25, 1995 and subsequently amended on September 3, 2013 ("Land Use Element Update") and January 21, 2014 ("2013-2021 Housing Element Update") (1995/2013/2014 General Plan), as depicted in Figure 8 (Portion of the City of Diamond Bar Land-Use Policy and Zoning Maps), the Applicant seeks to amend the "Land Use Map" so as to redesignate the approximately 5.73-acre project site from "Professional Office (OP)" to "General Commercial (C)." Both of those land-use designations are described below:

  > "Professional Office (OP) areas [are] to provide for the establishment of office-based working environments for general, professional, and administrative offices, as well as support uses. Development within Professional Office areas will maintain an FAR [floor-area-ratio] between 0.25 and 1.00" (Land Use Element, Strategy 1.1.3[d]).
  >
  > "General Commercial (C) areas [are] to provide for regional, freeway-oriented, and/or community retail and service commercial uses. Development of General Commercial areas will maintain a floor area ratio (FAR) between 0.25 and 1.00" (Land Use Element, Strategy 1.1.3[b]).

In the context of the "Sustainable Groundwater Management Act" (SGMA), the proposed GPA is not deemed to be a "substantial amendment" to the 1993/2013/2013 General Plan (Sections 65350.5, 65352[a], and 65352.5[c] and [d], California Government Code [CGC]).

- **Zone Change** (ZC). In accordance with Section 22.06.020 (Zoning Districts Established) in Chapter 22.06 (Establishment of Zoning Districts, Adoption of Zoning Map) in Title 22 (Development Code) of the "City of Diamond Bar Municipal Code" (Municipal Code or MC), the City is divided into zoning districts which serve to implement the general plan. Those zoning districts are shown on the "Official Zoning Map" (Section 22.06.030, Municipal Code). As further specified in Section 22.70.050 in Chapter 22.10 (General Plan, Development Code, and Zoning Map Amendments) in Title 22 (Development Code) of the Municipal Code, the City of Diamond Bar City Council (Council) shall adopt an amendment to the general plan, development code, or the zoning map only if it finds that the proposed amendment is internally consistent with the general plan and other adopted goals and policies of the City.

  The applicable portion of the City's zoning map relating to the general project area is shown in Figure 8 (Portion of the City of Diamond Bar Land-Use Policy and Zoning Maps). Based on the project site's existing zoning designation, the Applicant seeks to amend the "Official Zoning Map" so as to redesignate the approximately 5.73-acre project site from "Light Industry (I)" to "Regional Commercial-Planning Development Overlay (C-3-PD)." Both the "Light Industry (I)" and "Regional Commercial (C-3)" zoning districts are described below.

  > I (Light Industry) District. The I zoning district is applied to areas appropriate for light industrial/manufacturing uses including research and development, office-based industrial uses in an "industrial park" setting, business support services, and commercial uses requiring larger sites than are available in the commercial zoning districts. The allowable floor area ratio for nonresidential development shall be from 0.25 to 1.00. The I zoning district is consistent with the light industrial land use category of the general plan and intended to accommodate the need for emergency shelter and single-room occupancy housing identified in the city's housing element.
  >
  > C-3 (Regional Commercial) District. The C-3 zoning district is applied to areas appropriate for large-scale commercial uses serving residents and businesses within the region. The allowable floor area ratio for nonresidential development shall be from 0.25 to 1.00. The C-3 zoning district is consistent with the general commercial land use category of the [1995/2013/2014] general plan.[12]

  In accordance with the site's existing "Light Industrial (I)" zoning designation, a different set of land uses could be developed thereupon than what would otherwise be allowable under the proposed "Regional Commercial (C-3)" designation. Because this CEQA process has been initiated in response to a formal development application submitted by the Applicant and is not a part of a larger planning analysis, the Department's role is reactive rather than proactive. It is, therefore, not within the City's regulatory function to speculate as to the nature of development that might otherwise occur under the provisions of the existing "Light Industrial (I)" zone nor to present the comparable impacts of development under the proposed "Regional Commercial (C-3)" zone.

[12]/ Subsection "(6)" and "(7)," Section 22.10.020 (Purpose of Commercial/ Industrial Zoning Districts), Title 22 (Development Code), City of Diamond Bar Municipal Code.

The Applicant further seeks approval of a "Planned Development (PD)" overlay designation encompassing the entirety of the project site. "Overlay districts" constitute a zoning tool available to land-use entities to control and regulate the use of real property within their jurisdiction. By imposed additional regulations on the underlying zoning, an "overlay zone" generally seeks to provide additional protections, impose additional restrictions, or convey additional benefits relative to the issue which is the subject of that overlay. Overlays are common in floodplains, hillside areas, near fault lines, around airports, and in other areas where additional regulations may be needed to ensure the public safety.

Overlay zones can also be used to stimulate new development by reducing development requirements (e.g., parking standards, building height, and setbacks) to support new construction, such as might occur near transit facilities. With regards to the overlay's imposition, the public agency should articulate the agency's intent and the overlay's purpose, identify the geographic area so affected, and establish the specific rules applicable to and/or conditions associated with the district's application.

Within the City, pursuant to Section 22.14.30 (Planned Development [PD] Overlay District) in Chapter 22.14 (Overlay Zoning Districts) in Title 22 (Development Code) of the MC:

(a) Purpose Consistent with the [1995/2013/2014] General Plan vision statement, the PD overlay zoning district provides for maximum flexibility in the site planning and design of residential, commercial, industrial/manufacturing and mixed use projects to encourage superior land use by means such as open space and public amenities. The PD overlay district may be applied to areas where site characteristics and environmental resources, adjacent land uses, or other community conditions may be benefited by site-specific planning or the design of structures that would not otherwise be allowed in the primary zoning district.

(b) Applicability. The PD overlay zoning district may be combined with any residential, commercial/industrial, or special purpose zoning district established by Section 22.06.020 (Zoning Districts Established).

(c) Allowed land uses. Any land use normally allowed in the primary zoning district may be allowed within the PD overlay zoning district, except when the ordinance rezoning a site to the PD overlay includes specific limitations on allowable land uses.

(d) Permit requirements. Conditional use permit approval (Chapter 22.58) shall be required for all development proposed on a site subject to the PD overlay district. Changes of use in existing structures shall be subject to the land use permit requirements established by the primary zoning district.

(e) Development standards. Approval of a conditional use permit within the PD overlay zoning district may include specific modifications to any of the City's development standards normally required by this article or Article III (Site Planning and General Development Standards) including: Minimum lot area, setbacks, site coverage, floor area ratio, height limits, landscaping, or off-street parking. Proposed development and new land uses within the PD overlay shall comply with all other applicable provisions of this Development Code.

Because the "Planned Development (PD) Overlay District" requires the concurrent processing of a "conditional use permit," functioning as a zoning tool, it appears the Council's intent to utilize the overlay district as a mean of imposing reasonable and appropriate conditions thereupon relative the provision of "maximum flexibility in the site planning and design" allowable thereunder. At a minimum, the "Planned Development (PD) Overlay District" would need to incorporate site-specific deviations from the City's maximum allowable building

height standards (Section 22.10.040, MC), parking requirements (Section 22.30.040, MC), and parking design standards (Section 22.30.070, MC).

"Findings are required in actions to review quasi-judicial activities of administrative agencies pursuant to Code of Civil Procedure Section 1094.5 (administrative mandamus). The zoning of real property by a city, however, is a legislative function, not a quasi-judicial activity, and is therefore reviewable by ordinary, or so-called traditional, mandamus pursuant to Code of Civil Procedure Section 1085. As to these legislative functions of an administrative agency, findings are not required" (Ensign Bickford Realty Corporation v. City Council [1977]).

- **Tentative Parcel Map No. 82066**. As indicated in Section 21.03.020 (Types of Subdivision Approval Required) in Chapter 21.03 (Subdivision Map Approval Requirements) in Title 21 (Subdivisions) of the Municipal Code: "Any subdivision of an existing parcel into two or more parcels shall require approval by the City in compliance with the provisions of this title except as otherwise provided in this chapter. In general, the procedure for subdivision first requires the approval of a tentative map, and then the approval of a parcel map or final map to complete the subdivision process. The tentative map review process is used to evaluate the compliance of the proposed subdivision with the standards of this title, and the appropriateness of the proposed subdivision design. Parcel and final maps are precise engineering documents that detail the location and dimensions of all parcel boundaries in an approved subdivision and, after approval, are recorded in the office of the County Recorder." Approval or conditional approval of tentative subdivision maps constitute discretionary actions subject to CEQA; however, final subdivision maps constitute ministerial actions and are, therefore, exempt therefrom.

  Subdivisions in California are regulated under the Subdivision Map Act (Sections 66410 et seq., California Government Code) (SMA) and the Subdivision Lands Act (Sections 11000-11200, California Business and Professions Code) (SLA). The SMA governs the legal and physical requirements of subdividing real property and the process by which cities and counties may approve subdivisions in their jurisdictions. The SLA governs the process by which property, once it has been subdivided, may be initially marketed and sold to members of the public. The two categories of subdivisions under the SLA are "standard subdivisions" and "common interest developments" (CIDs). A standard subdivision is one that results in entirely divided interests (i.e., the owner of the subdivided interest owns the entire interest exclusively with no common ownership of anything associated with it). A common interest development is one that results in all or part of the project being an undivided interest (i.e., two or more owners holding a single ownership interest). Both forms of subdivisions are associated with the proposed project.

  Initially, through the processing of a tentative parcel map (TPM), as a standard subdivision, the Applicant seeks to subdivide the approximately 5.73-acre site into four separate lots, consisting of the three proposed building sites each of which could be separately owned and a 200,161 square foot, commonly-owned lot which would serve as a common-access easement and contain the project's common parking areas, common landscaping, the internal access, utility systems, and trash receptacles. As proposed, the three building lots would include: (1) 17,237 net square feet, include a 47,828 square-foot general office and medical office building (Lot 1, TPM 82066); (2) 9,542 net square feet, including an 8,900 square-foot medical office building (Lot 2, TPM 82066); and (3) 21,982 square feet, including a 61,743 net square-foot, 109-room hotel (Lot 3, TPM No. 82066).

As a common interest development, a non-residential condominium map would concurrently be processed authorizing: (1) Lot 1 (47,828 square-foot general office and medical office building), including the three-dimension air space therein, to be further subdivided into 34 office condominiums; and (2) Lot 2 (8,900 square-foot medical office building) to be subdivided into two office condominiums.

The proposed tentative parcel map is illustrated in Figure 9 (Proposed "Brea Canyon Business Park" Project - Tentative Parcel Map No. 82066 [July 12, 2019]). Because interior walls can be easily modified and individual office condominium units can be combined, the Applicant's proposed tentative office condominium map layout has not been included herein. That tentative office condominium map, in combination with additional documentation associated with the proposed project, is available for review at the Department (21810 Copley Drive, Diamond Bar 91765) during the Department's regular business hours.

As defined in Section 783 of the California Civil Code (CCC), "condominiums" are estates in real property consisting of a separate interest in a "unit," as shown on the "condominium plan" (as recorded in the Official Records of the County) which is not owned in common with other owners of condominiums in the project and an undivided interest in a "common area" and other rights appurtenant to the unit, as set forth in a recorded "declaration of covenants, conditions, and restricts" (CC&Rs).

The proposed project will be governed by a non-profit "business-owners' association/ condominium association" (Business Owners' Association [BOA]) or similar entity comprised of all owners of interest thereupon and subject to that BOA's recorded CC&Rs. As a recommended mitigation measure (MM-1), prior to the approval of any final subdivision map or issuance of building permits, the BOA's proposed CC&Rs shall be subject to review and approval by the City Attorney. At a minimum, those CC&Rs shall: (1) contain provisions for the creation and operation of the BOA; (2) provide that the BOA shall be responsible for the maintenance of all common areas, including, but not necessarily limited to, landscaping, parking areas, and drive aisles; (3) include provisions that the title to the common areas is to be held by the BOA for and on behalf of all owners of interest; and (4) the manner of enforcement thereof. Any changes thereto shall be prohibited except through the approval of the City.

Condominiums in California are deemed "subdivisions" and must comply with the statutory requirements imposed upon developers of subdivided lands (Section 11004.5, California Business and Professional Code [BPC]). The developer must file with the Commissioner of Real Estate (Commissioner) notice of intent to sell or lease the property (Section 11010, BPC). Following the submittal of that application, the Commissioner investigates the subdivision proposal and either accepts or rejects it. (Section 11018, BPC). If the developer does not fulfill the representations contained in the application, the Commissioner may order the developer to discontinue the complained practice or cease selling or leasing the subdivided property (Section 11019, BPC).

Pursuant to Section 66427(e) of the CGC:

> If the governing body has approved a parcel map or final map for the establishment of condominiums on property pursuant to the requirements of this division, the separation of a three-dimensional portion or portions of the property from the remainder of the property or the division of that three-dimensional portion or portions into condominiums shall not constitute a further subdivision as defined in Section 66424, provided each of the following conditions has been satisfied: (1)

> The total number of condominiums established is not increased above the number authorized by the local agency in approving the parcel map or final map. (2) A perpetual estate or an estate for years in the remainder of the property is held by the condominium owners in undivided interests in common, or by an association as defined in Section 4100 or 6528 of the Civil Code, and the duration of the estate in the remainder of the property is the same as the duration of the estate in the condominiums. (3) The three-dimensional portion or portions of property are described on a condominium plan or plans, as defined in Section 4120 or 6540 of the Civil Code.

In addition, a 72-inch diameter reinforced concrete pipe (RCP), transitioning to two 54-inch diameter RCP pipes, located within an existing Los Angeles County Flood Control District (LACFCD) easement traverses the project site along a generally north-south alignment, discharging to the existing northwesterly-to-southeasterly trending, concrete-lined, open County flood control channel (PD 1445) (Diamond Bar Creek), located within a 50-foot-wide easement, adjacent to and north of the project site (APN 8719-013-901). As illustrated in Figure 10 (Los Angeles County Flood Control District – Existing Storm Drain System), to the northwest, PD 1445 enters an underground pipe as it crosses beneath Brea Canyon Road. West of Brea Canyon Road, PD 1445 again becomes an open channel before again transitioning to an underground pipeline before discharging to San Jose Creek, south of Valley Boulevard.[13] In part, the existing single 72-inch diameter and two 54-inch diameter RCPs underlay the area presently proposed as the hotel site.

Storm drain connections to and/or construction activities encroaching into a LACFCD easement require a County permit. Issuance of a storm drain connection permit, including a water quality agreement, from the LACFCD constitutes a ministerial action and is not subject to CEQA. Based on proposed building placement, however, a portion of the existing 72-inch diameter RCP and its associated easement would need to be vacated, the improvements located therein removed, a new realignment established and recorded, and replacement drainage facilities, consisting of two 54-inch diameter RCPs, constructed and conveyed to the LACFCD. A construction permit and other associated entitlements, including acceptance and recordation of the new alignment and approval of the proposed improvement plans for the relocated drainage facilities, will be required from the LACFCD to allow development to proceed within the existing LACFCD right-of-way.

Prior to the issuance of a grading permit by the City, the Applicant shall deliver to the City Engineer documentation evidencing the Applicant's receipt of any and all permits and approvals as may be required by or from the County with regards to that encroachment, realignment, and modification, including a comprehensive listing of any and all permit conditions, mitigation measures, and other exactions that may be associated therewith or established therein. All such conditions, mitigation measures, and other exactions shall be binding on the proposed project and the Applicant's compliance therewith shall be documented, to the satisfaction of the City Engineer, prior to the issuance of any occupancy permits for any uses proposed on the project site (MM-2).

Other existing easements currently encumbering the project site will need to be retained or otherwise altered to accommodate the proposed development plan. New, updated, and/or altered utility and other easements, including those associated with fire protection systems, may also be established thereupon for the placement, operation, and maintenance of those

[13]/ San Jose Creek is a tributary to the San Gabriel River. The project site is located within the Upper San Jose Creek Watershed (180701060501), a component of the Upper San Gabriel River Watershed.

services and systems needed and appropriate for the effectuation of the proposed project. In accordance with the provisions of non-exclusive common easement agreements, the subdivision of the project site shall not reduce the responsibility of each "owner," "tenant," and/or "occupant" from adequately and effectively maintaining all on-site fire and other life-line systems, including, but not limited to, all common adjoining fire sprinkler-piping penetrations and all on-site fire mains and private hydrants.

Approval of tentative maps is subject to specified MC-specified "findings" (Section 21.20.080, MC). In addition, pursuant to the Subdivision Map Act (Section 66410 et. seq., CGC): "No local agency shall approve a tentative map, or a parcel map for which a tentative map was not required, unless the legislative body finds that the proposed subdivision, together with the provisions for its design and improvement, is consistent with the general plan" (Section 66473.5, CGC).

Section 66474 of the CGC further provides: "A legislative body of a city or county shall deny approval of a tentative map, or a parcel map for which a tentative map was not required, if it makes any of the following findings: (a) That the proposed map is not consistent with applicable general and specific plans as specified in Section 65451. (b) That the design or improvement of the proposed subdivision is not consistent with applicable general and specific plans. (c) That the site is not physically suitable for the type of development. (d) That the site is not physically suitable for the proposed density of development. (e) That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. (f) That the design of the subdivision or type of improvements is likely to cause serious public health problems."

With regards to the proposed subdivision, it is noted that the specific "findings" required under the Subdivision Map Act are separate and distinct from the "findings" required under CEQA. Although expressly relates to an "environmental impact report" (EIR) and not specifically to either a "negative declaration" (ND) or "mitigated negative declaration" (MND) as alternative procedural paths under CEQA, the California Supreme Court has held, "while the environmental impact report is to include a general assessment of effects of the proposal on private property and the quality of life in the vicinity of the project, it does not necessarily focus on the individual concerns of particular landowners who may be directly affected. There is provision for an ultimate administrative appeal to the board from environmental decisions, but the scope of the appeal is limited to the adequacy of the EIR or negative declaration. The general feasibility and desirability of the project are expressly excluded from consideration" (Horn v. County of Ventura, 1979).

- **Conditional Use Permit**. A California court held that "[a] conditional use may be permitted if it is shown that its use is essential or desirable to the public convenience or welfare and at the same time that it will not impair the integrity and character of the zoned district. It must also be shown that it is not detrimental to public health, public morals, or public welfare" (Tustin Heights Association v. Board of Supervisors [1959]). Similarly, in Hawkins v. County of Marin (1974), a California appellate court noted that "it is a widely accepted rule that the issuance of a conditional use permit does not amount to a zoning change, and hence need not be effected in compliance with rezoning procedures. . .While the zoning administrator's decision to grant such a permit must be guided by established criteria (Gov. Code, § 65901), a general welfare standard. . .is sufficient."

  As specified in Section 65901(a) of the CGC: "The board of zoning adjustment or zoning administrator shall hear and decide applications for conditional uses or other permits when

the zoning ordinance provides therefor and establishes criteria for determining those matters, and applications for variances from the terms of the zoning ordinance. The board of zoning adjustment or the zoning administrator may also exercise any other powers granted by local ordinance, and may adopt all rules and procedures necessary or convenient for the conduct of the board's or administrator's business." A CUP is an exception to the zoning ordinance for a use that is not generally allowed in the zone but that will promote the general welfare without impairing the character of the district (Upton v. Gray [1969]). The degree of departure allowable from the generally "permitted" uses through a CUP depends on the local ordinance that prescribes the criteria to be met before a permit can be issued.

Pursuant to Section 22.14.30 (Planned Development [PD] Overlay District), Subsection "(d)" (Permit Requirements) in Chapter 22.14 (Overlay Zoning Districts) in Title 22 (Development Code): "Conditional use permit approval (Chapter 22.58) shall be required for all development proposed on a site subject to the PD overlay district." Chapter 22.14 (Overlay Zoning Districts) does not explicitly identify the criteria upon which the "Planned Development (PD) Overlay District" shall be granted.

Within individual zoning districts, if not prohibited, certain uses are "permitted" by right while other uses may be allowable, subject to specific City-imposed conditions. Zoning policies addressing the issuance of "conditional use permits" (CUPs) and "minor conditional use permits" (MCUPs) are outlined in Chapter 22.58 (Conditional Use Permits) and Chapter 22.56 (Minor Conditional Use Permits), respectively. Neither chapter explicitly identify the criteria upon which a CUP and/or MCUP shall be granted. Section 22.58.040 (Finding and Decision) in Chapter 22.58 (Conditional Use Permit) does, however, note:

> Following a public hearing, the [Planning] Commission shall record the decision in writing with the findings on which the decision is based. The conditional use permit application shall not be approved, with or without conditions, unless all of the following findings can be made: (1) The proposed use is allowed within the subject zoning district with the approval of a conditional use permit and complies with all other applicable provisions of this Development Code and the Municipal Code; (2) The proposed use is consistent with the general plan and any applicable specific plan; (3) The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses in the vicinity; (4) The subject site is physically suitable for the type and density/intensity of use being proposed including access, provision of utilities, compatibility with adjoining land uses, and the absence of physical constraints; (5) Granting the conditional use permit will not be detrimental to the public interest, health, safety, convenience, or welfare, or injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located; and (6) The proposed project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA).

"Medical services – clinics and laboratories" are identified as "permitted" uses within the "Commercial Office" (CO) district and are, therefore, not subject to the issuance of a CUP. Under the provisions of the "Planned Development (PD) Overlay District," a CUP is nonetheless required. With regards thereto, neither building height nor the number and size of requisite off-street parking comply with the corresponding provisions of the MC.

The City's existing general development standards for the "Regional Commercial (C-3)" and "Light Industry (I)" zoning districts are outlined in **Table 2-7** (Commercial/Industrial General Development Standards), as referenced in Section 22.10.040 (Commercial/Industrial District

General Development Standards) of the MC, and presented below. "Notes" have been added thereto describing the proposed project's potential compliance therewith. As noted therein, the proposed 3-story general and medical office building and the 4-story hotel exceed the maximum allowable building height authorized in the "Regional Commercial (C-3)" zoning district.

Table 2-7
COMMERCIAL/INDUSTRIAL
GENERAL DEVELOPMENT STANDARDS

Development Standard	Regulation by Zoning District		Notes
	Regional Commercial (C-3)	Light Industry (I)	
Minimum lot area[1]	10,000 SF	20,000 SF	249,022 SF
Setback required	Minimum setbacks required for structures. See Section 22.16.090 for setback measurements, allowed projections into setbacks, and exceptions to setbacks. See Chapter 22.30 for parking setbacks.		Compliant
Front	10 foot landscaped setback; or equal to the front setback required for a residential zone abutting		Compliant
Side (each)	10 feet where the site abuts a residential district; none otherwise		Compliant
Street side	10 feet; or equal to the street side setback required for a residential zone abutting the site		Compliant
Rear	10 feet where the site abuts a residential district; none otherwise		Compliant
Floor-area-ratio (FAR)	0.25 to 1.00[2]		0.48
Height limit[3]	35 feet		3-story office (50'-2") 4-story hotel (59'-1")
Landscaping	As required by Chapter 22.24 (Landscaping)[4]		20.8%
Outdoor activities	All sales, displays, and storage shall be conducted within an enclosed building unless outdoor activities ae approved in compliance with Section 22.42.080 (Outdoor Display and Sales)		Compliant
Parking and loading	As required by Chapter 22.30 (Parking and Loading)[5]		Non-Compliant[6]
Signs	As required by Chapter 22.36 (Signs)		Compliant[7]

Notes:
1. Minimum area for parcels proposed in new subdivisions, except as otherwise provided by Section 22.08.050 (Minimum Lot Area). Commercial condominium or planned development projects may be subdivided with smaller parcel sizes for ownership purposes, with the minimum lot area requirement determined through the subdivision review process, provided that the overall development site complies with the lot area requirements of this chapter.
2. A project may be granted FAR above the minimum, up to the maximum shown, at the discretion of the review authority based on amenities provided by the project as provided in Section 22.16.070 (Open Space for Commercial Projects).
3. Maximum allowable height for structures. See Section 22.16.060 (Height Measurement and Height Limit Exceptions).
4. As specified in Table 3-6 (Minimum Landscape Area by Zoning District) in Section 22.24.040(2) of the MC: C-3 (15%) and I (10%).
5. Per Table 3-10 (Parking Requirements by Land Use and Use Type) in Section 22.30.040(7) (Number of Parking Spaces Required) in the MC.
6. Both with regards to the number of off-street parking spaces and the minimum authorized dimensions of those spaces.
7. Subject to the approval of a "comprehensive sign program."

Minimum parking requirements are outlined in **Table 3-10** (Parking Requirements by Land Use and Use Type), as referenced in Section 22.30.040 (Number of Parking Spaces Required). The applicable portion of that table, including the proposed unit-based description of the proposed project and the corresponding parking requirements associated therewith are presented below. As noted, while the left portion of **Table 3-10** (Parking Requirements by Land Use and Use Type) reflects the requirements of the MC, for the purpose of applying those standards to the proposed project, that table has been supplemented to illustrate the corresponding MC-imposed minimum parking requirements with regards to the Applicant-identified land-use mix.

The projected off-street parking inventory of 289 parking spaces is less than the Municipal Code's minimum parking requirements based on the assumed land-use mix and square footage assumptions. As a result, subject to City approval, the proposed project includes the consideration of the following discretionary actions: (1) under the provision of the proposed "Planned Development (PD) Overlay District," through the issuance of an accompanying

CUP, project-specific parking standards not exceeding the number of proposed parking spaces could be established; and/or (2) a "shared parking permit" could be approved.

Table 3-10
PARKING REQUIREMENTS BY LAND USE AND USE TYPE

Land Use Type	Vehicle Spaces Required
Hotel and motels	1 space for each guest room, plus 1 space for each 2 employees on largest shift, plus required spaces for accessory uses
Clinics, Medical/dental offices	1 space for each 250 SF of gross floor area
Offices, Administrative/corporate	1 space for each 400 SF of gross floor area

Lot	Hotel		Square Footage	MC-Required Parking
	Rooms	Employees		
Lot 3	109	11	61,743	120
Lot 1	-	-	15,943	64
Lot 2	-	-	8,900	36
Lot 1	-	-	31,886	80
Total	109	11	118,471	300

No reciprocal parking or access agreements with "Farmer Boys Restaurant" (810 Brea Canyon Road, Diamond Bar) or other proximal property owners or land uses are planned or proposed. Similarly, excluding project-specific drainage improvements, no physical access or other form of encroachment into the area of the County's existing flood control channel (PD 1445) (Diamond Bar Creek) is planned or proposed.

With regards to perpendicular (90-degree angle) parking, the City has adopted "minimum parking stall and lot dimensions," depicted as 9-feet wide and 19-feet long (Table 3-12, Section 22.30.070[4][b], MC), allowing for a "two-foot bumper overhang while maintaining the required parking dimensions" (Section 22.30.070[8][e], MC), for "standard" stalls but has neither adopted "compact" or "subcompact" dimensional standards nor specified a maximum percent of all required parking that could be so provided.

With regards to commercial projects in unincorporated Los Angeles County, as noted in the "Los Angeles County Guidelines for Designing a Commercial Project,"[14] the parking design standard for "standard spaces" is 8½-feet wide by 18-feet long (specifying a minimum aisle width of 26 feet). Additionally, the parking design standard for "compact spaces (maximum 40%)" is 8-feet wide by 15-feet long (specifying a minimum aisle width of 23 feet ["must be all compact"]). If deemed relevant and if similar standards were subsequently established through permit conditions, the proposed project would be in compliance with those standards.

With limited exception (e.g., reckless driving and handicapped parking), most California Vehicle Code (CVC) provisions are unenforceable on commercial property. Even if the State established standards for the mandatory or allowable incorporation of "compact parking stalls" in commercial projects, any prohibitions concerning the parking of standard-sized or larger vehicles within those spaces would appear unenforceable.

As proposed, of the 289 parking spaces to be provided on the project site, a total of 53 parking spaces (18.3 percent of the proposed parking inventory) will be only 8-feet wide by 16-feet long, which, even accounting for an allowable "two-foot bumper overhang," are smaller than the dimensional standards authorized in the Municipal Code. Those spaces, proposed as "employee parking," are configured on the project site in a variety of

[14]/ Los Angeles County Department of Regional Planning, Los Angeles County Guidelines for Designing a Commercial Project, undated (http://planning.lacounty.gov/guidelines/commerical).

configuration, ranging from isolated single stalls to groupings of 3 (24-feet wide), 5 (40-feet wide), and 9 (72-feet wide) contiguous spaces, and in larger groupings of 39 (312-feet wide) and 44 (352-feet wide) contiguous stalls, uninterrupted by any periodic landscaped breaks. If parking stall widths were increased to 9-feet wide, those spaces would accommodate, 2, 4, 8, 34, and 39 spaces, respectively (resulting in a potential reduction of a total of 13 on-site parking spaces). Because they occur throughout the site and remain undedicated, the Applicant, the BOA, or such other representative management entity created thereupon would appear to have limit ability to monitor and enforce any such "employee parking" requirements or provisions ("It is noted that these [employee parking] spaces will be open for customers").[15]

The American Association of State Highway and Transportation Officials' (AASHTO) "A Policy on Geometric Design of Highways and Streets," commonly referred to as the "Green Book," is used nationally as the primary source (or one of the primary sources) of guidance relative to safe street standards. The Green Book has identified and described a wide range of vehicle types, providing design vehicle dimensions and turning radii for 19 design vehicles, including "passenger cars" and 8 truck types. While offering guidance, the Green Book does not specify which design vehicle should be selected for the design of any specific highway project, deferring that decision to local highway officials.

Although many automobiles and small trucks may have lesser dimensions, AASHTO's specified dimensions for the two vehicle types commonly seen in commercial and office parking lots is presented below. The dimensions provided relate only to vehicle width and are not intended to constitute recommendations for the width of associated parking. Additionally, the radius of door swings and the added width required for both the driver and passengers to physically enter and exit the vehicle is not accounted for therein.

Design Vehicle Type	Symbol	Overall		
		Height	Width	Length
Passenger Car and Light Trucks	P	4.25	7	19
Single Unit Truck	SU	11-13.5	8.0	30

Source: American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2011, Figure 2.

While no such parking areas are mandated under the provisions of the MC, excluding specified loading docks, no provisions for truck parking are provided on the project site, either on a temporary basis (e.g., Federal Express and UPS delivery trucks) or relative to use by overnight hotel guests). Similarly, notwithstanding the assumed presence of 24,730 square feet (15,943 + 8,900 = 24,843) of medical office use, no temporary "patient drop-off" or "patient pick-up" areas are provided. With the possible exception of the area associated with the "porte cochere," no short-term "hotel check-in" or "guest pickup" parking areas are identified on the proposed site plan.

Excluding curbside areas accommodating parallel parking, as indicated in the Institute of Transportation Engineer's (ITE) "Traffic Engineering Handbook": "The minimum practical stall width varies principally with turnover, experience of the parker, and vehicle size. Commercial parking attendants can park large cars in stalls less than 2.4 meters (8.0 feet) wide. With self-parking, stall widths that will accommodate most passenger cars, vans, and

[15]/ Linscott Law & Greenspan, Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California, January 25, 2019, p. 10.

light trucks range between 2.5 meters and 2.7 meters (8.3 feet and 8.8 feet), depending on anticipated parking activity."[16]

Based on the proficiency or lack thereof by individual drivers, the incorporation of compact parking (in lieu of standard-sized spaces) can effectively result in a lowering of total off-street parking inventory.

Because the dimensions of those "employee parking" spaces is less than the MC's minimum parking standard, unless otherwise increased to conform to City standards (Section 22.20.070, MC), acceptance of that diminished standard will require that the "Planned Development (PD) Overlay District," through the issuance of a CUP for a classification of automobiles not previously recognized in the Municipal Code, would need to establish site-specific dimensional parking standards which will continue to "run with the land"[17] notwithstanding future changes in ownership and initial occupy.

Independent of the entitlements through which they may be established, it has been assumed that the parking spaces to be provided on the project site shall be "unassigned" and shall be made available for the common use of all "owners," "tenants," and "occupants," inclusive of their customer, guests, and invitees, and shall be used exclusively for the parking of permitted vehicles only and not for the permanent parking or storage of boats, trailers, or non-mobile vehicles and/or unlicensed equipment of any description. The use of those parking spaces subject thereto shall be governed by the provisions of a recorded "reciprocal parking agreement" and by the recorded CC&Rs. Excluding the provision of handicapped parking which would remain enforceable under the provisions of the CVC, self-imposed provisions relative to the intended use of either employee parking or parking intended as electrical vehicle (EV) charging stations would not appear enforceable. Subject to specific provisions and limitations, when appropriately notices, the BOA may cause the removal of vehicles wrongly parked on the subject property (Section 22658, CVC).

As specified in Section 22.30.070(2) of the MC: "Applicants for nonresidential developments are encouraged to provide shared vehicle and pedestrian access to adjacent nonresidential properties to provide for convenience, safety, and efficient circulation. A joint access agreement running with the land shall be recorded by the owners of the abutting properties, as approved by the director, guaranteeing the continued availability of the shared access between the properties."

- **Development Review**. Pursuant to Chapter 22.48 (Development Review) in Article IV (Land Use Development Permits Procedures) in Title 22 (Development Code), the project's proposed development plans are subject to the City's development review process. As specified in Section 22.48.010 (Purpose) therein: "The purpose of this chapter is to establish the consistency of new development with the general plan through the promotion of high aesthetic and functional standards to complement and add to the economic, physical, and social character of the City. [1995/2013/2014] General Plan Objective 3.2 states, 'Ensure that new development and intensification of existing development yields a pleasant living, working, or shopping environment and attracts the interest of residents, workers, shoppers, and visitors as the result of consistent exemplary design.'"

[16]/ Alroth, William A., Chapter 14 (Parking and Terminals) in Pline, James L. (ed), Traffic Engineering Handbook, 5th Edition, Institute of Transportation Engineers, 1999, p. 535.

[17]/ As specified in Subsection "(b)" in Section 22.58.060 (Post Approval Procedures) in Chapter 22.58 (Conditional Use Permit) of the MC: "Run with the land. The conditional use permit that is valid and in effect, and was granted in compliance with the provisions of this chapter, shall run with the land and continue to be valid upon a change of ownership of the land or any lawfully existing structure on the land."

Approval of development review is subject to specified "findings" (Section 22.48.040, MC).

- **Comprehensive Sign Program**. Pursuant to the provisions of Section 22.36.050 (Sign Permit) in Chapter 22.36 (Sign Standards) in Title 22 (Development Code) of the Municipal Code, unless otherwise exempt, to ensure compliance with the regulations of that chapter, a sign permit shall be required in order to erect, move, alter, or reconstruct any permanent or temporary sign.

  As further specified in Section 22.36.060 (Comprehensive Site Program) therein, a "comprehensive sign program" is required whenever: (1) new multi-tenant developments of three or more separate tenants that share either the same parcel or structure and use common access and parking facilities; (2) five or more signs are proposed for a new or existing development; (3) wall signs are proposed on structures over two stories in height; (4) two or more signs are requested by a single tenant in an existing multi-tenant project that currently is not covered by a comprehensive sign program; and (5) the Community Development Director determines that a comprehensive sign program should be developed for a project due to special circumstances. Because a number of those provisions are satisfied, the need for the preparation of a "comprehensive sign program" has been identified.

  Approval thereof is subject to specified "findings" (Section 22.36.060[e], MC).

- **Shared-Parking Permit**. As specified in Section 22.30.050 (Reduction of Off-Street Parking Required for Shared Parking) in Chapter 22.30 (Off-Street Parking and Loading Standards) in Title 22 (Development Code) of the Municipal Code: "Where two or more nonresidential uses are developed as a recognized shopping or professional center and two or more uses have distinct and differing peak parking usage periods, (e.g. a theater and a bank), a reduction in the required number of parking spaces may be allowed through the approval of a parking permit, provided that the most remote space is located within 300 feet of the use it is intended to serve (as measured along the most direct pedestrian path). The amount of reduction may be up to the amount of spaces required for the least intensive of the two or more uses sharing the parking. A shared parking analysis may be required by the director to support a request for a parking reduction. Reductions in parking in exchange for transportation demand management programs shall be considered for projects subject to the requirements of Section 22.40.030 (Transportation Demand Management Program Requirements)."

  Unless otherwise accounted for and approved through the establishment of a "Planned Development (PD) Overlay District," based on information provided by the Applicant, the Applicant seeks the City's approval of a "shared parking permit" authorization a reduction in the number of off-street parking spaces otherwise required for each of the proposed uses if parking demands for those uses were to be individually assessed. It is unlikely that a "shared parking permit" can be made conditional (e.g., incorporating revisitation provisions) such that any future changes in "ownership," "tenancy," and "occupancy" that might substantially alter site-specific MC-imposed parking requirements or in the event that on-site parking problems arise and remain unabated except through the independent and coordinated actions of the business association or other entity responsible for the site's management.

  Subject to the Commission's and/or the Council's determination, the potential need for the processing of a "shared parking permit" for the proposed project may be negated through

the adoption and application of the proposed "Planned Development (PD) Overlay District" and accompanying CUP.

- **Grading Permit**. As defined, in part, in Section 15378(a)(1) and (3) of the State CEQA Guidelines, under CEQA, a "project" includes those activities directly undertaken by any public agency including, but not limited to, public works construction and related activities, clearing or grading of land and improvements to existing public structures and those activities involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. The City's issuance of a grading permit to a project proponent would, therefore, appear to fall within the definition of a "project."

  To the extent that, pursuant to City policies and procedures, the City Engineer is granted discretionary as to the issuance of that permit and the imposition of conditions thereupon, a grading permit may constitute a discretionary action under CEQA. Without alteration of its status under CEQA, because a grading permit is required for the construction of the proposed project, that permit is nonetheless listed herein.

  The proposed project's conceptual grading permit is illustrated in Figure 11 (Proposed "Brea Canyon Road Business Park" Project – Conceptual Grading and Drainage Plan). Excavation of the project site will include cuts to remove undocumented fills, excavations for foundations, and trenching for new utility lines. Undocumented fills and portions of the compressible natural soils will be removed and replaced with properly compacted fill. Actual depths of removal will be determined by the engineering geologist or geotechnical engineer in the field during grading operations. Soils available from on-site excavation, less debris or organic matter, is suitable for reuse in fills with the exception of fills behind retaining walls and directly beneath the flatwork.

  Grading activities, including approximately 8,000 cubic yards of cut and 8,000 cubic yards of fill, are assumed to balance on the project site. With regards to haul routes, it is assumed that all imported materials will arrive from northbound Brea Canyon Road, via the Pomona (SR-60) Freeway. It is further assumed that all materials exported from the project site will travel northbound on Brea Canyon Road, travel westbound on Lycoming Street, then southbound on Lemon Avenue to the Pomona (SR-60) Freeway.

In addition to those entitlements required from the City, separate permits and approval may also be required from a number of other governmental entities, including the California Department of Transportation, District 7 (Caltrans), the California Regional Water Quality Control Board, Los Angeles District, District 4 (LARWQCB), and the County of Los Angeles (County). Although the project site abuts the corporate boundaries of the City of Industry (Industry), no discretionary entitlements from Industry have been assumed herein. If so required, at its discretion, Industry may be able to utilize this CEQA document as the environmental basis for those actions.

A "medical office," a "clinic," and a "laboratory" are distinguishable from a "hospital" and would not require Office of Statewide Health Planning Department (OSHPD) permitting.

Although no toxic air contaminants (TAC) are anticipated to be generated by the proposed use, the South Coast Air Quality Management District (SCAQMD) may have a review or permit function with regards to any specialized emission control systems and/or backup generators that may be employed on the project site.

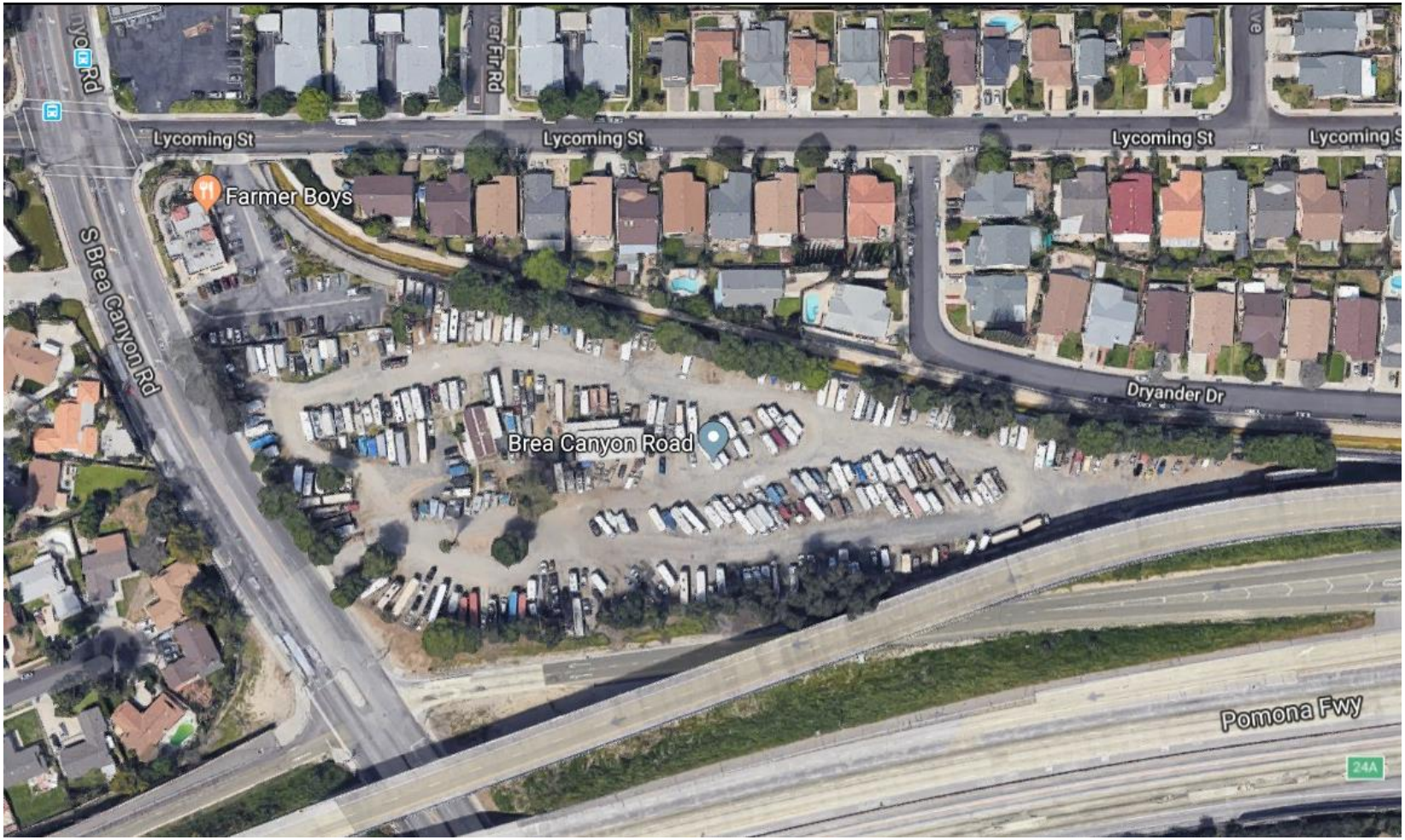


Figure 1
PROPOSED "BREA CANYON ROAD BUSINESS PARK" PROJECT SITE
850 BREA CANYON ROAD, DIAMOND BAR, CALIFORNIA 91789
Source: Google Earth

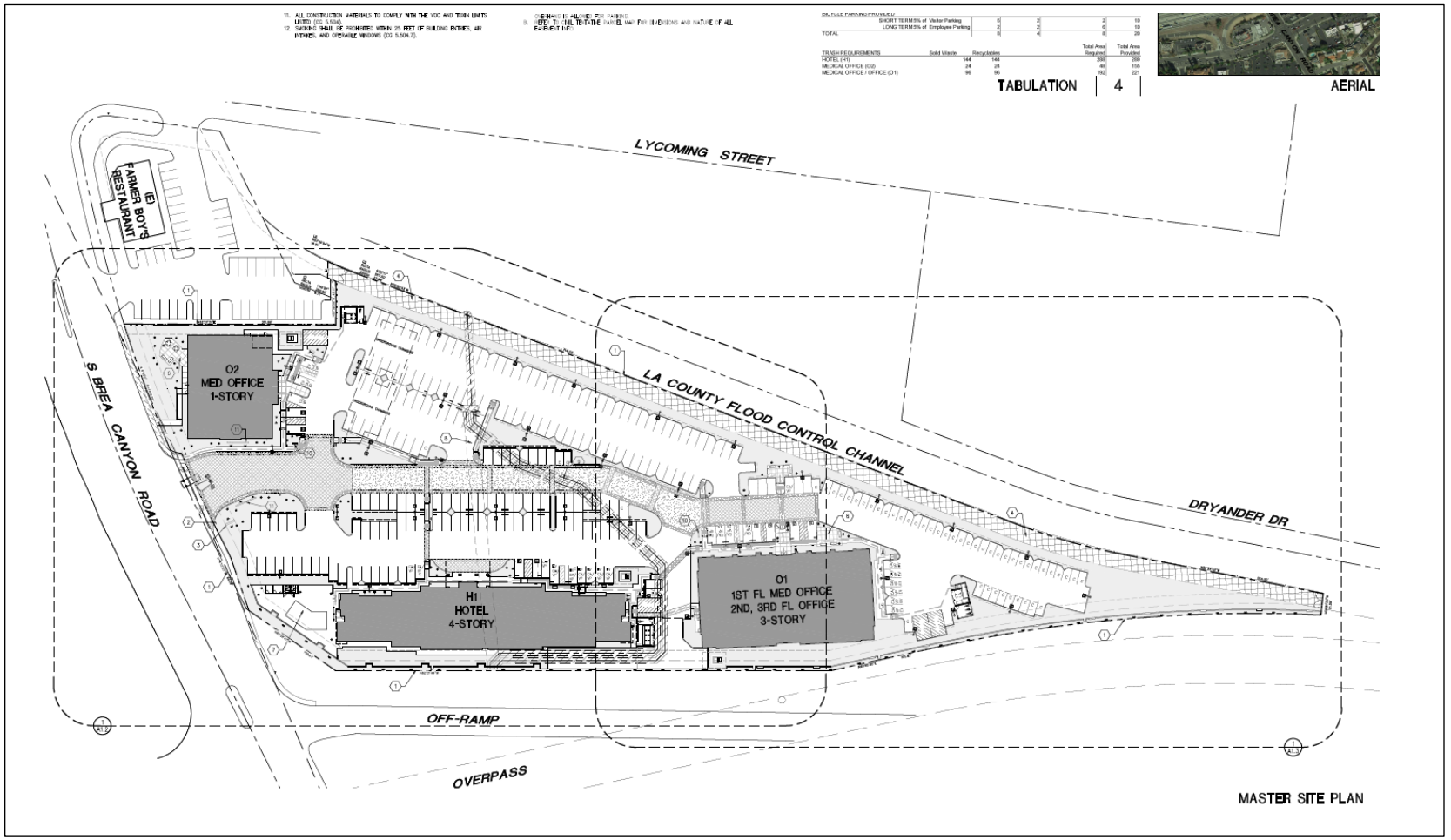


Figure 2
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL SITE PLAN
Source: GAA Architects

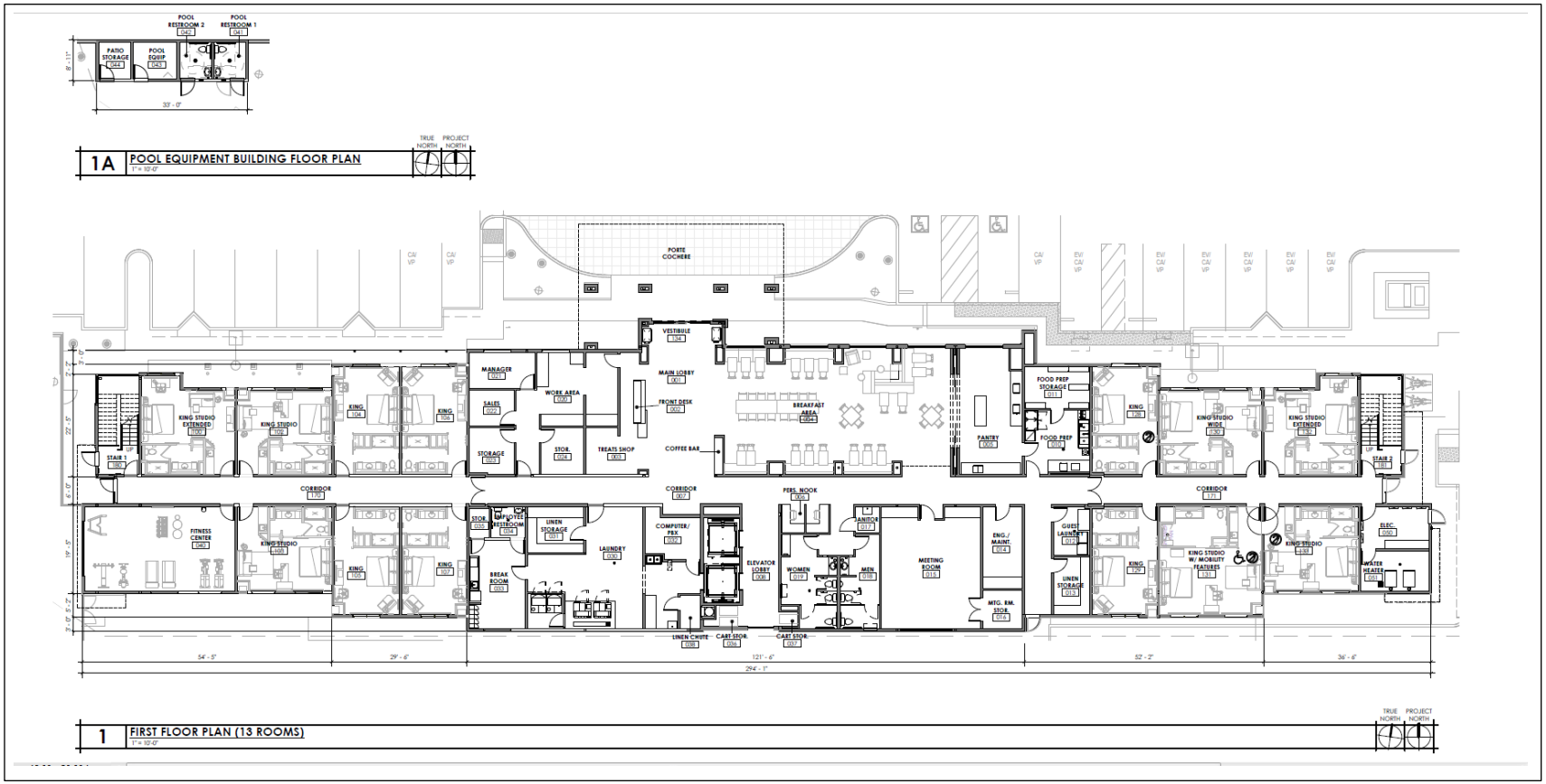
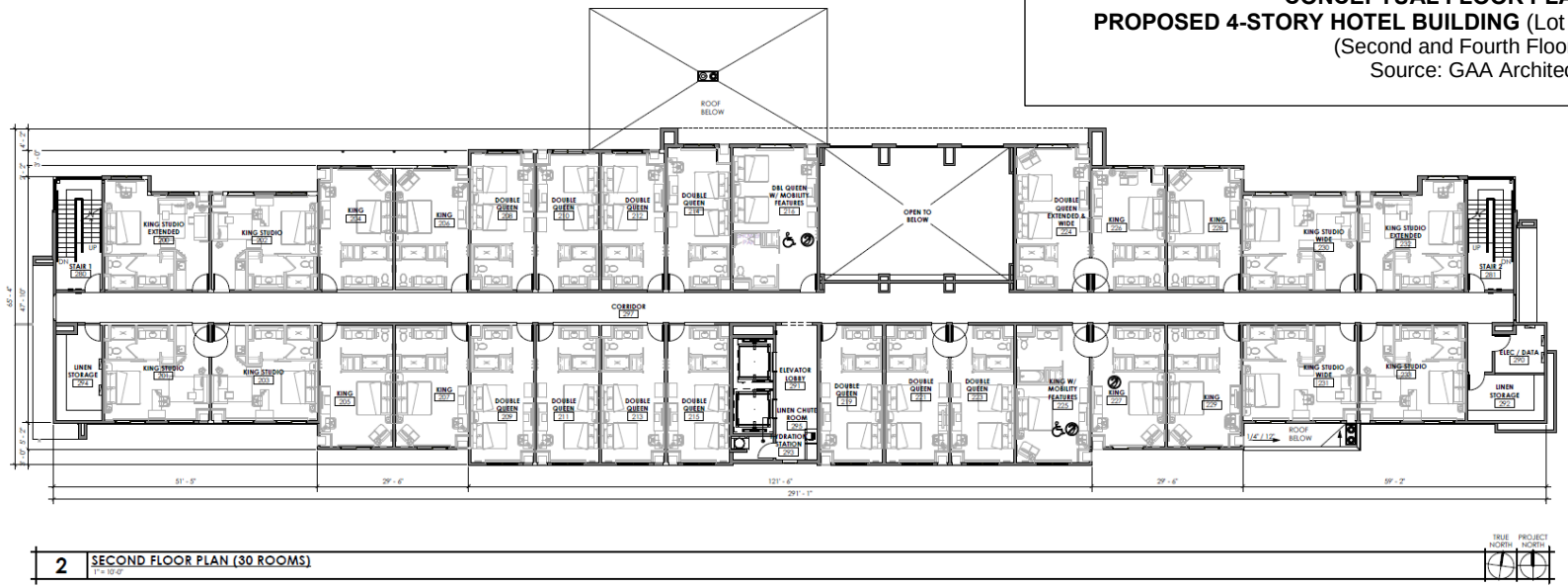


Figure 3 (1 pf 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 4-STORY HOTEL BUILDING (Lot 3)
(Ground Floor)
Source: GAA Architects

Figure 3 (2 pf 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 4-STORY HOTEL BUILDING (Lot 3)
(Second and Fourth Floors)
Source: GAA Architects



2 SECOND FLOOR PLAN (30 ROOMS)
1" = 10'-0"



2 FOURTH FLOOR PLAN (33 ROOMS)
1" = 10'-0"

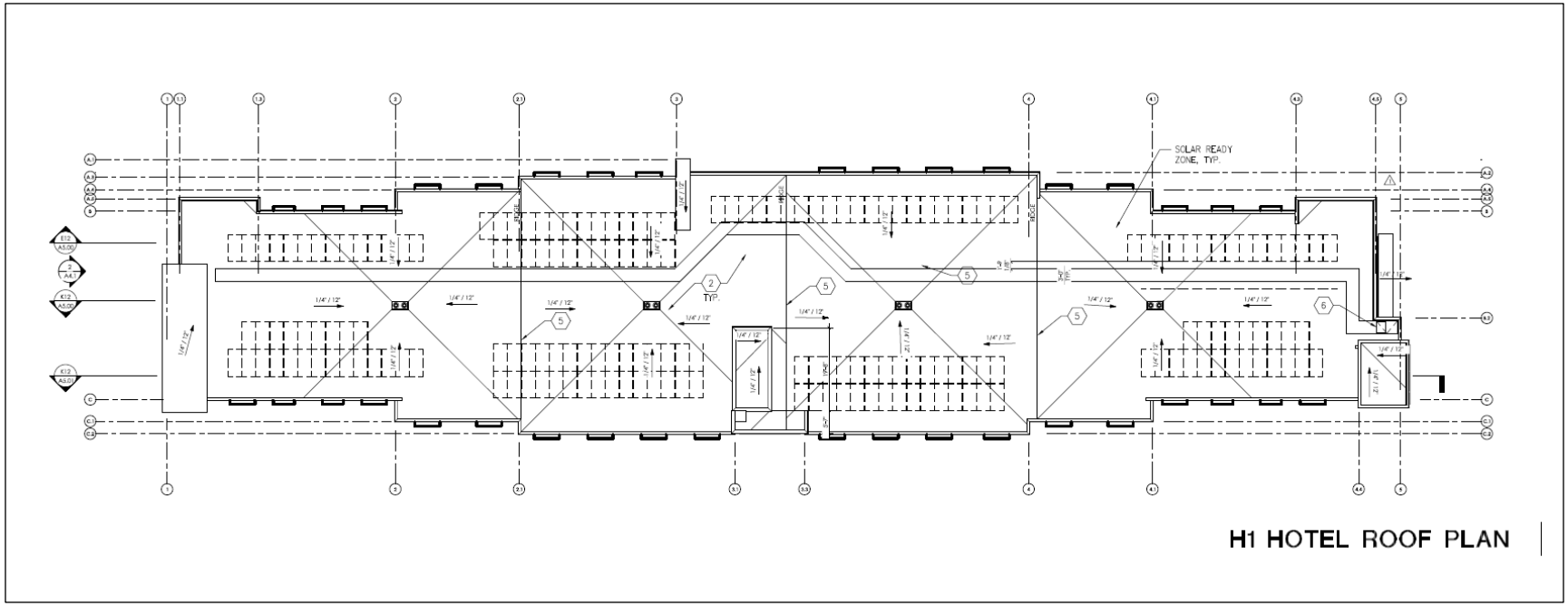


Figure 3 (3 pf 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 4-STORY HOTEL BUILDING (Lot 3)
(Roof Plan)
Source: GAA Architects

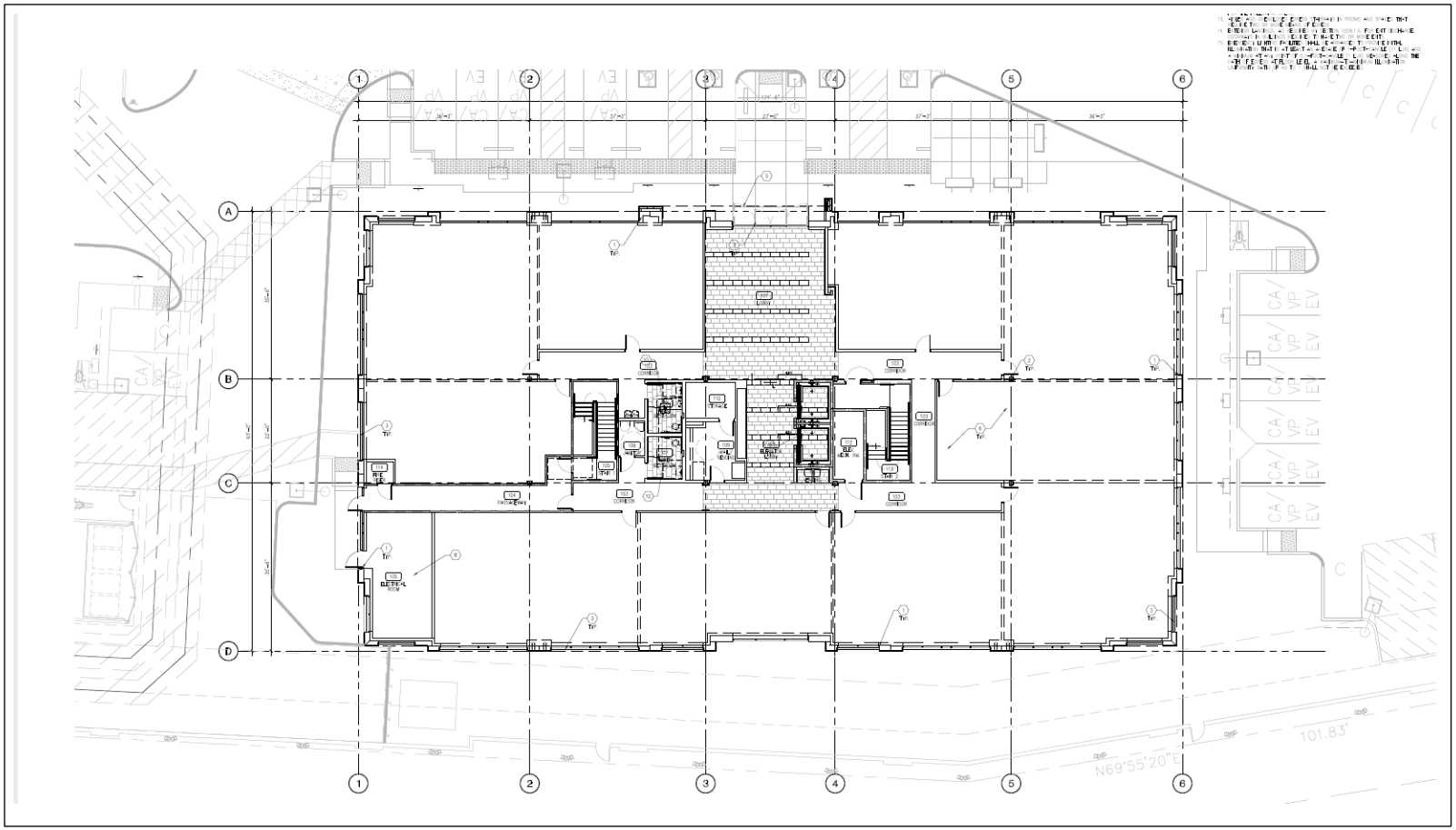


Figure 4 (1 of 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 3-STORY GENERAL AND MEDICAL OFFICE BUILDING (Lot 1)
(Ground Floor)
Source: GAA Architects

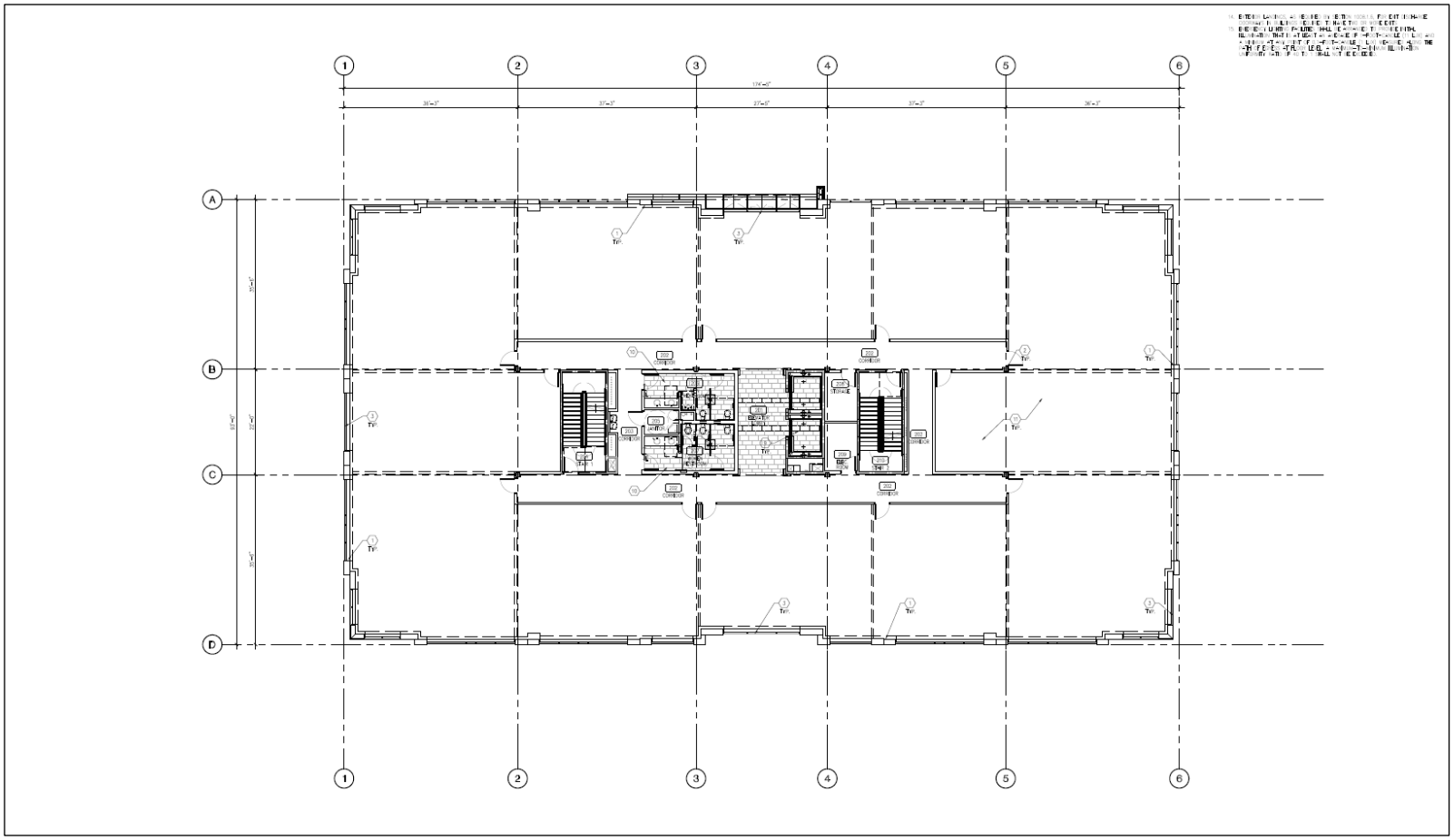


Figure 4 (2 of 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 3-STORY GENERAL AND MEDICAL OFFICE BUILDING (Lot 1)
(Second Floor)
Source: GAA Architects

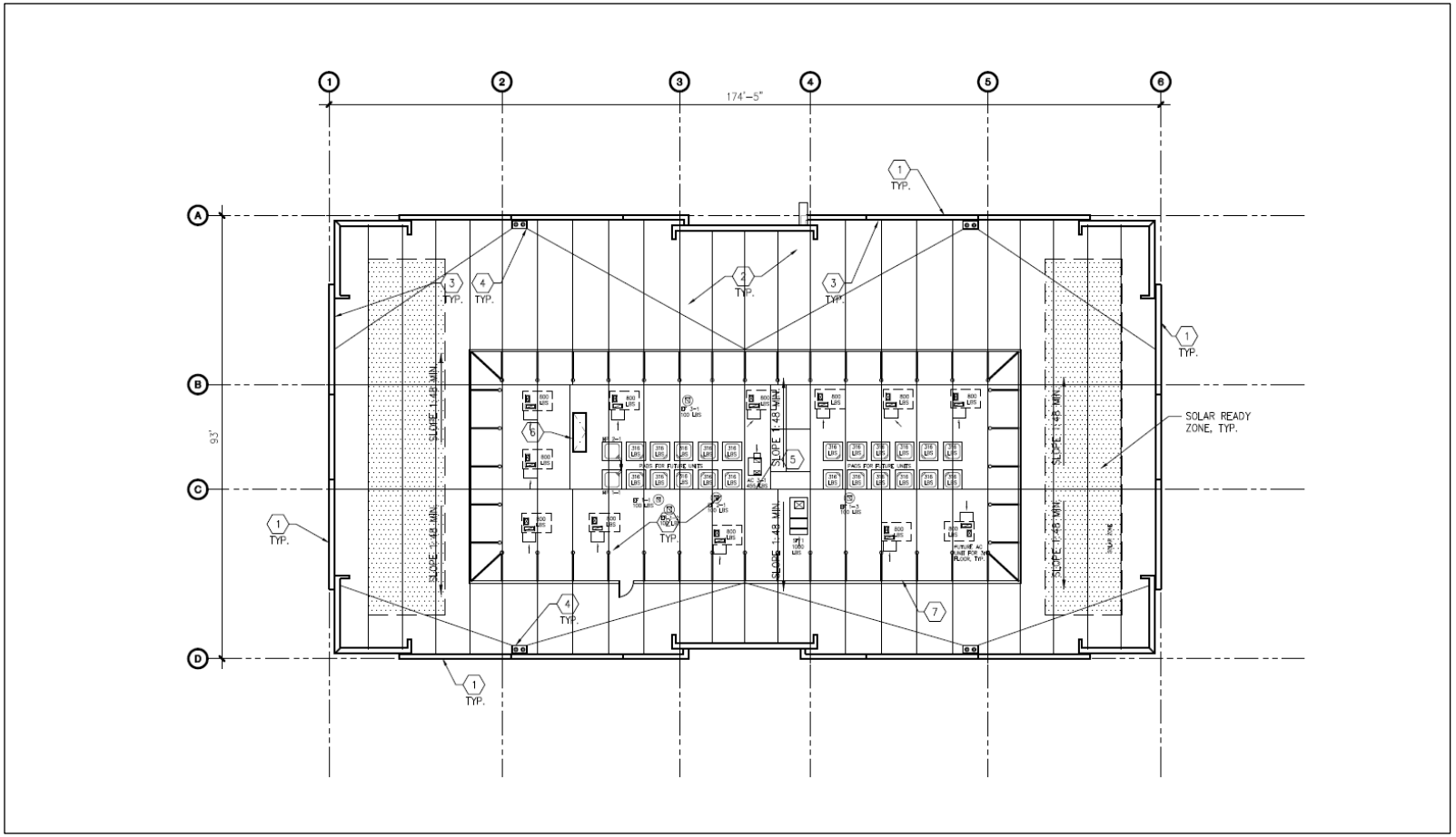
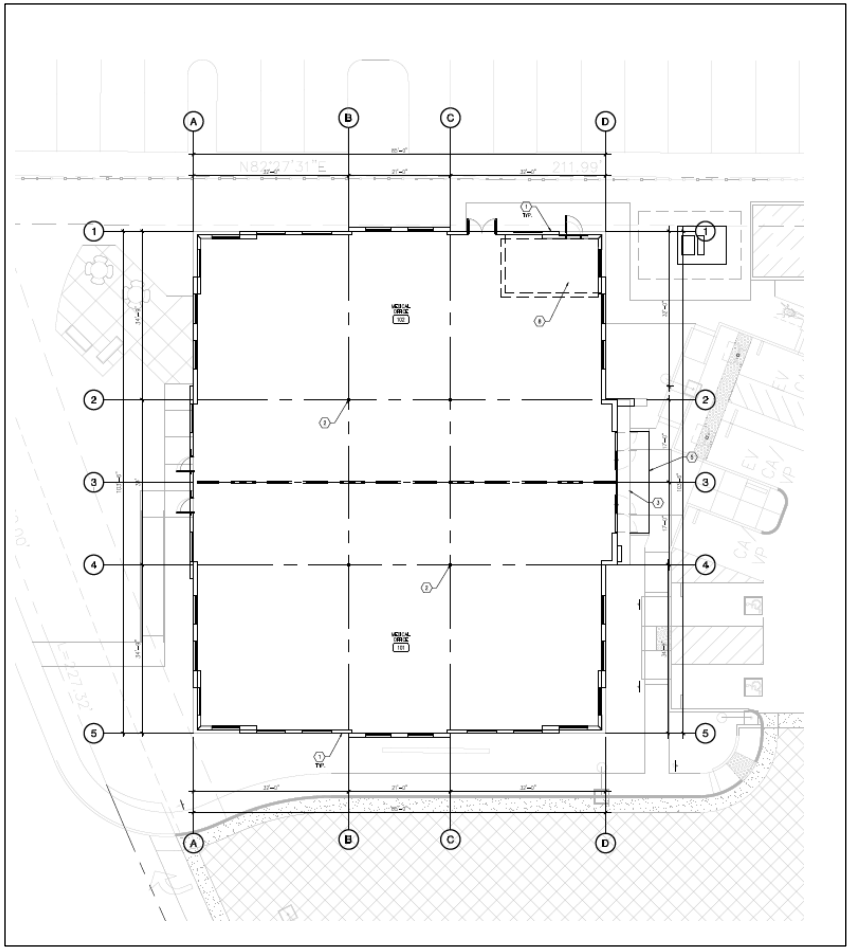


Figure 4 (3 of 3)
CONCEPTUAL FLOOR PLAN
PROPOSED 3-STORY GENERAL AND MEDICAL OFFICE BUILDING (Lot 1)
(Roof Plan)
Source: GAA Architects



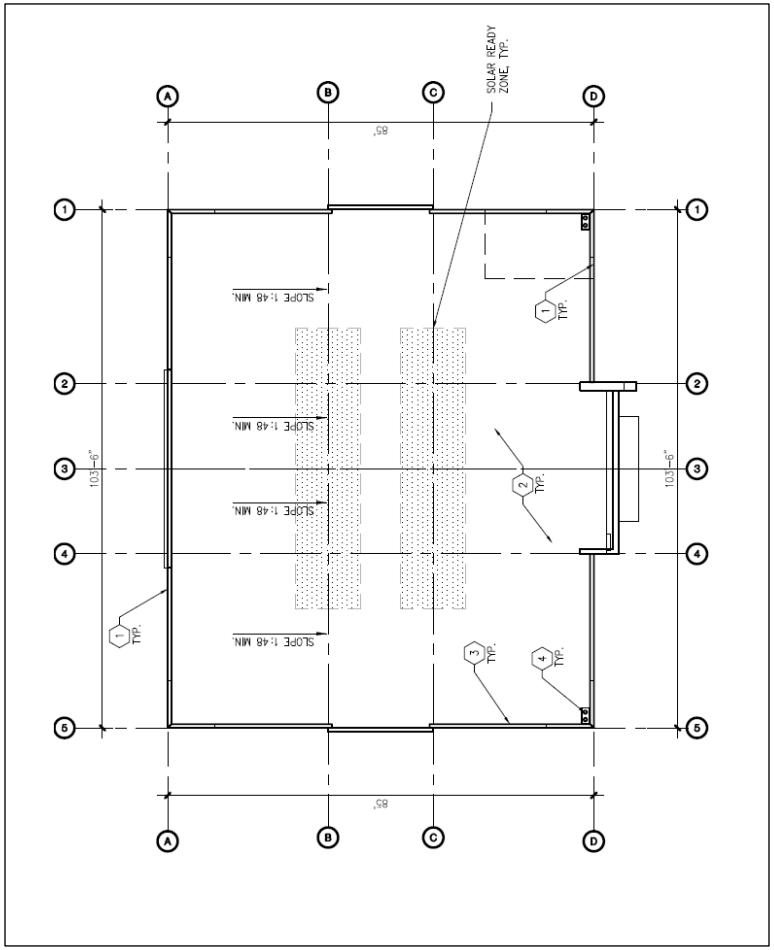


Figure 5
CONCEPTUAL FLOOR PLAN
PROPOSED 1-STORY MEDICAL BUILDING (Lot 2)
(Ground Floor and Roof Plan)
Source: GAA Architects

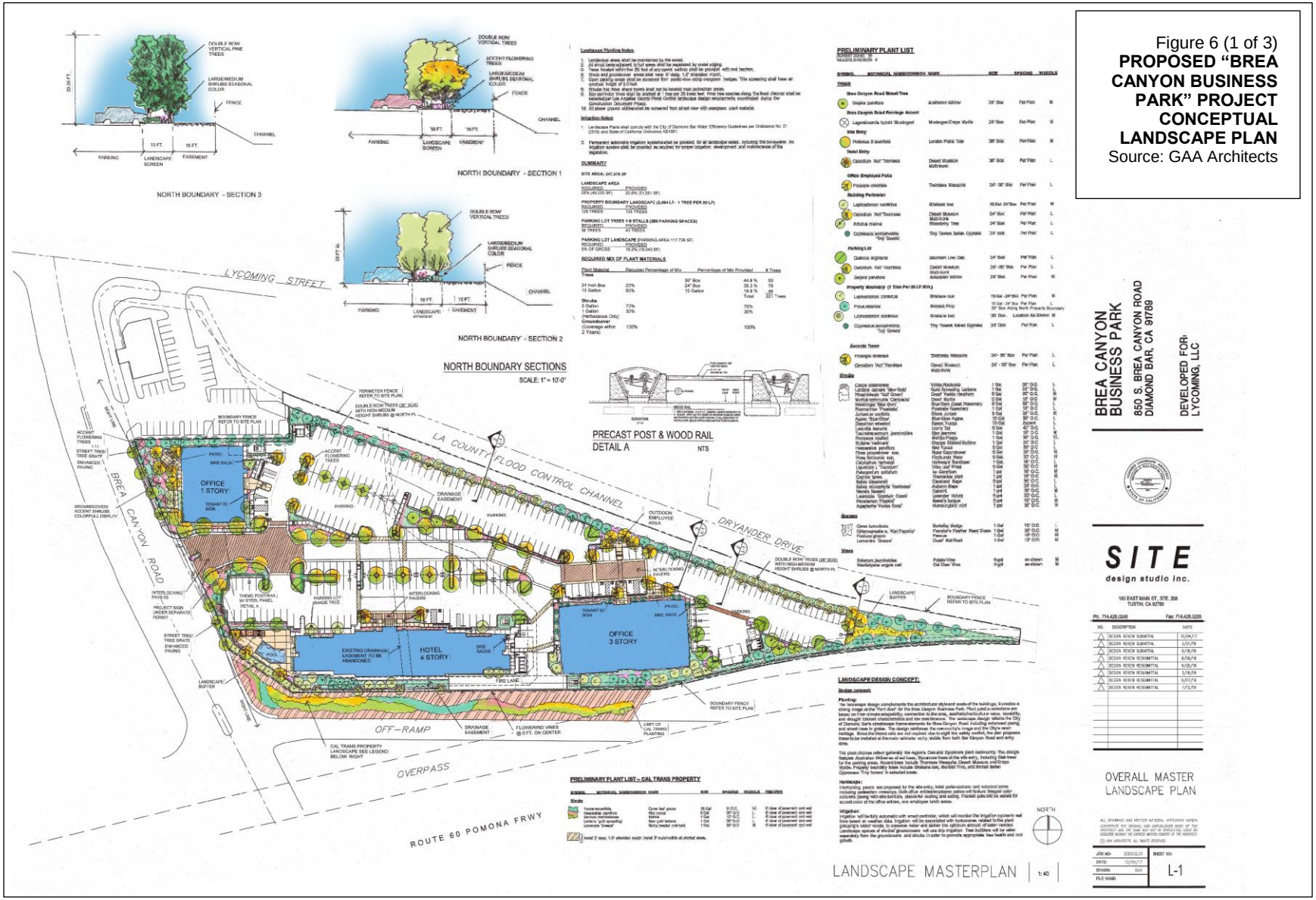


Figure 6 (1 of 3)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL LANDSCAPE PLAN
Source: GAA Architects



Figure 6 (2 of 3)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL LANDSCAPE PLAN
Source: GAA Architects

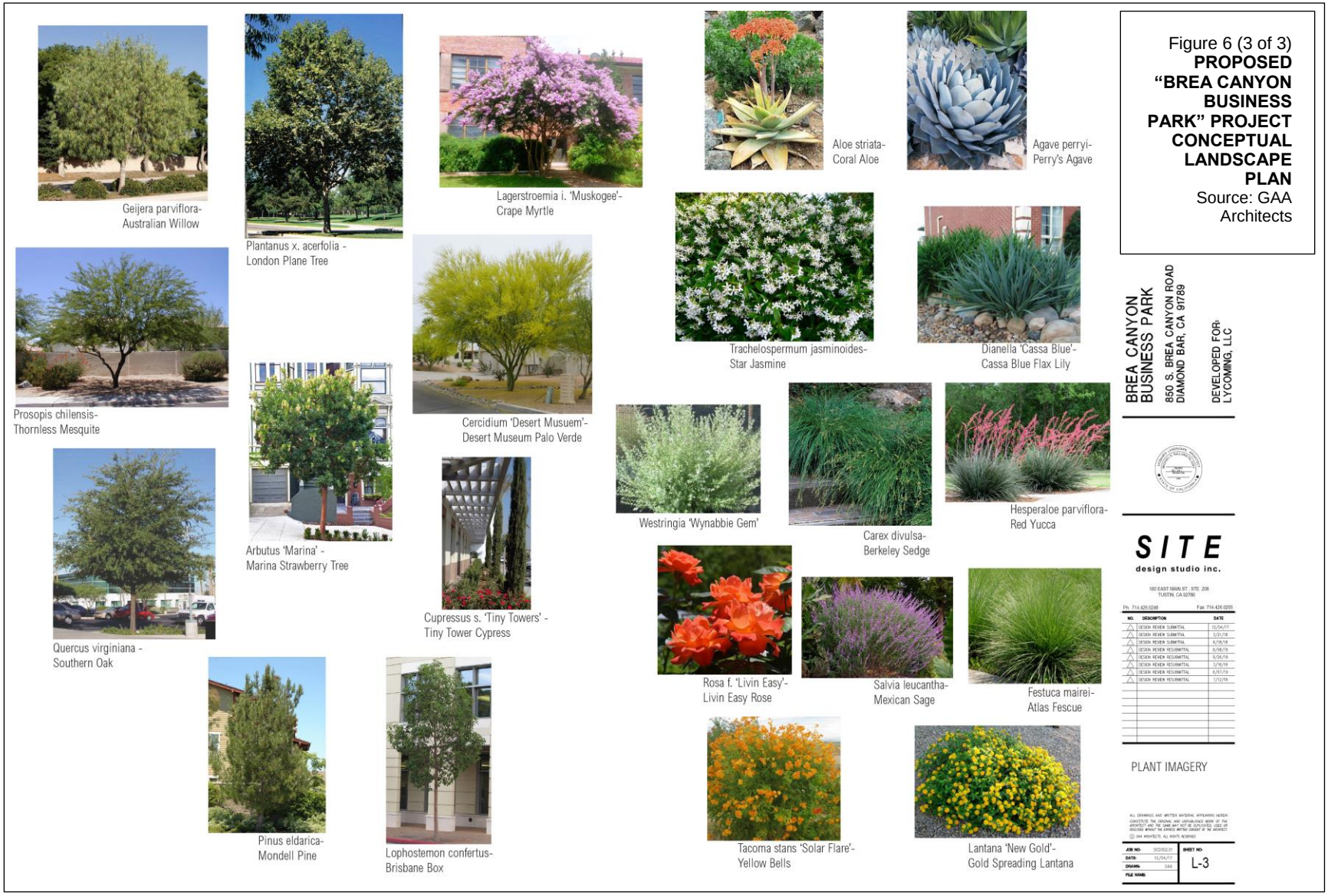


Figure 6 (3 of 3)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL LANDSCAPE PLAN
Source: GAA Architects

BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789
DEVELOPED FOR:
LYCOMING, LLC

SITE design studio inc.

PLANT IMAGERY

L-3

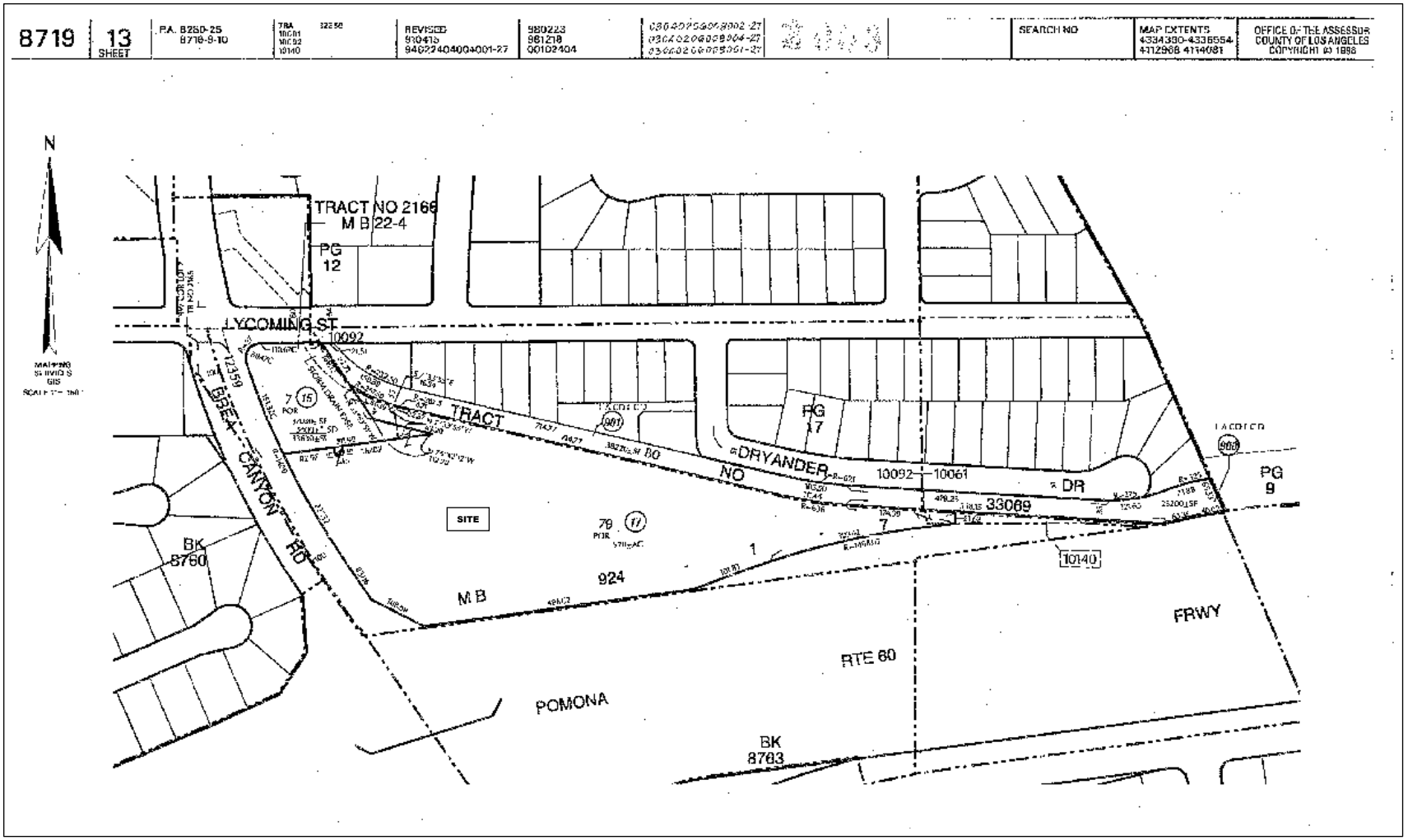
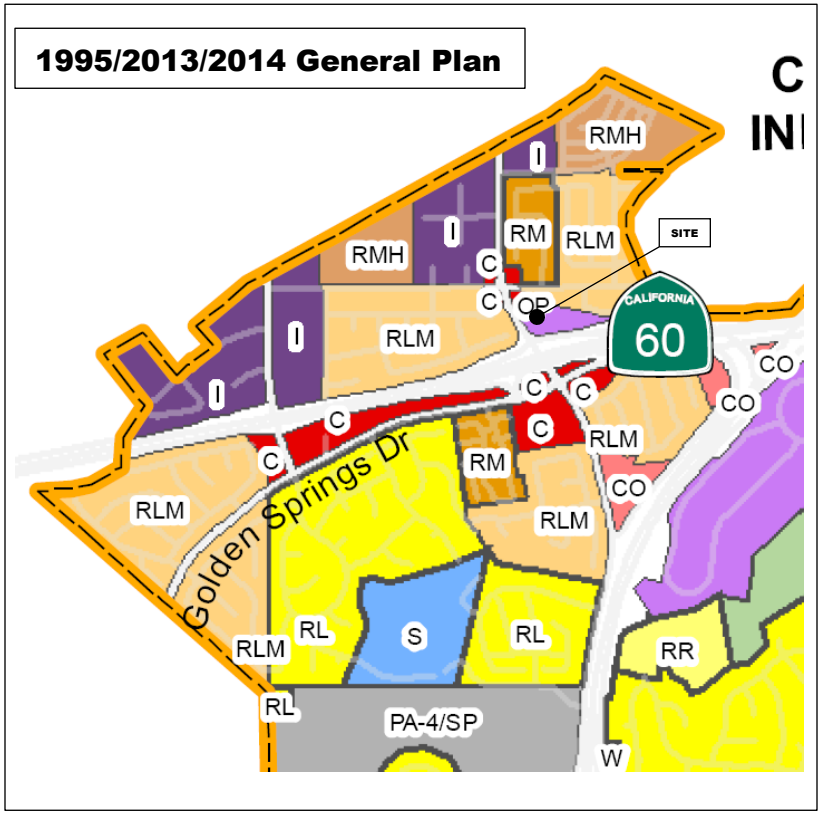
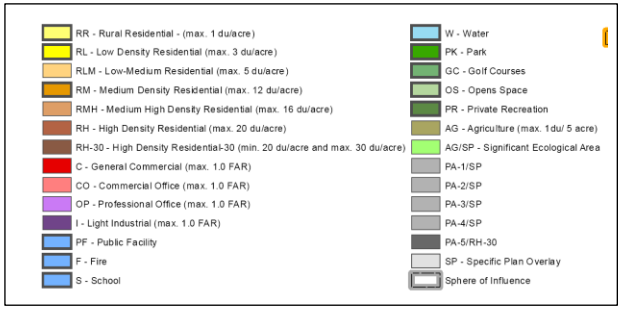


Figure 7
PROPOSED "BREA CANYON ROAD BUSINESS PARK" PROJECT SITE ASSESSOR'S PARCEL MAP
Source: Los Angeles County Assessor









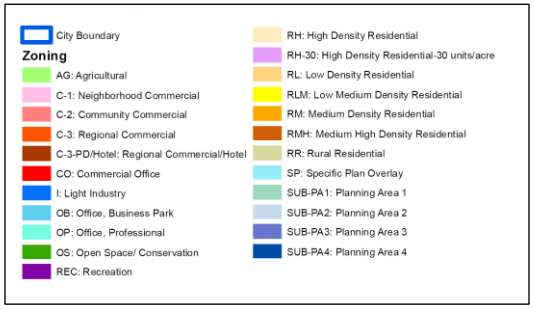
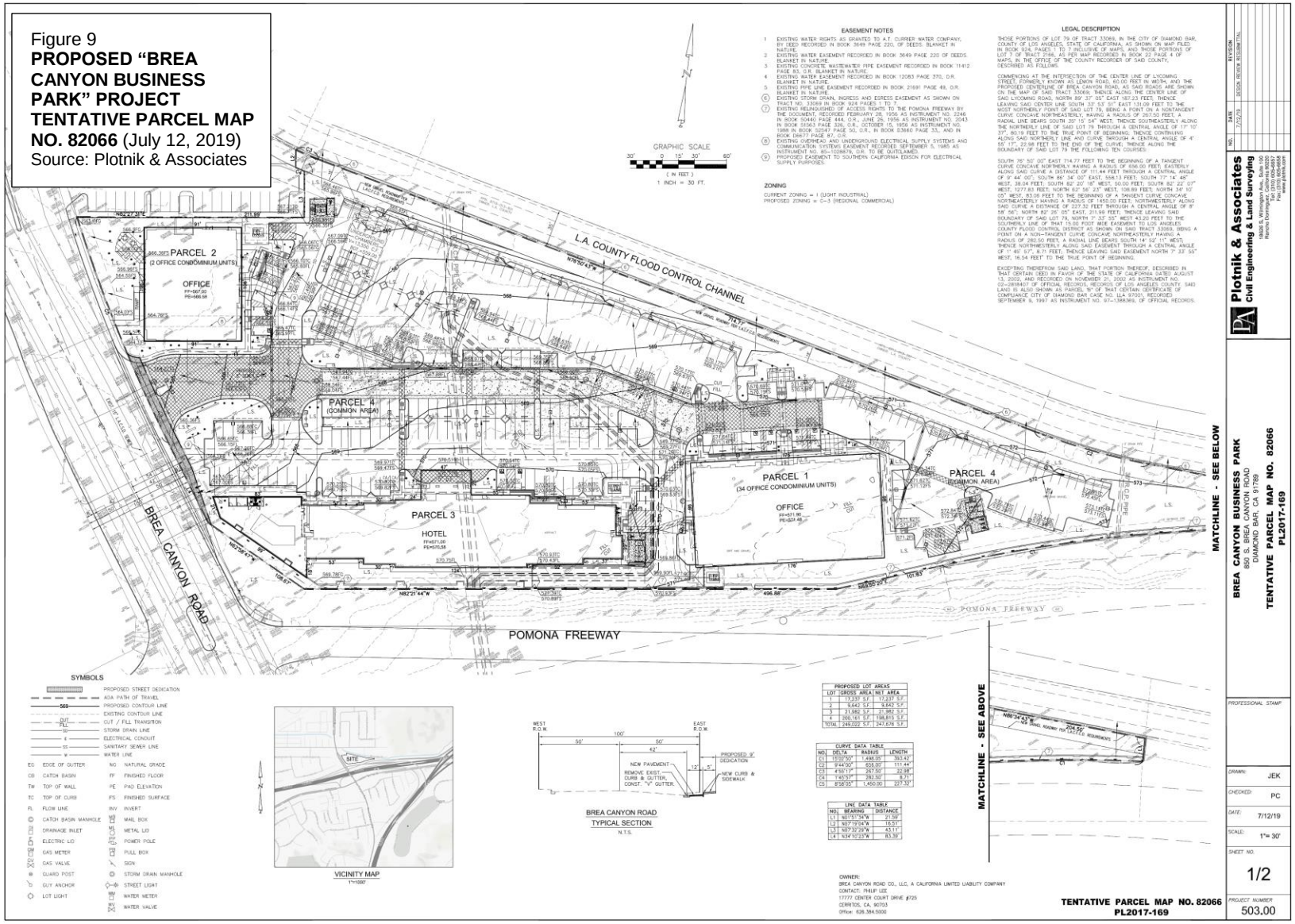


Figure 8
PORTION OF THE CITY OF DIAMOND BAR LAND-USE POLICY AND ZONING MAPS
Source: City of Diamond Bar

Figure 9
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT TENTATIVE PARCEL MAP NO. 82066 (July 12, 2019)
Source: Plotnik & Associates



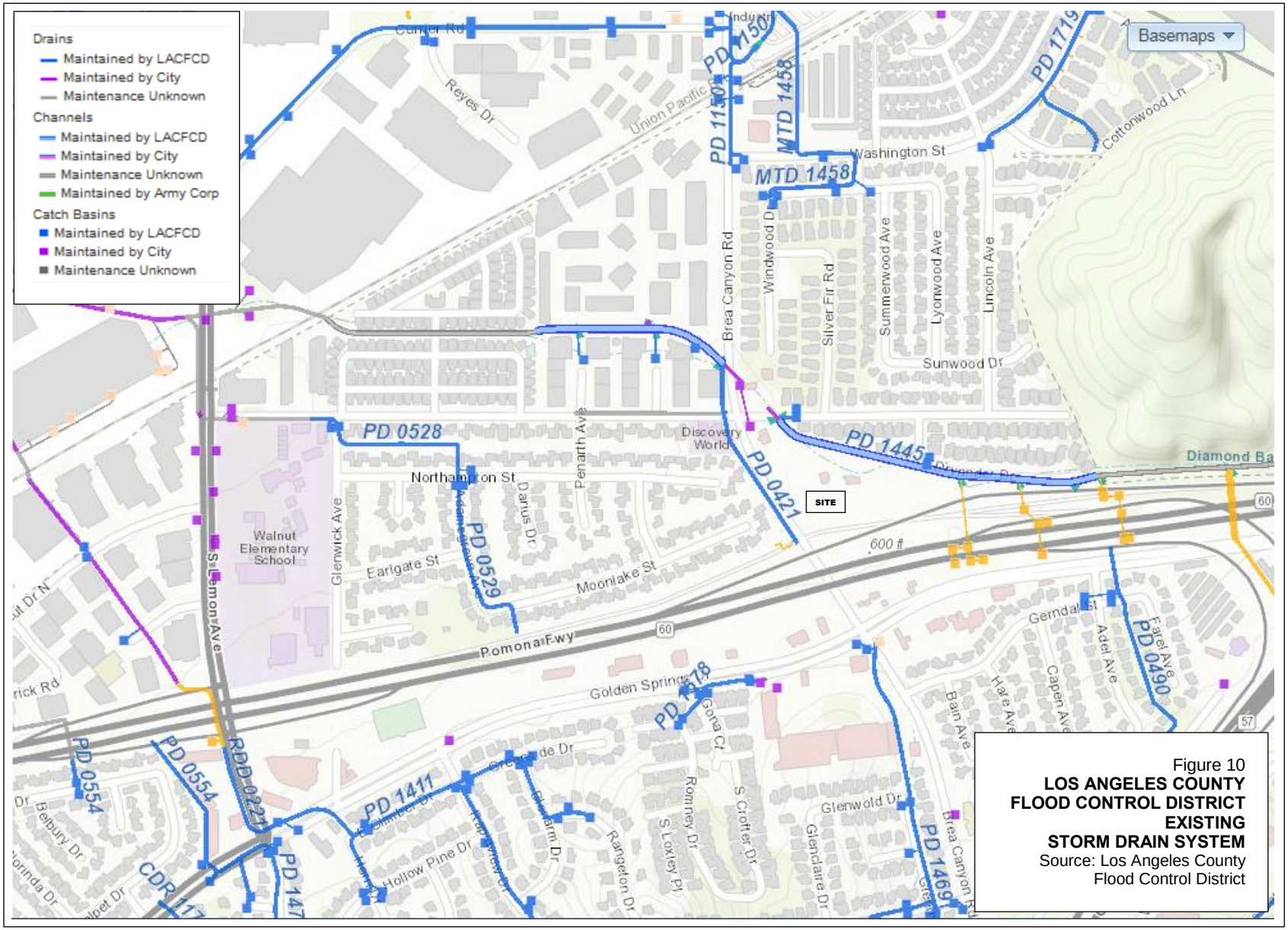


Figure 10
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT EXISTING STORM DRAIN SYSTEM
Source: Los Angeles County Flood Control District

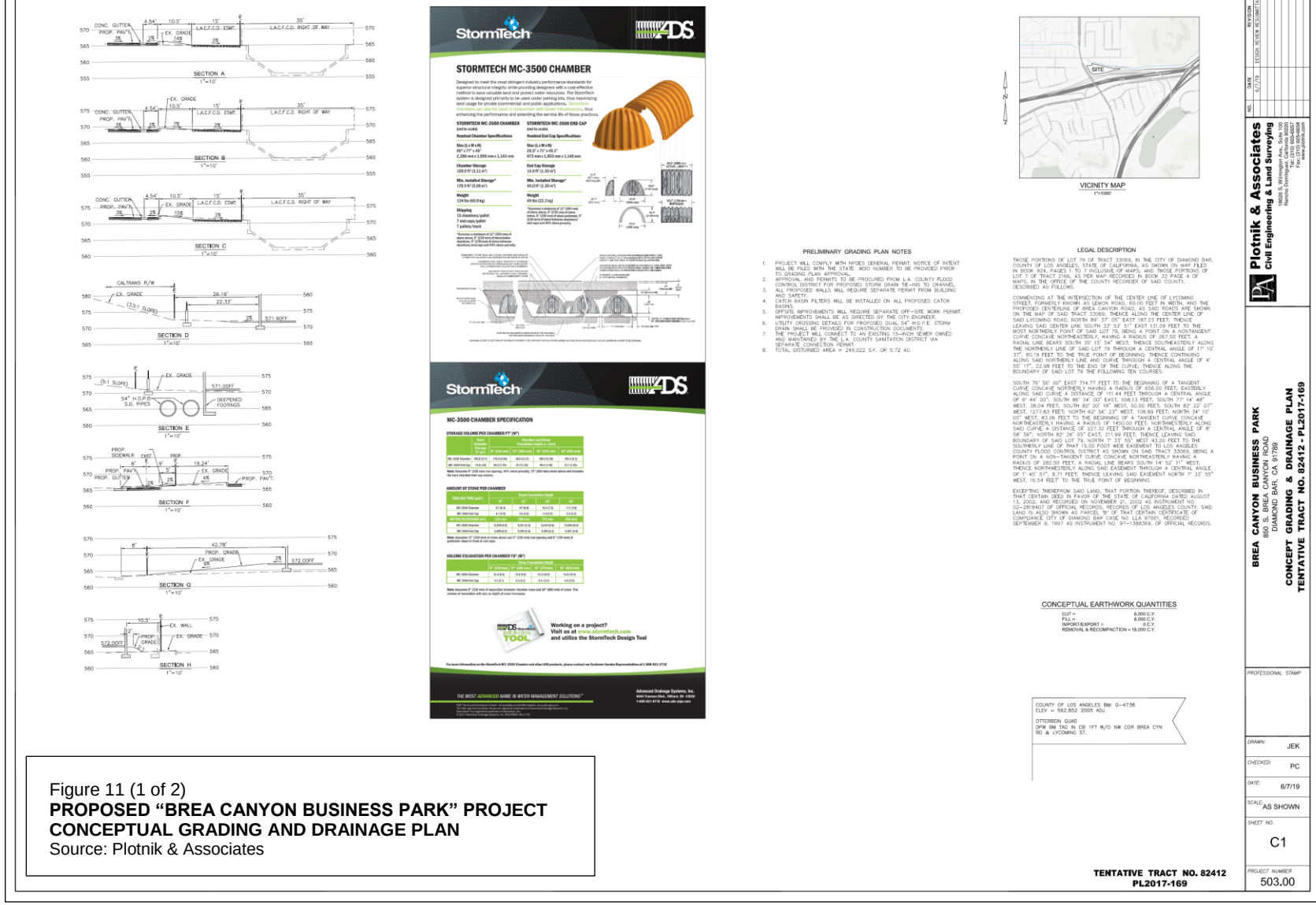


Figure 11 (1 of 2)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL GRADING AND DRAINAGE PLAN
Source: Plotnik & Associates

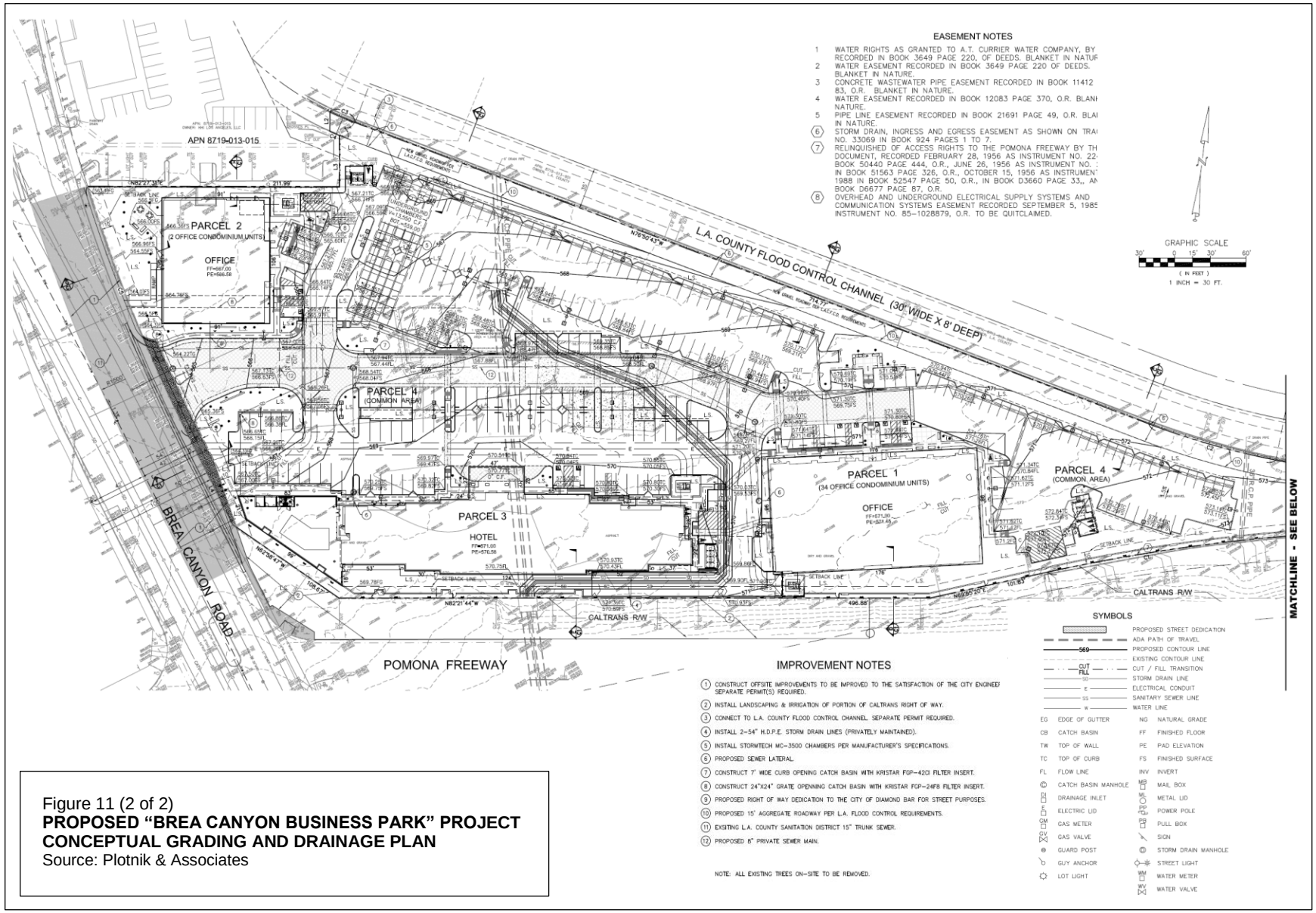


Figure 11 (2 of 2)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT CONCEPTUAL GRADING AND DRAINAGE PLAN
Source: Plotnik & Associates

Depending on the amount and nature of particular substances used and/or stored, a hazardous waste facility permit may be required from the California Environmental Protection Agency (CalEPA), Department of Toxic Substances Control (DTSC). Use of certain equipment, such as x-ray machines, may require a radioactive materials license permit from the Radiological Health Branch of the California Department of Health Services (DHS). A general permit may be required from the United States Nuclear Regulatory Commission (USNRC) for use of radioactive materials for diagnostic purposes.

Based on the specific discretionary action under consideration, the City, acting through the Council) and Commission, is serving as the CEQA-designated "lead agency"[18,19] and will act upon all requisite City-issued discretionary actions. This document has been prepared by the Department. Prior to its acceptance by the Council, the preliminary conclusions presented herein reflect those of the Department based on the Department's independent analysis of the proposed project and its potential environmental effects.

In the preparation of this CEQA document and in the derivation of those preliminary findings presented herein, information from a broad array of documents and other sources have been considered. As a result, the information cited herein is often synoptic in nature and may, out of reasonable prudence, present only those portions of other documents and other analyses that appear most relevant to the proposed project and/or to the topical issue then at hand. In addition, while seeking to present the most accurate available information, data extracted from other sources should be seen as reflective of the date of that data's assemblage. To the extent reasonable, the documents from which relevant information have been extracted are identified so as to allow independent review thereof.

The Department recognizes that other documents may present and individual stakeholders may hold differing viewpoints and that other information, potentially contradictory to that presented herein, may be cited offering differing theories, technical arguments, alternative conclusions, and suggesting distinctly different actions and remedies. The Department seeks broad-based participation in this process and encourages the active involvement of individuals, organizations, and agencies holding different opinions and offering different conclusions.[20]

1.2 CEQA Provisions

Pursuant to Section 210180(a) of CEQA: "Except as otherwise provided in this division, this division shall apply to discretionary projects proposed to be carried out or approved by public agencies, including, but not limited to, the enactment and amendment of zoning ordinances, the issuance of zoning variances, the issuance of conditional use permits, and the approval of tentative subdivision maps unless the project is exempt from this division."

[18]/ "'Lead agency' means the public agency which has the principal responsibility for carrying out or approving a project. The lead agency will decide whether an EIR or negative declaration will be required for the project and will cause the document to be prepared" (Section 15367, State CEQA Guidelines).

[19]/ When presented in lower case, the term "lead agency" is intended to refer to a broader range of agencies and not exclusive to the City.

[20]/ Section 1094.5 of the California Code of Civil Procedures requires that certain adjudicatory decisions be supported by findings and that those findings be supported by evidence. In interpreting that section, the California Supreme Court outlined the following five purposes thereof: "(1) Provide a framework for making principled decisions, enhancing the integrity of the administrative process; (2) Help make analysis orderly and reduce the likelihood that the agency will randomly leap from evidence to conclusions; (3) Enable the parties to determine whether and on what basis they should seek judicial review and remedy; (4) Apprise a reviewing court of the basis for the agency's action; and (5) Serve a public relations function by helping to persuade the parties that administrative decision making is careful, reasoned, and equitable" (Topanga Association for a Scenic Community v. County of Los Angeles [1974]).

Since CEQA is not applicable to projects that are denied, no CEQA documentation would be required should the proposed project be denied (Section 15270, State CEQA Guidelines).

For non-exempt projects, compliance with CEQA is usually undertaken in a three-step process. In the first step, the lead agency determines if the contemplated action being considered is a "project" under CEQA. If the action is deemed to be a "project," the lead agency then determines if it is exempt from CEQA. If the contemplated action is not exempt, the lead agency then determines whether it is likely to result in a significant impact on the environment that cannot be mitigated to a less-than-significant level. If the answer to that question is yes, the lead agency must prepare an "environmental impact report" (EIR). If the answer is no, an "initial study" is prepared, leading to the preparation of either a "negative declaration" (ND) or "mitigated negative declaration" (MND). The primary difference between a ND and a MND is the presence of lead agency-imposed "mitigation measures" which, should the contemplated action be approved, subsequently become conditions of project approval.

As indicated in Section 15074(b) of the State CEQA Guidelines, "the decisionmaking body shall adopt the proposed negative declaration or mitigated negative declaration only if it finds on the basis of the whole record before it (including the initial study and any comments received), that there is no substantial evidence that the project will have a significant effect on the environment."

As required under Section 15204(b) in the State CEQA Guidelines, "in reviewing negative declarations, persons and public agencies should focus on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) Identify the specific effect, (2) Explain why they believe the effect would occur, and (3) Explain why they believe the effect would be significant." If during the negative declaration process there is substantial evidence in light of the whole record before the lead agency that the project may have a significant effect on the environment which cannot be mitigated or avoided, the lead agency shall prepare an EIR prior to approving the project (Section 15073.5[d], State CEQA Guidelines).

As specified in Section 15004 of the State CEQA Guidelines: (a) Before granting any approval of a project subject to CEQA, every lead agency or responsible agency shall consider a final EIR or negative declaration or another document authorized by these guidelines to be used in the place of an EIR or negative declaration. . .(b) Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."

Impacts under CEQA must relate, either directly or indirectly, to a "physical change" (Section 21065 CEQA; Sections 15378[a] and 15358[b], State CEQA Guidelines). The Department is presently in possession of sufficient information concerning the physical characteristics of the proposed BCBP and the pre- and likely post-project characteristics of the subject property so as to commence the preparation of a CEQA-compliance analysis thereof. From that information, the Department can reasonably ascertain the potential environmental effects associated therewith, identify potentially significant environmental effects, and formulate reasonable and feasible mitigation measures in response to any such potentially significant impacts so identified.

The proposed project is located within a one-quarter-mile radius of one or more existing schools, including the privately-operated Discovery World Preschool and Private Elementary School (801 Brea Canyon Road, Diamond Bar), located an estimated 150 feet [0.03 miles] west of the project site. A second campus site (782 Pinefalls Avenue, Diamond Bar), primarily serving as a tutoring

center, is located to the west of Brea Canyon Road and north of Lycoming Street and is located an estimated 450 feet [0.09 miles] northwest of the project site. In addition, Walnut Valley Unified School District's (WVUSD) Walnut Elementary School (841 Glenwick Avenue, Walnut) is located approximately 0.42 miles west of the project site.

For discretionary projects within a one-quarter-mile radius of an existing school, CEQA imposes specific prohibitions relating to the emission of hazardous air emissions and the handling of extremely hazardous substance or any mixture containing extremely hazardous substances in quantities equal to or greater than specified threshold quantities that may pose a health or safety hazard to persons attending or employed at the school (Section 21151.4, CEQA). Based on the information now known to the Department, since no substantial quantities of such hazardous air emissions and/or extremely hazardous substances are associated with the construction and operation of the proposed project and the "permitted" land uses authorized thereupon, the proposed project appears fully compliant therewith.

In order to determine whether a particular environmental impact is significant, there needs to exist a quantitative, qualitative, or performance-based yardstick against which identified impacts can be compared. The City has not formally established any "thresholds of significance criteria" separate and apart from those included in or derived from Appendix G (Environmental Checklist Form) of the State CEQA Guidelines. The thresholds of significance criterion utilized by the Department in assessing the potential significant of the proposed project's identified impacts are, therefore, extracted from the latest version thereof (December 28, 2018).

Certain identified impacts may not, however, have an adopted threshold standard against which significance can be judged. For example, no threshold standards directly relating to parking, light trespass, shade and shadow, visual intrusion, and/or privacy are presented therein. Citing "Reconciling Environmental Protection with the Need for Certainty: Thresholds for CEQA" (January 1995), "in the absence of clear guidelines, a project's fate can vary widely depending on the personal history and biases of the staff member involved."[21] Where no thresholds are presented, based on substantial information in the public record, the Council constitutes the final arbiter of significance under CEQA and constitutes the body responsible for determining whether the proposed action qualifies for processing under a "negative declaration," a "mitigated negative declaration," or requires the preparation of an "environmental impact report" (EIR).

As defined in Section 21064.5 of CEQA: "'Mitigated negative declaration' means a negative declaration prepared for a project when the initial study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment."

As specified in Section 21082.1(c)(3) of CEQA: "As part of the adoption of a negative declaration or a mitigated negative declaration, or certification of an environmental impact report, find that the report or declaration reflects the independent judgment of the lead agency." As further specified in Section 15074(b) of the State CEQA Guidelines: "The decision-making body shall adopt the proposed negative declaration or mitigated negative declaration only if it finds on the basis of the whole record before it (including the initial study and any comments received), that there is no

[21]/ Watts, John, Reconciling Environmental Protection with the Need for Certainty: Thresholds for CEQA, Ecology Law Quarterly, Vol. 22, No.1, January 1995.

substantial evidence that the project will have a significant effect on the environment and that the negative declaration or mitigated negative declaration reflects the lead agency's independent judgment and analysis."

In the event that Lead Agency should subsequently determine that an EIR, rather than a negative declaration or mitigated negative declaration, is required for the proposed project, additional environmental analysis and separate findings would then be required. Administrative findings which merely recite statutory language have been deemed insufficient to demonstrate compliance therewith (City of Carmel-by-the-Sea v. Board of Supervisors [1977]).

Pursuant to Section 15126.6(a)(3) of the State CEQA Guidelines: "Mitigation measures are not required for effects which are not found to be significant."

1.3 Transit-Priority Projects

On September 2013, the Governor signed into law Senate Bill (SB) 743, which instituted changes to CEQA when evaluating environmental impacts from projects located in areas served by public transit. While the primary focus of SB 743 focused on a major overhaul concerning how transportation impacts are evaluated under CEQA, it also limited the extent to which aesthetics and parking are defined as potential impacts thereunder. Specifically, Section 21099(d)(1) of CEQA states that a project's aesthetic and parking impacts shall not be considered a significant impact on the environment if: (1) the project is a residential, mixed-use residential, or employment center project and (2) the project is located on an infill site within a "transit priority area."

A "transit priority area" is defined as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in Section 21064.3 of CEQA as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning (AM) and afternoon (PM) peak commute periods. Section 21099(a) of CEQA provides the following additional definitions:

- "Employment center project" means a project located on property zoned for commercial uses with a FAR [floor-area-ratio] no less than 0.75 and that is located within a transit priority area.
- "Infill site" means a lot located within an urban area that has been previously developed or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses.
- "Transit priority area" (TPA) means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program (TIP) adopted pursuant to Section 450.216 or 450.322 in Title 23 of the Code of Federal Regulations (CFR).

Additionally, residential, employment center, and mixed-use development project, including any subdivision or any zone change associated therewith, are statutorily exempt from CEQA if the proposed project is: (1) located within a TPA; (2) undertaken to implement and is consistent with a specific plan for which an EIR has been certified; and (3) consistent with both the general plan's land-use designation, density, building intensity and the Southern California Association of Governments' (SCAG) "2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life" (April 7, 2016) (2016 RTP/SCS) (Section 21155.4, CEQA).

The project site is located within "one-half mile" of the Industry Metrolink Station (600 Brea Canyon Road, Industry); however, because the designated intensity of the project site (under both existing and proposed land-use policies) is "less than 0.75" FAR, the proposed project does not constitute an "employment center project" within the meaning of Section 21099(d)(1) of CEQA. In addition, because both a GPA and ZC are required for the project's implementation, the proposed project is not deemed to be exempt under the provisions of Section 21155.4 of CEQA.

1.4 General Plan Consistency Requirement

As noted in Friends of Lagoon Valley v. City of Vacaville (2007), California courts have held that "the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements."[22] As specified under Sections 66473.5[23] and 66474[24] in Title 7 (Planning and Land Use) of the CGC, local agencies are prohibited from approving subdivision maps unless such maps are consistent with applicable general and, where applicable, specific plans.

The Applicant's development application was accepted by the Department prior to the culmination of final deliberation by the Commission and Council on the then proposed comprehensive update to the "City of Diamond Bar General Plan" (2019 General Plan Update). As such, the BCBP project has been processed under the provisions of the "City of Diamond Bar General Plan," as initially adopted on July 25, 1995 and as amended on September 3, 2013 and February 4, 2014 (1995/2013/2014 General Plan).

The Department acknowledges that the City is presently in the process of preparing a comprehensive update to the 1995/2013/2014 General Plan, including possible changes to the City's "Official Zoning Map" and an accompanying program-level EIR addressing the potential direct, indirect, and cumulative environmental effects of those actions. The Department further acknowledges that the outcome of those ongoing legislative and environmental compliance actions remains subject to the culmination of that process, such that the implications thereof relative to the proposed project cannot be definitively determined.

Subdivision approvals involve the application of general standards to specific parcels of real property. Such governmental conduct, affecting the relatively few, is "determined by facts peculiar to the individual case" and is "adjudicatory" in nature, requiring adequate findings at the administrative level for purposes of judicial review under the "substantial evidence" standard.

1.5 California Building and Development Codes

The State has adopted a wide range of comprehensive building codes and standards governing the manner in which residential and non-residential buildings, including transient lodgings, in California are to be designed and constructed. Potentially relevant portions of those codes and

[22]/ Friends of Lagoon Valley v. City of Vacaville (2007).

[23]/ "No local agency shall approve a tentative map, or a parcel map for which a tentative map was not required, unless the legislative body finds that the proposed subdivision, together with the provisions for its design and improvement, is consistent with the general plan required by Article 5 (commencing with Section 65300) of Chapter 3 of Division 1, or any specific plan adopted pursuant to Article 8 (commencing with Section 65450) of Chapter 3 of Division 1."

[24]/ "A legislative body of a city or county shall deny approval of a tentative map, or a parcel map for which a tentative map was not required, if it makes any of the following findings. . .That the proposed map is not consistent with applicable general and specific plans as specified in Section 65451."

code sections that appear applicable or potentially applicable to the proposed project or portions thereof are briefly identified below.

- **Building Energy Efficiency Standards**. As indicated in the California Energy Commission's (CEC) "2016 Nonresidential Compliance Manual for the 2016 Building Energy Efficiency Standards" (January 2017): "The design of a hotel or motel is unique in that the design must incorporate a wide variety of occupancies and functions into one structure. The occupancies range from nonresidential occupancies to hotel/motel guest rooms. Design functions that affect guests range from the 'experience of arrival' created through the main lobby's architectural features to the thermal comfort of the guest rooms. Other functions that hotel/motel designs must address include restaurants, kitchens, laundry, storage, light assembly, outdoor lighting, sign lighting, and other items that are necessary to the hotel/motel function. In short, these structures can range from simple guest rooms with a small office, to a structure encompassing a small city" (Section 1.7.8).

  As further indicated in the CEC's 2016 "Building Energy Efficiency Standards for Residential and Nonresidential Buildings" (Title 24, Part 6, California Code of Regulations [CCR]) (June 2015) (2016 BEES), a "hotel/motel" is "a building or buildings that has six or more guest rooms or a lobby serving six or more guest rooms, where the guest rooms are intended or designed to be used, or which are used, rented, or hired out to be occupied, or which are occupied for sleeping purposes by guests, and all conditioned spaces within the same building envelope. Hotel/motel also includes all conditioned spaces which are (1) on the same property as the hotel/motel, (2) served by the same central heating, ventilation, and air-conditioning system as the hotel/motel, and (3) integrally related to the functioning of the hotel/motel as such, including, but not limited to, exhibition facilities, meeting and conference facilities, food service facilities, lobbies, and laundries" (Section 100.1).

  As defined therein, the "building envelope is the "ensemble of exterior and demising partitions of a building that enclose conditioned space." A key part of the CEC's definition is that a "hotel/motel" is inclusive of all spaces within the same building envelope as the lobby or the guest rooms. Hotel/motel buildings are generally considered multi-purpose facilities and include such diverse spaces as restaurants, auditoriums, retail stores, offices, kitchens, laundries, and swimming pools - all of which are treated by the CEC as hotel/motel space. This concept extends to other buildings associated with the hotel/motel that pass the three stated tests: (1) located on the same property; (2) utilizing the same central heating, ventilation, and air conditioning (HVAC) system; and (3) integrally related to the lobby and/or guest rooms.

- **California Building Standards Code**. The 2016 "California Building Standards Code" (Title 24, CCR) (2016 CBC) does not specifically define "office" but does include the following potentially relevant definitions:

  ◊ **Commercial Facilities**. "Facilities whose operations will affect commerce and are intended for nonresidential use by a private entity."

  ◊ **Clinic Outpatient**. "Buildings or portions thereof used to provide medical care on less than a 24-hour basis to persons who are not classified as nonambulatory or bedridden or rendered incapable of self-preservation by the services provided."

  ◊ **Place of Public Accommodations**. "Facility operated by a private entity whose operations affect commerce and fall within at least one of the following categories:

(1) Place of lodging, except for an establishment located within a facility that contains not more than five rooms for rent or hire and that actually is occupied by the proprietor of the establishment as the residence of the proprietor. For purposes of this code, a facility is a 'place of lodging' if it is (i) An inn, hotel or motel; or (ii) A facility that (A) Provides guest rooms for sleeping for stays that primarily are short-term in nature (generally 30 days or less) where the occupant does not have the right to return to a specific room or unit after the conclusion of his or her stay; and (B) Provides guest rooms under conditions and with amenities similar to a hotel, motel, or inn, including the following: (1) On- or off-site management and reservations service; (2) Rooms available on a walk-up or call-in basis; (3) Availability of housekeeping or linen service; and (4) Acceptance of reservations for a guest room type without guaranteeing a particular unit or room until check-in, and without a prior lease or security deposit.
(2) A restaurant, bar, or other establishment serving food or drink;
(3) A motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment;
(4) An auditorium, convention center, lecture hall, or other place of public gathering;
(5) A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment;
(6) A laundromat, dry-cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
(7) A terminal, depot, or other station used for specified public transportation;
(8) A museum, library, gallery, or other place of public display or collection;
(9) A park, zoo, amusement park, or other place of recreation;
(10) A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education;
(11) A day-care center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment;
(12) A gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation;
(13) A religious facility;
(14) An office building; and
(15) A public curb or sidewalk."

As defines above, "a place or lodging" (hotel) is defined as:

> A facility operated by a private entity whose operations affect commerce and fall within at least one of the following categories: (1) Place of lodging, except for an establishment located within a facility that contains not more than five rooms for rent or hire and that actually is occupied by the proprietor of the establishment as the residence of the proprietor. For purposes of this code, a facility is a "place of lodging" if it is (i) An inn, hotel or motel; or (ii) A facility that (A) Provides guest rooms for sleeping for stays that primarily are short-term in nature (generally 30 days or less) where the occupant does not have the right to return to a specific room or unit after the conclusion of his or her stay; and (B) Provides guest rooms under conditions and with amenities similar to a hotel, motel, or inn, including the following: (1) On- or off-site management and reservations service; (2) Rooms available on a walk-up or call-in basis; (3) Availability of housekeeping or linen service; and (4) Acceptance of reservations for a guest room type without

guaranteeing a particular unit or room until check-in, and without a prior lease or security deposit.

As defined in Chapter 3 (Use and Occupancy Classification) in the 2016 CBC, general and medical offices would likely be classified as "Business Group B" (Section 304.1). As described therein:

◊ **Business Group B**. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following: [1] Airport traffic control towers; [2] Ambulatory care facilities serving five or fewer patients; [3] Animal hospitals, kennels and pounds; [4] Banks; [5] Barber and beauty shops; [6] Car wash; [7] Civic administration; [8] Clinic, outpatient *(*not classified as Group I-2.1); [8] Dry cleaning and laundries: pick-up and delivery stations and self-service; [9] Educational occupancies for students above the 12th grade; [10] Electronic data processing; [11] Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet (232 m^2) in area; [12] Laboratories: testing, research and instruction; [13] Motor vehicle showrooms; [14] Post offices; [15] Print shops; [16] Professional services (architects, attorneys, dentists, physicians, engineers, etc.); [17] Radio and television stations; [18] Telephone exchanges; [and] [19] Training and skill development not within a school or academic program (this shall include, but not be limited to, tutoring centers, martial arts studios, gymnastics and similar uses regardless of the ages served, and where not classified as a Group A occupancy).

"Places of lodging" (hotels) typically include multiple occupancies, differentiation guest rooms from lobbies, laundry facilities, common areas, and other back-of-house areas (distinguished from "front-of-house," representing all areas in the hospitality industry that customers do not routinely see). With regards to the proposed hotel project, subject to the Building Officials determination, the following occupancy groups have been assumed herein:

◊ **Residential Group R-1**. That portion of the hotel containing the guest rooms, would appear to be appropriately categories in the 2016 CBC under occupancy group "Residential Group R-1" (Section 310.3, 2016 CBC), defined as a "residential occupancy containing sleeping units where the occupants are primarily transient in nature" (e.g., hotels and motels) (Section 202, 2016 CBC). In accordance therewith, those stories to be occupied by guest rooms (second through fifth floor) will be fire-separated from the ground-floor below. "Residential Group R-1" structures may, by definition, constitute transient lodgings.

◊ **Assembly Group A-3**. A portion of the hotel's first-story level will not include guest rooms but rather will consist of an interior lobby/lounge, seating areas, private work stations, administrative offices, and other back-of-house areas. "Assembly Group A" (Section 303.1, 2016 CBC) occupancy includes, among others, the use of a building or structure or a portion thereof for the gathering of persons for civic, social or religious functions, recreation, food or drink consumption, or awaiting transportation. With certain exceptions (e.g., laundry room and kitchen areas), excluding guest rooms, "Assembly Group A" would likely be the predominant occupancy group associated therewith.

As noted, in part, in Section 503 (General Building Height and Area Limitations) of the 2016 CBC: "Unless otherwise specifically modified in Chapter 4 and this Chapter, building height, number of stories and building area shall not exceed the limits specified in Sections 504 and 506 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. Building height, number of stories and building area provisions shall be applied independently. Each portion of a building separated by one or more fire walls complying with Section 706 shall be considered to be a separate building." Each area, which is considered a separate building, must stay within its own size limitation for the construction type; however, that differentiation potentially allowing the building height to increase based on the occupancy-based provisions of the 2016 CBC, as stipulated, in whole or in part, in Table 504.3 (Allowable Building Height in Feet above Ground Plane) and Table 504.3 (Allowable Building Height in Feet above Ground Plane) herein.

In describing the treatment of accessory and incidental uses, the 2016 CBC noted:

◊ **Accessory Occupancies**. The 2016 CBC allows spaces that would normally be required to be separated from other occupancies by fire-resistive walls and ceiling/floor assemblies to omit these rated separations provided that they qualify as accessory occupancies. A space may qualify as an accessory occupancy if it meets all of the following criteria: (1) Accessory space shall not be more than 10 percent of the area of any floor; (2) The aggregate area of all accessory spaces in the building shall not exceed the base allowable area for non-sprinklered buildings listed in Table 506.2 without increases due to the presence of sprinklers or frontage; (3) The space is ancillary to, directly associated with, functionally interdependent upon, and under the direct control of the main use and would not otherwise take place independently; (4) The room is used for purposes or by persons who are expected to be associated with the main use of the building; (5) The space is not used for a purpose that could reasonably be expected take place independent of the main use; (6) The space is occupied outside of the regularly scheduled hours of use for the rest of the facility. For purposes of calculating allowable area only, accessory occupancies are treated as the main occupancy they are accessory to; for all other purposes (such as sprinkler and alarm requirements, egress, maximum stories) they retain their original occupancy classification (Section 508.2).

◊ **Incidental Uses**. The 2016 CBC recognizes that some spaces in a building are inherently more hazardous than others and requires that they be appropriately separated from other spaces with rated construction, protected by fire sprinklers, or both. Incidental uses shall be protected as required in Table 509 even if they would otherwise qualify as an unseparated accessory space. Where the option is available to provide sprinkler protection in the place of rated construction, construction shall still be capable of resisting the passage of smoke (Section 509).

Unlike accessory uses, incidental use spaces assume the occupancy of the part of the building they are located in and are not given an occupancy classification based on the use they most closely match from the list in Section 302.1. The aggregate area of incidental use spaces shall not be more than 10 percent of the area of the story they are located in. Where not exceeded, they shall be treated as separated occupancies and be provided with the protection and/or separation as required by Table 509 or 508.4, whichever is greater.

- **California Green Building Standards Code**. The 2016 "Green Building Standards Code" (Title 24, Part 11, CCR) (2016 CalGreen) imposes separate and distinct obligations for residential and non-residential buildings. As specified therein, hotels are categorizes as residential buildings. With regards to non-residential buildings, Chapter 5 (Nonresidential Mandatory Measures) therein contains mandatory measures for building construction in Section 5.507 (Environmental Comfort). These noise standards are applied for the purpose of controlling interior noise levels resulting from exterior noise sources. In addition, Appendix A4 (Residential Voluntary Measures), Division A4.5 (Environmental Quality), identified Section 5.507 (Environmental Comfort) as a voluntary measure for residential building construction (e.g., hotels, motels, and lodging houses).

  As specified therein, non-residential buildings located within transportation noise contours of 65 dBA CNEL or Ldn be required to evaluate the building shell to provide acceptable interior sound levels. As stipulated in Section 5.507.4 (Acoustical Controls) therein, all newly constructed non-residential buildings shall "[e]mploy building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2." 2016 CalGreen provides two methods for meeting interior sound level standards:

  - ◊ **Prescriptive Method**. The prescriptive method stipulates a minimum building envelope composite STC rating of 50 (OITC 40) with exterior windows meeting a minimum STC rating of 40 (OITC 30) (Section 5.507.4.2, CCR). The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL. If the development falls within a transportation 65 dBA CNEL noise contour, the combined STC rating of the wall and roof-ceiling assemblies must be at least 50 (Section 5.507.4.1). For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA hourly Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1.1, CCR).

  - ◊ **Performance Method**. The 2016 CBC no longer requires that multi-family residential or transient lodging facilities meet an Ldn sound level limit of 45 dB(A). Instead, Section 5.507.4.2 (Performance Method) of 2016 CalGreen requires that buildings within transportation noise contours of 65 dBA (or higher) CNEL or Ldn be required to evaluate the building shell to ensure the interior environment does not exceed an hourly Leq of 50 dBA in occupied areas during any hour of operation (Section 5.507.4.2). Under those performance provisions, an acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record (Section 5.507.4.2.2, CCR).

  In addition, with regards to interior sound transmission, wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40 (Section 5.507.4.3, CCR).

1.6 Predetermination

As indicated in Section 15003 of the State CEQA Guidelines: "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind." With explicit reference to EIRs rather than to MNDs, the California

Supreme Court, in Laurel Heights Improvement Association v. Regents of the University of California (1988) held that "[a] fundamental purpose of an EIR is to provide decision-makers with information they can use in deciding whether to approve a proposed project, not to inform them of the environmental effects of projects that they have already approved. If post approval environmental review were allowed, EIRs would likely become nothing more than post hoc rationalizations to support action already taken. We have expressly condemned this use of EIRs."

In Concerned Citizens of Costa Mesa v. 32nd Agricultural Association (1986), the California Supreme Court, in emphasizing the critical role of public participation in the CEQA process, held that "CEQA compels an interactive process of assessment of environmental impact and responsive project modifications which must be genuine. It must be open to the public, premised upon a full and meaningful disclosure of the scope, purpose, and effect of a consistently described project, with flexibility to response to unforeseen insights that emerge from the process. In short, a project must be open for public discussion and subject to agency modification during the CEQA process. This process helps demonstrate to the public that the agency has in fact analyzed and considered the environmental implications of its action."

Because declarations of public support and evidence of pre-commitment can effectively undermine the CEQA and public participation processes, the Lead Agency is precluded from making any predetermination concerning the outcome of the CEQA and planning processes. Notwithstanding the cessation of the project site's former use and the Applicant's clearance of the project site in anticipation of subsequent development thereupon, no such predetermination by the City's advisory and decision-making bodies and its individual departments has occurred relative to the proposed project.

2.0 ENVIRONMENTAL AND REGULATORY SETTING

2.1 City of Diamond Bar General Plan

California's land-use and zoning law is codified, in part, in Sections 65000-66037 in Division 1 (Planning and Zoning) of Title 7 (Planning and Land Use) of the CGC. As required under Section 65300 therein: "Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning." As further specified under Section 65300.5 therein, it is the State Legislature's intent that "the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." "The general plan is atop the hierarchy of local government law regulating land use" (Neighborhood Action Group v. County of Calaveras [1984]).

The 1995/2013/2014 General Plan includes the following "elements": (1) land use; (2) housing; (3) resource management; (4) public health and safety; (5) circulation; and (6) public services and facilities. The term "element" refers to the topics that California law requires to be covered in a general plan (Section 65302, CGC). There is no mandatory structure or maximum number of elements that a general plan must include. Once added into the general plan, each element, regardless of statutory requirement, assumes the same legal standing, and must be consistent with other elements (Section 65300.5, CGC).

With regards to the "housing element," it is the Legislature's intent that "the availability of housing is a matter of vital statewide importance and the attainment of decent housing and a suitable living environment for all Californians is a priority of the highest order" (Section 65580, CGC). Statutory

provisions relating to the "housing element" are more specific and directive than those associated with other elements, containing detailed guidance and delegating specific responsibility relating to adequacy to the California Department of Housing and Community Development (HCD). Specifically, the housing element must be revised and submitted periodically to HCD on a four, five, or eight year cycle, depending on a variety of factors (Section 65588). In compliance therewith, the housing element contained in the 1995/2013/2014 General Plan was subsequently superseded on a number of occasions, most recently on April 19, 2011 ("2008-2014 Housing Element Update") and again on January 21, 2014 ("2013-2021 Housing Element Update").

In addition, the "land use element" was most recently updated on September 3, 2013 to establish a new "High-Density Residential-30 (RH-30)" land-use designation (Resolution No. 2013-29) and Title 22 (Development Code) was most recently updated on February 4, 2014 to rezone a former automobile dealership site from "C-3" to "C-3-PD/Hotel Overlay" (Ordinance No. 01-2014).

As authorized in Sections 65800-65863.12 of the CGC, cities and counties are authorized to adopt and administer zoning laws, ordinances, rules, and regulations and to implement such general plans as may be in effect in such cities or counties. As provided in Section 65800 of the CGC:

> The legislative body of any county or city may, pursuant to this chapter, adopt ordinances that do any of the following: (a) Regulate the use of buildings, structures, and land as between industry, business, residences, open space, including agriculture, recreation, enjoyment of scenic beauty, use of natural resources, and other purposes. (b) Regulate signs and billboards. (c) Regulate all of the following: (1) The location, height, bulk, number of stories, and size of buildings and structures. (2) The size and use of lots, yards, courts, and other open spaces. (3) The percentage of a lot which may be occupied by a building or structure. (4) The intensity of land use. (d) Establish requirements for off-street parking and loading. (e) Establish and maintain building setback lines. (f) Create civic districts around civic centers, public parks, public buildings, or public grounds, and establish regulations for those civil districts.

As indicated in the "Land Use Element" of the 1995/2013/2014 General Plan:

> The land use designations, or categories, in this [Land Use] Element are described in terms of intensity and density. The term "intensity" which applies to non-residential uses, refers to the extent of development on a parcel of land or on a lot. It includes the total building square footage, building height, the floor area ratio, and/or the percent of lot coverage. Intensity is often used to describe non-residential development levels, but in a broader sense, intensity is used to express overall levels of both residential and non-residential development types. In this [Land Use] Element, floor area ratio and building square footage are used as measures of non-residential development intensity.[25]
>
> Maximum allowable development on individual parcels of land is governed by these measures of density or intensity. Table I-3 identifies the acreage dedicated to each land use category. . . Average commercial/industrial FARs is based on existing development patterns. For various reasons, many parcels in the community have not been developed to their maximum density or intensity and, in the future, maximum development as described in this [Land Use] Element can be expected to occur only on a limited number of parcels. Development at an intensity or density between the expected and maximum levels can occur only where projects offer exceptional design quality, important public

[25]/ City of Diamond Bar, City of Diamond Bar General Plan, September 3, 2013, Land Use Element, p. I-25.

> amenities or benefits, or other factors that promote important goals and policies of the [1995/2013/2013] General Plan.[26]

As indicated in the 1995/2013/2014 General Plan, the four "non-residential land-use" designations that are currently established within the City include "General Commercial (C)," "Commercial/ Office (CO)," Professional Office (OP)," and "Light Industrial (I)."[27] Each of those 1995/2013/2016 General Plan designations are described below:

> Establish **General Commercial (C)** areas to provide for regional, freeway-oriented, and/or community retail and service commercial uses. Development of General Commercial areas will maintain a floor area ratio between 0.25 and 1.00
>
> Designate **Commercial/Office (CO)** land use areas on diverse, mixed use commercial retail, office and service properties. Development within Commercial Office areas will maintain a FAR between 0.25 and 1.00
>
> Designate **Professional Office (OP)** areas to provide for the establishment of office-based working environments for general, professional, and administrative offices, as well as support uses. Development within Profession Office areas will maintain a FAR between 0.25 and 1.00.
>
> Areas designated **Light Industrial (I)** on the [1995/2013/2014] General Plan Land Use Map are to provide for light industrial, research and development, and office-based industrial firms seeking a pleasant and attractive working environment, as well as for business support services, and commercial uses requiring more land area than is available in General Commercial or Commercial Office areas. These areas will maintain floor area ratio of 0.25 to 1.00.[28]

The 1995/2013/2014 General Plan does not explicitly assign any specific zones to those "non-residential land-use" designations. As noted in Section 22.06.020 (Zoning Districts Established) in Chapter 22.06 (Establishment of Zoning Districts, Adoption of Zoning Map) in Title 22 (Development Code) in the MC: "Diamond Bar shall be divided into zoning districts which implement the general plan. The [commercial and office] zoning districts shown in **Table 2-1** [Zoning Districts] are established and shall be shown on the official zoning map."

Table 2-1
ZONING DISTRICTS

Zoning Map Symbol	Zoning District Name	General Plan Land Use Category Implemented by Zoning District[1]
OP	Office, Professional	Professional Office
OB	Office, Business	Professional Office
CO	Commercial Office	Commercial Office
C-1	Neighborhood Commercial	General Commercial
C-2	Community Commercial	General Commercial
C-3	Regional Commercial	General Commercial
I	Light Industry	Light Industrial

Notes:
1. The general plan designations for public facilities, water, and school are implemented by all zoning districts.

[26]/ *Ibid*., Land Use Element, p. I-26.
[27]/ *Ibid*., Land Use Element, Table I-3 (General Plan Land Use [By Category]), p. I-7.
[28]/ *Ibid*., Land Use Element, pp. I-13 and 14.

As specified in Subsection "(b)" in Section 22.06.040 (Zoning District Regulations): "Subsequent to the adoption of this Development Code, the City of Diamond Bar's zoning map shall be revised to reflect consistency with the general plan land use map." In accordance with Table 2-1 (Zoning Districts), based on the proposed GPA from "Professional Office (OP)" to "General Commercial (C)," the corresponding zoning designations accompanying that 1995/2013/2014 General Plan designation include "Regional Commercial (C-3)," "Community Commercial (C-2)," or "Neighborhood Commercial (C-1)."

In accordance therewith, proposed is the rezoning of the project site from "Light Industry (I)" to "Regional Commercial – Planned Development Overlay (C-3-PD)."

As defined by "permitted density/intensity" and measured as floor-area-ratio (FAR), "intensity" has been integrated into the descriptions of individual non-residential land uses. Relative to each of those "non-residential" land-use designations, the allowable FAR is described as ranging between 0.25 and 1:00.[29] The inclusion of both an upper and lower FAR suggests the City's intent to establish both a minimum and maximum development standard.

FAR is a number depicting the relationship between a property's total lot area (measured in square footage) and the total net floor area of all uses authorized thereupon. For example, as illustrated in Figure 12 (Calculating Floor-Area-Ratio), a ratio of 1.0:0.5 (horizontal to vertical), typically represented as 0.50, means that a 10,000 square feet lot could be developed to a maximum intensity of 5,000 square feet (10,000 x 0.50 = 5,000). FAR is a different metric that lot coverage, which measures the percentage of a site covered with buildings and other imperious surfaces. Since FARs serve only to establish the parameters in which design professionals operate, it is used more as a box in which a development project must operate rather than a target to reach.

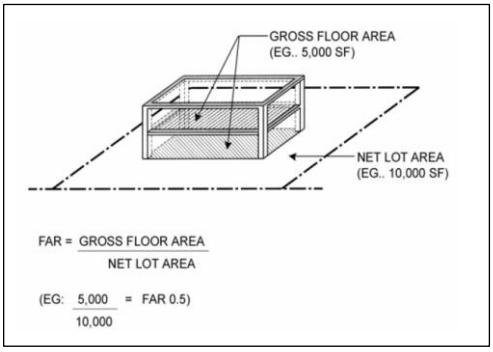


Figure 12
CALCULATING FLOOR-AREA-RATIO
Source: Environmental Impact Sciences

Based on a project area of about 249,022 gross square feet, since the "permitted density/intensity" is the same for all four "non-residential land-use" designations, under the provisions of the 1995/2013/ 2014 General Plan, a total of 249,022 gross square feet of allowable uses could be developed thereupon. Based on a proposed development of 118,471 gross square feet, the resulting FAR is calculated as 0.48 (118,471 / 249,022 = 0.476), which is less than the 0.63 FAR midpoint ([1.00 - 0.25]/2 = 0.63) between the maximum (1.00:1.00) and minimum (1.00:0.25) intensity authorized under the 1995/2013/2014 General Plan. The requested intensity is, therefore, within the allowable FAR established in the 1995/2013/2014 General Plan.

Since FAR standards are the same under each designation, the principle differences between the four "non-residential land-use" designations relate to both the corresponding zoning and each zoning district's listing of "permitted" and "conditionally permitted" land uses. As noted in Subsection "(c)" in Section 22.06.040 (Zoning District Regulations) of the MC:

> Determination of allowable land uses and permit requirements. The uses of land allowed by this Development Code in each zoning district are identified in Tables 2-3, 2-5, 2-6 and 2-8 of this chapter as being: (1) Permitted subject to compliance with all applicable provisions of this Development Code, subject to first obtaining a zoning

[29]/ *Ibid*., Land Use Element, Table I-3 (General Plan Land Use [By Category]), p. I-7

> clearance (Chapter 22.46), and any building permit or other permit required by the Municipal Code. These are shown as "P" uses in the tables; (2) Allowed subject to the approval of a minor conditional use permit (Chapter 22.56), and shown as "MUP" uses in the tables; (3) Allowed subject to the approval of a conditional use permit (chapter 22.58), and shown as "CUP" uses in the tables.

It is noted that only a single explicit reference to "hotels" and "motels" exists in the 1995/2013/2014 General Plan. Absent therefrom is any indication as to which land-use designation(s) any such transient accommodations should appropriately be authorized. The single reference thereto relates to the use of "hotels" and "motels" as possible accommodations for the "homeless."[30] Even that single reference was eliminated with the adoption of the 2013 "Land Use Element Update."[31]

Additionally, other than in the context of a "specific plan," the 1995/2013/2014 General Plan contains no reference to or description of "overlay zones" or their manner of use. As a result, the City has broad discretion as to the subject and contents of any such "overlay zone."

With regards to the 1995/2013/2014 General Plan, the absence of any explicit references thereto should neither be interpreted as a prohibition against nor as carte blanc authorization supporting the development of "hotels" and "motels" within the City. That same interpretation does not, however, apply to the provisions of the Municipal Code (Section 22.06.040). As specified in Subsection "(h)" in Section 22.04.020 (Rules of Interpretation) in Chapter 22.04 (Interpretation of Development Code Provisions) of the MC:

> Allowable uses of land. If a proposed use of land is not specifically listed in Article II (Zoning Districts and Allowable Land Uses), the use shall not be allowed, except as follows: (1) Similar uses allowed. The [Community Development] Director may determine that a proposed use not listed in Article II may be allowed as a permitted or conditional use, or is not allowed. In making such a determination, the Director shall first find that: (a) The characteristics of, and activities associated with the proposed use are equivalent to those of one or more of the uses listed in the zoning district as allowable, and will not involve a greater level of activity, population density, traffic generation, parking, dust, noise or intensity than the uses listed in the district; (b) The proposed use will meet the purpose/intent of the zoning district that is applied to the site; and (c) The proposed use will be consistent with the goals, objectives and policies of the [1995/2013/2014] General Plan and any applicable specific plan"

2.2 City of Diamond Bar Municipal Code

As authorized under Section 65851 of the CGC, "the legislative body may divide a county, a city, or portions thereof, into zones of the number, shape and area it deems best suited to carry out the purpose of this chapter. As specified in the Governor's Office of Planning and Research's (OPR) "General Plan Guidelines" (2017): "The development standards and uses specified for all land use categories in the zoning ordinance - density, lot size, height, and the like - must be consistent with the development standards and uses specified in the general plan's text and diagram of proposed land use."

[30]/ "Sheltered homeless are families and persons whose primary nighttime residence is a supervised publicly or privately operated shelter (e.g., emergency, transitional, battered women, and homeless youth shelters; and commercial hotels or motels used to house the homeless)" (City of Diamond Bar, City of Diamond Bar General Plan, July 25, 1995, Housing Element Glossary, p. II-B-3).

[31]/ The 2014-2012 Housing Element (February 4, 2014) also contains a single reference to "hotels" and "motels"; however, that reference is in the context of energy efficiency standards under Title 24 of the CCR and not with regards to land-use policy.

As further specified in a 1998 "legal opinion" offered by Daniel E. Lungren (former California District Attorney) and Gregory L. Gonot (former California Deputy District Attorney):

> As explained in Lesher Communications, Inc. v. City of Walnut Creek (1990): "Once a city has adopted a general plan, all zoning ordinances must be consistent with that plan, and to be consistent must be 'compatible with the objectives, policies, general land uses, and programs specified in such a plan.'" A zoning ordinance is consistent with a general plan where, considering all of its aspects, the ordinance furthers the objectives and policies of the general plan and does not obstruct their attainment. In Lesher Communications, Inc. v. City of Walnut Creek, the court noted: "A zoning ordinance that is inconsistent with the general plan is invalid when passed and one that was originally consistent but has become inconsistent must be brought into conformity with the general plan. The planning and zoning law does not contemplate that general plans will be amended to conform to zoning ordinances. The tail does not wag the dog. The general plan is the charter to which the ordinance must conform."

As proposed, in order to change the range of allowable uses authorized thereupon and the corresponding development standards associated therewith, the Applicant seeks a GPA from "Professional Office (OP)" to "General Commercial" (C). In addition, the Applicant seeks a zone change from "Light Industry (I)" to "Regional Commercial-Planned Development Overlay (C-3-PD)." Relative to the stated purpose of the "Light Industry (I)" and "Regional Commercial (C-3)" zoning districts, as specified in Section 22.10.020 (Purpose of Commercial/Industrial Zoning Districts) in Chapter 22.10 (Commercial/Industrial Zoning Districts) of the MC: (1) the "Light Industrial (I)" zoning district is applied to "areas appropriate for light industrial/manufacturing uses including research and development, office-based industrial uses in an 'industrial park' setting, business support services, and commercial uses requiring larger sites than are available in the commercial zoning districts"; and (2) the "Regional Commercial (C-3) zoning district is applied to "areas appropriate for large-scale commercial uses serving residents and businesses within the region."

Pursuant to Section 22.06.040 (Zoning District Regulations) in Chapter 22.26 (Establishment of Zoning Districts; Adoption of Zoning Map) in Title 22 (Development Code) of the MC: "The uses of land allowed by this Development Code in each zoning district are identified in Tables 2-3 [Allowable Uses and Permit Requirements for Residential Zoning Districts], 2-5 [Allowable Uses and Permit Requirements for Office Zoning Districts], 2-6 [Allowable Uses and Permit Requirements for Commercial/Industrial Zoning Districts] and 2-8 [Allowable Uses and Permit Requirements for Special Purpose Zoning Districts] of this Chapter. . .Land uses that are not listed in the tables or are not shown in a particular zoning district are not allowed, except as otherwise provided by Section 22.04.020(h) (Rules of Interpretation-Allowable Uses of Land), or Section 22.02.030 (Exemptions from Development and Land Use Approval Requirements)."

Section 22.10.030 (Commercial/Industrial District Land Use and Permit Requirements) states that "Tables 2-5 and 2-6 identify the uses of land allowed by this Development Code in the commercial and industrial zoning districts, and the land use permit required to establish each use, in compliance with Section 22.06.040 (Zoning District Regulations)." Applicable or potentially applicable portions of Table 2-5 (Allowable Uses and Permit Requirements for Office Zoning Districts) and Table 2-6 (Allowable Uses and Permit Requirements for Commercial Zoning Districts) are presented in Table 1 ("Permitted" and "Conditionally Permitted" Land Uses). The list of "permitted" (P) and "conditionally-permitted" (CUP) uses presented herein is intended as being representative of the range of authorized land uses but does not encompass the entirety of all such uses.

Table 1
"PERMITTED" AND "CONDITIONALLY PERMITTED" LAND USES

Land Use	Permit Requirements by Zoning District[1]							See Standard In MC Section
	C-3	I	OP	OB	CO	C-1	C-2	
Adult-oriented business	-	P	-	-	-	-	-	Section 22.42.020
Alcohol beverage sales – off-site	P[2]	-	P	P	P	P	P	
Alcohol beverage sales – on-site	MUP[3]	-	MCUP	MCUP	MCUP	MCUP	MCUP	
Auto and vehicle sales/rental	CUP	-	-	-	-	-	-	
Auto parts sales	P	-	-	-	-	-	P	
Automatic teller machines (ATMs)	P	-	P	P	P	P	P	
Bank and financial services	P	-	P	P	P	P	P	
Bakery, retail	P	-	-	-	-	P	P	
Bars, cocktail lounges, and taverns	CUP	-	-	-	CUP	CUP	CUP	Section 22.42.075
Bed and breakfast inn	CUP	-	-	-	-	CUP	CUP	
Business support services	P	-	-	-	-	P	P	
Child day care center	CUP	-	CUP	CUP	CUP	CUP	CUP	Section 22.42.040
Computer services/network gaming center	-	CUP	-	-	CUP	-	CUP	Section 22.42.25[3]
Convenience store	P	P	-	-	-	P	P	
Drive-in and drive-through sales and services	CUP	-	-	-	-	CUP	CUP	
Emergency shelter	-	P	-	-	-	-	-	Section 22.42.150
General retail store	P	-	-	-	P	P	P	
Grocery store	P	-	-	-	-	-	P	
Health/fitness center	CUP	-	-	CUP	CUP	-	CUP	
Hotels and motels	**P**	**-**	-	CUP	CUP	P	P	Section 22.42.075
Medical services – clinics and labs	**P**	**-**	CUP	P	P	P	P	
Medical services - hospital	CUP	-	CUP	CUP	CUP	CUP	CUP	
Offices – accessory to primary use	P	-	-	-	-	P	P	
Offices – business and professional	**P**	-	P	P	P	P	P	
Personal services	P	-	P	P	P	P	P	
Personal services – massage establishments	CUP	-	-	-	-	-	CUP	Section 5.08.070
Personal services – tattoo parlors	P	-	P	P	P	-	-	
Public safety facilities	P	P	P	P	P	P	P	
Religious places of worship	CUP	CUP	CUP	CUP	CUP	CUP	CUP	
Repair services		P						
Restaurant	-	P	P	P	P	P	P	Section 22.42.075
Restaurant with outdoor dining	MUP[3]	-	MCUP	MCUP	MCUP	MCUP	MCUP	Section 22.16.070 Section 22.42.080
Retail sales	-	CUP	-	-	-	-	-	
School - Private	-	-	P	P	P	CUP	CUP	
Schools-Specialized education and training and non-degree	-[4]	CUP	-	-	-	-	-	
Shopping center	CUP	-	-	-	-	-	CUP	
Single-room occupancy housing	-	C[3]	-	-	-	-	-	Section 22.42.160
Warehouse retail stores	CUP	-	-	-	-	-	-	
	Proposed	**Existing**	**Neither Proposed nor Existing**					

Notes:
1. P – "Permitted" use
   CUP – "Conditionally-permitted" use (uses authorized subject to a conditional use permit)
   MUP/MCUP – Minor conditional use permit
2. Shall be a minimum of 150 feet, measured from the nearest property lines, from any public or private elementary, middle or high school as defined by Education Code Section 49430 or any equivalent private school performing the function of such schools.
3. Appears to constitute an error or incomplete citation in the Municipal Code.
4. Educational classes/training programs as the primary use shall be limited to the second floor and above with approval of a CUP. Ancillary classes in conjunction with a permitted use shall require a CUP and be limited to 15 percent of a separately demised space occupied by a single tenant or 750 square feet, whichever is less.

Absent any description thereof in the 1995/2013/2014 General Plan, relative to the City's land-use policies, "overlay districts" are primarily addressed in Chapter 22.14 (Overlay Zoning Districts) in Title 22 (Development Code) of the MC. As specified in Section 22.14.020 (Purpose and Applicability of Districts) therein:

(a) Purpose. The overlay zoning districts established by this chapter provide guidance for development and new land uses in addition to the standards and regulations of the primary zoning districts, where important site, neighborhood, or compatibility issues require particular attention in project planning.
(b) Purpose. The overlay zoning districts established by this chapter provide guidance for development and new land uses in addition to the standards and regulations of the primary zoning districts, where important site, neighborhood, or compatibility issues require particular attention in project planning.
(c) Applicability. The applicability of any overlay zoning district to specific sites is shown by the overlay zoning map symbol established by Section 22.06.020 (Zoning Districts Established), being appended as a suffix to the symbol for the primary zoning district on the zoning map (for example, RL-PD). The provisions of this chapter apply to proposed land uses and development in addition to all other applicable requirements of this Development Code. In the event of any perceived conflict between the provisions of this chapter and any other provision of this Development Code, this chapter shall control.

As further specified in Section 22.14.030 (Planned Development [PD] Overlay District) of the MC:

(a) Purpose. Consistent with the [1995/2013/2014] General Plan vision statement, the PD overlay zoning district provides for maximum flexibility in the site planning and design of residential, commercial, industrial/manufacturing and mixed use projects to encourage superior land use by means such as open space and public amenities. The PD overlay district may be applied to areas where site characteristics and environmental resources, adjacent land uses, or other community conditions may be benefited by site-specific planning or the design of structures that would not otherwise be allowed in the primary zoning district.
(b) Applicability. The PD overlay zoning district may be combined with any residential, commercial/industrial, or special purpose zoning district established by Section 22.06.020 (Zoning Districts Established).
(c) Allowed land uses. Any land use normally allowed in the primary zoning district may be allowed within the PD overlay zoning district, except when the ordinance rezoning a site to the PD overlay includes specific limitations on allowable land uses.
(d) Permit requirements. Conditional use permit approval (chapter 22.58) shall be required for all development proposed on a site subject to the PD overlay district. Changes of use in existing structures shall be subject to the land use permit requirements established by the primary zoning district.
(e) Development standards. Approval of a conditional use permit within the PD overlay zoning district may include specific modifications to any of the City's development standards normally required by this article or article III (Site Planning and General Development Standards) including: Minimum lot area, setbacks, site coverage, floor area ratio, height limits, landscaping, or off-street parking. Proposed development and new land uses within the PD overlay shall comply with all other applicable provisions of this Development Code.

The City's "planned development" (PD) standards are specified in Chapter 22.32 (Planned Development Standards) of the MC. The purpose of that chapter "is to implement the planned development overlay zoning district by promoting quality design, innovative site planning, transfer of development rights, and mixed uses consistent with the goals and policies of the [1995/2013/2014] General Plan. The intent of the planned development standards is to promote high quality development that incorporates amenities beyond those expected under conventional development, to achieve greater flexibility in design, to encourage well-planned projects through creative and imaginative planning, and to provide for appropriate use of land that is sufficiently unique in its physical characteristics or other circumstances to warrant special methods of development" (Section 22.32,010, MC).

As specified in Section 22.32.030 (Development Standards) of the MC:

(a) Allowable density/intensity. The number of allowable dwellings per parcel or the number of dwelling units per structure may exceed the number allowed within a particular residential zoning district provided the total number of units for the entire project does not exceed the limitations established by the general plan. The floor area ratio (FAR) allowed in a particular nonresidential zoning district may be increased when it can be demonstrated by the project proponent that a superior development will be achieved.

(b) Setback requirements. Structure setbacks may deviate from the setback standards specified in this Development Code and shall conform to the approved development plan.

(c) Lot coverage and floor area ratio. Lot coverage and floor area ratio of structures may deviate from the regulations of this Development Code and shall conform to the approved development plan.

(d) Height limits. The height of structures may deviate from the height standards specified in this Development Code and shall conform to the approved development plan.

(e) Parking requirements. The number and design of off-street parking areas may deviate from the parking standards specified in this Development Code and shall conform to the approved development plan.

(f) Open space requirements. (1) In all residential developments, at least 30 percent of the gross property area shall be reserved for and devoted to landscaped and useable common open space area(s). (2) In all nonresidential developments, at least 20 percent of the gross property area shall be reserved for and devoted to landscaped and useable pedestrian-oriented open space area(s). Open spaces shall include plazas, courtyards, outdoor dining areas, and landscaped gardens. (3) Open space areas shall not be construed to include streets, whether public or private, off-street parking, access drives, and loading areas, or area(s) covered by structures. (4) The Commission may grant a modification, including a modification of any open space requirement, after considering the general purposes and nature of the planned development project.

(g) Maintenance of common areas. An applicant for a planned development shall provide for the permanent maintenance of all common area(s) within the development. The applicant shall provide the following: (1) A plan showing all common areas and areas to be dedicated to/for public and/or private use; (2) Where the development consists of only one parcel, a plan for maintenance; and (3) Where the development consists of more than one parcel, covenants, conditions and restrictions (CC&R's) or an agreement in a form approved by the city attorney providing for the permanent maintenance of all common areas. The CC&R's or agreement shall be prepared by an attorney licensed to practice in

the state. The development shall provide assistance to the residents of the subdivision in the formation of a homeowner's association for the purpose of maintaining common areas and enforcing CC&R's.

(h) Development phasing. An applicant for a planned development shall submit a schedule indicating the development of open space related to the construction of residential dwelling units. Where development is to be completed in phases, the development may be coordinated between phases. Projects developed in phases shall be designed so that each successive phase will contain open space to independently qualify under the provisions of subsection (f), above.

2.3 Existing Proximal Land Uses

The project site is located to the north of and adjacent to the Pomona (SR-60) Freeway (Post Mile R22.97). As it crosses above Brea Canyon Road, westbound traffic traveling along the freeway mainline is located at an elevation approximately 30-feet higher than the elevation of the nearest portion of the project site. The freeway's descending westbound off-ramp at Brea Canyon Road separates the project site from the freeway mainline.

The freeway right-of-way is devoid of vegetation, offering a stark visual appearance when perceived from the Brea Canyon Road off-ramp, the overpass accommodating the ability of northbound traffic traveling along the Orange (SR-57) Freeway to unimpededly link to westbound travel on the Pomona (SR-60) Freeway, from the project site and from Brea Canyon Road.

To the west, the project site abuts Brea Canyon Road. As indicated in the 1993/2013/2014 General Plan, Brea Canyon Road is identifies as a "Major Arterial,"[32] noting that a "Major Arteria" has "either four or six lanes for through traffic and may contain additional lanes to accommodate turning movements, parking and bicycle traffic, all within a right-of-way of 100-120 feet."[33] In addition, the 1993/2013/2014 General Plan identified a shared "Class III" bicycle route along Brea Canyon Road.[34] Similarly, as depicted in in the "Los Angeles County Bicycle Master Plan," both Brea Canyon Road and Lycoming Street (east of Brea Canyon Road) are designated as "Class III" bicycle routes.[35]

Referencing the City's "Recreational Trails and Bicycle Route Master Plan" (2001):

> Class II bikeways require a designated lane within the right-of-way for bicycle travel. This designated lane must match the flow of traffic and be a minimum of five feet in width. A number of Class II bikeways exist within the City and additional Class II bikeways are identified as having future potential for this designation.
>
> Brea Canyon Road – A Class II bikeway is proposed from the northern City limit to Pathfinder, a distance of 1.2 miles. This is a regional route and provides access to a number of facilities, including the Metrolink Train Station, and the Golden Springs and

[32]/ *Op. Cit*., City of Diamond Bar General Plan, Circulation Element, Figure V-2 (Circulation Element Roadway System).

[33]/ *Ibid.*, Circulation Element, p. V-3. See also Housing Element, Table IV-7 (Road Improvement Standards), p. IV-14.

[34]/ *Ibid.*, Circulation Element, Figure V-4 (Existing Designated Bicycle Routes), p. V-14

[35]/ Los Angeles County Department of Public Works (Alta Planning), County of Los Angeles Bicycle Master Plan, Final Plan, March 2012, adopted March 13, 2012, Figure 3-22 (East San Gabriel Valley Planning Area Proposed Bicycle Facilities).

Pathfinder routes. South of Pathfinder on the west side (southbound) it is a combination of Class IIII for approximately 1.4 miles. [36]

The proposed project includes no provisions or other accommodations for any improvements to existing or proposed bicycle facilities along the property's Brea Canyon Road frontage.

Further to the west, across from the project site, single-family homes, located along the eastern terminus of Moonlake Street (20948-20955 Moonlake Street. Diamond Bar) and Northhampton Street (20963-20975 Northhampton Street, Diamond Bar) (Tract No. 27394), back onto Brea Canyon Road. A 5 to 6-foot tall masonry block wall separates those homes from the Brea Canyon Road right-of-way.

Continuing northward along Brea Canyon Road, north of the westerly extension of the project site (if extended westward across Brea Canyon Road) and south of Lycoming Street, is a private preschool and elementary school (Discovery World Preschool and Private Elementary School [801 Brea Canyon Road, Diamond Bar]). An outdoor play area, similar to a tot-lot, is located along the west side of the property. That Montessori preschool and elementary school accommodates children ranging in age from under one through 5 years of age (kindergarten). Vehicular access is primarily provided via a driveway located along Brea Canyon Road. Approximately 120 students attend the school year round. Hours of operation extend between 6:00 AM to 6:30 PM, Monday through Friday. School activities are typically limited to weekdays.

A second campus site (782 Pinefalls Avenue, Diamond Bar) is located to the north of Lycoming Street and primarily serves as a tutoring center.

Traveling westbound on Lycoming Street, existing single-family homes align the south side of the street and a variety of office and warehouse-related uses align the north side of the street. Further to the west, located on the southwest corner of Lycoming Street and Glenwick Avenue, is Walnut Elementary School (841 Glenwick Avenue, Walnut). Walnut Elementary School is operated by the Walnut Valley Unified School District (WVUSD), providing public education for grades K-5 and accommodating approximately 670 students. Other schools in the general project area include the WVUSD's South Pointe Middle School (20671 Larkstone Drive, Diamond Bar), located approximately 0.59 miles southwest of the project site, and Ron Hockwalt Academies (High School) (476 Lemon Avenue, Industry), located about 0.64 miles to the northwest of the project site.

Along the east side of Brea Canyon Road, fronting along both Brea Canyon Road and Lycoming Street is "Farmer Boys Restaurant" (810 Brea Canyon Road, Diamond Bar). Although sharing a common property line, no shared vehicular or pedestrian access is presently provided or proposed.

Along the northeast, the project site abuts an existing County flood control channel (PD 1445) (Diamond Bar Creek), separating the subject property from a number of single-family homes located along Dryander Drive (814-898 Dryander Drive, Diamond Bar) (Tract No. 33069). With the exception of two single-family residence (807 and 811 Dryander Drive, Diamond Bar) whose rear and side yards directly abuts the County flood control channel and separated therefrom only by the wide of that channel, Dryander Drive is a single-loaded cul-de-sac with homes located along the north and east sides of the roadway. Except for that home located at the corner when Dryander Drive transitions from an east-west to north-south roadway (814 Dryander Drive, Diamond Bar), because those residences front along Dryander Drive, the street right-of-way provides additional physical separation therefrom. The rear-yard areas of those properties are, at least in part, shielded therefrom based on the structures themselves.

[36]/ City of Diamond Bar, Recreational Trails and Bicycle Route Master Plan, Final Draft, May 8, 2001, pp. 30-31.

A number of additional single-family residences, located along Lycoming Street (21054-21110 Lycoming Street, Diamond Bar) back onto the County flood control channel and the rear-yard areas of those residences are separated from the project site only by the width of that channel. Both Lycoming Street and Dryander Drive terminate on the east near the City's corporate boundaries with the City of Industry. No direct public access is provided at either location.

Presented for informational purposes, the associated Los Angeles County Assessor's parcel map associates with that neighborhood is included in Figure 13 (Existing Lycoming Street and Dryander Drive Neighborhoods - Assessor's Parcel Map).

The Industry Metrolink Station (600 Brea Canyon Road, Industry) is located approximately ½ mile to the north of the project site. No existing bus services or other public transit routinely operate along Brea Canyon Road, potentially linking the project site to that trail station.

2.4 Introduction to "Hotels"

2.4.1 Types of "Hotels"

While often attributed to William Shakespeare ("A rose by any other name would smell as sweet"), in her 2013 poem "Sacred Emily," Gertruda Stein famously wrote: "A rose is a rose is rose." Although the City presently lumps together a diversity of dissimilar "residential premises" and "commercial premises" under a similar designation, what might be true with regards to a family of flowers is not necessarily true with regards to "hotels." It cannot be said that "one size fits all."

As defined in Section 3.16.020 (Definitions) in Chapter 3.16 (Transient Occupancy Tax) in Title 3 (Revenue and Finance) of the Municipal Code, a "hotel" is defined as "any structure or any portion of any such structure, which is occupied or intended or designed for occupancy by transients for dwelling, lodging or sleeping purposes, and includes any hotel, inn, tourist home or house, motel, studio hotel, bachelor hotel, lodginghouse, roominghouse, apartment house, dormitory, public or private club, mobile home or house trailer at a fixed location, or other similar structure or portion thereof." As defined therein, a "hotel" is not clearly definable as a single, entity but includes a wide range of physical structures, including, but not limited to, inns, tourist homes, motels, studio and bachelor hotels, lodging and rooming houses, apartments, dormitories, clubs, mobile homes and trailer when not at a fixed location.

As further defined in Section 22.80.020 (Definitions of Specialized Terms and Phrases) in Chapter 22.80 (Definitions) in Title 22 (Development Code) of the MC: "Hotel or motel. Facilities with guest rooms or suites, provided with or without kitchen facilities, rented to the general public for transient lodging (less than 30 days). Hotels provide access to most guest rooms from an interior walkway, and typically include a variety of services in addition to lodging; for example, restaurants, meeting facilities, personal services, etc. Motels provide access to most guest rooms from an exterior walkway. Also includes accessory guest facilities such as swimming pools, tennis courts, indoor athletic facilities, accessory retail uses, etc."

As noted in the City's 1995 "Housing Element," a single reference to "hotels" appeared in the context of the potential use of "commercial hotels or motels. . .to house the homeless."[37] Reference to "hotels" (of any type) does not again appear in later versions thereof. In citing that reference, it is not the Department's intent herein to suggest or otherwise infer any such linkage.

[37]/ City of Diamond Bar, City of Diamond Bar General Plan, July 25, 1995, Housing Element Glossary, p. II-B-3.

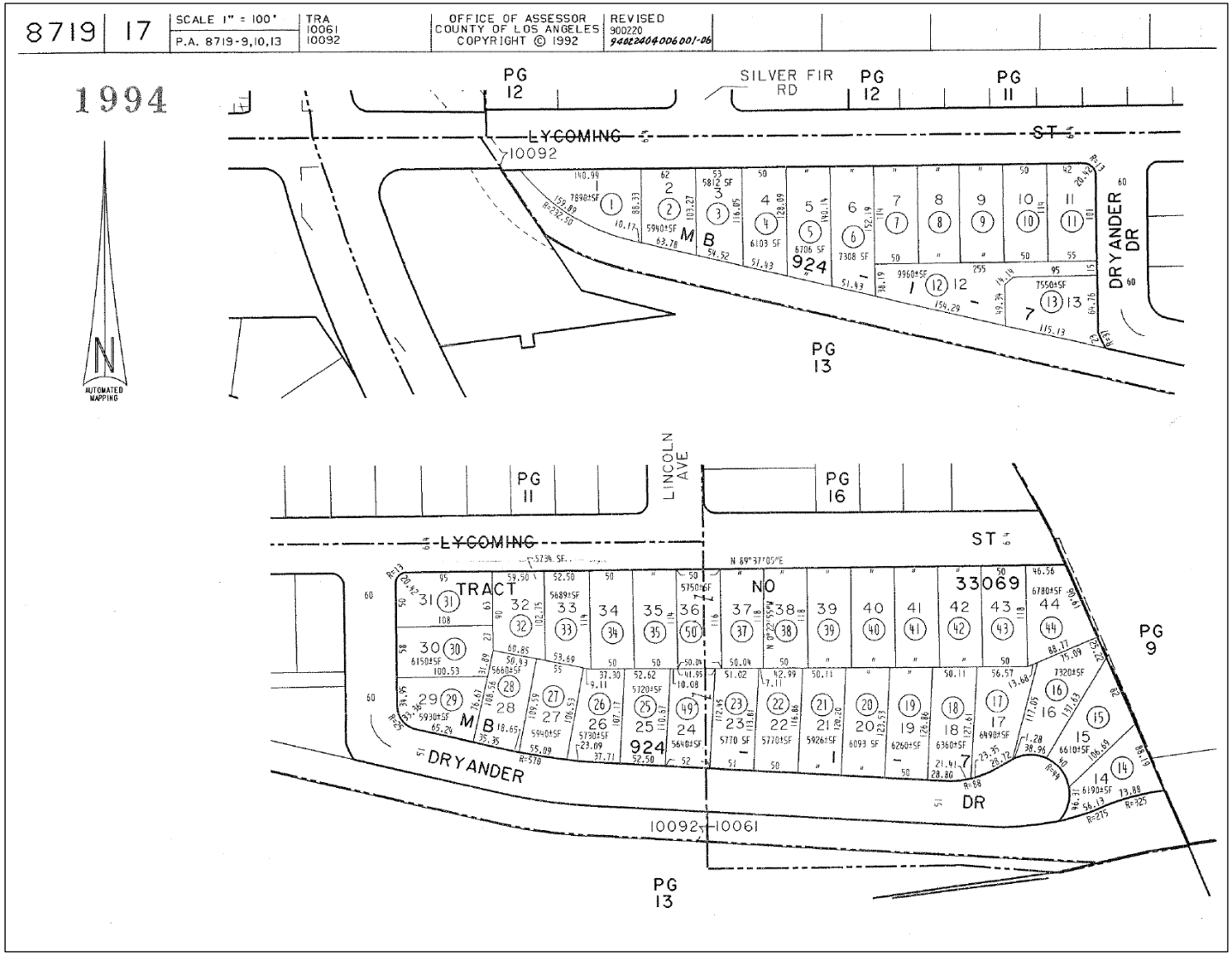


Figure 13
EXISTING LYCOMING STREET AND DRYANDER DRIVE NEIGHBORHOODS ASSESSOR'S PARCEL MAP
Source: Los Angeles County Assessor

Additionally, it is not the purpose or intent of this CEQA document to define, on behalf of the Council or the Commission, the meaning of or what constitutes a "hotel" within the City. The information presented herein is intended to assist and support the deliberations of the Council and Commission with regards to the environmental review processes.

Because the City's definition of "hotels" and the guest accommodates associated therewith are not definable beyond that broadly sweeping definition, a more narrow description may allow a greater assessment of the potential environmental impacts associated therewith, avoid potential confusion with regards thereto, and, if so granted, facilitate the imposition of conditions associated with the "conditional use permit" (CUP) accompanying the "Planned Development (PD) Overlay District."

With regards to the proposed project, because parking and other standards associated with "hotel and motel" projects may directly link to the number, square footage, configuration, maximum authorized occupancy, and/or type of "guest rooms," "rooms," "suites," and/or "units," some definition thereof may be deemed appropriate by the Commission and/or Council. Of those terms, only "guest rooms" is explicitly defined in the 2016 CBC ("A room used or intended to be used by one or more guests for living or sleeping purposes," Chapter 2 [Definitions], 2016 CBC).

Although offering limited clarity, as defined in the 2016 CBC, "hotels" and "motels" are defined as "any building containing six or more guest rooms intended or designed to be used, or which are used, rented or hired out to be occupied, or which are occupied for sleeping purposes by guests" (Chapter 2 [Definitions], Part 2, Vol. 1).

Although not determinative of all "hotel" types, the Institute of Transportation Engineer's (ITE) "Trip Generation Manual, 9th Edition" (2012) provides peak-parking demand rates for various land uses based on empirical nationwide studies. The ITE has provided peak-parking generation rates for five categories of lodgings, including hotels (Land Use Code 310), all-suites hotels (Land Use Code 311), business hotels (Land Use Code 312), motels (Land Use Code 320), and resort hotels (Land Use Code 330). Excluding "motels" and "resort hotels," the following descriptions are presented therein:

- **Hotel** (ITE Land Use Code 310). "Hotels are places of lodging that provide sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops."

- **All-suites hotel** (ITE Land Use Code 311). "All suites hotels are places of lodging that provide sleeping accommodations, a small restaurant and lounge and small amounts of meeting space. Each suite includes a sitting room and separate bedroom; limited kitchen facilities are provided within the suite."

  "All-suites hotels" are not assumed to be synonymous with "extended-stay hotels" (also referred to as "serviced apartments" and "apartment hotels" [apart-hotel]). To the extent that they authorize consecutive occupancy extending for 30 days or more, "extended-stay hotels" combine the service-related aspects of transient lodgings while providing the longevity available in residential apartments ("residential hotels").

- **Business hotel** (ITE Land Use Code 312). "Business hotels are places of lodging aimed toward the business traveler. These hotels provide sleeping accommodations and other limited facilities, such as a breakfast buffet bar and afternoon beverage bar (no lunch or dinner is served and no meeting facilities are provided). Each unit is a large single room.

> Business hotels provide very few or none of the supporting facilities provided at hotels or suite hotels and are usually smaller in size."
>
> The Applicant has represented the proposed project as inclusive of a business hotel.

As defined in Section 50519(b)(1) the H&SC: "'Residential hotel' means any building containing six or more guest rooms or efficiency units, as defined by Section 17958.1, intended or designed to be used, or which are used, rented, or hired out, to be occupied, or which are occupied, for sleeping purposes by guests, which is also the primary residence of those guests, but does not mean any building containing six or more guest rooms or efficiency units, as defined by Section 17958.1, which is primarily used by transient guests who do not occupy that building as their primary residence."

As defined in Section 17958.1 of the H&SC: "Notwithstanding Sections 17922, 17958, and 17958.5, a city or county may, by ordinance, permit efficiency units for occupancy by no more than two persons which have a minimum floor area of 150 square feet and which may also have partial kitchen or bathroom facilities, as specified by the ordinance. In all other respects, these efficiency units shall conform to minimum standards for those occupancies otherwise made applicable pursuant to this part. Efficiency unit, as used in this section, has the same meaning specified in the Uniform Building Code of the International Conference of Building Officials, as incorporated by reference in Chapter 2-12 of Part 2 of Title 24 of the California Code of Regulations."

In what appears an inconsistent application of the City's zoning provisions, in that it may constitute a "residential premise" and not a "commercial premise" "single-room occupancy housing" (SRO) is identified as a "conditionally-permitted" use in the "Light Industrial (I)" district but neither a "permitted" nor a "conditionally-permitted" use in the "Regional Commercial (C-3)" district. SROs constitutes a type of "residential hotel" where single rooms (dwelling units) are rented for sleeping purposes for more than thirty (30) days and may be used by individuals as their primary residence during the term of their occupancy.

As defined in Section 22.42.160 (Single-Room Occupancy Housing) of the MC:

> Single-room occupancy housing shall conform to the following standards: (i) The minimum size of a unit shall be 150 square feet and the maximum shall be 375 square feet, which may include bathroom and kitchen facilities, and shall be limited to maximum two persons per unit. (ii) Each unit shall be provided a kitchen sink with a garbage disposal, serviced with hot and cold water, and a counter top measuring a minimum of 18 inches wide by 24 inches deep. If each individual unit is not provided with a minimum of a refrigerator and a microwave oven, a complete kitchen facility consisting of a range, sink with garbage disposal, and refrigerator shall be provided on each floor of the structure for residents. (iii) For each unit a private toilet in an enclosed compartment with a door shall be provided. This compartment shall be a minimum of 20 square feet. If private bathing facilities are not provided for each unit, shared shower or bathtub facilities shall be provided at a ratio of one for every seven units. The shared shower or bathtub facility shall be on the same floor as the units it is intended to serve and shall be accessible from a common area or hallway. Each shared shower or bathtub facility shall be provided with an interior lockable door. (iv) Twenty-four-hour on-site management shall be provided at an SRO. The applicant shall provide a copy of the proposed rules and residency requirements governing the SRO. The management shall be solely responsible for the enforcement of all rules that are reviewed and approved by the city as part of the conditional use permit. (v)

> A management plan to address operations, safety and security and building maintenance shall be submitted to the director of community development for review and approval prior to issuance of certificate of occupancy.

In describing occupancy, individuals residing in SROs are not characterized as "transients."

Because SROs constitute a "conditionally-permitted" use in the "Light Industrial (I)" district, to the extent that a SRO is a "residential hotel," other types of "residential hotels" would also constitute "conditionally-permitted" uses therein. Like SROs, "residential hotels" are neither "permitted" nor "conditionally-permitted" use in the "Regional Commercial (C-3) district.

A "condominium hotel" (or con-hotel) is also a form of "residential hotel" where some or all the rooms have been legally transformed into condominium units which are sold to purchasers and where it is intended that the condominium units will be part of the hotel's rooms inventory to be rented to the public and operated by the hotel management.

A con-hotel is a development that has the outward appearance and amenities of a traditional hotel but whose rooms (units) may be sold as individual condominium ownerships. Owners of these condo units can use them for varying lengths of time or allow hotel management to rent the units to the general public. Owners receive a share of the rental proceeds. Because hotel condominium units are individually owned and subject to no or varying length-of-stay restrictions, they constitute a quasi-residential land use, with the possibility of functioning part time as overnight visitor-serving accommodations. Under the tax code provisions governing con-hotels, owners can occupy their units for up to 90 days in any given year. The "owners," "tenants," and "occupants" of a con-hotel are, therefore, not characterized as "transient."

As specified in Section 8.16.020 (Definitions) in Title 8 (Health and Safety) of the MC:

> Residential premises or residential property means premises upon which dwelling units exist, including, without limitation, single-family dwellings, multi-family dwellings requiring residential solid waste containers (carts) to accommodate the waste generated on the premises, apartments, boarding or rooming houses, condominiums, mobile homes, efficiency apartments, second units, and group homes on residential premises (as that term is defined in Title 22 of this [Municipal] Code). Notwithstanding any provision to the contrary herein, in the Diamond Bar Municipal Code, or otherwise, for purposes of this chapter, premises upon which the following uses are occurring shall not be deemed to be residential premises, and rather shall be deemed to be commercial premises: Assisted living facilities, convalescent homes, dormitories, extended stay motels, hotels, motels, and any other businesses not specifically listed at which residency is transient in nature and hence should be classified as commercial premises as determined by city on a case by case basis.

Because occupancy is authorized for a term greater than 30 days, in accordance therewith, both a "residential hotel" (inclusive of SROs) and a "condominium-hotel" may be deemed a "residential premise" and not a "commercial premise"; therefore, based on the exclusion of all residential uses (except for SROs) from the list of "permitted" or "conditionally-permitted" use in the "Regional Commercial (C-3)" zoning district, both SROs and condo-hotels do not appear to constitute "hotels" within the meaning and intent of Table 2-6 (Allowable Uses and Permit Requirements for Commercial Zoning Districts), as referenced in Section 22.10.030 (Commercial/Industrial District Land Use and Permit Requirements) of the MC, and would not appear to constitute eligible uses on the project site, based on the proposed change in the zoning designation from "Light Industrial (I)" to "Regional Commercial (C-3)."

The two readily definable distinctions between "residential hotels" (as "residential premises") and other hoteliers (as "commercial premises") is the distinction between a "dwelling unit" and a "hotel room." A dwelling unit (whether in a house, apartment, houseboat, trailer, or "residential hotel") can serve as a person's "principal" or "primary residency" (e.g., legal residence for the purpose of income tax). Since a person can have only one such residency for tax purposes, any other location where that person resides constitutes a "secondary residency." Additionally, in a "residential hotel" guests are not restricted to stays of 30 consecutive days or less. In contrast, in all other types of "hotels," tenancy cannot exceed 30 consecutive days in any 30-day period.

In a "residential premise," the allowable density (typically measures in dwelling units per acre) plays an important role in determining the nature of the resulting development. As specified in Section 21.30.120 (Residential Density) in Chapter 21.30 (Subdivision Design and Improvement Requirements) of the MC: "The maximum number of dwelling units permitted within a proposed subdivision shall not exceed the density established by the general plan for the site or the maximum number of dwelling units permitted by the applicable zoning district, and may be further restricted by considerations of safety, traffic access or circulation, the slope of the natural terrain, the physical suitability of the site, the nature or extent of existing development, the availability of public facilities, utilities, or open spaces or any other provision of this title."

In a "commercial premise" density is not determined by the number of "hotel" rooms authorized under the 1995/2013/2014 General Plan or MC but by floor-area-ratio (FAR). As a result, subject only to any height, bulk, setback, and parking standards established for each qualifying land-use designation, absent minimum room standards and any associated CUP requirements (where applicable), the number of allowable hotel rooms allowable is not regulated by the City.

Using a similar density formulate as might be applied to a multi-family housing project, hotel density might be simply estimated by comparing the lot size (measured in square footage or acreage) and the number of guest rooms being proposed. Since the City has neither adopted a hotel density standard nor a formula for its derivation, there exists no basis against which to compare either the proposed 83/guest rooms per gross acre (109 guest room / [21,982 gross square feet / 43,560 gross square feet per acre] = 216 guest rooms / gross acre) or the 202 square feet of land area per guest room (21,982 gross square feet / 109 guest rooms = 202 square feet / guest room) density associated therewith. Based on the proposed subdivision, these density calculations are based solely to the building's footprint and are not inclusive of any portion of the larger 200,161 gross square foot common area and reciprocal access agreement (Lot 4) comprising the majority of the project site.

In addition, unlike residential development projects, "hotels" include both large amounts of interior space accessible to the public (public space) and interior (back-of-house) areas required to support and maintain the individual guest rooms and their occupants. In the calculation of residential densities, the accompanying leasing offices and recreational centers provided therewith are not included in the establishment of guest room densities.

More complexity exists in the calculation of guest room density if the measurement of that density is derived by first subtracting from the equation public and back-of-house areas from the building space assignable to guest rooms. For example, net room sizes typically vary based on the categorization of the hotel. As indicated in "The Cornell School of Hotel Administration on Hospitality: Cutting Edge Cutting Edge Thinking and Practices" (2011), "While an economy hotel may have only 420 square feet (30 square meters) of gross hotel area for guest rooms, a resort hotel may have almost double the area of 780 square feet (72 square meters). The reason for the size difference is twofold. First, the resort's guest rooms themselves are 30 percent bigger (390 net square feet v. 300 net square feet). Second, the resort has a much larger percent of the overall

program devoted to public areas and back-of-house areas (10 percent of total hotel gross area for an economy hotel versus 30 percent for a resort hotel)."[38]

Relative to the spatial allocation between guest rooms and common and back-of-house areas, Table 2 (General Assumptions Concerning Allocation of Hotel Space) presents general assumptions relating to different "hotel" types. Any density limit established by the City based solely on the relationship between the number of guest rooms and the total lot area might influence room sizes, either increase or decrease the size and type of accompanying common areas and amenities, and limit the category of "hotels" that might otherwise elect to locate within the City.

Table 2
GENERAL ASSUMPTIONS CONCERNING ALLOCATION OF HOTEL SPACE

Hotel Type	Number of Guest Rooms[1]	Percentage of Total Hotel Area		
		Guest Room	Public Area	Back-of-House
Motel and Economy Hotel	<100	90	5	5
All-Suites Hotel	100-200	80	12	8
Urban Business Hotel	100-300+	75	14	11
Resort	100-500	70	16	14
Convention Hotel	300-1,000+	65	20	15

Note:
1. The number of guest rooms per hotel depends on local market conditions and shows a large variation from country to county. The space allocations (percentages) remain largely the same worldwide.

Source: The Cornell School of Hotel Administration on Hospitality

2.4.2 Hilton Hampton Inn and Suites

As proposed, the proposed hotel component is identified as a Hilton® affiliated property. "Hampton by Hilton"® (Hampton) is one of 14 Hilton-affiliated brands. In addition, other registered trademarks, includeto Hilton Hotels & Resorts, Waldorf Astoria Hotels & Resorts, Conrad Hotels & Resorts, Canopy by Hilton, Curio Collection by Hilton, DoubleTree by Hilton, Tapestry Collection by Hilton, Embassy Suites by Hilton, Hilton Garden Inn, Tru by Hilton, Homewood Suites by Hilton, and Hilton Grand Vacations. Hilton®, like other hotel, categorizes its hotels by brands, each with distinct characteristics to market to a certain kind of traveler.

While not necessarily indicative of the proposed hotel, the Hilton® website includes the following general description of its Hampton brand: "As the No. 1-ranked lodging franchise for the past nine years, according to Entrepreneur®, Hampton by Hilton, including Hampton Inn by Hilton and Hampton Inn & Suites by Hilton, serves value-conscious and quality-driven travelers with more than 2,345 properties and more than 238,000 rooms in 21 countries and territories. High-quality accommodations and amenities, such as complimentary Wi-Fi, free hot breakfast, and On The Run™ breakfast bags, contribute to Hampton by Hilton ranking as a leader in its segment." A general brochure describing Hampton by Hilton is included herein as Appendix C ("Hampton by Hilton" Brochure).

Most Hampton by Hilton hotels operate under the terms of a franchise agreement and are subject to the terms of that agreement. In accordance therewith, franchisees typically commit to specific design and development obligations conforming to published "brand standards." Those brand standards typically include detailed design, management, training, marketing, and operating requirements. Although "Hampton Brand Standards – United States" (2015) are available to all

[38]/ Sturman, Michael C., Corgel, Jack B., and Vema, Rohit (eds.), The Cornell School of Hotel Administration on Hospitality: Cutting Edge Cutting Edge Thinking and Practices, 2011.

franchisees, those standards are not presented herein since they are neither enforceable nor supersede City standards.

In general hotel parlance, a "suite" is generally indicative of a kitchen or kitchenette, including the hotel operator's provision of kitchenware in each guest room.

2.4.3 "Accessory Retail Uses"

As noted in Section 22.14.030 (Planned Development [PD] Overlay District) of the MC:

> The PD overlay district may be applied to areas where site characteristics and environmental resources, adjacent land uses, or other community conditions may be benefited by site-specific planning or the design of structures that would not otherwise be allowed in the primary zoning district.

The standard of "may be benefited" would appear to constitute a relatively low standard since the nature of that "benefit" is left undefined and no manner of quantification is suggested. As such, any declaration of "benefit" by the project proponent would appear to constitute that standard. Independent of whether a MC-compliant or alternative standard is applied, the physical manifestation of that standard and the potential presence of any consequential significant environmental effects warrants consideration under CEQA.

Besides the provision of in-room sleeping facilities, kitchens (kitchenettes), and common areas providing a range of recreational amenities (e.g., swimming pool and weight rooms), many hotels provide additional amenities and services for their guests (e.g., self-serve laundries, meeting rooms). In addition to a wide-range of possible commercial amenities, hotel projects can constitute a foundation for or a key component of a mixed-use or multi-use center, containing both lodging and other uses, including conference facilities, restaurants, nightclubs, health/fitness clubs, and specialty shops (e.g., gift and souvenir shops) that could benefit from any synergistic relationship thereto. Those uses could exist under either a shared roofline or occur independent therefrom but proximal thereto.

It has been reported that 72 percent of new hotel development nationwide consist of "limited-service" hotels of "upper midscale" and "upscale" brands. "Upper midscale" and "upscale" are hospitality industry terms referring to average daily room rates that fall on a spectrum of "economy" to "luxury." A "limited-service" hotel means fewer amenities, such as having a bar rather than a full restaurant. In contrast, a "full-service" hotel offers a full slate of such amenities, such as restaurants, fitness centers, and event spaces.[39]

Because the term "hotel" is used generically in the Municipal Code, unspecified is whether the City's definition is restricted to a "no-service" facility or is intended to encompass "limited-service" and/or "full-service" facility. Because CUPs "runs with the land," unless so conditioned and defined, both the service level and the nature of any "accessory retail uses" associated with the proposed hotel could transition over time. As defined by U.S Hotel Appraisers:

- **Limited-Service Hotels**. Originally defined as a hotel without restaurant or banquet facilities, the services and amenities offered to guests of limited-service hotels are typically simple. However, these services and amenities have expanded over the past decade, and in today's market a limited-service hotel's range of amenities might include a business

[39]/ Ruch, John, Why Hotels are Often in the Mix of Local Mixed Use Projects, Reporter Newspapers, February 20, 2018.

center, a fitness room, a guest laundry facility, a market pantry, an indoor and/or outdoor pool and whirlpool, and small meeting rooms. "Budget" limited-service hotels offer no-frills rooms at modest prices. More robust limited-service hotels offer many of the same high-quality amenities that guests would expect from full-service hotels, with one significant difference: limited-service hotels lack a dedicated, revenue-producing food and beverage component. Hence, limited-service hotels typically have the lowest operating costs of all three segments because they don't offer catering services or multiple restaurants. Room rates are typically on the lower end of the scale as well, because demand for limited-service properties generally comes from price-sensitive commercial and leisure travelers.

- **Full-Service Hotels**. The most distinguishing feature of a full-service hotel is the abundant provision of food and beverage services suitable for both guests and groups. Full-service hotels, unlike hotels in other segments, typically play a significant role in servicing the meeting and special events needs in their market area. On-site restaurants, lounges, and group meeting spaces with banquet facilities are the cornerstones of the full-service offering. Selective amenities such as spas, elaborate banquet rooms, doormen, valet parking, extended room service, concierge services, and high-end restaurants and boutiques distinguish many full-service properties. These multiple services and amenities come at a higher operational cost for the full-service hotel but they also help the hotel capture more selective demand and command a higher average rate. Groups requiring meeting space are a significant source of business for full-service properties, as are business travelers willing to pay the higher room rates generally charged at these hotels. Leisure and vacation travelers, especially at the upscale and luxury levels, are also a significant market for many full-service hotels. In all cases, full-service hotel guests seek the extra amenities and service levels found only at these properties.[40]

As indicated in the CEC's "2016 Nonresidential Compliance Manual for the 2016 Building Energy Efficiency Standards" (January 2017):

> The design of a hotel or motel is unique in that the design must incorporate a wide variety of occupancies and functions into one structure. The occupancies range from nonresidential occupancies to hotel/motel guest rooms. Design functions that affect guests range from the "experience of arrival" created through the main lobby's architectural features to the thermal comfort of the guest rooms. Other functions that hotel/motel designs must address include restaurants, kitchens, laundry, storage, light assembly, outdoor lighting, sign lighting, and other items that are necessary to the hotel/motel function. In short, these structures can range from simple guest rooms with a small office, to a structure encompassing a small city.[41]

As further indicated in Section 100.1 of the California Energy Commission's (CEC) "2016 "Building Energy Efficiency Standards for Residential and Nonresidential Buildings" (Title 24, Part 6, CCR) (June 2015) (2016 BEES), a "hotel/motel" is defined as:

> A building or buildings that has six or more guest rooms or a lobby serving six or more guest rooms, where the guest rooms are intended or designed to be used, or which are used, rented, or hired out to be occupied, or which are occupied for sleeping purposes by guests, and all conditioned spaces within the same building envelope. Hotel/motel also includes all conditioned spaces which are (1) on the same property as the

[40]/ U.S Hotel Appraisers (http://www.ushotelappraisals.com/services/hotel-asset-classes-full-service-hotels/).
[41]/ California Energy Commission, 2016 Nonresidential Compliance Manual for the 2016 Building Energy Efficiency Standards, January 2017, Section 1.7.8.

hotel/motel, (2) served by the same central heating, ventilation, and air-conditioning system as the hotel/motel, and (3) integrally related to the functioning of the hotel/motel as such, including, but not limited to, exhibition facilities, meeting and conference facilities, food service facilities, lobbies, and laundries.

In describing the treatment of accessory and incidental uses, the 2016 CBC noted:

- **Accessory Occupancies**. The 2016 CBC allows spaces that would normally be required to be separated from other occupancies by fire-resistive walls and ceiling/floor assemblies to omit these rated separations provided that they qualify as accessory occupancies. A space may qualify as an accessory occupancy if it meets all of the following criteria: (1) Accessory space shall not be more than 10 percent of the area of any floor; (2) The aggregate area of all accessory spaces in the building shall not exceed the base allowable area for non-sprinklered buildings listed in Table 506.2 without increases due to the presence of sprinklers or frontage; (3) The space is ancillary to, directly associated with, functionally interdependent upon, and under the direct control of the main use and would not otherwise take place independently; (4) The room is used for purposes or by persons who are expected to be associated with the main use of the building; (5) The space is not used for a purpose that could reasonably be expected take place independent of the main use; and (6) The space is occupied outside of the regularly scheduled hours of use for the rest of the facility.

  For purposes of calculating allowable area only, accessory occupancies are treated as the main occupancy they are accessory to; for all other purposes (such as sprinkler and alarm requirements, egress, maximum stories) they retain their original occupancy classification (Section 508.2, 2016 CBC).

- **Incidental Uses**. The 2016 CBC recognizes that some spaces in a building are inherently more hazardous than others and requires that they be appropriately separated from other spaces with rated construction, protected by fire sprinklers, or both. Incidental uses shall be protected as required in Table 509 even if they would otherwise qualify as an unseparated accessory space. Where the option is available to provide sprinkler protection in the place of rated construction, construction shall still be capable of resisting the passage of smoke (Section 509).

  Unlike accessory uses, incidental use spaces assume the occupancy of the part of the building they are located in and are not given an occupancy classification based on the use they most closely match from the list in Section 302.1. The aggregate area of incidental use spaces shall not be more than 10 percent of the area of the story they are located in. Where they do exceed this limit, they shall be treated as separated occupancies and be provided with the protection and/or separation as required by Table 509 or 508.4, whichever is greater

As defined in Section 22.80.020 (Definition of Specialized Terms and Phrases) in Chapter 22.80 (Definitions) in Title 22 (Development Code) of the MC, "accessory retail uses" are defined as the "retail sales of various products (including food) in a store or similar facility that is located within a health care, hotel, office, or industrial complex for the purpose of serving employees or customers, and is not visible from public streets. These uses include pharmacies, gift shops, and food service establishments within hospitals; convenience stores and food service establishments within hotel, office and industrial complexes." As expressly defined therein, "hotels and motels" can include "accessory guest facilities such as swimming pools, tennis courts, indoor athletic facilities, accessory retail uses, etc."

As illustrated in the proposed site plan, the incorporation of a "treats shop" suggests the presence of a use potentially approximating a small "convenience store" where packaged food items, beverages, and other sundries, toys, and souvenirs can be purchased. As proposed, based on the limited size (assumed to be less than 100 square feet) of that space and because it would primarily serve "hotel" guests, unless that or another accessory retail use where to expand beyond the confined illustrated therein, no accompanying exterior signage is assumed and, notwithstanding the additional parking requirements specified for "accessory retail uses" in Table 3-10 (Parking Requirements by Land Use and Use Type), as referenced in Section 22.30.040 (Number of Parking Spaces Required), no separate parking requirements relating solely thereto have been identified by the Applicant or, in its present form and configuration are presently suggested by the Department.

As proposed, as currently configured and operating under the same roofline, the "hotel" (Lot 3) does not include an accompanying restaurant, nightclub, specialty shop, or large-scale convenience store. Although Lot 1 (47,828 square-foot general office and medical office building) and Lot 2 (8,900 square-foot medical office building) are presently proposed as general and medical office buildings, the Applicant could seek subsequent City approval to convert one or both of those buildings, or some portions thereof, to non-office-related uses more complementary to the functionality and promotion of a "hotel" project (incorporating other "accessory retail uses"), thus potentially altering the character and characteristic of the proposed project's "hotel" component.

Additionally, "ownership," "tenancy," and "occupancy" of the proposed project is not limited only to general and medical office uses. As noted in Table 2-6 (Allowable Uses and Permit Requirements for Commercial Zoning Districts), support services [unspecified], convenience store, restaurant, and personal services [unspecified referenced in Section 22.10.030 (Commercial/ Industrial District Land Use and Permit Requirements) of the MC, a wide range of "permitted" uses (e.g., off-site alcohol beverage sales, business]) are authorized within the "Regional Commercial (C-3)" zoning district. Whether or not categorizes as "accessory retail uses," other retail, financial, and service-related uses could operate on the project site in addition to or in lieu of those general or medical office uses now indicated by the Applicant.

3.0 PROJECT DESCRIPTION

3.1 Introduction

CEQA defines a "project" to mean "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (Section 15378, State CEQA Guidelines). The State CEQA Guidelines further states that "[a]n indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment" (Section 15064[d][2], State CEQA Guidelines).

CEQA defines "effects" as inclusive of both "direct or primary effects" and "[i]ndirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable" (Section 15358[a][2], State CEQA Guidelines).

To the extent that the proposed project removes, reduces, or otherwise modifies existing development standards within the City, thus allowing for an increase in the size, bulk, and height of any improvements located thereupon above those standards currently in place and/or allows for the introduction of land uses not otherwise authorized thereupon, those actions might otherwise be exempt from CEQA unless the development resulting therefrom and the property or properties so effect and any reasonably foreseeable consequence of those regulatory actions can be identified.

With regards to the proposed action, the physical attributes of the proposed project addressed herein are confined to those that have the potential to elevate to a level of significance under CEQA. Those which do not are either not addressed or not addressed to the same level of analyses.

Here, the Applicant has submitted a formal development application with the Department requesting the City's authorization to subdivide an existing 5.73-acre property, including receipt of such additional discretionary permits and approval as may be required for the purpose of constructing and operating a 3-story, 47,828 square-foot general and medical office building, a separate single-story 8,900 square-foot medical office building, and a 4-story, 61,743 square-foot, 109-room hotel (Hilton Hampton Inn & Suites) thereupon. The issuance of building and associated permits for the construction of those uses is generally seen as ministerial actions and, therefore, exempt from CEQA. In contrast, the land-use entitlements that must be in place prior to the issuance of those permits constitute discretionary actions and are subject to CEQA.

The CEQA process parallels the entitlement process but, except at the point when the CEQA lead agency's decision-making body is considering taking action on a non-exempt project, is relatively independent thereof. As such, with the primary purpose of disclosing to the public the potentially significant environmental impact associated with a proposed discretionary project, CEQA compels government agencies at all levels to make informed decisions with the environmental consequences of those actions in mind.

In general, for descriptive purposed, the proposed project can be described as comprised two separate but interconnected components. The first component relates to the proposed regulatory changes to the City's existing development policies and associated standards governing the use of the project site and the intensity of development thereupon that are under consideration and that are required for any construction activities that might follow therefrom, including a determination whether those changes are reasonably linked to physical changes to the environment which are subject to CEQA analysis. The second component is the actual physical development that those changes presage, including the subsequent construction and operation of the proposed project.

Although no representation is made as to which type of developer the Applicant may be, some developers divorce the process of seeking the requisite land-use entitlement from the later development itself. With the requisite entitlements in hand, the development may then attempt to secure a site user who, either independently or in combination with the development, proceeds to "build-to-suite" based on the precise specifications of that end user. Even if not the developer's initial intent, because the presence of a committed end user enhances financing options, separate parties may often be involved in the securing of requisite entitlements and proceeding with the construction.

With regards to the proposed project, the only discretionary entitlement now being sought that specifies a precise building configuration and square footage, but does not limit the range of land uses otherwise authorized thereupon, is the City-issued "development review." As specified in Subsection "(a)" in Section 22.48.030 (Application, Processing, and Review) in Chapter 22.48 (Development Review) of the MC: "Development review and administrative development review

applications for projects that also require the approval of another discretionary permit (e.g., conditional use permit, variance, etc.) shall be acted upon concurrently with the discretionary permit and the final determination shall be made by the highest level of review authority in compliance with Table 4-1, Review Authority. The review authority may approve, or approve with conditions, the permit based upon the findings outlined in Section 22.48.040 (Findings and Decision)."

With regards to any changes thereto, as authorized in Section 22.66.060 (Changes to an Approved Project) in Chapter 22.66 (Permit Implementation and Time Extension) of the MC:

> A development or new land use authorized through a temporary use permit, administrative development review, development review, minor variance, variance, minor conditional use permit or conditional use permit shall be established only as approved by the review authority and subject to conditions of approval, except where changes to the project are approved in compliance with this section. An applicant shall request desired changes in writing, and shall also furnish appropriate supporting materials and an explanation of the reasons for the request. Changes may be requested either before or after construction or establishment and operation of the approved use. If the matter originally required a noticed public hearing, the review authority shall hold a public hearing on the requested change(s), and give notice, in compliance with chapter 22.72 (Public Hearings).
>
> (1) Minor changes. The director may authorize minor changes to an approved site plan, architecture, or the nature of the approved use if the changes: (a) Are consistent with all applicable provisions of this Development Code and the spirit and intent of the original approval; (b) Do not involve a feature of the project that was a basis for findings in a negative declaration or environmental impact report for the project; (c) Do not involve a feature of the project that was specifically addressed or was a basis for conditions of approval for the project or that was a specific consideration by the review authority (e.g., the director, hearing officer, commission, or council) in the approval of the permit; and (d) Do not result in an expansion of the use.
> (2) Major changes. Major changes involve features described in Subsections (1)b. and (1)c. (Minor changes), above, and shall only be approved by the review authority through a new entitlement application or modification, processed in compliance with this Development Code.

Subject to the precise nature of all associated project-related entitlements and any City-imposed provisions, conditions, mitigation measures, and other stipulations associated therewith, operating within the parameters associated therewith, any future revisions to the current development review application could be deemed a "minor change" thereto. Subject to a subsequent determination, a change in tenancy, the introduction of other "permitted" uses, a reconfiguration of the proposed structures, and the transference of square footages there between would not appear to predicate a "major change."

Independent of the resulting development, unless otherwise conditioned, if subsequently approved or conditionally approved by the City, the resulting use of the project site would be regulated by the land-use entitlements which include or which may include, but may not be limited to, the approval of a tentative parcel map and tentative condominium map, the amendment to the land-use policy map accompanying the 1995/2013/2014 General Plan, the amendment to the City's Official Zoning Map, the approval of a CUP, design review, the issuance of a shared parking permit, and the approval of a comprehensive signage program.

In that context, the potential direct impacts attributable to the proposed project relate to the "direct physical changes" (Section 21065, CEQA; Sections 15060, 15064, and 15358, State CEQA Guidelines) that the project would predicate. If reasonably foreseeable, the proposed project's potential indirect impacts would include, but may not be limited to, and changes thereto that might have the potential to increase or otherwise alter the nature or severity of those direct impacts.

As specified in Section 15162.2(b) of the State CEQA Guidelines, "energy impacts" have been listed as a potential area of inquiry under CEQA. With regards to building height, subject, in part, to placement on the property, tall buildings have a greater propensity to both cast shadows on public spaces and intrude on the privacy of adjacent properties than shorter buildings. Unlike vegetation which can be trimmed or initially selected to minimize the casting of off-site shadows, structures can create immovable conditions that may have long-term implications affecting off-site receptors. Structures that create lasting impacts on adjoining uses could limit the ability of those adjoining uses to utilize solar or other renewable energy sources.

With regards to MC-imposed parking requirements, minimum parking standards for general and medical office uses are substantially different. The minimum parking standard for a medical office use is defined as one parking space for each 250 square feet of gross leasable floor area. In contrast, the minimum parking standard for a general office use is one space for each 400 square feet of gross leasable floor area.

Office leasing practices suggest that a synergy can develop in a dedicated medical office park in which a diversity of complementary health-related practices coexist. Assuming a shared reciprocity, doctors and other professionals in non-competitive medical practices may refer their patients to practitioners in other fields (e.g., such as a dentist's referral to an optometrist) operating within the same facility under the assumption that a similar referral may also come their way.

Independent of the Applicant-specified distribution between general and medical office square footages, the Applicant has previously expressed to the Department a desire to maximize the development of medical office uses on the project site and has expressly stated that a single medical tenant has been identified or may reasonably be identified to occupy the entirety of the proposed 56,728 gross leasable square footage. The Department has further assumed that the office condominium plan provided by the Applicant remains subject to change, such that either a greater or lesser number of office condominiums may be developed on the project site.

Even though minimum parking requirements for certain uses (e.g., fast-food restaurants) may exceed the one space per each 250 square feet of gross leasable floor area assumed herein, that CEQA-based assumption is not intended to limit the range of "permitted" uses that could operate on the project site in accordance with Section 22.10.030 (Commercial/Industrial District Land Use and Permit Requirements) of the MC. Should a subsequent "owner," "tenants," or "occupant" seek the City's authorization to operate a "conditionally-permitted use" thereupon, to the extent that the minimum parking requirement for that use were to exceed the square feet-based assumptions presented herein, that applicant would need to demonstrate to the City the sufficiency of the off-street parking available under the terms of the project's reciprocal parking agreement.

A prior development application submitted by the Applicant for the subject property included a "drive-through" fast-food restaurant. During the Department's preliminary review thereof, a number of unresolved design and development issues were identified and, at that time, not resolved to the Department's satisfaction. Either independent of or as a consequence thereof, the Applicant, at the Applicant's sole discretion, withdrew that design option and resubmitted the current development plan.

Operating within the confines of the "permitted" uses authorized within the City's "Regional Commercial (C-3)" zone, notwithstanding the Applicant's representation concerning the type and distribution of general and medical office uses therein, retaining the proposed "hotel" use and other freestanding buildings in the locations and configuration now proposed, the Department has elected to view the remaining 56,728 (118,471 – 61,743 = 56,728) square feet of gross leasable square footage with a relative degree of flexibility to ensure that the environmental impacts of those "permitted" uses are reasonably considered herein. In the preparation of this CEQA document, it has been the Department's intent not to unreasonably restrict or otherwise limit the functional operation of the proposed 61,742 square foot, 109-room hotel component or the remaining 56,728 gross leasable square footage of additional uses for such "permitted" uses as may be authorized thereupon, such that this document constitutes a supportable basis under CEQA for those existing and reasonably foreseeable future uses.

The assumptions upon which this analysis has been based are, however, predicated on that stated maximum square footages identified herein, the maximum number of hotel rooms, the introduction and operation of only those "permitted" uses allowable within the "Regional Commercial (C-3)" zone (excluding the proposed hotel), and the identified building configuration (inclusive of the heights and orientations thereof)."

3.2 Proposed "Brea Canyon Business Park" Project

As proposed, initially in the form of a four lot tentative parcel map, the project site will be subdivided to accommodate the construction and operation of three freestanding buildings, each existing on a separate parcel on the project site, including a fourth "common area" parcel containing a reciprocal access, parking, and utility agreement which is shared, equally or proportionally, and maintained by each building owner operating through a non-profit "business-owners' association/condominium association" (BOA) or similar representative management entity comprised of all owners of interest thereupon and subject to that BOA's recorded CC&Rs.

As proposed, the three building lots would include: (1) 17,237 net square feet, include a 47,828 square-foot general office and medical office building (Lot 1, TPM 82066); (2) 9,542 net square feet, including an 8,900 square-foot medical office building (Lot 2, TPM 82066); and (3) 21,982 net square feet, including a 61,743 square-foot, 109-room hotel (Lot 3, TPM No. 82066). The fourth "common area" parcel would include approximately 198,815 net square feet. An additional 1,346-square foot area would be dedicated to the City in the form of additional public right-of-way to be added to Brea Canyon Road for the purpose of creating a deceleration and turning lane into the project's single point of ingress and egress along Brea Canyon Road.

Office buildings are typically broken down into three "classes" of space (Class A, Class B and Class C) relating to three tiers of quality, location, amenities and services. No universal definitions of those classifications exists. Because the classification is primarily a market-based breakdown of space within a general market area, has no direct connection with building code standards, and does not directly related to the precise nature of any City entitlements, the Department is making no representations herein concerning the classification of the proposed office buildings.

As represented by the Applicant, a summary of the proposed project's individual elements and spatial components is presented in Figure 14 (Proposed "Brea Canyon Business Park" Project – Project Summary [GAA Architects] [June 7, 2019]). Based on the Department's assessment thereof, as a means of describing the proposed project, the following description focuses on the project's driveway, parking areas, predominant structures, shade and shadow cast by those structures, and exterior lighting and signage. In addition, drainage, including the proposed relocation of those existing County drainage facilities located on the site, is also addressed herein.

SITE AREA					SF	ACRES
GROSS SITE AREA					249,022	5.72
STREET DEDICATION					1,346	0.03
NET SITE AREA					**247,676**	**5.69**
BUILDING AREA		4 STORIES **HOTEL (H1)**	1 STORY **MEDICAL (O2)**	**MEDICAL(O1)**	3 STORIES **OFFICE (O1)**	**TOTAL**
LEVEL 1		15,918	8,900	15,644	0	**40,462**
LEVEL 2		15,182			15,999	**31,181**
LEVEL 3		15,180			15,999	**31,179**
LEVEL 4		15,180				**15,180**
TOTAL BUILDING AREA		61,460	8,900	15,644	31,998	**118,002**
SUBTOTAL PER BUILDING		**61,460**	**8,900**		**47,642**	
FLOOR ARE RATIO (BLDG./OVERALL)		52%	8%		40%	100%
PARKING REQUIRED	RATIO					
HOTEL						
109 ROOMS	1/Room	109				109
Employees (22)	1/2 Employees	11				11
FREE-STANDING MEDICAL	4/1000		36			36
MEDICAL	4/1000			63		63
OFFICE	1/400				80	80
SUBTOTAL - REQUIRED PARKING		**120**	**36**		**143**	**299**
PARKING RATIO (BLDG/OVERALL)		40.1%	11.9%		47.7%	
RECIPROCAL PARKING WITH HOTEL	30.0%	-13	-4		-16	-33
TOTAL REQUIRED PARKING		107	32		127	**266**
ACCESSIBLE STALLS						7
CA/CP/EV STALLS 8%						24
CURRENT PARKING PROVIDED						**289**
ACCESSIBLE STALLS	9'X19'	2	2		4	8
CA/CP/EV STALLS 8%	9'X19'	10	3		11	24
STANDARD STALLS	9'X19'					204
COMPACT STALLS	8'X16'				19.8%	53
TOTAL		115	35		137	**289**
(FUTURE) EVCS STALLS 6%		-7	-2		-9	-18
PARKING CONVERTED TO ACCESS AISLE		-1	-1		-1	-3
PARKING w/ FUTURE CHARGING PROVIDED						**268**
COVERAGE						**16.3%**
FAR						**47.6%**
LANDSCAPE					%	Area (S.F.)
REQUIRED					20.0%	49,535
PROVIDED					20.8%	51,551
EMPLOYEE PARKING		22	12		96	130
BICYCLE PARKING REQUIRED						
SHORT TERM 5% of	Visitor Parking	6	1		2	9
LONG TERM 5% of	Employee Parking	2	1		5	8
TOTAL		8	2		7	17
BICYCLE PARKING PROVIDED						
SHORT TERM 5% of	Visitor Parking	6	2		2	10
LONG TERM 5% of	Employee Parking	2	2		6	10
TOTAL		8	4		8	20

TRASH REQUIREMENTS	Solid Waste	Recyclables	Total Area Required	Total Area Provided
HOTEL (H1)	144	144	288	289
MEDICAL OFFICE (O2)	24	24	48	155
MEDICAL OFFICE / OFFICE (O1)	96	96	192	221

Figure 14
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT
PROJECT DESCRIPTION (June 7, 2019)
Source: GAA Architects

- **Project Driveway**. An existing approximately 5-foot-wide curb-adjacent sidewalk will be retained along the property's Brea Canyon Road frontage, allowing pedestrians to enter the site at multiple locations. No additional gates, access ways, or other openings will be provided along the property's other property boundaries.

  Given that it is the location of potential interaction of entry and exit movements, the driveway connection transition, where turning vehicles enter and exit the driveway, constitutes a critical design area. With regards to the proposed site plan, all vehicular traffic, including bicyclists, would enter and depart the site via a single driveway entrance centrally located along the site's Brea Canyon Road frontage. That 28 to 41-foot wide variable width driveway, serves as the designated fire lane and generally extends the entire width of the site.

  Presently, vehicles traveling southbound along Brea Canyon Road, south of Lycoming Street, can access a common turning lane, located within the central median, before turning left onto the site. Similarly, vehicles exiting the project site can turn left into that common turning lane before merging into southbound traffic on Brea Canyon Road. Modifications to the central median area are proposed which would prevent those turning movements, such that ingress to and egress from the project site would become "right in" and "right out" only.

  One general objective of driveway design is to avoid or reduce the potential queuing (vehicles stopped in a lane behind the stop line) of inbound and outbound vehicles awaiting opportunities for safe ingress to and egress from the driveway. In combination with the number of in-bound and out-bound lanes and the functionality of any traffic control devices within the site and at the roadway intersection, this is typically accomplished through the provision of an adequate "throat length," defined as the distance from the outer edge of the traveled way of the intersecting roadway to the first point along the driveway at which there are conflicting vehicular traffic movements.

  Queuing of traffic exiting the project site does not affect the operation of the adjoining public roadways but could affect on-site circulation and accessibility to any parking located within the throat length. The Transportation Research Board - National Cooperative Highway Research Program's (NCHRP) "Guide for the Geometric Design of Driveways" recommends that "parking should not be allowed in the driveway throat area."[42]

  When turning movements allow multi-directional turning movements, the NCHRP's "Guide for the Geometric Design of Driveways" recommends the provision of multiple exit lanes.

  > In general, driveways serving commercial and industrial sites should have at least two lanes, operating with one lane in each direction. With increasing driveway volume, adding a second exit lane becomes highly desirable in order to avoid excessively long queues and delay. Without two exit lanes, a motorist waiting for gaps in both traffic directions before turning left out of the driveway will unnecessarily block other motorists in the exit queue who could otherwise turn right when there are gaps in the traffic from the left. . .Generally, dual exit lane driveways are desirable when the exit volume reaches the level that more than one vehicle will want to exit the driveway within the time interval it takes one left-exiting vehicle to wait for and accept an adequate gap in roadway traffic.[43]

[42]/ Transportation Research Board - National Cooperative Highway Research Program, NCHRP Report 659: Guide for the Geometric Design of Driveways, 2010, Chapter 5 (Geometric Design Element).

[43]/ *Ibid*.

While not directly germane to the proposed project since "left in" and "left out" will be prohibited and because entering and departing vehicles are limited to a single turning movement, potential queuing concerns are nonetheless applicable to the proposed project.

As specified in Subsection "(5c)" in Section 22.30.080 (Driveway and Site Access) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC, relative to non-residential uses, driveways "shall have a minimum paved width of 12 feet for one-way driveways and 26 feet for two-way driveway. The maximum driveway width shall be 30 feet, exclusive of the area provided for a median divider." The proposed driveway appears to exceed that standard and may require either a MCUP or other discretionary authorization with regards thereto.

A combined curb-to-curb driveway width of 41 feet is illustrated in the proposed site plan, extending approximately 105 feet eastward from Brea Canyon Road to the first point along the driveway aisle at which there may exist conflicting vehicular traffic movements. At that location, an internal uncontrolled intersection is provided where entering vehicles could either continue eastward via a reduced width (28-feet wide) aisle or elect to turn right or turn left (via separate 28-foot-wide driveways) to proceed to the three on-site building. To the extent that the length of vehicles queuing to exit the project site at Brea Canyon Road were to exceed the 105-foot throat length, the turning movement of vehicles at that internal intersection might be impeded should stacking vehicle extend into that intersection.

Once on the project site, although the proposed half-width of that 41-foot-wide driveway segment should be sufficient to accommodate both left-through and separate right-through traffic, a poorly positioned single eastbound vehicle could impede other vehicles attempting to travel through that internal intersection, creating a potential situation where entering vehicles might need to queue behind that on-site vehicle and, thereby, impede access onto the project site.

Assuming a vehicle length of 19 feet and a separation distance of 5 feet between vehicles, the 105-foot throat length could accommodate only about four (or fewer if trucks were added to the vehicle mix) entering or departing passenger vehicles before stacking might began to block that internal intersection and/or restrict access onto the project site. In response, as depicted in the proposed site plan, the Applicant has proposed the installation of signage ("keep intersection clear") directing motorists not to block that intersections. Because vehicles along the northern and southern legs of that intersection may also be queuing to exit the project site, in addition to the Applicant's proposed signage, the installation of 3-leg STOP controls should be considered along the north, south, and west legs of that internal intersection (eastbound traffic could remain uncontrolled).

Although no driveway striping is illustrated on the proposed site plan (suggesting that none is presently proposed, channelization, in the form of a wider turning radius, flared taper, and curbed center island (no design details associated therewith have been provided) is proposed to separate incoming and outgoing traffic. Because the half-width of that driveway segment exceeds 20 feet, exiting drivers may misperceive that extra aisle width as either accommodating two exiting right-turn lanes or providing for separate right-turn and left-turn exit lanes. Traffic conflicts could occur if drivers mistake that added width for the presence of dual exit lanes, attempt to turn left despite the presence of a raised center median, or simultaneously attempt right-turn movements without any accompanying provisions with regards thereto.

With regards to entering traffic, except on low-volume, low-speed roadways, the curb radius or flare dimensions should be designed so that normal right-turn entry movements do not

have to slow down to a near stop in the through travel lanes on the roadway. Additionally, the driveway needs to accommodate the extra axles and longer wheelbase that leads to greater offtracking[44] of trucks entering the driveway.[45] With the planned dedication of additional right-of-way and the incorporation of a turning and deceleration lane along a portion of the site's frontage, in-bound trucks should not substantially interfere with northbound through traffic along Brea Canyon Road.

- **Off-Street Parking**. As specified in Subsection "(1)" in Section 22.30.040 (Number of Parking Spaces Required) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC: "Each land use shall be provided the number of off-street parking spaces required by Table 3-10 [Parking Requirements by Land Use and Use Type]. Additional spaces may be required/approved through discretionary entitlement approval."

  Independent of size considerations, proposed is the provision of 289 off-street parking spaces within the project's boundaries. Based on the Applicant-identified land-use mix, the number of available parking spaces is less than the 300 space minimum stall count calculated under Section 22.30.040 (Number of Parking Spaces Required) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC.

  Under Section 22.30.050 (Reduction of Off-Street Parking Requirements for Shared Use):

  > Where two or more nonresidential uses are developed as a recognized shopping or professional center and two or more uses have distinct and differing peak parking usage periods, (e.g. a theater and a bank), a reduction in the required number of parking spaces may be allowed through the approval of a parking permit, provided that the most remote space is located within 300 feet of the use it is intended to serve (as measured along the most direct pedestrian path). The amount of reduction may be up to the amount of spaces required for the least intensive of the two or more uses sharing the parking. A shared parking analysis may be required by the director to support a request for a parking reduction.

  In compliance therewith, in support of a shared-parking permit, a shared-parking analysis, entitled "Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California" (Linscott Law & Greenspan, January 25, 2019), was submitted by the Applicant and approved by the City's Department of Public Works (Public Works). As indicated in the shared-parking analysis, "the peak parking requirement for Brea Canyon Business Park during the weekday occurs at 10:00 AM and 2:00 PM and totals 260 spaces. On a weekend day, the peak parking requirements for the project occurs at 11:00 AM, when a parking demand of 178 spaces is forecast. Based on the proposed shared parking supply of 289 spaces, a surplus of 29 spaces and 111 spaces would result during the weekday and weekend peak hours, respectively."[46] The study concluded that "the proposed parking supply of 289 spaces for Brea Canyon Business Center would be adequate in meeting the overall

[44]/ When a vehicle makes a turn, its rear wheels do not follow the same path as its front wheels. The magnitude of this difference in path (offtracking) generally increases with the spacing between the axles of the vehicle and decreases for larger radius turns. Offtracking of passenger vehicles is negligible because of their relatively short wheelbases.

[45]/ *Op. Cit*., NCHRP Report 659: Guide for the Geometric Design of Driveways, Chapter 5 (Geometric Design Element).

[46]/ Linscott Law & Greenspan, Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California, January 25, 2019, p. 7.

future parking demand based on direct application of the ULI [Urban Land Institute] Shared Parking Methodology for all proposed land uses."[47]

Notwithstanding the findings of the shared-parking analysis, the Applicant has proposed the preparation of "parking management plan" (PMP) which "outlines the proposed allocation of parking supply on site and key parking management strategies to maximize the availability of parking for customers and employees of the center."[48] In accordance therewith: (1) CC&Rs will include a provision for reciprocal access and parking between the three buildings and provide for the maintenance of the parking area; and (2) a reciprocal parking easement or agreement will be recorded which will run with the land.[49]

All parking required to support the proposed project shall be provided within the project boundaries. No curbside parking is presently authorized along any proximal segments of Brea Canyon Road and no changes to that prohibition are planned or proposed. Additionally, although curbside parking is allowable along certain segments of Lycoming Street, east and west of Brea Canyon Road, that parking is not generally intended for use by project users and is neither intended nor required to satisfy project-specific parking demands. Since no physical access to Dryander Drive presently exists and no improvements thereto is proposed, project users would not be anticipated to use Dryander Drive for the parking of any project-related vehicles.

With regards to perpendicular (90-degree angle) parking, the City's "minimum parking stall and lot dimensions" are specified as 9-feet wide and 19-feet long (Table 3-12, Section 22.30.070[4][b], MC). Allowing for a "two-foot bumper overhang while maintaining the required parking dimensions" (Section 22.30.070[8][e], MC), parking dimensions of 9-feet wide and 17-feet long could be provided when abutting a landscaped area.

As indicated on the proposed site plan, a total of approximately 53 off-street parking stalls (18.3 percent) are identified as 8-feet wide and 16-feet long. Design details associated with individual parking spaces are illustrated in Figure 15 (Proposed "Brea Canyon Business Park" Project – Proposed Parking Stall Design Details [August 27, 2019]). As illustrated therein, the proposed project's parking dimensions relative to those spaces do not conform to the City's minimum parking width and length standards.

As proposed, all parking will be configured perpendicular (90-degree angle) to the accompanying drive aisle. Where single-loaded parking (parking only on one side of the drive aisle) is provided, minimum aisle width is presented as not less than 26-feet wide. Where double-loaded parking (parking on both sides of the drive aisle) is provided, minimum aisle width is presented as being not less than 26-feet 7-inches but is more typically represented as being 28-feet wide. The proposed project's aisle widths appear to comply with the requirements specified in Table 3-12 (Minimum Parking Stall and Lot Dimensions) in Section 22.30.070 (Development Standards for Off-Street Parking) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC.

In accordance with the provisions of the 2016 CBC's accessibility regulations and Section 22.30.060 (Disabled/Handicapped Parking Requirements) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC, Americans with Disabilities Act (ADA) compliant parking will be provided for each new structure. As mandated in the 2016 CBC, handicapped

[47]/ *Ibid*., p. 8.
[48]/ *Ibid*., p. 9.
[49]/ *Ibid*., p. 10.

parking spaces shall be located on the shortest accessible route to an accessible entrance and shall be so arranged that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own. Where total parking falls within the range of 101-150 parking spaces, as in the case of the proposed hotel, a total of five handicapped spaces, including one van accessible space, shall be required. The proposed site plan only illustrates two handicapped parking spaces in direct proximity thereto. As a result, at least with regards to the proposed hotel, the location of handicapped parking does not appear to comply with minimum ADA parking standards.

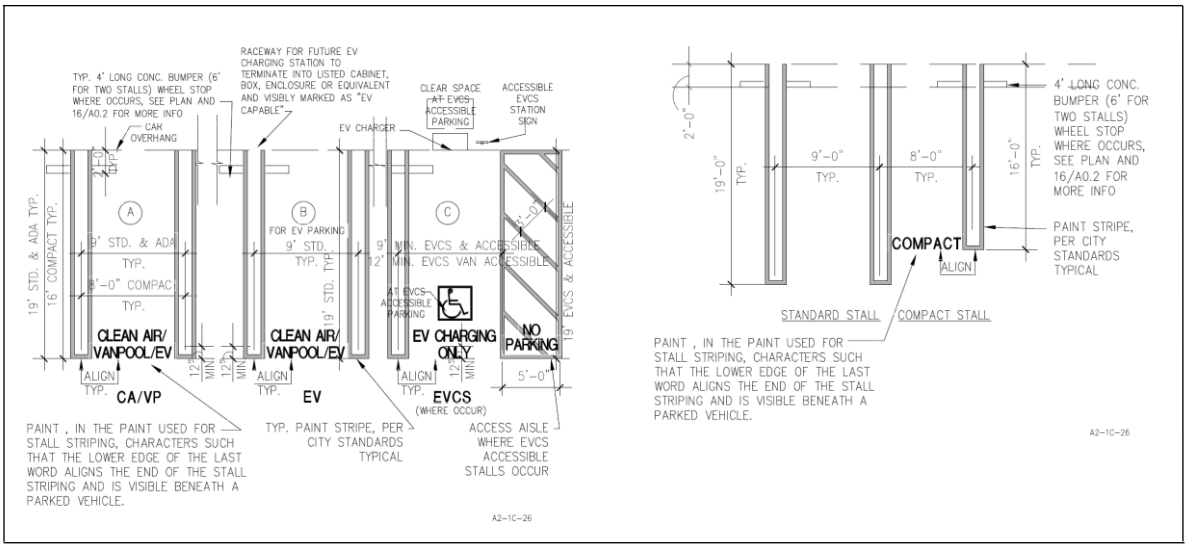


Figure 15
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT PROPOSED PARKING STALL DETAILS (August 27, 2019)
Source: GAA Architects

As specified in the 2016 CalGreen: "New construction shall comply with Section 4.106.4.1, 4.106.4.2, or 4.406.4.3 to facilitate future installation and use of EV [electric vehicle] chargers. Electrical vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625." Section 4.106.4.1 relates specifically to one- and two-family dwelling units and townhouses with attached private garages Section 4.106.4.2 relates specifically to new multi-family dwellings. As a result, neither provision relates to the proposed project.

Section 4.106.4.3 (New Hotels and Motels) specifies that "[a]ll newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces." The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1 therein. As specified therein, a total of seven EV spaces shall be required when the total number of parking spaces falls within the 101-150 range. No similar standards presently exist for general and/or medical office uses.

As specified in the 2016 CBC, EV spaces shall comply with the following: (1) the minimum length of each EV shall be 18 feet; and (2) the minimum width of each EV space shall be 9 feet. EV spaces, when installed, shall comply with the accessibility provisions for EV charging stations in Chapter 11B of the 2016 CBC. Based on the proposed site plan, numerically, the proposed project appears to comply with minimum EV charging station requirements.

As required under Section 22.40.030 (Transportation Demand Management Program Requirements) in Chapter 22.40 (Transportation Demand Management) of the MC: "All applicable projects shall prepare and implement a transportation demand management (TDM) program which will encourage increased ridesharing and the use of alternative transportation modes. In accordance therein, based on the proposed project's 118,471 square feet of development, among other obligations, carpool/vanpool preferential parking, a bicycle parking/storage area, a carpool/vanpool loading area, a transit waiting shelter, and joint access and shared parking.

Because the ordinance does not specify the timing for submitting the TDM program, the Department has discretion as to: (1) when that program should be submitted; and (2) beyond the minimum requirements specified in the MC, the level of specificity relating thereto. Since the requisite information could have implications relative to the configuration of the proposed site plan, at a minimum, the Department has both stipulated the timing for TDM program submittal and formulated specific performance standards relative to targeted reductions in both average daily vehicle trips (ADT) and vehicle miles traveled (VMT). As a recommended mitigation measure (MM-3), more detailed information beyond that incorporated on the proposed site plan shall be required prior to final subdivision map approval.

- **Main Buildings**. In addressing the individual buildings comprising the proposed project, issues and impacts relating to building orientation and physical characteristics addressed herein. Not addressed herein are other minor structures including, but not limited to, transformers, trash enclosures, and bicycle storage areas.

  Relative to the project's main buildings, proposed is the construction and subsequent operation of a 4-story, 61,743 square foot, 109-room hotel (Hilton Hampton Inn & Suites) (Lot 3), a 3-story, 47,828 square foot, general and medical office building (Lot 2), and a 1-story, 8,900 square foot, medical office building (Lot 1). The proposed 1-story office building (Lot 1) will be designed with a minimum 20-foot setback from Brea Canyon Road and 10-feet 6-inches from the adjacent commercial use ("Farmer Boys Restaurant"). The proposed hotel use (Lot 3) will be designed with a minimum 20-foot setback from Brea Canyon Road and the Caltrans right-of-way. Similarly, the 3-story office building (Lot 2) will have a minimum 20-foot setback from the Caltrans right-of-way and an approximately 70-foot setback from the County flood control channel. All proposed setbacks comply with applicable MC standards.

  The conceptual floor plans for the proposed project's three primary structures are presented in Figure 3 (Conceptual Floor Plan – Proposed 4-Story Hotel Building [Lot 3]), Figure 4 (Conceptual Floor Plan – Proposed 3-Story General and Medical Office Building [Lot 1]), and Figure 5 (Conceptual Floor Plan – Proposed 1-Story Medical Building [Lot 2]), respectively. The Applicant's conceptual landscape plan is presented in Figure 6 (Proposed "Brea Canyon Business Park" Project – Conceptual Landscape Plan). Additional landscape detail is included in Appendix B (Brea Canyon Business Park – Conceptual Landscape Plans (July 12, 2019) herein.

◊ **Building Orientation**. Building orientation relates to the placement of the individual buildings on the project site. Here, each of the three main structures are free-standing structures with no physical connectivity linking one to the other. Based on the proposed tentative parcel map, because the area between each building constitutes a separate parcel (Lot 4) and includes a reciprocal access agreement requiring the shared and non-exclusive use thereof, as proposed, any direct physical linkages between structures would likely be prohibited in accordance therewith.

♦ **4-Story Hotel Building**. The proposed hotel has been identified by the Applicant as a "Hilton Hampton Inn and Suites" (Hampton) and, by that indication, may provide certain insights or suggest certain characteristics regarding the nature of the hotel and its operation. Hampton is neither identified as the Applicant herein nor has the Department been presented any documentation affirming Hampton's involvement (e.g., franchise agreement). As a result, the proposed project is not conditioned thereupon and the Department is making no representation as to corporate identity or branding of that land use.

The project site is presently zoned "Light Industrial (I)." As proposed, the property would be rezoned to "Regional Commercial (C-3)." The maximum allowable building height within both districts is 35 feet (Section 22.10.040, Table 2-7, MC). The proposed 59-feet 1-inches height of the proposed 4-story hotel, which excludes architectural projections and roof-mounted HVAC equipment, constitutes an increase of over 24-feet (68.6 percent) over existing MC-allowable limits.

With regards to "maximum height," as specified in Subsection "(1)" in Section 22.16.060 (Height Measurements and Height Limit Exceptions) in Chapter 22.16 (General Property Development and Use Standards) of the MC: "The height of structures shall not exceed the standards established by the applicable zoning districts in Article II (Zoning Districts and Allowable Land Uses)."

As the northbound Orange (SR-57) Freeway transitions to the westbound Pomona (SR-60) Freeway, both that transition and the westbound off-ramp at Brea Canyon Road are elevated and provide unobstructed views northward toward those homes located along Dryander Drive and Lycoming Street, west of Dryander Drive. At the Brea Canyon Road overpass, the freeway travel lane is approximately 50-feet above Brea Canyon Road. Except for intervening vegetation, most of which will be removed during project construction, motorists travelling westbound along the freeway have a relatively unobstructed view to the north and west.

Existing views of the general project area, including those single-family homes located along Dryander Drive and Lycoming Street, west of Dryander Drive, from the off-ramp and from the freeway connection have already diminished any reasonable expectation of privacy relative to those homes. Notwithstanding existing visual intrusion associated with the freeway, independent of the presence or absence of any established rights with regards thereto, the owners and occupants of single-family residences may perceive an expectation of a reasonable right of privacy both with regards to their homes and, excluding front-yard areas and when side-yard areas abut a street, the privacy of their associated curtilage (i.e., the land immediately outside a home ordinarily consisting of the front-, back-, and side-yard areas, plus the driveway). Commercial and industrial properties would have no similar expectations. Within a narrow definition of privacy, side- and rear-yard areas that were once private may become subject to the evidentiary "plain view" doctrine

which holds that "it has long been settled that objects falling in plain view of a [police] officer who has a right to be in a position to have that view are subject to seizure and may be introduced as evidence" (Harris v. U.S. [1968]).

As proposed, excluding the outdoor pool area located to the west of the main building, the hotel's exterior dimensions are identified as approximately 291-feet long (extending along an east-west axis) and 65-feet 4-inches-wide (extending along a north-south axis), with the shorter dimension representing the façade oriented along the Brea Canyon Road frontage. The hotel extends eastward along the Pomona (SR-60) Freeway, paralleling the westbound off-ramp at Brea Canyon Road. At its nearest location, the hotel will be located approximately 170-feet southwest of the existing County flood control channel (PD 1445), representing the site's northern property line. Existing single-family residential units are located along the north side of that channel and are, therefore, physically separated from the subject property by that 50-foot-wide easement.

The building's placement effectively serves to screen a portion of the freeway from certain vantage points to the north of the project site, including a number of existing homes along the westerly segments of Dryander Drive and that portion of Lycoming Street west of Dryander Drive. Because, as a line-source, freeway noise will continue to radiate over and around the hotel, as distances move away from the building itself, the noise attenuation provided by the hotel building will be reduced.

During presubmittal discussions with the Applicant, the Department sought to avoid or minimize potential visual intrusion upon and the creation of building-cast shadows affecting proximal residential areas as a result of building height and placement. In a subsequent redesign, the placement of the proposed hotel away from Dryander Drive and Lycoming Street effectively served to reduce (but not eliminate) potential impacts that would otherwise exist if the hotel were placed in the northern or eastern portion of the property (as initially proposed).

No windows have been included along the eastern and western sides of the hotel which might accommodate directional views toward Moonlake and Northhampton Streets (on the west) and/or enhance elevated views toward Dryander Drive (on the north and east). All windows along the hotel's northern façade are inoperable, thus further limiting views primarily northward toward those homes fronting along Lycoming Street. No exterior walkways or balconies are provided there along which would create a less impeded view toward those residences.

Based on the skewed angle of the County flood control channel (PD 1445) (Diamond Bar Creek) relative to the orientation of each home, rear-yard setbacks for those residences vary from approximately 10 feet (21052 Lycoming Street) to 90 feet (21104 Lycoming Street) feet. Based on the angle of incidence, those homes with the largest private rear-yard areas will experience the greatest potential visual intrusion. Landscaping proposed along the proposed northern boundary would be expected to reduce the extent of any such impacts over time. Conversely, introduced landscaping could introduce additional shading concerns based on the height of that vegetation.

As specified in Subsection "(1)" in Section 22.20.060 (Walls Required between Different Zoning Districts) of the MC: "Walls shall be provided and maintained between different zoning districts as follows. . .Where a nonresidential zoning district abuts a residential zoning district, a solid masonry wall six feet in height shall be constructed on the zone boundary line." Here, under the assumed premise that the southern edge of the County flood control channel (PD 1445) does not constitute the edge "between different zoning districts," the Applicant seeks to retain the existing 6-foot-tall chain-link fence that presently aligns that channel.

The City's Community Development Director "may waive or modify requirements for new walls or walls six feet in height between different zoning districts where a solid masonry wall already exists on the contiguous property if the following findings can be made: (a) The existing wall meets or can be modified to conform to the intent of this section; (2) Suitable landscaping can be installed adjacent to the existing wall to supplement and enhance the desired physical separation; (c) The existing wall can be protected with wheel stops or curbs to prevent vehicle damage, if necessary; and (d) Concurrence of the adjacent property owner can be obtained, to modify the existing wall to meet the requirements of this section" (Section 22.20.060[4], MC).

Assuming the retention of the existing 6-foot-tall (wood) perimeter wall along the rear of each residence and the existing chain-link fence separating the subject property from the County flood control channel (PD 1445), absent any intervening landscaping, a section drawing generally depicting views from both the freeway and the top floor of the hotel building (assuming a viewer standing at the window in a fourth-floor hotel room) toward those existing single-family homes located along the south side of Lycoming Street (21054-21110 Lycoming Street, Diamond Bar), west of Dryander Drive, is presented in Figure 16 (Proposed "Brea Canyon Business Park" Project - Section Drawing Illustrating Views from the Proposed Hotel toward Lycoming Street. The "black line" depicts the views from the upper floor of the hotel obscured or partially obscured by mature landscaping. The "red line" depicts the views absence any intervening landscaping and demonstrates that on-site viewers (primarily those in upper floor areas) will likely be able to view certain rear- and side-yard residential areas relative to certain existing residences located along Dryander Drive and Lycoming Street.

Based on the presence of the existing County flood control channel (PD 1445) (Diamond Bar Creek), the construction of a nominally higher opaque wall along the property line separating the subject property from the channel would have minimal effect in reducing prospects for visual intrusion.

As specified in Table 3-3 (Maximum Height of Fences, Hedges and Walls) in Section 22.20.030 (General Height Limits) of the MC, rear and interior side yards are limited to a height of 6 feet; however, the Community Development Director "may approve up to 8 feet to enclose or screen areas within a rear of a parcel." If present, an 8-foot-tall concrete masonry block (CMB) wall located along the rear-yard areas of those single-family homes located along the south side of Lycoming Street (21054-21110 Lycoming Street, Diamond Bar) and along portions of Dryander Drive (807, 811, and 814 Dryander Drive) would incrementally enhance the privacy of those residences and noise attenuation relative to the Pomona (SR-60) Freeway.

Because privacy impacts are already adversely affected by the elevated nature of the Pomona (SR-60) Freeway and would not be substantially exacerbated by the introduction of the proposed 4-story hotel and 3-story office, the hotel's and the office's incremental contribution thereto would not constitute a significant environmental effect under CEQA. As a result, although acknowledging the presence of a visually-intrusive project-related impact, no project-specific mitigation relating thereto is recommended by the Department.

The entire length of the proposed hotel parallels the Pomona (SR-60) Freeway. Although no elevations thereof were presented by the Applicant (Appendix A), because ground-floor hotel rooms are provided along the southern portion of the hotel, window fenestration and the inclusion of at least one exterior door indicates that the ground-floor exterior wall will not be without detail.

"Graffiti and other inscribed material" and other forms of malicious vandalism affecting private property constitute a criminal activity (Section 594, Penal Code). CEQA discourages public agencies from engaging in speculative analysis (14 CCR 15145), such as criminality. The Department, however, recognizes that, in certain urban settings, building frontages absent architecturally articulation, have become canvases for graffiti (street art). Although no paint details have been specified by the Applicant, a number of proactive and reactive actions can be taken to reduce the presence and/or remove the existence of graffiti. The Institute for Technical Research Assistance's (IRTA) "Safer Alternative Graffiti Management Methods for California" (June 2014) examined the efficacy of a number of graffiti removal and prevention methods, including blasting systems, graffiti removers, and protective films and resistant coatings.[50] In the event that graffiti should occur anywhere on the property, it can be reasonably assumed that the Applicant, hotel operator, BOA, or such other representative management entity would promptly take responsive actions to remove.

- **3-Story Medical/Office Building**. The project site is presently zoned "Light Industrial (I)." As proposed, the property would be rezoned to "Regional Commercial (C-3)." The maximum allowable building height within both districts is 35 feet (Section 22.10.040, Table 2-7, MC). The proposed 50-feet 2-inches height of the proposed 3-story office building, excluding architectural projections and roof-mounted HVAC equipment, constitutes an increase of over 15-feet (42.9 percent) over existing MC-allowable limits.

  With regards to "maximum height," as specified in Subsection "(1)" in Section 22.16.060 (Height Measurements and Height Limit Exceptions) in Chapter 22.16 (General Property Development and Use Standards) of the MC: "The height of structures shall not exceed the standards established by the applicable zoning districts in Article II (Zoning Districts and Allowable Land Uses)."

  At its nearest location, the 3-story medical/office building will be located approximately 60-feet south of the existing County flood control channel (PD 1445), representing the site's northern property line. Existing single-family residential units are located along the north side of that channel and are,

[50]/ Institute for Technical Research Assistance, Safer Alternative Graffiti Management Methods for California, June 2014.

therefore, physically separated from the subject property by that 50-foot-wide easement.

The building's placement effectively serves to screen a portion of the freeway from certain vantage points to the north of the project site, including a number of existing homes along Dryander Drive. Because, as a line-source, freeway noise will continue to radiate over and around the 4-story hotel and 3-story office, as distances move away from the building itself, the noise attenuation provided by the hotel and office buildings will be reduced.

Most homes located Dryander Drive front along that street such that rear- and side-yard areas are screened from the project site by the buildings themselves. Three homes (807, 811, and 814 Dryander Drive) are, however, configured so that side and/or rear yard areas may be perceptible from both the freeway and from the top floor of the office building (assuming a viewer standing at the window in a third-floor office looking northward) toward those existing single-family homes, is presented in Figure 17 (Proposed "Brea Canyon Business Park" Project - Section Drawing Illustrating Views from the Proposed 3-Story Medical/Office Building toward Dryander Drive). The black line depicts the views from the upper floor of the office building obscured or partly observed by mature landscaping. The red line depicts the views absence any intervening landscaping and demonstrates that on-site viewers (primarily those in upper floor areas) will likely be able to view certain rear- and side-yard residential areas.

Because privacy impacts are already adversely affected by the elevated nature of the Pomona (SR-60) Freeway and would not be substantially exacerbated by the introduction of the proposed 3-story medical/office building, the building's incremental contribution thereto would not constitute a significant environmental effect under CEQA. As a result, no project-specific mitigation relating thereto is recommended by the Department.

Based on the nature of their use and the extended duration of occupancy therein, from an air quality perspective, unlike most commercial uses, residences are recognized as "sensitive receptors."

As noted on the proposed site plan, to the north of the proposed 3-story office building, an outdoor seating area is depicted (potentially serving as an area where cigarette smokers would congregate). The northeasterly edge of that area is located approximately 20 feet from the County flood control channel (PD 1445) and approximately 70 feet from the side- and/or rear-yard areas of 807-811 Dryander Drive. Although potentially adverse, based on that setback distance and the extent of existing toxic emissions attributable to traffic and vehicle exhausts associated with the Pomona (SR-60) Freeway, those activities do not constitute a significant environmental impact or public health hazard under CEQA.

- **1-Story Medical/Office Building**. The proposed 1-story medical/office building is located in the northwestern portion of the project site. The building's setback from Brea Canyon Road varies but is not less than 20 feet. To the north, the building setback is 10-feet 6-inches and would be separated from "Farmer Boys Restaurant" (810 Brea Canyon Road, Diamond Bar) by a 6-foot-tall wrought iron fence.

Pursuant to Section 22.20.060 (Walls Required between Different Zoning Districts) of the MC: "Walls shall be provided and maintained between different zoning districts." The adjoining "Farmer Boys Restaurant" is zoned "Neighborhood Commercial (C-1)." Because they both constitute commercial designations, with regards to Section 22.20.060 of the MC, subject to the Council's interpretation, the project's proposed "Regional Commercial (C-3)" zoning designation does not constitute a "different zoning district" than the "Neighborhood Commercial (C-1)" zone. No "solid masonry" wall is, therefore, required between those uses.

◊ **Operational Characteristics**. Uses with dissimilar operational characteristics, such as hours of operation and associated noise levels, can adversely impact other proximal uses where divergent standards are the norm. Here, a "Light Industrial (I)" land use designation abuts both a "Neighborhood Commercial (C-1)" and "Low Medium Density Residential (RLM)" districts. Typically, even when authorizing different intensities of development, similar uses are generally deemed compatible with other categories of uses within that same broader classification.

No hours of operation have been identified by the Applicant and no MC-mandated operational hours associated with any "permitted" land use within the "Regional Commercial (C-3)" district. Individual site users would be allowed to dictate their hours of operation and scheduling activities.

Excluding "urgent care" facilities which serve to supplement "primary care" facilities, most administrative and medical offices generally maintain an operational schedule extending between 7:00 AM to 6:00 PM, Monday through Saturday, and either no established or lesser hours on Sunday. Non-office-related uses (e.g., restaurants and churches) would likely operate during other time periods. Additionally, based on the nature of its use, hotels operate on a 24/7 basis. Maintenance activities, including parking lot sweeping, typically occur outside the typical hours of each commercial center's hours of operation.

"Permitted uses" typically found within commercial areas are often intended to serve the needs of proximal residential areas. Except when the operational hours associated with those uses occur prior to 7:00 AM and/or extend past 10:00 PM, including the performance of outdoor maintenance activities, continuing access by delivery vehicles, and the utilization of associated parking areas beyond those hours, potential operational conflicts are generally minimal and most often associated with noise complaints (e.g., vehicle alarms, amplified music, modified vehicle exhaust systems).

The existing County flood control channel (PD 1445) provides a 50-foot-wide buffer between the proposed project and proximal residential receptors. Although that separation distance is not sufficient to negate all potential operational conflicts, in recognition thereof, potential impacts remain at a less-than-significant level under CEQA and no mitigation measures have been identified or are presently recommended by the Department.

▪ **Shade and Shadow**. Shadow-sensitive uses include but are not limited to routinely useable outdoor spaces associated with residential, recreational, or institutional uses. Shadows are cast in a clockwise direction from west/northwest to east/northeast from the morning to afternoon. Generally, the shortest shadows are cast during the Summer Solstice (June 21) and grow increasingly longer until the Winter Solstice (December 21). During the Winter Solstice, the sun is lower in the sky and shadows are at their maximum lengths. With the

exception of shadows cast by the existing landscaping, existing single-family dwelling located to the north of the subject property do not currently receive a large amount of shadow coverage in the afternoon due to the absence of tall buildings on the subject property.

Detailed solar analyses were conducted by the Applicant and the results of that analysis graphically represented in Figure 18 (Proposed "Brea Canyon Business Park" Project – Shade and Shadow Analysis). Because the angle of incidence changes daily, no single day and no single hour can be deemed reflective of annual conditions. The illustration presented herein approximates a reasonable worst-case scenario, reflecting conditions anticipated on December 15th (3:42 PM), near the Winter Solstice.

With the exception of three residences located along Dryander Drive (820, 826, and 830 Dryander Drive) all shadows cast by the proposed project either fall within the project site or onto public spaces. With regards to those residents, with single exception (826 Dryander Drive), only the front-yard setbacks appear to be affected. With that exception, roof areas that might accept solar systems, are not impacted in a manner which could preclude the potential for the inclusion of solar panels thereupon. Impacts would be seasonal, such that the extent of such impact is estimated to be limited to the period when winter shadows are the longest.

On May 9, 2018, the CEC approved the "2019 "Building Energy Efficiency Standards for Residential and Nonresidential Buildings" (Title 24, Part 6, CCR) (2019 BEES) requiring that, unless otherwise exempt, starting in 2020, every new home (including hotel/motel occupancies) built in California will be required to have a solar electric generation system or photovoltaic (PV) system installed (Section 110.10, 2019 BEES). The 2019 BEES was approved by the California Building Standards Commission in December 2018.

As defined therein, the "solar zone" is a "section of the roof designated and reserved for the future installation of a solar electric or solar thermal system." With regards thereto: "(A) No obstructions, including but not limited to, vents, chimneys, architectural features, and roof mounted equipment, shall be located in the solar zone. (B) Any obstructions, located on the roof or any other part of the building that projects above a solar zone shall be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane" (Section 110.10[b][3], 2019 BEES).

Because the 2016 BEES, the 2019 BEES, the 1995/2013/2014 General Plan, and/or the MC do not include any express provisions preventing buildings from encroaching into the "solar zone" of any property potentially subject to those requirement, the resulting impact may be adverse but does not elevate to a level of significance under CEQA.

- **Light Intrusion**. All urban light sources contribute incrementally to "light pollution." "Light trespass" or "spill light" is defined as the light shining beyond the area to be illuminated, caused either by the uncontrolled direct component from luminaires or from light reflected from the task being illuminated. The California Energy Commission (CEC) defines "light trespass" as "unwanted light from a neighboring property."[51] Design of lighting installations is possible because light is predictable, it follows certain general laws of physics and exhibits certain fixed characteristics.

[51]/ California Energy Commission, California Outdoor Lighting Standards Synopsis, February 1, 2002, p. 1.

As specified in Subsection "(9b)" in Section 22.30.070 (Development Standards for Off-Street Parking) in Chapter 22.30 (Off-Street Parking and Loading Standards) of the MC: "Parking areas within commercial projects shall be provided with exterior lighting as follows: (1) A minimum of one footcandle of illumination shall be maintained at the parking surface throughout the parking area. (2) Lighting shall be on a time-clock or photo-sensor system. (3) All lighting shall be designed to confine direct rays to the property. No spillover beyond the property line shall be permitted. (4) Lighting fixtures shall have 90-degree horizontal cut-off flat lenses."

As specified, pole heights will not exceed 20 feet. The manner in which light fixtures will be shielded to reduce off-site light trespass is not specified in the parking plan. It is, however, noted that, as illustrated in Figure 19 (Proposed "Brea Canyon Business Park" Project – Photometric Analysis), based on the proposed driveway and parking lot lighting plan, a point-by-point analysis indicates that internal driveway and parking lot light levels will range from 0.9 to 4.6 horizontal footcandle (three feet above the surface) (HFC). Along Brea Canyon Road and at "Farmer Boys Restaurant" (810 Brea Canyon Road), light trespass is expected to exceed those levels specified in the MC (i.e., "no spillover beyond the property line").

With regards to the County flood control channel (PD 1445) and the single-family homes on Dryander Drive and Lycoming Street west of Dryander Drive, spill light levels beyond the property boundaries are not quantified therein. Lighting levels near the northern edge of the proposed parking area, located about 20 feet from the southern edge of the County flood control channel (PD 1445), range from 1.1 to 3.7 HFC. Although light levels at the northern edge of that channel are expected to exceed those levels specified in the MC (i.e., "no spillover beyond the property line"), when properly shielded, the light intrusion would not be expected to encroach onto proximal residential areas.

- **Exterior Signage**. As specified in Subsection "(a)" in Section 22.36.040 (Sign Permit) in Chapter 22.36 (Sign Standards) of the MC: "To ensure compliance with the regulations of this chapter, a sign permit shall be required in order to erect, move, alter, or reconstruct any permanent or temporary sign, except signs that are exempt from permits in compliance with Section 22.36.050 below."

  As further specified in Subsection "(a)" in Section 22.36.060 (Comprehensive Sign Program) therein: "The purpose of a comprehensive sign program is to integrate a project's signs with the design of the structures to achieve a unified architectural statement. A comprehensive sign program provides a means for the flexible application of sign regulations for multitenant projects and other users of multiple signs in order to encourage creativity and provide incentive and latitude in the provision of multiple signs and to achieve, not circumvent, the intent of this chapter." A "comprehensive sign program" (CSP) is required whenever new multi-tenant developments with three or more tenants use same parcel or structure and use common access and parking facilities (Section 22.36.060[b], MC).

  In approving a CSP, the hearing officer shall make the following findings: (1) the CSP satisfies the purpose of Chapter 22.36 (Sign Standards) and the intent of Section 22.36.060 of the MC; (2) the signs enhance the overall development, are in harmony with, and are visually related to other signs included in the CSP and to the structure and/or uses they identify, and to surrounding development; (3) the CSP accommodates future revisions which may be required due to changes in uses or tenants; and (4) the CSP complies with the standards of Chapter 22.36 (Sign Standards) of the MC, except that flexibility is allowed with regard to sign area, number, location, and/or height to the extent that the CSP will

enhance the overall development and will more fully accomplish the purposes of this chapter. With regards to signage, the following guidelines are presented therein:

> In determining the consistency of each proposed sign with the purposes of this chapter, the following guidelines shall be applied: (1) That the proposed sign will be legible to the intended audience under normal viewing conditions, based on its proposed location, and the design of its visual element; (2) That the proposed sign will not obscure front view or detract from existing signs, based on its location, shape, color, and other similar considerations; (3) That the proposed sign will be in harmony with adjacent properties and surroundings, based on the size, shape, height, color, placement, and the proximity of the proposed signs to adjacent properties and surroundings; (4) That the proposed structure, sign or display will be designed, constructed, and located so that it will not constitute a hazard to the public; and (5) That the proposed sign is not designed to be viewed from a freeway, unless specifically provided for under the terms of this chapter.

Pursuant to the Applicant's "Planned Sign Program for Brea Canyon Business Park, Diamond Bar" (June 6, 2019), as specified and as illustrated in Figure 20 (Proposed "Brea Canyon Business Park" Project - Comprehensive Sign Program [June 6, 2019]), the following five "sign types and sizes" are identified therein:

◊ **Type 1: Project Identification Monument Sign**. One double-faced monument sign will be located as shown.

◊ **Type 2: Primary Office Tenant Identification Monument Sign**. One double-faced monument sign will be located as shown.

◊ **Type 3: Secondary Office Tenant Identification Monument Sign** (Optional). One double-faced monument sign will be located as shown.

◊ **Type 4: Office Tenant Identification Wall Sign** (Optional). One tenant identification sign may be located on the 1-story medical building's (Lot 2) front elevation. Maximum sign length, height, and area shall not exceed 20-feet, 2-feet 2-inchs, and 52 square feet, respectively. Only one-line of copy shall be permitted. Lettering style and color shall be either as "nationally recognized corporate logo style (trademark) or custom design (subject to the "landlords" discretion).

◊ **Type 5: Hotel Identification Wall Sign**. One tenant identification sign shall be located on the hotel building's (Lot 3) front elevation. In addition, one additional sign shall be located on the building's rear and side elevations, for a total of four signs.

  The maximum sign length shall not exceed 17 feet 9½-inches along the front elevation; 15-feet 3-inches for rear elevation; and 12-feet 8½-inches for each side elevation. The maximum sign area shall not exceed 124.75 square feet for the front elevation sign; 124.75 square feet for the rear elevation; and 63.75 square feet for each side elevation sign. Lettering style and color shall be either as "nationally recognized corporate logo style (trademark) or custom design (subject to the "landlords" discretion).

In accordance with the Applicant's "planned sign program," prohibited signs shall include: (1) temporary signs, window signs, placards, flags, pennants, and banners of any type unless otherwise approved by the "landlord" and the City prior to installation; (2) animated,

foam, flashing, audible, off-premise, or vehicle signs; and (3) signs incorporating exposed raceways, crossovers, conduits, neon tube conductors, and transformers.

- **Drainage**. The California Regional Water Quality Control Board, Los Angeles Region's (LARWQCB) adopted "Order No. R4-2012-0175" (NPDES Permit No. CAS004001), establishing "Wastewater Discharge Requirements for Municipal Separate Storm Sewer System Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4" (Amended 2012 MS4 Permit) required new development projects to: (1) control pollutants, pollutant loads, and runoff volume emanating from the project site by (a) minimizing the impervious surface area and (b) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use; and (2) unless deemed infeasible, retain, on the project site, the "Stormwater Quality Design Volume" (SWQDv) from a design storm event, defined as the runoff from: (a) the 0.75-inch, 24-hour rain event; or (b) the 85th percentile, 24-hour rain event, as determined from the County's 85th percentile precipitation isohyetal map, whichever is greater.[52]

  The project site is relatively flat and generally drains to the northwest at approximately one percent slope. An approximately 0.56-acre Caltrans landscaped slope area also drains onto the site. Site runoff flows, via surface sheet flow, to the existing County flood control channel (PD 1445) (Diamond Bar Creek) located to the north of the project site.

  Upon implementation, approximately 70 percent of the project site will be covered with impervious surfaces. Storm drain runoff from impervious areas will be directed to surface gutters leading to catch basins and underground storm drain piping. Storm drain piping will direct the runoff to underground infiltration chambers sized to accommodate the SWQDv, representing the runoff generated by a water quality design storm event. Once the infiltration chambers are full, the flow will bypass the chambers and flow into the existing flood control channel via a proposed channel pipe connection. Stormwater runoff associated with an approximately 0.13-acre portion of the project site will flow directly to Brea Canyon Road. Post-project stormwater runoff into the County channel shall be restricted to 1.78 cubic feet per second (cfs) per acre.

  In the vicinity of Brea Canyon Road and Colima Road, storm flows originating to the south of the Pomona (SR-60) Freeway are transported via two existing 54-inch diameter RCP (PD 1469) beneath the freeway and a point of connection within the project site. Within the subject property, two existing 54-inch diameter RCP storm drains, transitioning to an existing 72-inch diameter RCP, traverse the project site. These pipes generally follow a north-south alignment and discharge to the existing County flood control channel (PD 1445) (Diamond Bar Creek). As proposed, the placement of the hotel building would overtop those pipelines and, therefore, requires relocation in a manner that will maintain existing flow characteristics and provide sufficient clearance from proposed on-site structures so as to allow continuing access to and the maintenance of that system. Proposed storm drain relocation plans are illustrated in Figure 21 (Proposed "Brea Canyon Business Park" Project – Los Angeles County Flood Control District 54-Inch Diameter RCP Pipe Relocation Plans [August 7, 2019]).

[52]/ California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2012-0175, NPDES Permit No. CAS004001 (Wastewater Discharge Requirements for Municipal Separate Storm Sewer System [MS4] Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4, November 8, 2012, Part IV.D.7.c.i. 1-2, p. 98.

With limited exception (e.g., an approximately 0.03-acre right-of-way dedication extending southward from the project's common driveway along Brea Canyon Road to accommodate a deceleration and turning lane), Appendix A (Brea Canyon Business Park – Conceptual Architectural Package [June 7, 2019]) only illustrates those aspects of the project that are proposed to occur within the confines of the approximately 5.73-acre project boundaries. Excluding that approximately 0.56-acre Caltrans drainage slope area draining onto the project site, other "off-site" areas are, however, also associated with the proposed project.

Based on potential turning conflicts, including the retention of existing access to existing driveway located along Brea Canyon Road serving Discovery World Preschool and Private Elementary School (801 Brea Canyon Road, Diamond Bar), and vehicle stacking requirements along that segment of Brea Canyon Road extending from the Pomona (SR-60) Freeway on the south to Lycoming Street on the north, the proposed project's ingress and egress has been limited to "right in" and "right out" only, meaning that vehicles exiting the project site will be prohibited from turning southward onto Brea Canyon Road and vehicles traveling southbound along Brea Canyon Road will not be able to turn left directly into the project's common driveway. In order to prevent those turning movements, physical improvements to the existing central median along Brea Canyon Road, north of the Pomona (SR-60) Freeway and south of Lycoming Street, have been incorporated into the proposed project.

As proposed, vehicular and non-vehicular access to the project site will be provided via an unsignalized driveway on Brea Canyon Road. The existing striping median along Brea Canyon Road allows two-way left-turn movement along the project's frontage. In order to prevent traffic from turning left into and out of the project site, a raised landscaped central median will be constructed in the vicinity of that driveway, extending both northward along Brea Canyon Road and southward along Brea Canyon Road to connect with the existing raised median which is present to the south of the driveway.

In addition, as illustrated in Figure 22 (Proposed "Brea Canyon Business Park" Project – Off-Site Traffic Improvements [July 31, 2019 / September 4, 2019]), improvements are proposed at the Brea Canyon Road/Lycoming Street intersection. As a project component, proposed improvements to the Brea Canyon Road/Lycoming Street intersection include: (1) along Brea Canyon Road, to the north of the project's driveway, the restriping of the northbound (NB) approach to westbound (WB) Lycoming Street to provide an additional exclusive WB left-turn lane; (2) in response to the addition of a second exclusive left-turn lane, to the west of Brea Canyon Road, along Lycoming Street, the restriping of the existing WB lane to accommodate two receiving lanes; and (3) relative to eastbound (EB) Lycoming Street, west of Brea Canyon Road, the restriping of the existing EB shared left/through/right-turn lane to provide an exclusive left-turn lane and a separate shared through/right-turn lane.

Subject to the approval of Caltrans and the City Engineer, as illustrated in Figure 6 (Proposed "Brea Canyon Business Park" Project - Conceptual Landscape Plan), the Applicant shall seek to obtain an encroachment permit or such other entitlements as may be required from Caltrans for the installation and maintenance of landscape improvements along that portion of the Caltrans' right-of-way associated with the Pomona (SR-60) Freeway extending eastward from Brea Canyon Road. Subject to Caltrans' approval, landscape improvements associated therewith, including water and electrical connections, shall be developed in coordination with the City Engineer and shall be financed and installed by the Applicant. Upon acceptance by Caltrans and the City and subject to such contract documents as may be associated therewith, the City shall subsequently bear future responsibilities for the ongoing maintenance of those improvements.

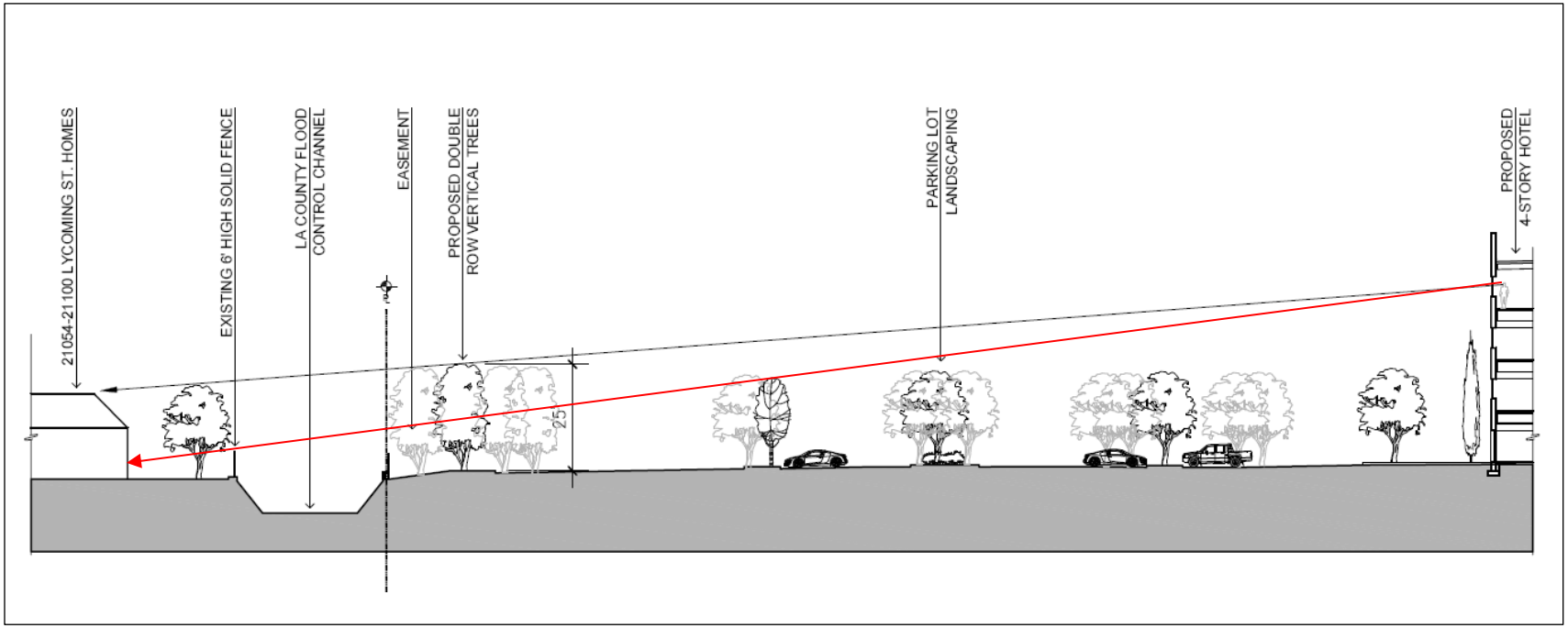


Figure 16
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT SECTION DRAWING ILLUSTRATING VIEWS FROM THE PROPOSED HOTEL TOWARD LYCOMING STREET
Source: GAA Architects

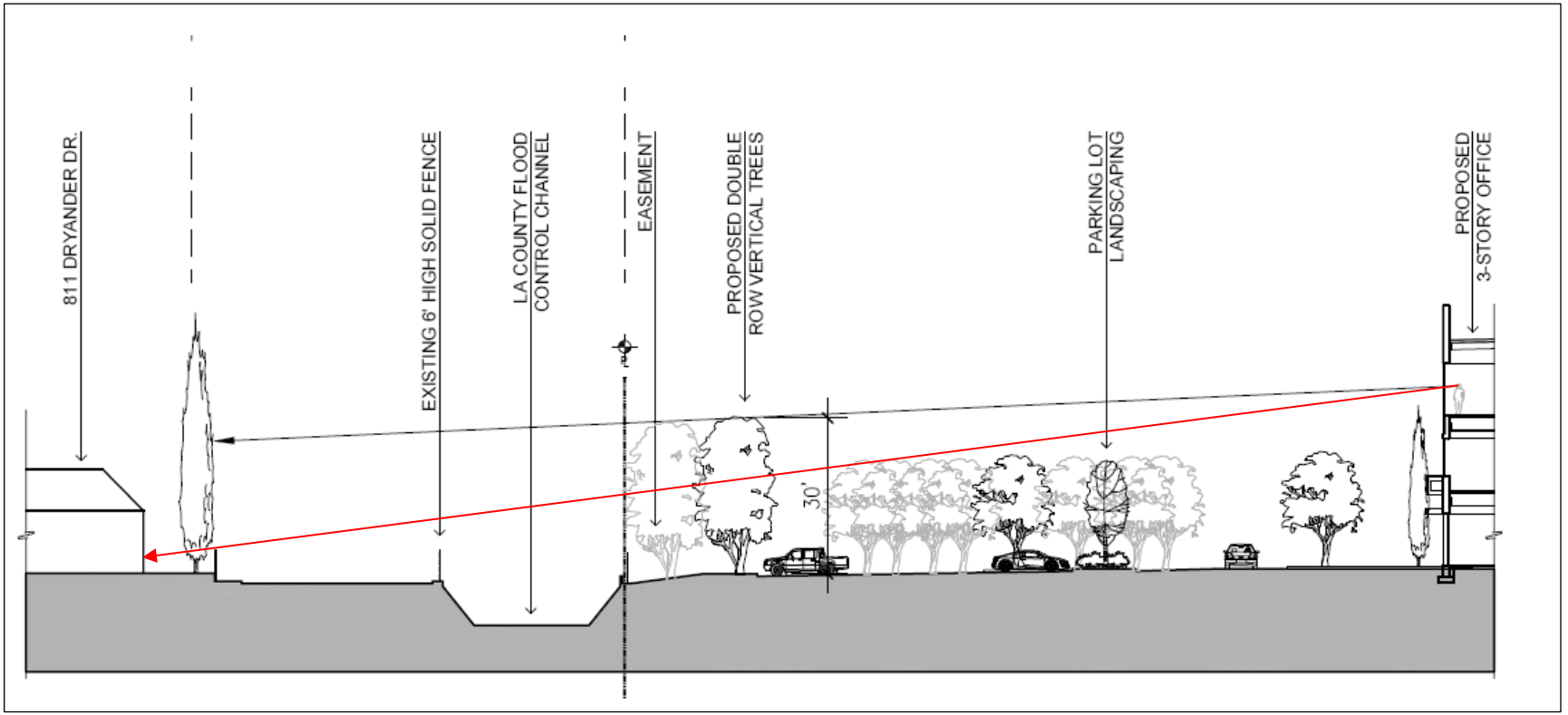
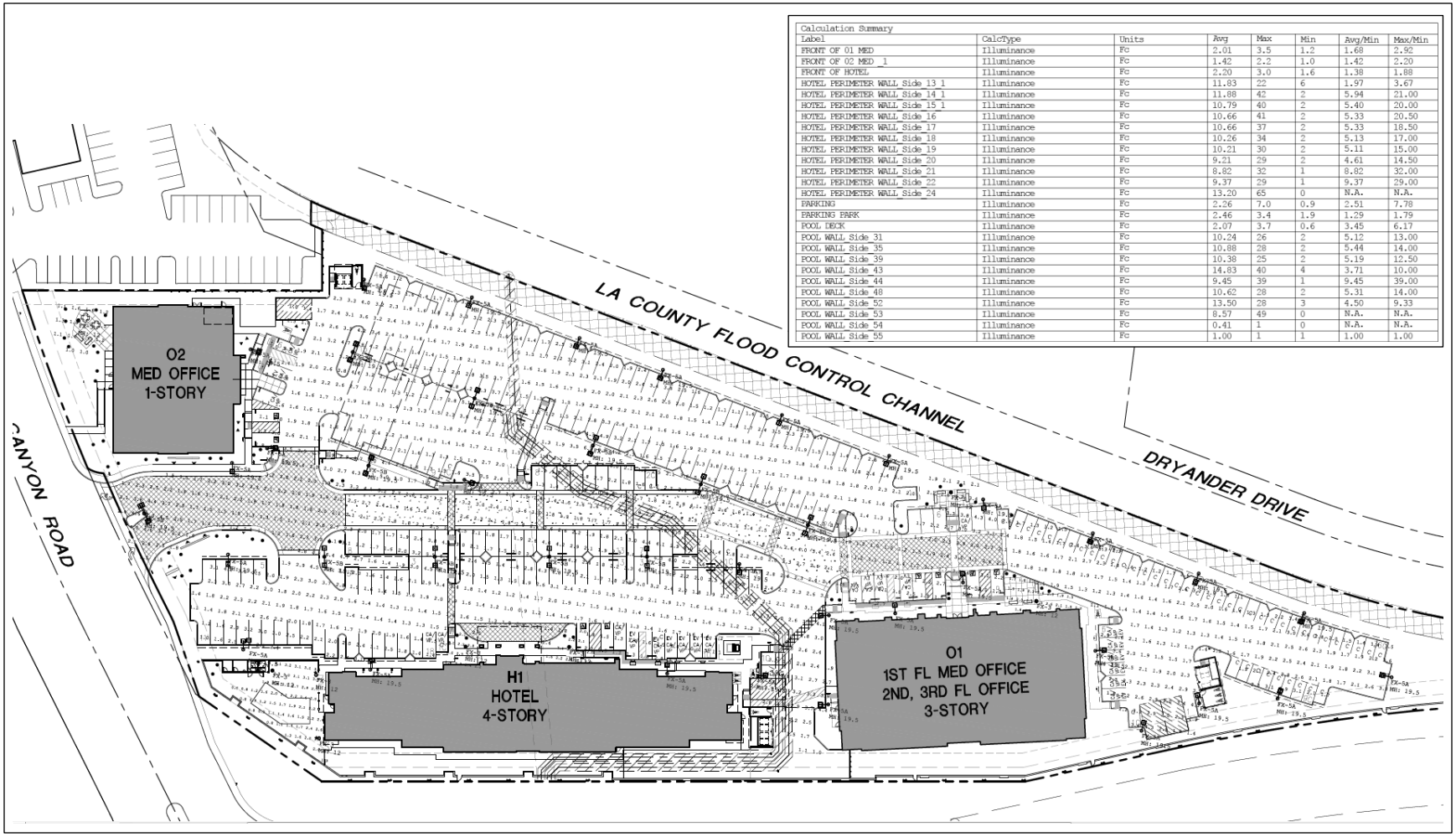


Figure 17
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT SECTION DRAWING ILLUSTRATING VIEWS FROM THE PROPOSED 3-STORY MEDICAL / OFFICE BUILDING TOWARD DRYANDER DRIVE
Source: GAA Architects



Figure 18
PROPOSED" BREA CANYON BUSINESS PARK" PROJECT
SHADE AND SHADOW ANALYSIS
(December 15: 3.42 PM)
Source: GAA Architects



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
FRONT OF 01 MED	Illuminance	Fc	2.01	3.5	1.2	1.68	2.92
FRONT OF 02 MED _1	Illuminance	Fc	1.42	2.2	1.0	1.42	2.20
FRONT OF HOTEL	Illuminance	Fc	2.20	3.0	1.6	1.38	1.88
HOTEL PERIMETER WALL Side 13_1	Illuminance	Fc	11.83	22	6	1.97	3.67
HOTEL PERIMETER WALL Side 14_1	Illuminance	Fc	11.88	42	2	5.94	21.00
HOTEL PERIMETER WALL Side 15_1	Illuminance	Fc	10.79	40	2	5.40	20.00
HOTEL PERIMETER WALL Side 16	Illuminance	Fc	10.66	41	2	5.33	20.50
HOTEL PERIMETER WALL Side 17	Illuminance	Fc	10.66	37	2	5.33	18.50
HOTEL PERIMETER WALL Side 18	Illuminance	Fc	10.26	34	2	5.13	17.00
HOTEL PERIMETER WALL Side 19	Illuminance	Fc	10.21	30	2	5.11	15.00
HOTEL PERIMETER WALL Side 20	Illuminance	Fc	9.21	29	2	4.61	14.50
HOTEL PERIMETER WALL Side 21	Illuminance	Fc	8.82	32	1	8.82	32.00
HOTEL PERIMETER WALL Side 22	Illuminance	Fc	9.37	29	1	9.37	29.00
HOTEL PERIMETER WALL Side 24	Illuminance	Fc	13.20	65	0	N.A.	N.A.
PARKING	Illuminance	Fc	2.26	7.0	0.9	2.51	7.78
PARKING PARK	Illuminance	Fc	2.46	3.4	1.9	1.29	1.79
POOL DECK	Illuminance	Fc	2.07	3.7	0.6	3.45	6.17
POOL WALL Side 31	Illuminance	Fc	10.24	26	2	5.12	13.00
POOL WALL Side 35	Illuminance	Fc	10.88	28	2	5.44	14.00
POOL WALL Side 39	Illuminance	Fc	10.38	25	2	5.19	12.50
POOL WALL Side 43	Illuminance	Fc	14.83	40	4	3.71	10.00
POOL WALL Side 44	Illuminance	Fc	9.45	39	1	9.45	39.00
POOL WALL Side 48	Illuminance	Fc	10.62	28	2	5.31	14.00
POOL WALL Side 52	Illuminance	Fc	13.50	28	3	4.50	9.33
POOL WALL Side 53	Illuminance	Fc	8.57	49	0	N.A.	N.A.
POOL WALL Side 54	Illuminance	Fc	0.41	1	0	N.A.	N.A.
POOL WALL Side 55	Illuminance	Fc	1.00	1	1	1.00	1.00

Luminaire Schedule						
Symbol	Qty	Label	LLF	Description	Lum. Lumens	Lum. Watts
⊙	8	FX-3	0.903	PHILIPS - CXFxx32-G2-5W5-16	4708	51.2
—⊡	29	FX-5A	0.849	PHILIPS - PIMA CXF548-G2-4W5-16	8028	75
⊡—⊡	11	FX-5B	0.849	PHILIPS - PIMA CXF548-G2-4W5-16	8028	75
⊡	80	V7	0.903	VIVID LTG - 4100k70ies1	2365	20.91

Figure 19
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT PHOTOMETRIC ANALYSIS
Source: GAA Architects

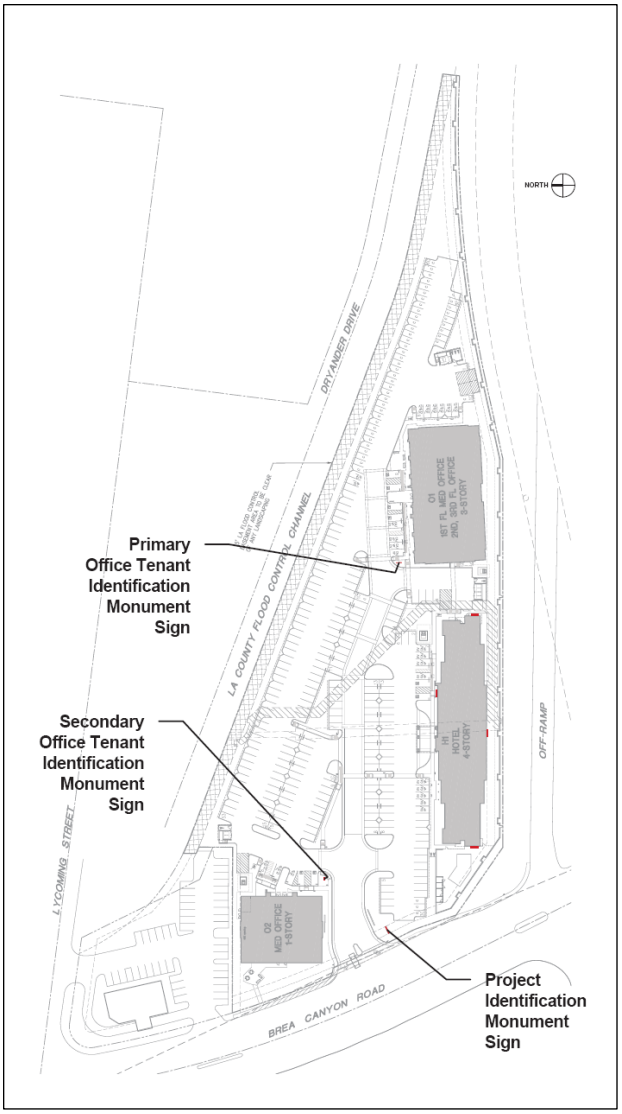


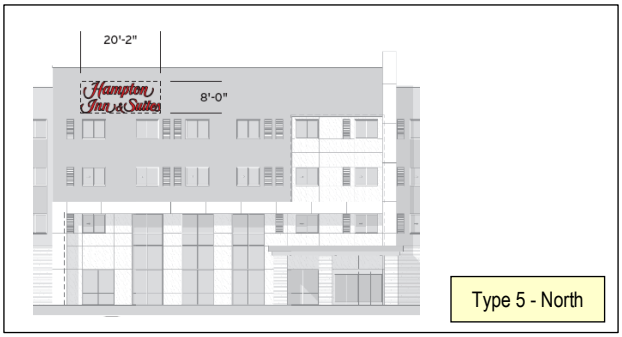


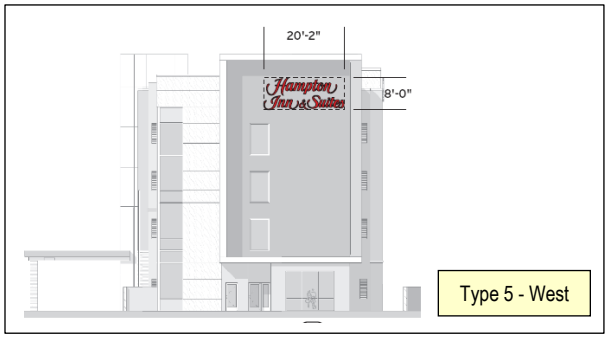




Figure 20
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT - COMPREHENSIVE SIGN PROGRAM
(June 6, 2019)
Source: Lycoming, LLC







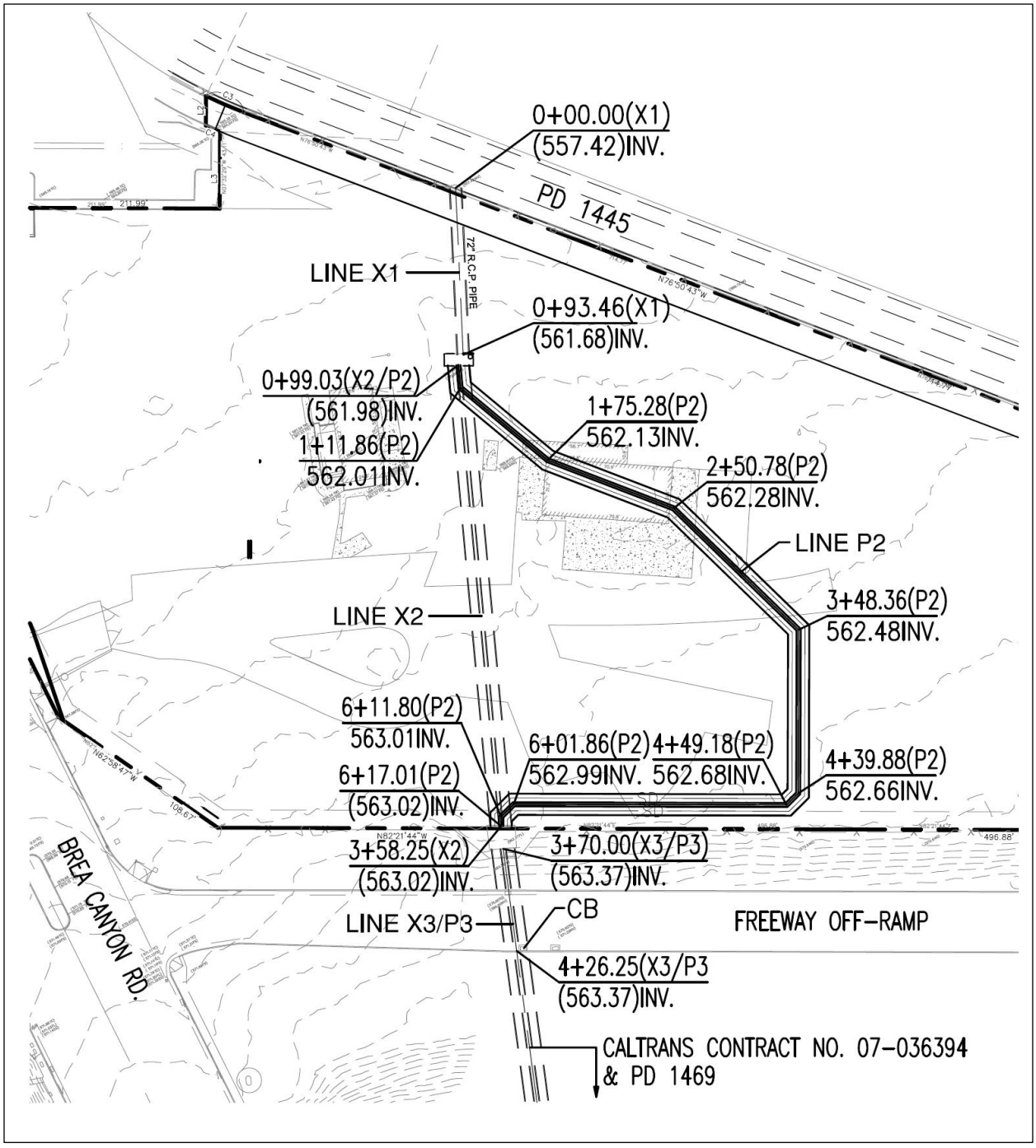


Figure 21
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
54-INCH DIAMETER RCP PIPE RELOCATION PLANS
(August 7, 2019)
Source: Plotnik & Associates



Figure 22 (1 of 2)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT OFF-SITE TRAFFIC IMPROVEMENTS (July 31, 2019)
Source: Linscott Law & Greenspan

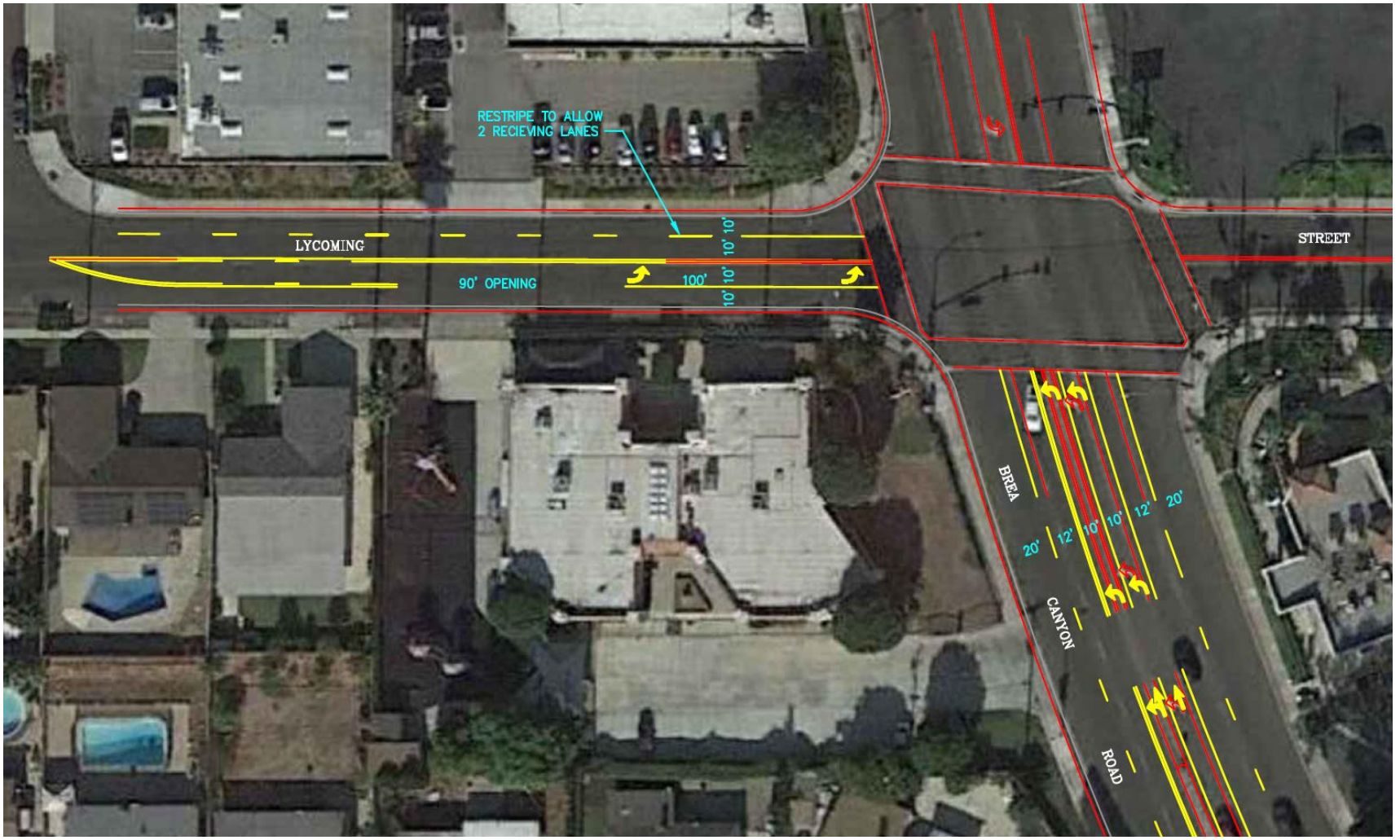


Figure 22 (2 of 2)
PROPOSED "BREA CANYON BUSINESS PARK" PROJECT OFF-SITE TRAFFIC IMPROVEMENTS (July 31, 2019)
Source: Linscott Law & Greenspan

Unless otherwise conditioned, Caltrans' failure to approve or conditionally approve all associated entitlements, despite the good-faith efforts of the Applicant to secure such approval, would effectively negates the Applicant's obligations thereunder.

4.0 PRELIMINARY CEQA DETERMINATION

4.1 Eligibility for Use of Streamlining

The proposed project does not satisfy the specified criteria for the streamlining of infill projects pursuant to Section 21094.5 of CEQA, Section 15182(b) (Projects Proximate to Transit) or Section 15183.3 (Streamlining for Infill Projects) of the State CEQA Guidelines, and Appendix M (Performance Standards of Infill Projects Eligible for Streamlined Review) of the State CEQA Guidelines. Based, in part, on the proposed GPA and FAR, the Department has not sought to apply those CEQA provisions to the processing of the proposed project

4.2 Preliminary CEQA Determination

Subject to any additional information that may be obtained by the Department following the dissemination of the "Notice of Intent to Adopt a Mitigated Negative Declaration" (NOI), based on information now known to the Department, it is the Department's preliminary recommendation that, because all potentially significant environmental effect either do not elevate to a level of significant or can be effectively mitigated to a less-than-significant level, the proposed project, including both its individual and collective parts, qualifies for processing through the use of a MND.

In the derivation of that preliminary determination, the Department conducted an analysis of the potential environmental impacts associated with the approval, preconstruction, construction, and operation of the proposed project, including the maintenance of those public facilities associated therewith, based, in part, on the use of that "environmental checklist form" presented in Appendix G (Environmental Checklist Form) of the State CEQA Guidelines. That checklist and the information presented by the Department in support of the preliminary determinations presented therein are included in Part 2 (Environmental Checklist Form) of this Initial Study.

4.3 Recommended Mitigation Measures

Based solely on their appearance herein, the following recommended mitigation measured (MM) are separately identified as "Part 1: Introduction, Setting, and Project Description" and "Part 2: Environmental Checklist Form" actions.

Part 1: Introduction, Setting, and Project Description

- **MM-1. Covenants, Conditions, and Restrictions**. Prior to the approval of any final subdivision map, the Applicant, the "business-owners' association/condominium association" (BOA), or similar entity comprised of all owners of interest thereupon shall submit, for review and approval by the City Attorney, the proposed project's "declaration of covenants, conditions, and restrictions" (CC&R). At a minimum, those CC&Rs shall: (1) contain provisions for the creation and operation of the BOA; (2) provide that the BOA shall be responsible for the maintenance of all common areas and facilities, including, but not necessarily limited to, water, wastewater, and drainage systems, walls and fences, lighting and landscaping, bicycle and vehicle parking areas, loading areas, trash area, and sidewalks; (3) include provisions that the title to the common areas is to be held by the BOA

for and on behalf of all owners of interest; (4) use and enforcement of parking provisions, including maintaining unobstructed drive aisles; and (5) the manner of enforcement thereof. Any changes thereto shall be prohibited except through the prior written approval of the City Attorney.

- **MM-2. Los Angeles County Flood Control District**. Prior to the issuance of a grading permit by the City, the Applicant shall deliver to the City Engineer: (1) documentation evidencing the Applicant's receipt of any and all permits and approvals as may be required by or from the County associated with any proposed excavation, removal, and replacement of any County-owned flood control facilities, including any proposed encroachment, realignment, and/or modifications thereto and conveyance documents and easements associated therewith; and (2) a comprehensive listing of any and all permit conditions, mitigation measures, and other exactions that may be associated therewith or established therein. All such conditions, mitigation measures, and other exactions shall be binding on the proposed project and, prior to the issuance of any occupancy permits, for any use proposed on the project site, the Applicant's compliance therewith shall be documented, to the satisfaction of the City Engineer.

- **MM-3. Transportation Demand Management**. Prior to the issuance of final subdivision map, in compliance with the provisions of Chapter 22.40 (Transportation Demand Management) of the "City of Diamond Bar Municipal Code," the Applicant shall submit and the Community Development Director shall approve a detailed "transportation demand management" (TDM) program encompassing the proposed project and each of the uses contemplated therein. The TDM program shall include separate operational components addressing strategies, singularly or in combination, to reduce the number of average vehicle trips (ADT) attributable to the proposed project and the total number of vehicle miles traveled (VMT) associated therewith. The TDM shall include reasonable and feasible actions and endeavors sufficient to achieve a twenty (20) percent reduction in ADT and VMT over conditions which would otherwise occur absent the TDM.

  The proposed project's "business-owners' association/condominium association" (BOA) or similar representative management entity comprised of all owners of interest thereupon shall: (1) not less than annually, implement reasonable outreach efforts to all owners, occupants, and tenants for the purpose of providing information and updates concern the TDM program and its effectuation; (2) implement an active and on-going TDM monitoring program for the purpose of assessing progress toward the achievement of the stated performance standards; and (3) periodically revise and/or modify the TDM program and undertake such further actions as may be reasonable and appropriate to demonstrate the achievement of those standards. The BOA or management entity shall make those records available to the Community Development Director upon request.

Part 2: Environmental Checklist Form

- **MM-4**. **Construction Air Quality**. Relative to construction-term air quality impacts, all site preparation and earthmoving activities shall be subject to three times, rather than twice, daily watering.

- **MM-5. Construction Air Quality**. Relative to construction-term air quality impacts, all heavy earthmoving equipment (e.g., graders, scrapers, heavy dozers) in excess of 240 horsepower shall be equipped with a Level 1 diesel particulate filter.

- **MM-6. Operational Air Quality**. The Applicant shall equip all structures with ventilation units with particulate filters with a rating of not less than Minimum Efficiency Reporting Value (MERV) 9 as recommended by the United States Environmental Protection Agency for automobile emission particles used in the protection of superior residential and better commercial structures, including hospital laboratories.

- **MM-7. Operational Air Quality**. The hotel (Lot 3, Tentative Parcel Map No. 82066) and the general and medical office building (Lot 1, Tentative Parcel Map No. 82066) shall have their ventilation intakes located along their north sides of those buildings.

- **MM-8. Cultural Resources**. Prior to the issuance of a grading permit, a qualified archaeologist, meeting the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, National Parks Service, September 29, 1983) shall be retained by the Applicant to oversee the monitoring of initial ground disturbing activities, including all trenching and excavation activities occurred to a depth greater than three feet below surface grades. The archeologist shall conduct earthwork monitoring activities for the purpose of identifying the potential presence of any significant historic or prehistoric cultural resources located within the project boundaries.

- **MM-9. Cultural Resources**. If cultural resources are identified during monitoring of the ground disturbing activities, the supervising archaeologist shall be empowered to temporarily halt construction in the vicinity of any such discovery while its significance is being evaluated. All cultural resources that may be so recovered will be documented on California Department of Parks and Recreation Site Forms and filed with the California Historical Resources Information System South Central Coastal Information Center at the California State University, Fullerton (CHRIS-SCCIC). Independent of any resources identified, the archaeologist shall prepare a final report about the monitoring and submit that report to the City's Community Development Director, and the California Historical Resources Information System South Central Coastal Information Center at the California State University, Fullerton (CHRIS-SCCIC), as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of any resources so recovered, if any. The Community Development Director shall designate repositories in the event that significant resources are recovered.

- **MM-10. Cultural Resources**. The Applicant shall retain a Native American observer to monitor earthwork activities. The Native American observer shall represent a tribe that has ancestral ties and cultural affiliations to the project site.

- **MM-11. Discovery of Human Remains**. If human remains are encountered during construction excavation and grading activities, Section 7050.5 of the Health and Safety Code requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Section 5097.98 of the Public Resources Code. If the remains are determined to be of Native American descent, the County Coroner has 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent (MLD) of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

- **MM-12. Geology and Soils.** All buildings will conform to applicable "Earthquake Design Regulations" specified in Section 1613 in Chapter 16 (Structural Design) of the 2016 California Building Code and, unless otherwise waived or superseded, all development

activities conducted on the project site shall conform to and be consistent with the recommended seismic parameters and recommended design and development standards identified in the following technical studies:

(1) "Response to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., June 11, 2019);
(2) "Update No. 3 to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., April 4, 2019);
(3) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business Park, Lot 2 – Medical Office Building, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., March 15, 2019);
(4) "Update to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., November 13, 2017);
(5) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., September 6, 2017);
(6) "Percolation/Infiltration Testing - Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" Geotechnical Professionals, Inc., July 12, 2017);
(7) "Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., July 11, 2017); and/or
(8) Such additional actions and recommendations as may be approved by the City Engineer based on further technical analyses conducted by or for the City Engineer, including the findings of more detailed project-specific seismic, soils, geologic, and geotechnical investigations.

- **MM-13. Construction Noise**. In accordance with the provisions of the "City of Diamond Bar Municipal Code," construction shall be restricted to between the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays. No construction shall occur at any time on Sundays or on federal holidays. These days and hours shall also apply to the servicing of equipment and to the delivery or removal of equipment and materials to or from the site.

- **MM-14. Construction Noise**. All construction equipment shall be properly maintained and tuned to minimize noise emissions.

- **MM-15. Construction Noise**. All equipment shall be fitted with properly operating mufflers, air intake silencers, and engine shrouds no less effective than originally equipped.

- **MM-16. Construction Noise**. During site preparation and paving operations, the construction contractor shall place temporary noise barriers, in the form of continuous ¾-inch plywood or hay bales, or similar dense material acceptable to the Department, along the site perimeter when performing construction operations within 100 feet of the rear yard areas of any existing residential units located to the north of the County flood control channel. Such barriers shall be a minimum of 8-feet tall and block the line-of-sight between any proximal residences and the top of the exhaust stack associated with the on-site use of heavy construction equipment.

  This mitigation measure is intended to apply specifically to those single-family residences located at 807-814 Dryander Drive and 21110-21054 Lycoming Street, Diamond Bar.

- **MM-17. Construction Noise**. The construction contractor shall specify the use of electric stationary equipment (e.g., compressors) that can operate off of the power grid, where feasible. Where infeasible, stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as feasible.

- **MM-18. Construction Noise**. The construction contractor shall conspicuously post details of the project's construction schedule and contact information, including the telephone numbers of both an on-site project representative and that of the City's Community Development Department (Department), that can be contacted by local residents seeking to register a noise complaint. The Applicant shall maintain records of all such contacts, including any actions taken, and make those records available to authorized inspectors upon request.

- **MM-19. Construction Noise**. The proposed project shall be designed and constructed in accordance with any and all additional conditions as may be set forth by the Department for noise mitigation.

- **MM-20. Operational Noise**. No accessible exterior balconies shall be included in the design of the hotel structure for those guest rooms located along the hotel's southern (freeway-oriented) wall.

- **MM-21. Operational Noise**. The Applicant shall provide habitable on-site structures with forced air ventilation designed and installed in accordance with the 2016 "California Building Standards Code" (Title 24, California Code of Regulations), including the 2016 "California Green Building Standards Code" (Title 24, Part 11, California Code of Regulations).[53]

- **MM-22. Operational Noise**. All exterior fittings that enter the structures (e.g., electrical conduits; heating, ventilation and air conditioning [HVAC] ducts) are to be sealed with caulk such that the fittings are rendered as air-tight. Any metal duct-work that is exposed to the exterior environment shall be enclosed and insulated to avoid noise transference through the ducting.

5.0 REFERENCES

5.1 Project-Specific Technical Studies

- California Regional Water Quality Control Board, Los Angeles Region, Water Quality Control Plan, Los Angeles Region, 1994, as revised.

- Jim Borer Certified Arborist #496, Existing Tree Inventory, 850 Brea Canyon Road, Diamond Bar, Ca., February 12, 2018.

- Linscott Law & Greenspan, Revised Traffic Impact Analysis Report – Brea Canyon Business Center, Diamond Bar, California, May 30, 2018, revised August 23, 2019.

[53]/ January 1, 2020 is the Statewide effective date established by the California Building Standards Commission for the 2019 "California Building Standards Code" (2019 CBC). In accordance with Section 18938.5 of the California Health and Safety Code, all applications for a building permit submitted on or after January 1, 2020 are subject to compliance with the 2019 CBC. The 2016 CBC remains in effect and is applicable to all plans and specifications for and to construction performed where the application for a building permit is received on or before December 31, 2019 (California Building Standards Commission, Information Bulletin 19-04, June 24, 2019).

- Linscott Law & Greenspan, Traffic Impact Analysis Report for the Brea Canyon Business Center Project Traffic-Related Response to Memorandum to Diamond Bar Comments, July 31, 2019.
- Lycoming, LLC, Planned Sign Program for Brea Canyon Business Park, Diamond Bar, June 6, 2019.
- Geotechnical Professionals, Inc., Percolation/Infiltration Testing - Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California, July 12, 2017.
- Geotechnical Professionals, Inc., Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, July 11, 2017.
- Geotechnical Professionals, Inc., Supplemental Geotechnical Investigation, Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California, September 6, 2017.
- Geotechnical Professionals, Inc., Supplemental Geotechnical Investigation, Proposed Brea Canyon Business Park, Lot 2 – Medical Office Building, 850 Brea Canyon Road, Diamond Bar, California, March 15, 2019.
- Geotechnical Professionals, Inc., Response to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, June 11, 2019.
- Geotechnical Professionals, Inc., Update No. 3 to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, April 4, 2019.
- Geotechnical Professionals, Inc., Update to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, November 13, 2017.
- Linscott Law & Greenspan, Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California, January 25, 2019.
- Linscott Law & Greenspan, Revised Traffic Impact Analysis Report – Brea Canyon Business Center, Diamond Bar, California, August 23, 2019.
- Plotnik & Associates, Hydrology & LID Calculations for Brea Canyon Business Park, 850 S. Brea Canyon Road, Diamond Bar, CA 91789, June 7, 2019.
- Plotnik & Associates, Storm Drain Analysis – 54” Lines for Brea Canyon Business Park, 850 S. Brea Canyon Road, Diamond Bar, CA 91789, July 8, 2019, revised August 7, 2019 and August 29, 2019.
- Robin Environmental Management, Phase I Environmental Assessment Report – 850 Brea Canyon Road (APN 8719-013-017), Walnut, CA 91789, January 26, 2018.

5.2 Other Referenced Documents

- Alroth, William A., Chapter 14 (Parking and Terminals) in Pline, James L. (ed), Traffic Engineering Handbook, 5th Edition, Institute of Transportation Engineers, 1999.
- Anderson, T.P, Loyd, R.C., Clark, W.B., Miller, R.V., Corbaley, R, Kohler, S., Bushnell, M.M., Mineral Land Classification of the Greater Los Angeles Area: Part IV: Classification of Sand and Gravel Resource Area, San Gabriel Valley Production-Consumption Region, California Department of Conservation, Division of Mines and Geology, Special Report 143, 1982.
- Bean, John L. and Smith, Charles R., Gabrielino. In Handbook of North American Indians, Vol. 8: California, 1978.
- Bedsworth, Louise, Hanak, Ellen, and Kolko, Jed, Driving Change – Reducing Vehicle Miles Traveled in California, Public Policy Institute of California, 2011.
- Becker, Gorden S., and Reining, Isabelle J., Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) Resources South of the Golden Gate, California, 2008.
- California Department of Conservation, California Geological Survey, Fault-Rupture Hazard Zones in California, Special Publication 42, Interim Revision 2007.
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Environmental Checklist Form (Initial Study)
City of Diamond Bar

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☒ Aesthetics	☐ Agriculture/Forest Resources	☒ Air Quality
☐ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards/Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION:
On the basis of this initial evaluation:

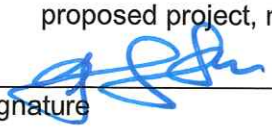
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

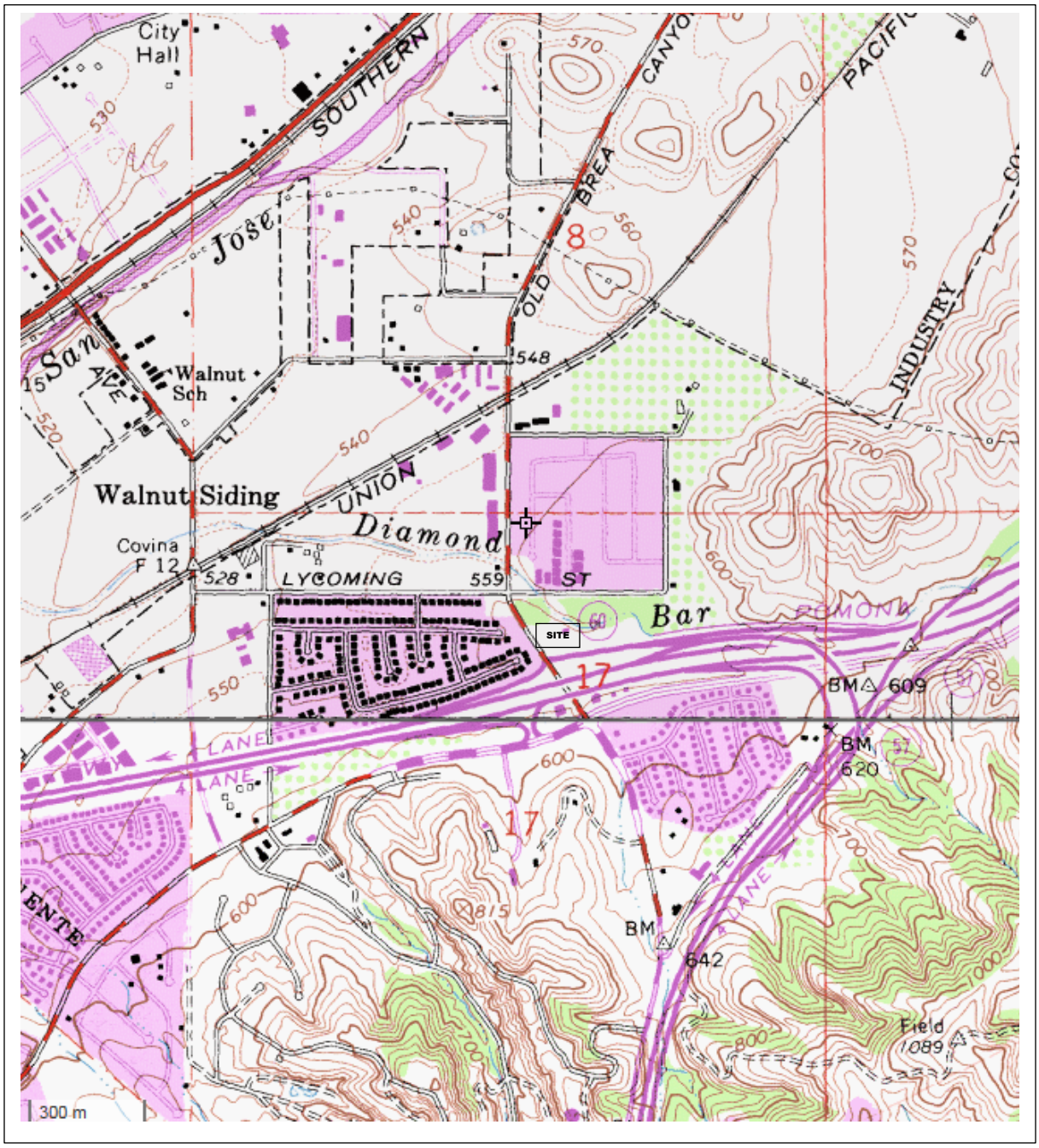
☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

September 18, 2019
Date



Section 17 Township 25 Range 9W
San Bernardino Base and Meridian
USGS 7.5-Minute San Dimas Quadrangle

1. Aesthetics

Except as provided in Section 21099 of the Public Resources Code, would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway?	☐	☐	☐	☒
(c) In non-urban areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
(d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☒	☐	☐

Findings of Fact

a) ***No Impact**. The general project area is highly urbanized and can be characterized as currently comprised of a diverse mixture of single-and multi-family housing units, commercial and light industrial uses. A large-scale business park (Industry East) project is presently being developed approximately 350 feet to the east of the project site. Excluding slope areas, the nearest development therein is located approximately 850 feet to the east of the project boundaries.*

The project site abuts the Pomona (SR-60) Freeway on the south. As it transitions from the northbound Orange (SR-57) Freeway to the westbound Pomona (SR-60) Freeway, the freeway mainline is elevated as it crosses over Brea Canyon Road. Additionally, the westbound off-ramp at Brea Canyon Road descends from that elevated location to connect with Brea Canyon Road adjacent to the subject property's southwestern corner. As such, the freeway is the dominant visual element in the general project area, effectively obscuring views to the south. Similarly, Brea Canyon Road is the dominant visual element to the west of the subject property, disappearing from view to the south as it crosses beneath the Pomona (SR-60) Freeway. To the west of that roadway, directly across from the project site, the rear-yard areas of a number of single-family homes back onto Brea Canyon Road, separated therefrom by an approximately 6-foot tall concrete block wall. At the southeast corner of Brea Canyon Road and Lycoming Street is a private preschool and elementary school ("Discovery World Preschool and Private Elementary School").

Abutting the property's northern boundary is a concrete-lined, open County flood control channel (PD 1445) (Diamond Bar Creek). Directly across from that channel are single-family homes located along Dryander Drive and Lycoming Street, west of Dryander Drive. Located adjacent to the northwestern corner of the project site is an existing restaurant ("Farmer Boys

Restaurant" [810 Brea Canyon Road, Diamond Bar]). Further to the north, the San Gabriel Mountains are visible in the distance.

The 1995/2013/2014 General Plan does not define the existence of any scenic vistas within the City. Additionally, neither the City's "Final Environmental Impact Report for the City of Diamond Bar General Plan, SCH No. 91041083" (1992)[1] (1992 PFEIR) nor "Addendum to the Final Environmental Impact Report for the City of Diamond Bar General Plan, SCH No. 91041083" (1995) (1995 PFEIR Addendum)[2] define any scenic vistas within or adjacent to the City or contain any program-level view preservation measures.

Because neither "scenic resources" nor "scenic vistas" are defined or addressed in any relevant planning or existing CEQA-compliant documentation germane to the proposed project and/or to the project site, no relevant policies have been established which assist in the identification, prioritization, and/or promotion of the preservation of such resource.

Although the City is presently in the process of a formulating a comprehensive update to the 1995/2013/2014 General Plan and preparing an accompanying program-level CEQA document, because those documents have neither been adopted nor certified as of the date of this writing, the information, analyses, and policies identified therein have not considered in the formulation of the preliminary findings presented herein.

b) ***No Impact**. The Pomona (SR-60) Freeway is not a State-designated scenic highway.*

c) ***No Impact**. Although no precise definition is applied thereto, based on the absence of vacant and undeveloped property, the general project vicinity could be characterized as an "urban area." Because neither "scenic resources" nor "scenic vistas" are defined or addressed in any relevant planning or existing CEQA-compliant documentation germane to the proposed project and/or to the project site, no relevant policies have been established which assist in the identification, prioritization, and/or promotion of the preservation of such resource.*

d) ***Less-than-Significant with Mitigation Incorporated**. Because the terms "substantial light and glare" and "adverse affect on daytime or nighttime views" are neither defined in the State CEQA Guidelines nor do there presently exist any directly relevant policies in the 1995/2013/2014 General Plan, a determination thereof may be subject to interpretation.*

Presently, the project site is vacant and, as such, is not an existing source of "substantial light and glare." With the proposed project's implementation, new sources of lighting will be added therein, including exterior parking lot and landscape lighting, interior and exterior building lighting, low-level security lighting, and both ground- and wall-mounted illuminated signage. Light levels associated therewith will remain at levels common within urban areas and will not include the use of beacons or high-intensity spotlights.

The most predominate source of lighting, in terms of lot coverage, is that associated with on-site vehicular circulation and the parking lot. Based on a photometric analysis, a point-by-point analysis indicates that internal driveway and parking lot light levels will range from 0.9 to 4.6 horizontal footcandle (three feet above the surface) (HFC). Spill light levels extending beyond the property boundaries were not, however, quantified therein.

[1]/ City of Diamond Bar, Final Environmental Impact Report for the City of Diamond Bar General Plan, SCH No. 91041083, certified on July 14, 1992.

[2]/ City of Diamond Bar, Addendum to the Final Environmental Impact Report for the City of Diamond Bar General Plan, SCH No. 91041083, adopted on July 25, 1995.

Light pollution (obstructive light) broadly describes light that is either perceived as "too bright" for its intended purpose or "shines were it is not needed or is unwanted." The three components of light pollution include sky glow (sky brightness caused by artificial light reflecting off the atmosphere), light trespass (light spilling out of the intended area), and glare (light shining in the eyes causing discomfort or disability). The International Dark Sky Association (IDA) states that "urban sky glow becomes a significant problem when [sky brightness due to artificial light] reaches 0.10 or 10% above the natural sky background"; however, there is no agreed upon objective method for physically measuring overall sky glow and no metric to measure sky glow from a single light source. Relative to light trespass, the IDA has recommended limiting the "exterior lighting originating on a property to a maximum of 0.5 horizontal foot candles at a distance of 25 feet beyond the property line."[3]

Buildings permitted prior to January 1, 2020 must comply with the 2016 "Building Energy Efficiency Standards for Residential and Nonresidential Buildings" (Title 24, Part 6, CCR (June 2015) (2016 BEES). In accordance with Section 130.0 (Lighting Systems and Equipment, and Electrical Power Distribution Systems – General) in Subchapter 4 (Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Mandatory Requirements for Lighting Systems and Equipment, and Electrical Power Distribution Systems) therein, relative to newly constructed buildings: "The design and installation of all lighting systems and equipment in nonresidential, high-rise residential, hotel/motel buildings, outdoor lighting, and electrical power distribution systems within the scope of Section 100.0(a) shall comply with the applicable provisions of Sections 130.0 through 130.5." Specifically, Section 130.2 (Outdoor Lighting Controls and Equipment) relate to outdoor systems.

Section 130.2(c) of the 2016 BEES contains control requirements for most outdoor lighting systems, including parking and other common outdoor hardscape areas. Those standards require several different layers of controls that are designed to accomplish different types of energy savings, including: (1) Daylight controls to ensure that lights are turned off during day light hours using photocontrol astronomical time-switch or other controls (Section 130.2[c][1]); (2) Automatic scheduling controls to ensure that outdoor luminaires can be controlled independently and scheduled to be turned off during certain hours of the night (Section 130.2[c][d]); and (3) Occupancy-based multi-level controls to ensure luminaires mounted under 24-feet automatically reduce power between 40 and 90 percent in response to vacancy of the space (typically provided through the use of motion sensors) (Section 130.2[c][3]). Several exemptions exist based on space type and fixture wattage.

In addition, pursuant to Section 140.0 (Performance and Prescriptive Compliance Approaches) in Subchapter 5 (Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency) in the 2016 BEES: "Nonresidential, high-rise residential and hotel/motel buildings shall comply with all of the following: (a) The requirements of Sections 100.0 through 110.11 applicable to the building project (mandatory measures for all buildings). (b) The requirements of Sections 120.0 through 130.5 (mandatory measures for nonresidential, high-rise residential and hotel/motel buildings). (c) Either the performance compliance approach (energy budgets) specified in Section 140.1 or the prescriptive compliance approach specified in Section 140.2 for the Climate Zone in which the building will be located."

Compliance with the applicable provisions of 2016 BEES and City standards will reduce potential sky glow, light trespass, and glare-related impacts to a less-than-significant level.

[3]/ Kosiorek, Andrew S., International Dark-Sky Association, Information Sheet 76, Exterior Lighting: Glare and Light Trespass, July 1996, p. 2.

2. Agricultural Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b) Conflict with existing zoning for agricultural use or with a Williamson Act contract?	☐	☐	☐	☒
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Section 12220[g], Public Resources Code [PRC]), timberland (as defined by Section 4526, PRC), or timberland zoned Timberland Production (as defined by Section 51104[g], CGC)?	☐	☐	☐	☒
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Findings of Fact

a) ***No Impact***. *The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) and the California Department of Conservation (DOC) distinguish among four basic designations of farmland, which are defined by NRCS and mapped by DOC as "Important Farmlands." Those designations include "prime farmland,"[4] "farmland of Statewide Importance,"[5] "unique farmland,"[6] and "farmland of local importance."[7]*

[4]/ "Prime Farmland" has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

[5]/ "Farmland of Statewide Importance" is similar to "Prime Farmland" but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

[6]/ "Unique Farmland" consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

[7]/ "Farmland of Local Importance" is land of importance to the local economy, as defined by each county's local advisory committee and adopted by its board of supervisors. "Farmland of Local Importance" is either currently producing or has the capability of production, but does not meet the criteria of "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland."

The DOC adds a designation of "grazing land."[8] The DOC's Division of Land Resources Protection (CDLRP) administers the "Farmland Mapping and Protection Program" (FMMP), including preparation of "Important Farmland Maps" (IFMs) and performance of biennial mapping surveys assessing the rate and quantity of conversion of designated farmlands to non-agricultural uses. The most recent CDLRP-prepared IFM for Los Angeles County is dated 2016.No such inventoried areas exist upon or in close proximity to the project site.

b) ***No Impact**. The California Land Conservation Act of 1965 (Sections 51200-51297.4, CGC), commonly referred to as the Williamson Act, allows county governments to enter into contracts with private landowners who agree to restrict parcels of land to agricultural uses or uses compatible[9] with agriculture for at least 10 years or a 20-year period for property restricted by a "Farmland Security Zone"[10] (FSZ) contract. In return, landowners receive property tax assessments that are much lower than normal because they are based on income derived from farming and open space uses as opposed to full market value of the property. The term of the contract automatically renews each year so that the contract always has a 10-year period left to function. The Williamson Act was revised in 1998 to offer landowners greater property tax reduction in exchange for a longer contract term. Non-renewal or immediate cancellation does not change the zoning of the property. Participation in the Williamson Act program is dependent on county adoption and implementation of the program and is voluntary for landowners. The project site is not subject to a Williamson Act contract.*

c) ***No Impact**. The site does not include lands designated as "Forest Land" (Section 12220[g], PRC), "Timberland" (Section 4526, PRC), or "Timberland Zoned for Timberland Production" (Section 51104[g], CGC) or lands meeting those statutory and regulatory definitions.*

d) ***No Impact**. "Forest land" is assumed to mean lands containing forest vegetation. Until recently (2019), the project site was operated as a recreational vehicle and boat storage use and was extensively covered with impervious surfaces. Prior to 1946 and extending through the mid-1960s, the property operated as a fruit orchard. As such, project implementation will not result in the loss of forest lands nor conversion of forest land a non-forest use.*

e) ***No Impact**. The project site is neither categorized as a "Farmland" nor as "forest land."*

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[8]/ "Grazing Land" is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension and other groups interested in the extent of grazing activities.

[9]/ As specified under Section 51201(e) of the CGC: "'Compatible use' is any use determined by the county or city administering the preserve pursuant to Section 51231, 51238, or 51238.1 or by this act to be compatible with the agricultural, recreational, or open-space use of land within the preserve and subject to contract. 'Compatible use' includes agricultural use, recreational use or open-space use unless the board or council finds after notice and hearing that the use is not compatible with the agricultural, recreational or open-space use to which the land is restricted by contract pursuant to this chapter." As further specified under Section 51238.1 therein: "(a) Uses approved on contracted lands shall be consistent with all of the following principles of compatibility: (1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. (2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping. (3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

[10]/ A "Farmland Security Zone" (Article 7 [commencing with Section 51296] of Chapter 7 of Division 1 of the CGC) is an area created within an "agricultural preserve" by a board of supervisors or city council upon request by a landowner or group of landowners. An agricultural preserve defines the boundary of an area within which a city or county will enter into Williamson Act contracts with landowners. The boundary is designated by resolution of the board of supervisors or city council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size.

3. Air Quality

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Conflict with or obstruct implementation of the applicable air quality?	☐	☐	☒	☐
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?	☐	☐	☒	☐
(c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
(d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☒	☐	☐

Background Information

In order to more thoroughly assess potential air quality impacts, a detailed air quality analysis was performed as part of this CEQA-compliance effort. The resulting "Air Quality Analysis" (August 2019) is included in Appendix D (Brea Canyon Business Park - Air Quality Analysis). The detailed analysis supporting the following conclusions is presented in that study and, for brevity, has not again been repeated herein.

Findings of Fact

a) ***Less-than-Significant Impact**. Neither the construction nor the operation of the proposed project is projected to exceed the daily threshold values presented in the most recent update to Appendix G of the State CEQA Guidelines. Additionally, as mitigation, the project would not result in significant localized air quality impacts. As such, the proposed project is consistent with the goals of the most recent "Air Quality Management Plan" (March 3, 2017) (2016 AQMP) and, in that respect, does not present a significant air quality impact.*

b) ***Less-than-Significant Impact**. In accordance with South Coast Air Quality Management District (SCAQMD) methodology, those projects that do not exceed or can be mitigated to less than the daily threshold values do not add significantly to the creation of a cumulatively considerable impact. Because neither the construction nor the operation of the proposed project would exceed recommended SCAQMD threshold levels, the proposed project would not be anticipated to result in a cumulatively considerable net increase in criteria pollutants.*

c) ***Less-than-Significant with Mitigation Incorporated**. At an estimated 6.05 and 4.21 pounds per day, PM_{10} and $PM_{2.5}$ emissions, respectively, could exceed those values presented in the SCAQMD's screening tables, as presented in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003). Based on those exceedance conditions, the following recommended mitigation measures (MM) have been identified by the Department:*

- ***MM-4. Construction Air Quality****. Relative to construction-term air quality impacts, all site preparation and earthmoving activities shall be subject to three times, rather than twice, daily watering.*

- ***MM-5. Construction Air Quality****. Relative to construction-term air quality impacts, all heavy earthmoving equipment (e.g., graders, scrapers, heavy dozers) in excess of 240 horsepower shall be equipped with a Level 1 diesel particulate filter.*

As mitigation, the expose sensitive receptors to substantial pollutant concentrations would be reduced to a less-than-significant level.

d) ***Less-than-Significant with Mitigation Incorporated****. The project site is located to the north of and adjacent to the Pomona (SR-60) Freeway. The California Department of Transportation (Caltrans) reports that this freeway carries 429,000 average daily traffic (ADT) west of Brea Canyon Road and 418,000 ADT east of Brea Canyon Road. Trucks make up about 7.3 percent of that total or about 31,300 ADT. At its closest, the near boundary of the project site is at a distance of about 56 feet from the edge of the pavement area associated with the Brea Canyon Road westbound off-ramp and fly-over.*

Both the hotel and the medical office building located to the east of the hotel are proposed to have an approximate 20-foot setback from the property line. The medical office building located to the north of the hotel is on the order of about 350 feet from the freeway. All structures are within the minimum 500-foot siting distance recommended by the California Air Resources Board (CARB) for freeways that include over 100,000 ADT. Because the resulting impact is potentially significant, the following recommended mitigation measures have been identified by the Department:

- ***MM-6. Operational Air Quality****. Relative to operational air quality impacts, the Applicant shall equip all structures with ventilation units with particulate filters with a rating of not less than Minimum Efficiency Reporting Value (MERV) 9 as recommended by the United States Environmental Protection Agency for automobile emission particles used in the protection of superior residential and better commercial structures, including hospital laboratories.*

- ***MM-. Operational Air Quality****. Relative to operational air quality impacts, the hotel (Lot 3, Tentative Parcel Map No. 82066) and the general and medical office building (Lot 1, Tentative Parcel Map No. 82066) shall have their ventilation intakes located along their north sides of those buildings.*

4. Biological Resources

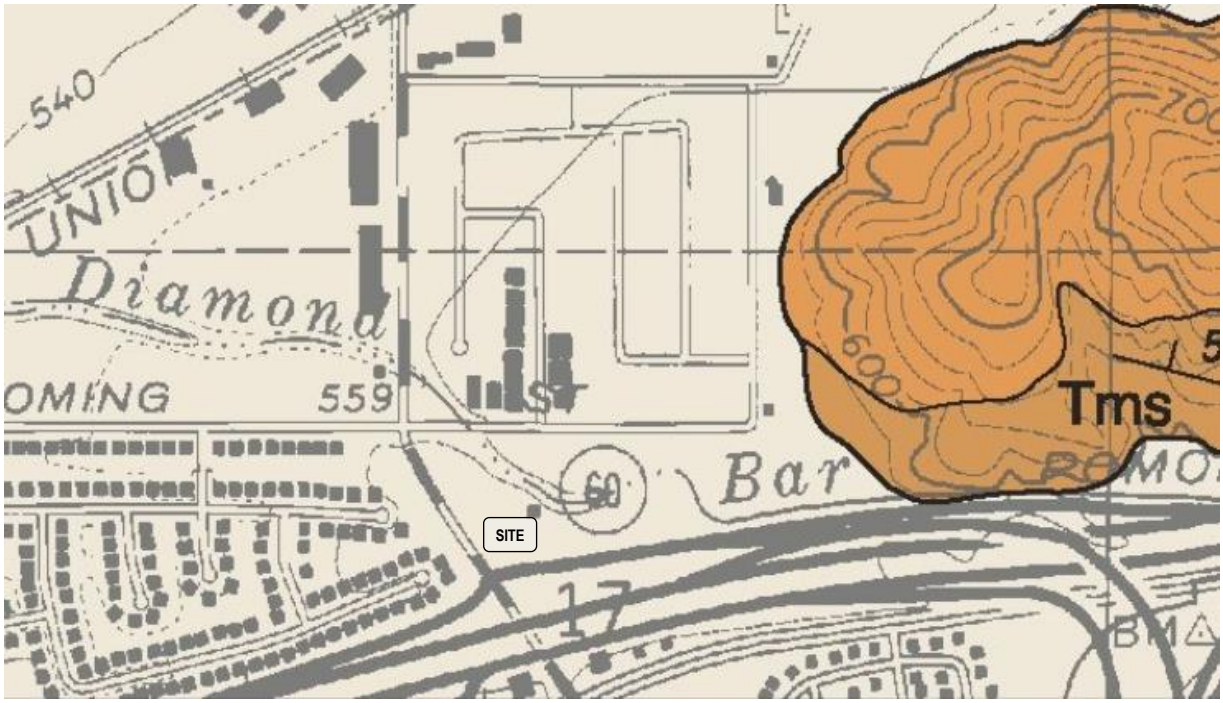
Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☐	☐	☒
(b) Have a substantial adverse effect on any sensitive riparian habitat or other sensitive natural identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	☐	☐	☐	☒
(c) Have a substantial adverse effect on State or federally-protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or State habitat conservation plan?	☐	☐	☐	☒

Background Information

The project site is located along the southern boundaries of the United States Geological Surveys' (USGS) 7.5-minute topographic quadrangle. As illustrated in Figure 24 (Portion of the Geologic Map of the USGS San Dimas 7.5-Minute Quadrangle [1998]),[11] Diamond Bar Creek, as a concrete-lined flood control channel is located in the general vicinity of the subject property. Although improved, the channel is depicted as a "blue-line" stream by the USGS.[12]

[11]/ Tan, Siang S., Digital Geologic Map of the San Dimas 7.5-Minute Quadrangle, Open File Report 88-71, California Department of Mines and Geology, 1998.

[12]/ "Blue-line streams" are a cartographic device uses to indicate channels that carry flows and are generally based on prior aerial photographic records. From the USGS' perspective, that depiction is not intended to convey a specific hydrologic or biological significance, other than to designate the location of a previously identified stream.



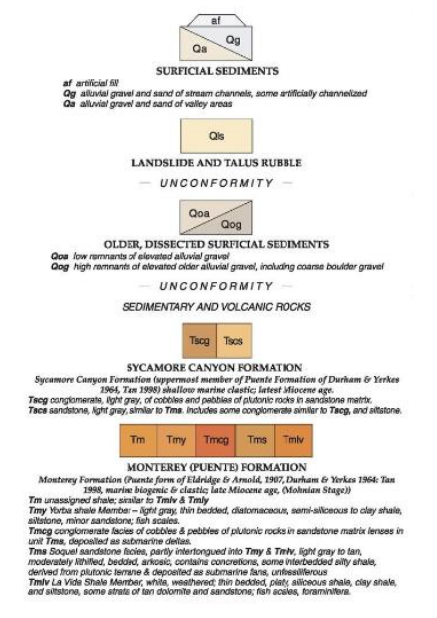


Figure 24
PORTION OF THE GEOLOGIC MAP OF THE USGS SAN DIMAS 7.5-MINUTE QUADRANGLE (1998)
Source: California Department of Mines and Geology

The United States Environmental Protection Agency (USEPA) has clarified, in the "waters of the United States" rulemaking, that concrete-lined channels constructed in dry lands or uplands are not "waters of the United States' "Clean Water Rule: Definition of 'Waters of the United States': Final Rule" (80 Federal Register 124 [June 29, 2015], pp. 37053-37127). Because the County flood control channel (Diamond Bar Creek) is not a part of the proposed project, no direct impacts to either "waters of the United States" or "waters of the State" are anticipated as a result of the project's implementation.

Findings of Fact

a) ***Less-than-Significant Impact**. The project site is located directly adjacent to the Pomona (SR-60) Freeway and was operated as a recreational vehicle and boat storage lot between 1976 and 2019. Primarily covered with dirt and gravel, only about 16 percent of the site consisted of impervious surfaces. Recreational vehicles, boats, trucks, and automobiles were routinely brought into and removed from the property.*

As evident in Figure 1 (Proposed "Brea Canyon Road Business Park" Project Site - 850 Brea Canyon Road, Diamond Bar, California 91789) only limited vegetation presently exists on the project site. With the possible exception of invasive species, the project site is absent native vegetation. Absent that vegetation, the project site lacks the ability to support any candidate, sensitive, or special status species or sensitive natural community.

Based on the level of prior disturbance thereto, no site-specific general or focused biological surveys were conducted by the Applicant or by the Department on the project site. The Department is not aware of any evidence suggesting the potential presence of any protected biological resources, including locally-protected trees, on the project site.

b) ***No Impact**. No riparian habitat or other sensitive natural communities has been identified on the project site.*

c) ***No Impact**. No State or federally-protected wetlands have been identified on the project site.*

d) ***No Impact**. Since the project site does not possess significant habitat value, implementation would not substantially interfere with the movement of any native species. Similarly, to the extent that the channel serves any function with regards thereto, the proposed project will not interfere with any use of the County flood control channel as a wildlife corridor.*

e) ***No Impact**. As indicated in Section 22.38.010 (Purpose) in Chapter 22.38 (Tree Preservation and Protection) of the Municipal Code, the 1995/2013/2014 General Plan, "as the overall policy document for the City, requires the preservation and maintenance of native trees including oak, walnut, sycamore, willow, significant trees of cultural or historical value" where appropriate. The purpose of this chapter is to protect and preserve these trees and when removal is allowed as a result of new development to require their replacement." The provisions of the City's tree preservation and protection ordinance are applicable in all zoning districts and apply to the removal, relocation, and/or pruning of "protected trees," as provided in Section 22.38.030 (Protected Trees) therein. As indicated in Section 22.38.040 (Damaging Protected Trees Prohibited), except as provided in Section 22.38.060 (Exemptions), no person shall cut, prune, remove, relocate, or otherwise destroy a "protected tree." The topping of "protected trees" is prohibited.*

As defined in Section 22.38.030 (Protected Trees), a "protected tree" is any: (1) native oak, walnut, sycamore and willow trees with a diameter at breast height (DBH) of eight inches or greater; (2) trees of significant historical or value as designated by the City Council; (3) trees required to be preserved or relocated as a condition of approval for a discretionary permit; (4) any tree required to be planted as a condition of approval for a discretionary permit; and (5) stand of trees, the nature of which makes each tree dependent upon the others for survival.

In order to assess compliance therewith, a "protected tree" survey was conducted by a certified arborist. A total of 95 mature specimen trees, plus one Mexican fan palm (Washingtonia robusta), were identified on the project site. Those trees included: (1) 53 evergreen ash (Fraxinus uhdel); (2) 26 California and Brazillian peppers (Schinus species); (3) 7 yew pine (Podocarpus henkelii); (4) four gum trees (Eucalyptus species); (5) two coast beefwood (Casuarina stricta); (6) one evergreen elm (Ulmus parvifolia); (7) 1 European olive (Olea europaea); and (8) one evergreen pear (Pyrus Kawakami). No oaks (Quercus species),

California sycamores (Platanus racemose), black walnuts (Juglans californica) or other native species on the City's "protected tree" inventory were identified thereupon.[13]

As illustrated in Appendix B (Brea Canyon Business Park – Conceptual Landscape Plans [July 12, 2019]), the majority off the 95 mature specimen trees observed on the project site were relatively evenly placed along the perimeter of the project site. None were placed as an assemblage and/or accompanied by an associated understory so as to create habitat value. Additionally, of the 95 mature specimen trees, 5 were reported to be "dead and" 90 were reported to be in "poor" condition. Only the Mexican fan palm was reported to be in "average" condition and available to relocate. As such, the project site's existing flora has no or minimal habitat value.

f) ***No Impact**. The project site is not subject to a Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or State habitat conservation plan.*

[13]/ Jim Borer Certified Arborist #496, Existing Tree Inventory, 850 Brea Canyon Road, Diamond Bar, Ca., February 12, 2018.

5. Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section15064.5 in Title 14 of the California Code of Regulations?	☐	☒	☐	☐
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant Section15064.5 in Title 14 of the California Code of Regulations?	☐	☐	☐	☒
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Background Information

The indigenous peoples of southern California area are believed to be Shoshonean People who shared the Numic languages branch of the large Uto-Aztecan language family. In the 1700s and 1800s, the southern California area was shared by three indigenous cultures, including the Juaneño, the Gabrieliño, and the Luiseño. Once the Misión San Gabriel Arcángel (San Gabriel Mission) was built in 1771, the Native Americans living in or subsequently congregated to that area were referred to as the "Gabrielino" (Tongva) a name derived from the mission with which they were associated. The name "Juaneño" derives from the Spanish Mission San Juan Capistrano, founded in 1776; the name "Luiseño" derives from the Mission San Luís Rey de Francia, founded in 1798.

In August 1994, in Assembly Joint Resolution 96 Resolution Chapter 146 of the Statutes of 1994 (Chaptered on September 13, 1994), the State officially recognized the "Gabrielinos as the aboriginal tribe of the Los Angeles Basin."

Since 2006, four organizations have claimed to represent the Tongva Nation, including the Gabrielino-Tongva Tribe, Gabrielino/Tongva Tribe, Gabrieleno Band of Mission Indians - Kizh Nation, and Gabrieliño/Tongva Tribal Council. None of the four groups claiming representation have attained recognition as a federally-recognized tribe.[14] Recognizing that multiple organizations have asserted such claims, the City has neither the authority nor ability to adjudicate those claims. As such, all claimants are provided equal status herein.

With regards to the Gabrieliño, in the "Handbook of the Indians of California" (Smithsonian Institution Bureau of American Ethnology, Bulletin 78, 1925), Alfred L. Kroeber stated:

> *The wider Gabrielino group occupied Los Angeles County south of the Sierra Madre, half of Orange County, and the islands of Santa Catalina and San Clemente. The evidence is scant and somewhat conflicting as regards to the latter; a divergent dialect,*

[14]/ As of May 4, 2016, "567 Tribal entities [were] recognized and eligible for funding and services from the Bureau of Indian Affairs by virtue of their status as Indian Tribes" (81 FR 26826 [May 4, 2016]).

> *or even a Luiseño one, may have been spoken there. . .On the west, the Gabrielino limits – here more exactly Fernandiño – against the Chumash were at the watershed through which the Santa Susanna tunnel has been bored; at the coast, between Malibu and Topanga Creeks. Eastward, toward the Serrano and Luiseño, the line probably passed from Mount San Antonio to the vicinity of Cucamonga, Mount Arlington, and Monument and Santiago Peaks; in other words, through western San Bernardino and Riverside Counties – although San Bernardino Valley has also been ascribed to the Gabrielino. Southward, Aliso Creek is cited as the boundary between Gabrielino and Juaneño.*[15]

Linguistic and archaeological evidence suggests that the Gabrieliño represent a branch of desert dwellers, or Shoshoneans, who moved to coastal southern California during the first millennium A.D., supplanting or absorbing an earlier group about which relatively little is known. Although the first recorded contact between the Gabrieliño and Europeans occurred in 1542 when the Juan Cabrillo expedition arrived at Santa Catalina Island, the historic period in southern California is generally accepted as beginning in 1769 when the Gaspar de Portolá expedition crossed the coastal region. The Portolá expedition established the first Alta California Mission (San Diego de Alcalá) on July 16, 1769. The first mission to be established in Gabrieliño territory was the Franciscan Misión San Gabriel Arcángel, founded September 8, 1771.

The Gabrieleño encountered at that time were a stone-age people whose subsistence was based upon hunting and gathering. They neither know metallurgy nor practiced agriculture. The population was relatively small, few villages comprising more than 100 souls. The staple food was acorns which normally grew in abundance. The acorn meats were leached, dried, and ground into flour used to make a variety of dishes. Small animals, principally rodents and rabbits, furnished much of the protein. Deer were also hunted. Marine fishes and shellfish were very important in the diets of coastal inhabitants.

Technology comprised principally the manufacture of tools and containers from stone, bone, leather, and plant fiber. Most implements requiring a hard, sharp edge were manufactured from chipped stone. These included such items as arrow points, knives, scrapers, and so forth. Implements for milling, such as manos, metates, mortars and pestles were made from groundstone. Traditional containers consisted of finely woven baskets that were lined with tar when waterproofing was required. Pottery was also known during the final centuries of Gabrieliño prehistory although it seems that baskets never lost their prominent role in daily lives.

The Gabrieleño lived in villages ranging in size from only an extended family or two up to several hundred people. Houses consisted of thatch huts built over sunken earthen floors. Aside from dwellings, villages also had sweathouses which were used daily by the men and seem to have represented important male social centers. Political and social organization was based on groupings called moieties, one practical function of which was to prevent family intra-marriage. Leadership at the larger villages seems to have consisted of a chief, whose position was hereditary, and one or more shamans who tended to religious and medical affairs.

It was the intent of the Spanish government to convert the Gabrieleño to Christianity and the padres met with a great deal of success in their early efforts. Many Gabrieleño voluntarily moved to the mission where they were taught farming and received rudimentary educations in European technology. Unfortunately, the Spanish efforts soon led to some devastating side effects, the most well-known of which was the spread of European diseases to which the Gabrieleño had no hereditary immunity.

[15]/ Kroeber, Alfred L., Handbook of the Indians of California, Smithsonian Institution Bureau of American Ethnology, Bulletin 78, 1925, Chapter 14 (The Gabrielino), pp. 620-621.

The missionaries lost control when California was secularized under Mexican rule and the surviving Gabrieleño found themselves immersed in a competitive economy in which they were ill-equipped to compete. Many became virtual slaves while others worked on ranches where they lost touch with their traditional culture. When the Bureau of Indian Affairs compiled its roll of Mission Indians in 1929, only four individuals claimed to be full-blooded Gabrieleño and only about thirty listed themselves as at least one-half Gabrieleño.

Included as Appendix E (Handbook of Native American Indians – Gabrieliño) is an introduction to the Gabrieliño people, as excerpted from The Smithsonian Institution's "Handbook of North American Indians.[16]

The area now occupied by Diamond Bar, Walnut, Industry, and West Covina were colonized during the Mexican land grant period between 1834 and 1846. Three of the major Mexican land grants issued in that area were Rancho San Jose (granted to Ricardo Vejar and Ygnacio Palomares), Rancho de Los Nogales (issued to Jose de la Cruz Linares), and Rancho la Puente (issue to John Rowland and William Workman). Rancho de Los Nogales encompassed the upper portion of the San Jose Creek drainage where the Cities of Walnut, Industry, Pomona, and Diamond Bar now meet.

In 1840, the governor, Juan Alvarado, deeded 4,340 acres, which is believed to have included the project site, to Jose de la Luz Linares. With this Mexican land grant Linares established Diseño del Rancho Los Nogales (Rancho Los Nogales or "Ranch of the Walnut Tree"). That triangular-shaped land grant was located between San Jose Creek and Diamond Bar Creek.[17] *Linares died in 1847 and his widow sold a choice portion of the ranch to Ricardo Vejar (grantee of Rancho San Jose) for $100 in merchandise, 100 calves, and the assumption of her late husband's debt, making Vejar the fifth wealthiest landowner in Los Angeles County at that time.*

After California became a part of the United States, the Mexican land grants were challenged in the courts. As a result, the federal government conformed only 646 acres of Rancho Los Nogales to Vejar. By 1856, a large portion of Diamond Bar reverted to public domain and was available for homesteading. Due to the 1860s drought, Vejar had to borrow money from Isaac Schlesinger and Hyman Tischler to feed his cattle. Vejar was unable to repay the loan and Rancho Los Nogales passed to Schlesinger and Tischler. In 1866, the land was sole to Louis Phillips who sold a portion of the ranch to William "Uncle Billy" Rubottom (1808-1885) who operated a tavern and stage station. This area became the nucleus for the first community in the Diamond Bar-Pomona areas, known as "Spadra."

As noted in the "History of Pomona Valley California with Biographical Sketches of the Leading Men and Women of the Valley who have been Identified with its Growth and Development from the Early Days to the Present" (1920):

> *Mention has already been made of the close relation to this Valley of the colony at El Monte. From this colony came a number of the first families in the new settlement which grew up in 1867-1868 on the Phillips ranch at Spadra. The first of these families to move out from El Monte was that of William Rubottom, known by everyone as "Uncle Billy Rubottom," who had come, as told before, with other families from Arkansas in 1853. Early in the sixties Uncle Billy had moved to the Cucamonga Rancho and build*

[16]/ Bean, John L. and Smith, Charles R., Gabrielino. In Handbook of North American Indians, Vol. 8: California, 1978, pp. 538-549.

[17]/ Diseño del Rancho Los Nogales (http://content.cdlib.org/ark:/13030/hb9b69p1w5/?&brand=oac).

> *a tavern there on the upper road from Los Angeles to San Bernardino, not far from the ranch house of Colonel Rains. It was at the suggestion of Louis Phillips that he left there and moved to the San Jose Rancho, buying of him one hundred acres of land. There on the Camino Real he build another house and tavern that bore his name. Other families followed, and the place become known as "Rubottom's" because of the Rubottom House. But when a post office was secured it was called officially Spadra, on the petition of Uncle Billy and those who had come with him from the town of Spadra Bluffs in Arkansas. This was accomplished through Ben Truman of the Los Angles Star, who was authorized to locate the station, and who rested at Rubottom's on this tour of inspection. Uncle Billy was appointed the first postmaster on a salary of two dollars a month! No place of the road from Los Angeles to San Bernardino was better known than Rubottom's, and when the stage changed its route, as it soon did, from Mud Springs road to that by way of Spadra, it became at once a busy place. . .It was a great day for Spadra when this change in its route brought the Overland Stage through the village. Not only did the stages pass this way, but the Rubottom House became a station where horses where changed and passengers stopped for meals. And the chief event of the day was of course the arrival of the stage. The cloud of dust in the distance and the thunder of horses' hoofs and rattle of wheels, as they approached at a full gallop, gave ample tiding of their coming.*[18]

In 1918, the area south of Spadra (located in Rancho San Jose) became part of Diamond Bar ranch, owned by Fredrick E. Lewis who operated it as a cattle ranch. Soon thereafter, Lewis formed "Diamond Bar Ranch" and registered the "diamond over a bar" branding iron with the California Department of Agriculture which later become the symbol for which the City was named. The Bartholome Corporation bought the ranch in 1943 and the land continued to operate as a cattle ranch. The Bartholome Corporation sold the ranch to the Christian Oil Corporation and Capital Company, which later became part of Transamerica. During the 1960s, Transamerica develop the former ranch which later incorporated into the City of Diamond Bar.

"Diamond Bar Creek" would, therefore, not have been so named prior to 1918. Although Diamond Bar Creek may have different origins, historic maps (1888) identify the presence of both a "Main Branch of San Jose Creek" and a "North Branch of San Jose Creek," including the presence of an unnamed "road" in the general vicinity of the project site.

Findings of Fact

a) ***Less-than-Significant with Mitigation Incorporated.*** *All prior improvements located on the site have been removed and the site made ready for development. Through those activities, any historic features, if any, that may have once existed thereupon have been removed and any relationship to prior events associated with the City or the region eliminated. A physical inspection of the property reveals no surficial evidence of the potential presence of any historic or prehistoric features, artifacts, or other resources thereupon.*

As indicated in Figure 24 (Portion of the Geologic Map of the USGS San Dimas 7.5-Minute Quadrangle [1998]),[19] *the existing flood control channel replaced a previously identified*

[18]/ History Record Company, History of Pomona Valley California with Biographical Sketches of the Leading Men and Women of the Valley who have been Identified with its Growth and Development from the Early Days to the Present, 1920, pp. 80 and 82.

[19]/ Tan, Siang S., Digital Geologic Map of the San Dimas 7.5-Minute Quadrangle, Open File Report 88-71, California Department of Mines and Geology, 1998.

"blue-line" stream (Diamond Bar Creek), a portion of or a tributary to San Jose Creek and the San Gabriel River.

As illustrated in Figure 25 (Portion of Map of Spanish and Mexican Ranchos [1931]),[20,21,22] Figure 26 (Plat of the Rancho Los Nogales [1869]),[23,24] and Figure 27 (Diseño del Rancho Los Nogales [1877]),[25,26,27] the project site appear to have once been a part of or located directly adjacent to Diseño del Rancho Los Nogales (Rancho Los Nogales) (Rancho Cañada de los Los Nogales) as given by Governor Manuel Micheltorena to José Maria Aguilar in 1844.[28] The rancho's name refers to "canyons of the walnut trees" and is in reference to stands of California black walnut trees. As illustrated in Figure 27 (Diseño del Rancho Los Nogales [1877]), the hills located to the north (left side of exhibit) represent the San Jose Hills and those to the south (right side of exhibit) represent the Puente Hills. Numerous walnut trees are illustrated to the west (bottom of exhibit), near the historic confluence of two watercourses, assumed herein to represent San Jose and Diamond Bar Creeks.

In describing San Jose Creek, in 1913, the USGS noted: "San Jose Creek; San Gabriel River basin; Los Angeles County; rises around the eastern end of San Jose Hills above Pomona, turns the point of the range, and flows south and west between the Coast Range foothills, enters San Gabriel Valley at its extreme southeastern corner, and joins San Gabriel River (tributary to the Pacific) in the Paso de Bartolo Rancho; the stream has no high mountain drainage area of its own; about 9 square miles of San Jose Hills slope to its valley from the north, and about 25 square miles of the Coast Range, in a long, vary narrow strip, slope to it from the south; its principal source of water seems to be the great gravel bed at its head which constitutes the artesian belt of Pomona. The waters of the stream rise at a number of points along its course. Pomona and Pasadena sheets; Hall, W.H. Irrigation in California (southern), Sacramento, 1888."[29]

[20]/ USC Digital Library, Map of Spanish and Mexican Ranchos of Los Angeles County, 1931, California Historical Society Collection: 1860-1960 (http://digitallibrary.usc.edu/cdm/singleitem/collection/p15799coll65/id/12755).

[21]/ With the cession of California to the United States following the Mexican-American War, the 1848 Treaty of Guadalupe Hidalgo provided that Mexican land grants would be honored. As required by the Land Act of 1851, a claim for Rancho Los Nogales was filed with the Public Land Commission in 1852 and the grant was patented to María de Jesús Garcia on June 29, 1882 for 1,003.67 acres.

[22]/ The depicted location of the project site may be imprecise.

[23]/ Reynolds, W. P., Plat of the Rancho Los Nogales, County of Los Angeles, January 1869, University of California, Berkeley (http://imgzoom.cdlib.org/Fullscreen.ics?ark=ark:/13030/hb5x0nb3qj/z1&&brand=oac4).

[24]/ The depicted location of the project site may be imprecise.

[25]/ City of Diamond Bar and Diamond Bar Historical Society, Diamond Bar, 2014, p. 17.

[26]/ As noted: "This is the diseño, or plat map, of the Rancho Los Nogales. Since land grants were not surveyed, it is impossible to duplicate the exact boundaries of the ranch. Boundaries were often indicated by landmarks on the property, such as large trees, boulders, hills, mountains, or water elements. This 1877 drawing depicts the many walnut trees that influenced the rancho's name" (*Ibid*.). Prior to their channelization, the diseño has been interpreted to suggest that the circuitous lines illustrated therein do not define the boundaries of Rancho Los Nogales but rather illustrate the natural watercourses of present day San Jose and Diamond Bar Creeks. The boundary line separating the 1,004-acre Rancho Los Nogales and the 22,340-acre Rancho San José is illustrated.

[27]/ The depicted location of the project site may be imprecise.

[28]/ José Maria Aguilar was a Los Angeles official and married Maria Ygnacia Elizalde. Their son (Cristobal Aguilar [1816-1883]) was a prominent Los Angeles politician and, prior to 2005, was the last hispanic Major of Los Angeles (1866-1867, 1867-1868, and 1870-1872).

[29]/ Wood, B.D., Water Supply Papers Nos. 295-297, Gazetteer of Surface Waters of California, Part III – Pacific Coast and Great Basin Streams, United States Department of the Interior, United States Geological Survey, Congressional Edition, Vol. 6246, 1913, p. 188.

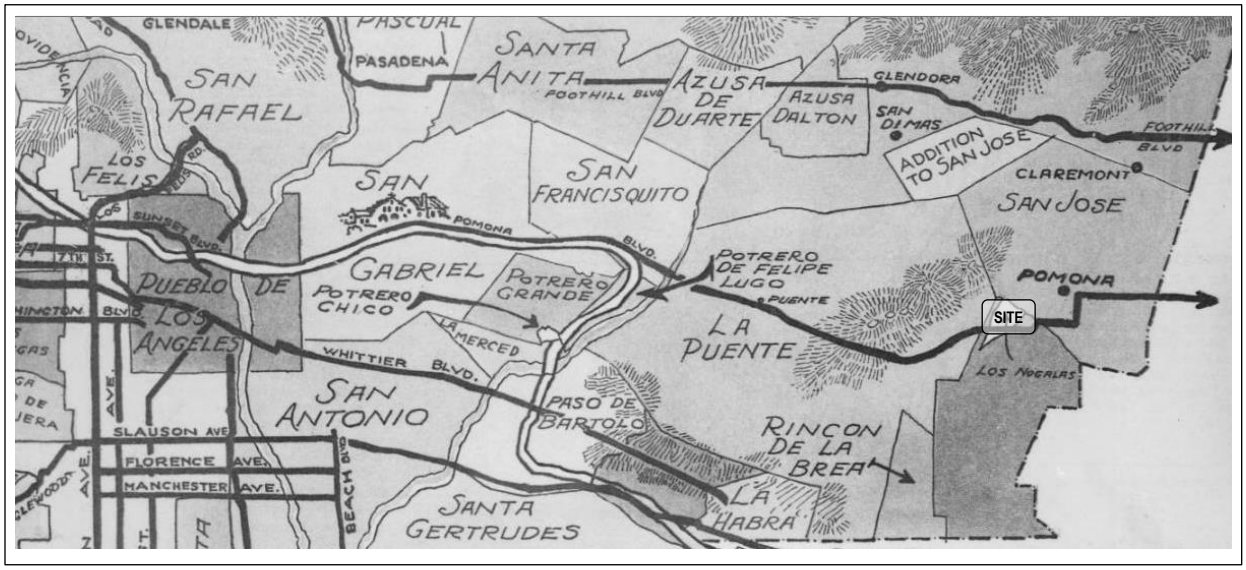


Figure 25
PORTION OF MAP OF SPANISH AND MEXICAN RANCHOS (1931)
Source: USC Digital Library

NOT TO SCALE

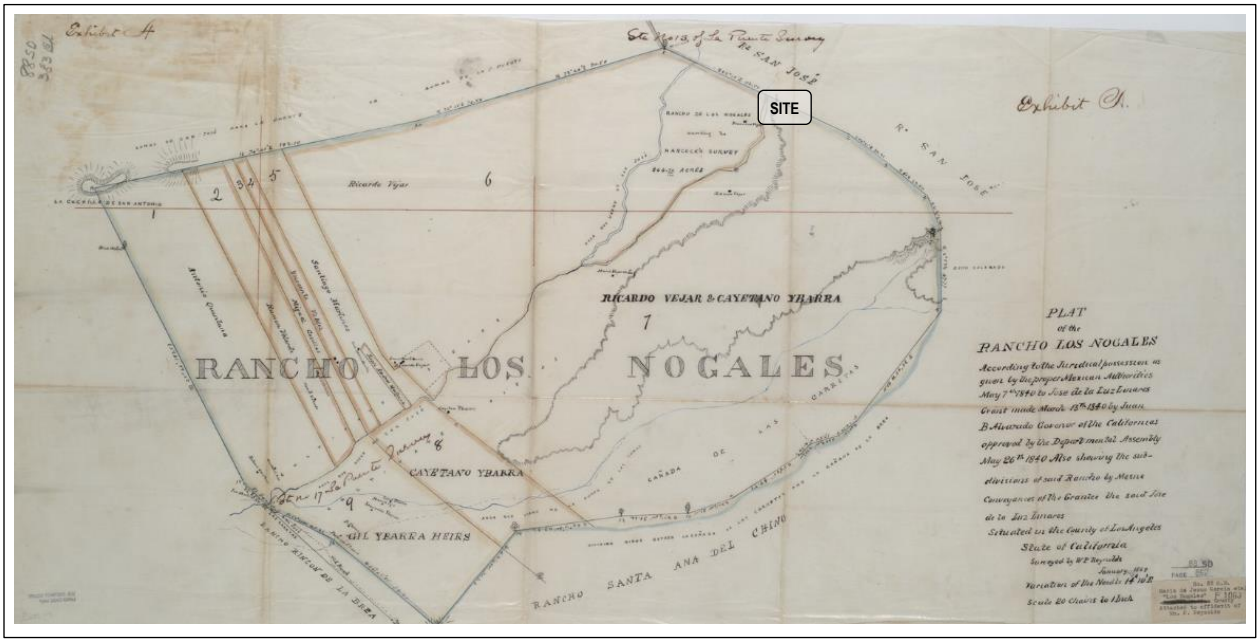


Figure 26
PLAT OF THE RANCHO LOS NOGALES (1869)
Source: University of California, Berkley

NOT TO SCALE

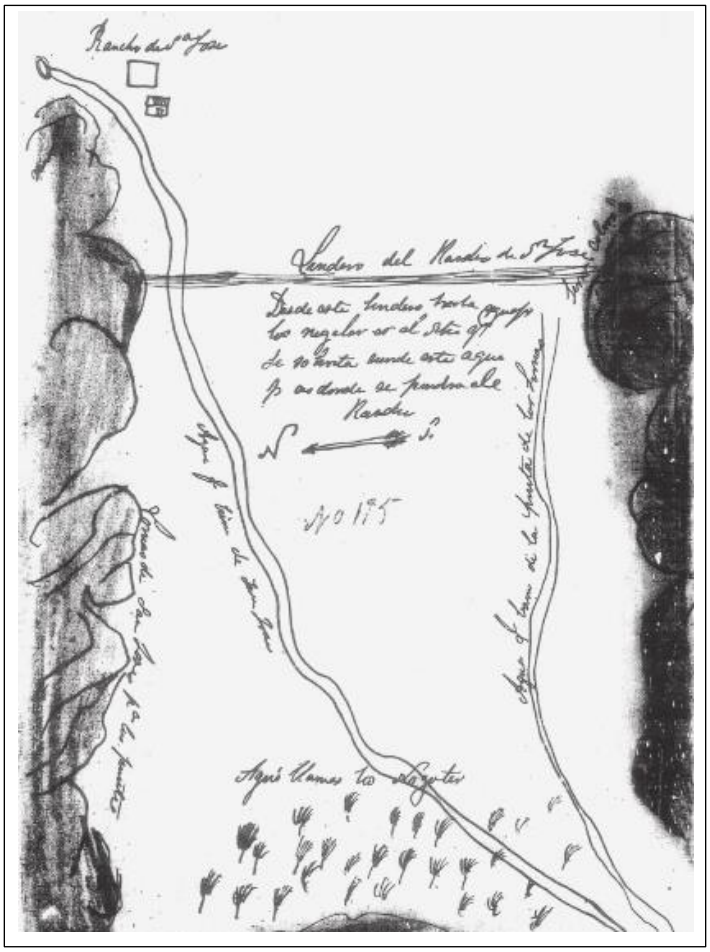


Figure 27
DISEÑO DEL RANCHO LOS NOGALES
(1877)
Source: Diamond Bar Historical Society

A portion of the "Pomona Sheet" (1888) is presented in Figure 28 (Portion of Detailed Irrigation Map, Pomona Sheet [1888]) herein.[30] Later maps, dated 1894 and 1904, generally depicting similar areas are presented in Figure 29 (Portion of United States Department of the Interior Geological Survey – California Pomona Quadrangle [1894]) and in Figure 30 (Portion of United States Department of the Interior Geological Survey–California Pomona Quadrangle [1904]), respectively.

In 1936, in describing the bountiful nature of the area's water resources, the "La Puente Valley Journal" (January 30, 1936) reported:

> *Plentiful water supply made possible vast walnut, citrus, avocado orchards instead of thousands of acres of barley fields. . .When the first pioneers settled here there as plenty of water for all their needs. The first farms did not cover the whole valley and only the better land was used, so that fields of barley sprang up all along the stream courses. But Southern California grew, not only in La Puente Valley but in other valleys, too, and more water was needed everywhere. More ranchers in La Puente Valley meant more diversion ditches from out streams. This alone placed a limit on how much land could be utilized, but added was the fact that the land*

[30]/ Hart, William Hammond, State Engineer, Detail Irrigation Map, Pomona Sheet, Irrigation Data, California State Engineering Department, 1888 (Source: David Rumsey Historic Map Collection).

> *closer to the sources of the streams were being developed in the same manner so that a greater need for water in the valley, less of it even got this far. Fortunately, there were available some springs of natural formation, indicating an underground supply of vast dimensions. Ranchers were still predominately along the stream bed and the hills made these natural sites for an artesian supply, man turned to helping Nature again by drilling holes through which this under-water could come to the surface along the valley and we had an artesian well stage.*

Reference to "Currier" therein is with regards to a 2,500 ranch once owned by former sheriff and senator "Alvan Tyler Currier" (1830-1921), to "Currier Ranch," and to the "Currier Tract Water Company." The following description thereof appeared in "An Illustrated History of Los Angeles County, California" (1889):

> *In the autumn [1869], after a summer spent in the northern and middle portions of California, Mr. Currier bought 1,000 acres of the land now making his ranch. He has never regretted his choice. In the fall of 1871 he commenced the improvement of the property. The ranch now comprises 2,400 acres, partly in the beautiful San Jose Valley and partly in the adjoining hills, which are themselves interspersed with valleys. In quality of soil it all ranks number one. Crossing the "Currier Ranch" is a perennial stream of water, the San Jose Creek, which should be mentioned in this connection. It has its fountain head three-quarters of a mile east of Spadra, on the Phillips Ranch. In the first three miles of its flow it is entirely emptied of water by ditches six times, reappearing each time with an increased volume. By actual measurement in midsummer Mr. Currier has for this use sixty-eight miners' inches. This wonderfully beneficent little stream sinks after leaving the ranch only to again reappear and enrich the valley for miles below, before being lost in the San Gabriel River. The "Currier Ranch" is devoted mainly to the production of hay and grain. About eighty head of horses, 200 hogs and 125 head of cattle are usually kept. An average of 1,000 tons of hay is sold annually, and 500 tons are fed on the ranch. The grain production annually is proportionally large. Mr. Currier while making no specialty of citrus fruit, prides himself on having land suitable for their culture, excelled by none in the citrus belt. A small orange orchard of only two acres, which came into good bearing in 1884, has, for its first three crops sold to shipping dealers, yielding an average of $1,000 per year. Mr. Currier owns sixty-six acres of land adjoining the Sante Fe Railroad station ground on the east and north of Pomona. This he has commenced to improve, fifteen acres being planted to deciduous fruits and oranges, and twelve acres with raisin grapes. In the near future the rest of this land will be in orchard.*[31]

The "A History of California and an Extended History of Southern Coast Counties, California" (1907) reported that "[h]is farming is devoted to fruit, the raising of cattle and draft horses, besides which he harvests large crops of hay and grain. In connection with his ranch he has an orchard of eighty areas, set out to oranges and walnuts. The ranch is very favorably situated about three miles west of Pomona, not far from the stations at Spadra and Lemon, on the Southern Pacific Railroad, and its copiously watered from several artesian wells."[32]

[31]/ Lewis Publishing Company, An Illustrated History of Los Angeles County, California, Containing the History of Los Angeles County from the Earliest Period of its Occupancy to the Present Time together with Glimpses of its Prospective Future with Profuse Illustrations of its Beautiful Scenery, Full-Page Portraits of Some of the Most Eminent Men and Biographical Mention of Many of its Pioneers and also of Prominent Citizens of Today, 1889, pp. 415-416.

[32]/ Guinn, James M., A History of California and an Extended History of Southern Coast Counties, California, Vol. I, 1907, p. 702.

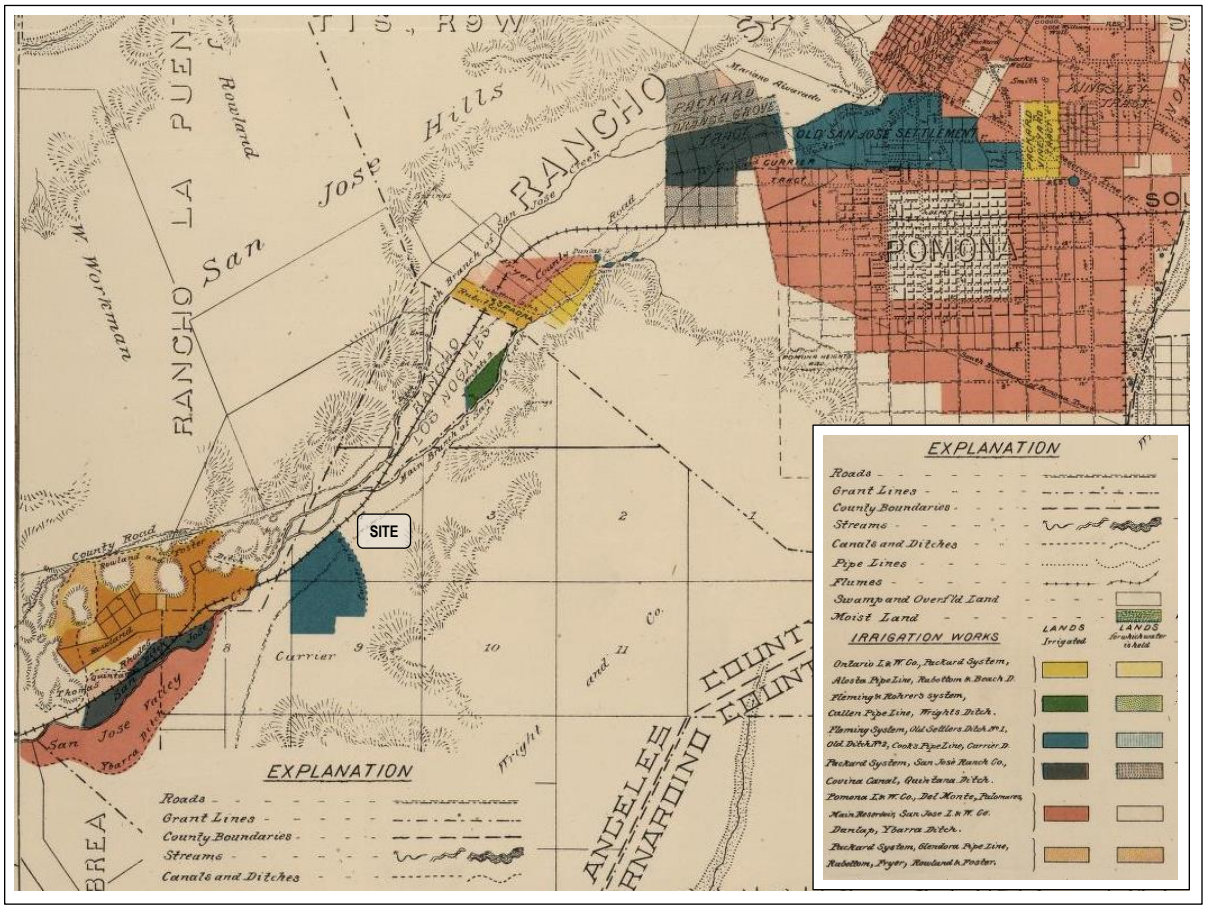


Figure 28
PORTION OF DETAILED IRRIGATION MAP - POMONA SHEET (1888)
Source: California State Engineering Department
(David Rumsey Historic Map Collection)

NOT TO SCALE

Historic 1946 and 1965 aerial photographs of the project site depict the absence of development within the general project area, showing both the project site and other abutting properties committed to active agricultural uses (fruit trees).[33]

Commencing in 1858, prior to the arrival of the railroad (1874), the Overland Stage route extended through the valley. As noted in the "History of Pomona Valley": "Nothing could rival the Overland Stage. The trilling story of the gigantic enterprise is bold at length by other writers. Only the salient points in its history need be mentioned here. There were many stages owned and run by individuals and covering various stretches of road across the mountains and plains between the Pacific Coast and the Eastern States, but the great Overland Route was known as Butterfield's after the man who organized the enterprise and later founded Wells Fargo Express. From San Francisco to St. Louis by Los Angeles and El Paso the distance covered by these stages was about 2,800 miles, the longest stage line ever established and successfully operated. . .The Butterfield Stage was finally abandoned sometime in 1868 or 1869, but other companies continued to run stages over the same

[33]/ Robin Environmental Management, Phase I Environmental Assessment Report – 850 Brea Canyon Road (APN 8719-013-017), Walnut, CA 91789, January 26, 2018, Appendix C (Historic Aerial Photo Record).

route; in fact, it was much competition that brought the Butterfield enterprise to a close. . .Thus until the coming of the railway in 1874, Spadra was not without its through stage, and after that for a time it was the terminus where the stages from the East met the railway from Los Angeles.[34] A portion of the Overland Stage route traversing the project area is illustrated in Figure 31 (Portion of the Overland/Butterfield Stage Route [1935]).[35] That segment of the "Road to Anaheim" referenced therein would appear to be Brea Canyon Road.

With regards to railroad operations in the general project area, historic records (Site 19-186112) indicate the presence of two parallel of the Union Pacific Railroad (historically the Southern Pacific Railroad and the Los Angeles and Salt Lake Railroads). The Southern Pacific was constructed throughout the Los Angeles area in the 1870s and ran through Watts, Compton to Wilmington, and east from Los Angeles, San Gabriel, Puente, Pomona, and Colton before heading to Yuma Arizona. In 1901, the San Pedro, Los Angeles, and Salt Lake Railroad Company was formed. Opening in 1905, the line extended from Los Angeles, to Las Vegas, to Salt Lake City. Some lines ran from Los Angeles south to Wilmington, via Bells and Workman, and east from Los Angeles through Pico, Clayton, paralleling the Southern Pacific line through Walnut, Spadra, Ontario and Riverside. In 1916, the line was renamed the Los Angeles to Salt Lake and, in 1921, the line became the southwestern part of the Union Pacific Railroad. The Union Pacific and the Southern Pacific merged in 1996.

Separated by San Jose Creek, two railroad tracks continue to operate between Valley Boulevard (on the north) and the Pomona (SR-60) Freeway on the south. As suggested in a 1930 road map published by the Automobile Club of Southern California and included as Figure 32 (Portion of Automobile Roads between Long Beach, Whittier and Pomona [1930]),[36] in the general project area, the future right-of-way for the Pomona (SR-60) Freeway appears unrelated thereto. Other maps identify that road section as "Fifth Street."

As indicated in an undated pre-incorporation (April 18, 1989) "Sphere of Influence Study XI" planning map prepared by the County of Los Angeles (Regional Planning Department), included, in part, as Figure 33 (Portion of Los Angeles County "Diamond Bar Study Area [Preliminary]" Map" [Circa 1988]),[37] located to the west of Brea Canyon Road and south of Golden Springs Road, are "Silver Peak Ranch" and "Otterbein Ranch."

The following description of "Silver Peak Ranch" was published in a travel brochure published by the United States Railroad Administration in 1919:

> *In the San Gabriel Valley, near Pomona and midway between Los Angeles and San Bernardino, surrounded by its own orange and lemon groves, is Silver Peak Ranch, commanding an excellent view of the Sierra Madre Mountains. The bungalows are new and offer the luxury of the large resort hotel. It is open only in the winter and spring, and is reached by both steam and electric railways – also by good motor road.[38]*

[34]/ Op. Cit., History of Pomona Valley, California with Biographical Sketches of the Leading Men and Women of the Valley who have been Identified with its Growth and Development from the Early Days to the Present, 1920, pp. 81 and 83-84.

[35]/ Fryer, Roy. M., The Butterfield Stage Routes Eastward from Los Angeles, Quarterly Publication (Historic Society of Southern California, Vol. 17. No. 1, March 1935, pp. 14-22.

[36]/ Automobile Club of Southern California, Auto Roads between Long Beach, Whittier and Pomona, 1930 (http://cdm15799.contentdm.oclc.org/cdm/compoundobject/collection/p15799coll59/id/62/rec/9).

[37]/ Los Angeles County Department of Regional Planning, Sphere of Influence Study XI, Diamond Bar Study Area (Preliminary), undated.

[38]/ Markham, Edwin, An Appreciation of California, Summer and Winter, United States Railroad Administration, 1919, p. 26 (https://archive.org/stream/regionalresortfo00unit/regionalresortfo00unit_djvu.txt).

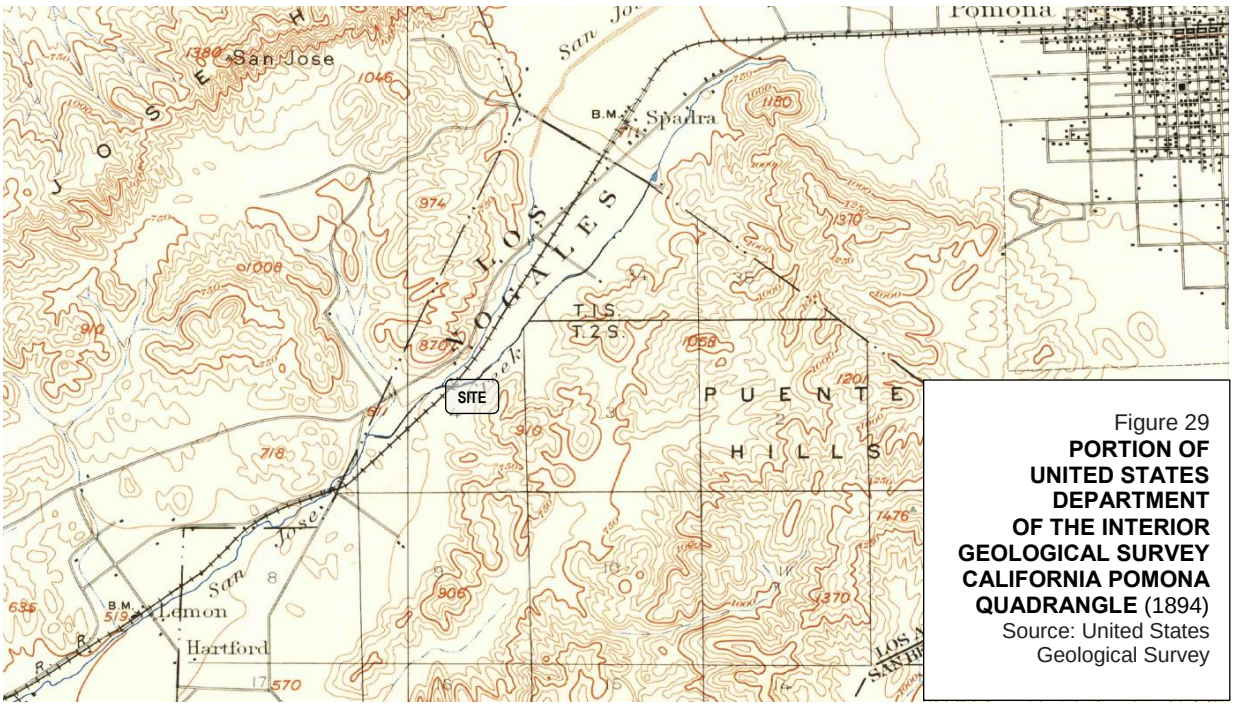


Figure 29
PORTION OF UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY CALIFORNIA POMONA QUADRANGLE (1894)
Source: United States Geological Survey

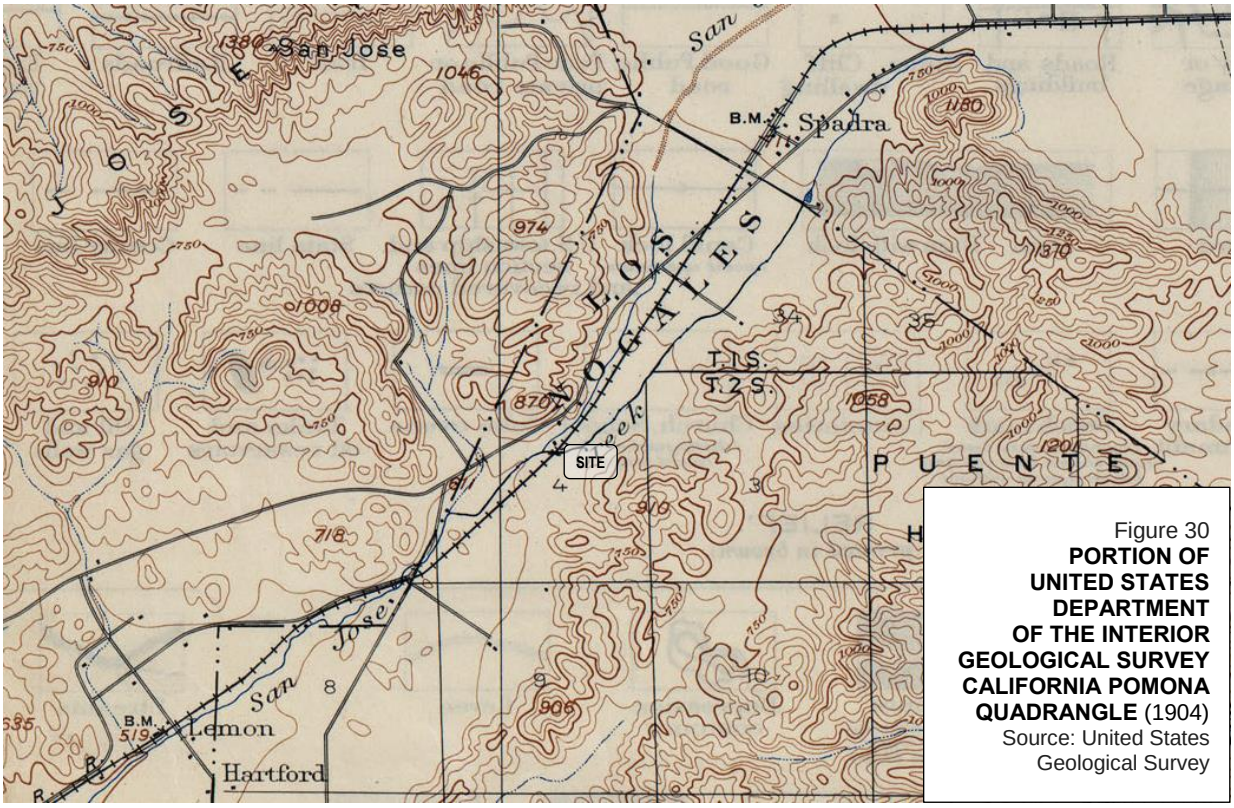
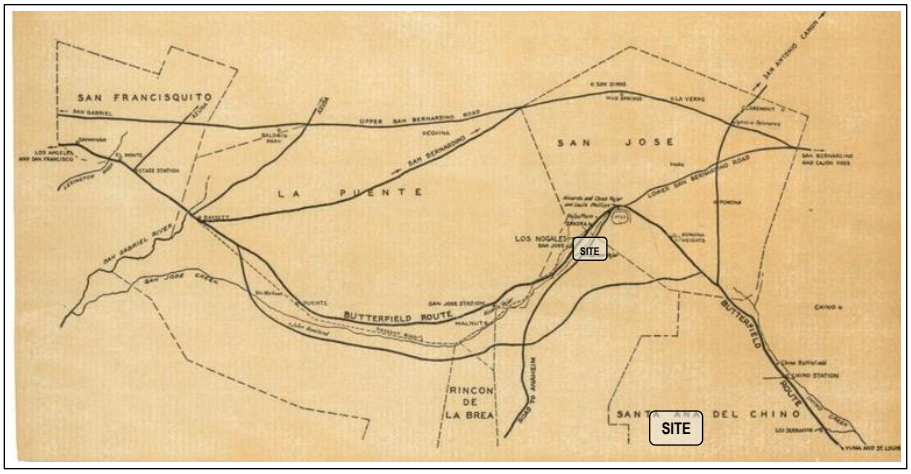
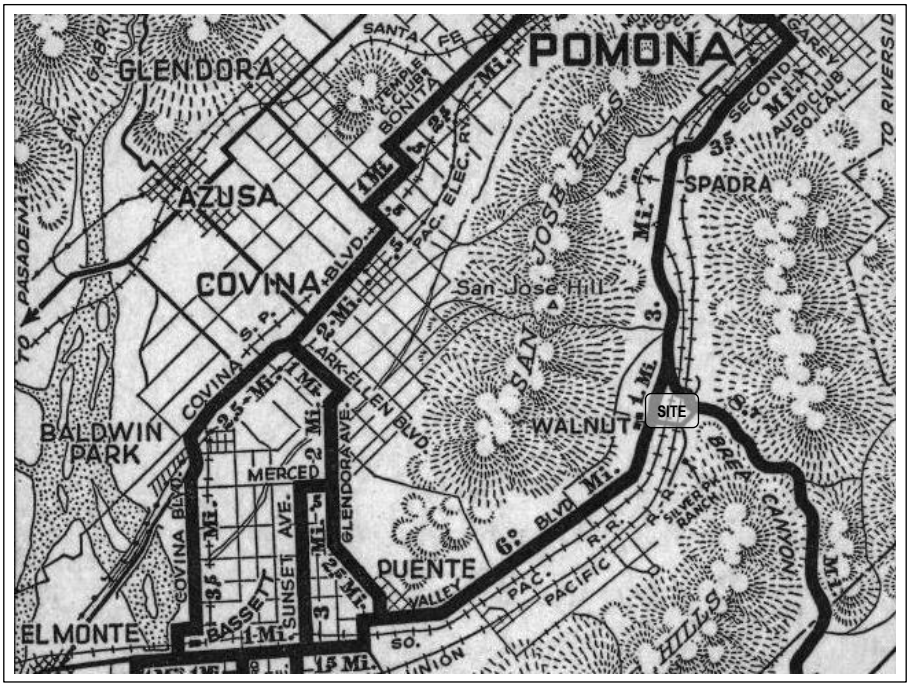


Figure 30
PORTION OF UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY CALIFORNIA POMONA QUADRANGLE (1904)
Source: United States Geological Survey



NOT TO SCALE

Figure 31
PORTION OF THE OVERLAND/ BUTTERFIELD STAGE ROUTE (1935)
Source: Historic Society of Southern California (University of California Press)



NOT TO SCALE

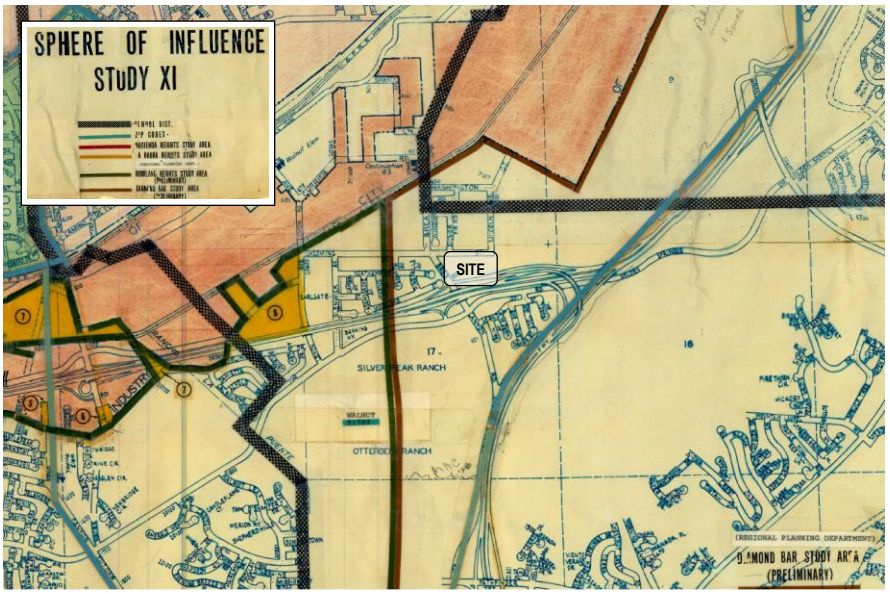
Figure 32
PORTION OF AUTOMOBILE ROADS BETWEEN LONG BEACH, WHITTIER AND POMONA (1930)
Source: Automobile Club of Southern California
(USC Digital Library)

Based on a review of historic aerial photographs, improvement on the Silver Peak Ranch property remain evident in 1972. Those improvement had given way to then present construction activities in 1980.

Neither the presence of other indigenous fish species nor the extent to which O. mykiss may have historically been present in upper San Jose Creek east of the San Gabriel River has not been researched herein. Based on the channelized nature of the channel, with limited exception as a wildlife corridor, minimal habitat value is presently assignable thereto.

Based on the site's proximity to Diamond Bar Creek, the subject property may have once contained numerous walnut trees and associated riparian vegetation. Acorns produced by walnut trees were a staple food source for the Gabrieliño and the vegetation aligning Diamond Bar Creek, the shade, food, and other culturally-relevant materials found therein,

and the presence of water may have resulted in the establishment of a foot path or trade route or other evidence of human habitation aligning both Diamond Bar and San Jose Creeks. The project site is highly disturbed and any surficial archaeological or historic feature, including those associated with both prehistoric Native American and historic usage, would have long since been removed. The potential presence of discoverable subsurface artifacts cannot be definitively excluded.



NOT TO SCALE

Figure 33
PORTION OF LOS ANGELES COUNTY "DIAMOND BAR STUDY AREA (PRELIMINARY)" MAP" (Circa 1988)
Source: Los Angeles County Regional Planning Department

The 1966 USGS' San Dimas quadrangle predates the construction of the Pomona (SR-60) Freeway. As illustrated in Figure 34 (Portion of 1966 San Dimas 7.5-Minute Quadrangle [1966]), the project site is bordered on the south by Fifth Street. Near the site's eastern edge, Fifth Street terminates at Brea Canyon Road which continues in a northeasterly-southwesterly direction. Portions of those roadways subsequently become the Pomona (SR-60) Freeway. Also identified therein is unchannelized Diamond Bar Creek. Various tributaries of Diamond Bar Creek are evident on both the northwestern and southeastern sides of then existing Brea Canyon Road, indicating the presence of a relatively large watershed. Diamond Bar Creek appears to be extensively vegetated. Although absent from the project site, agricultural activities remain evident in the general project area.

A 1972 photograph depicts a well-vegetated, unchannelized watercourse associated with existing Diamond Bar Creek.[39] Additionally, a 1972 aerial photograph, depicting the Pomona (SR-60) Freeway, continued to show a naturally vegetated Diamond Bar Creek and a not-previously illustrated unchannelized watercourse thereto extending from the freeway northward to a point of intersection therewith. The County subsequently constructed a single 72-inch diameter and two 54-inch diameter RCPs to transmit that drainage to the County flood control channel (PD 1445) (Diamond Bar Creek).

[39]/ *Op. Cit.*, Phase I Environmental Assessment Report – 850 Brea Canyon Road (APN 8719-013-017) Walnut, CA 91789, January 26, 2018, Appendix C (Historic Aerial Photo Records).

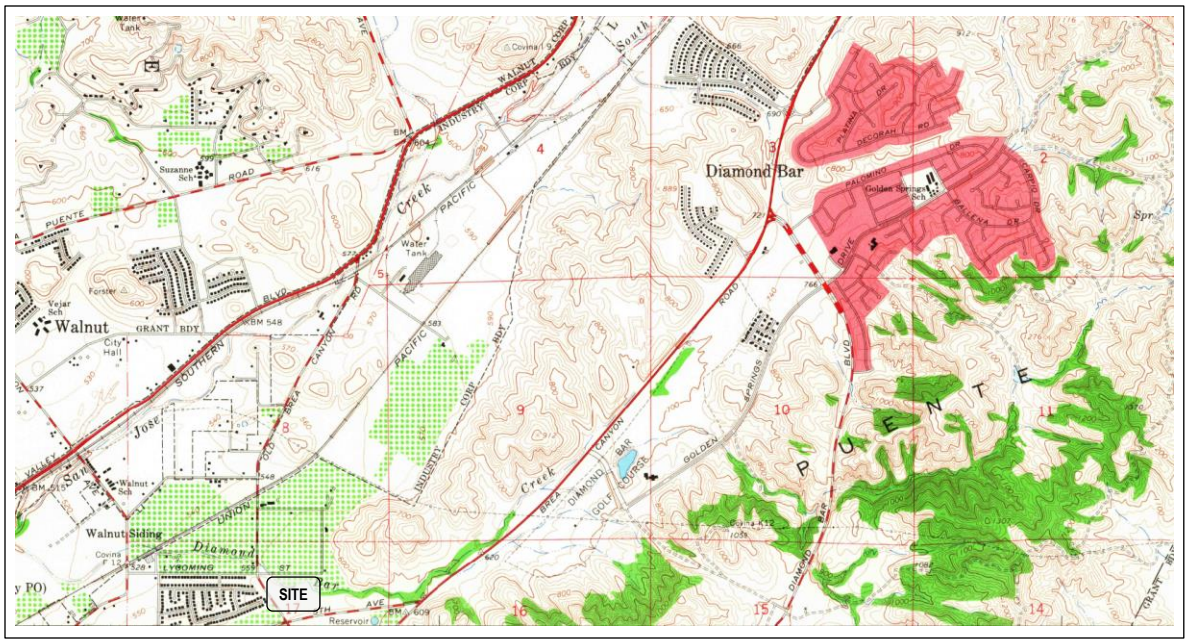


Figure 34
PORTION OF 1966 SAN DIMAS 7.5-MINUTE QUADRANGLE (1966)
Source: United States Geological Survey

NOT TO SCALE

Based on the information presented herein, the project site is considered to be sensitive for the presence of both prehistoric and historic resources. Monitoring of future earth-disturbing and trenching activities, particularly those that occur below the depth of surficial fill material, could yield "information important in prehistory or history" (Section 15064.5[a][3][D], State CEQA Guidelines). Because the needless loss of such information could be potentially significant, the following mitigation measures have been identified by the Department:

- ***MM-8. Cultural Resources**. Prior to the issuance of a grading permit, a qualified archaeologist, meeting the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, National Parks Service, September 29, 1983) shall be retained by the Applicant to oversee the monitoring of initial ground disturbing activities, including all trenching and excavation activities occurred to a depth greater than three feet below surface grades. The archeologist shall conduct earthwork monitoring activities for the purpose of identifying the potential presence of any significant historic or prehistoric cultural resources located within the project boundaries.*

- ***MM-9. Cultural Resources**. If cultural resources are identified during monitoring of the ground disturbing activities, the supervising archaeologist shall be empowered to temporarily halt construction in the vicinity of any such discovery while its significance is being evaluated. All cultural resources that may be so recovered will be documented on California Department of Parks and Recreation Site Forms and filed with the California Historical Resources Information System South Central Coastal Information Center at the California State University, Fullerton (CHRIS-SCCIC). Independent of any resources identified, the archaeologist shall prepare a final report about the monitoring*

and submit that report to the City's Community Development Director, and the California Historical Resources Information System South Central Coastal Information Center at the California State University, Fullerton (CHRIS-SCCIC), as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of any resources so recovered, if any. The Community Development Director shall designate repositories in the event that significant resources are recovered.

- ***MM-10. Cultural Resources**. The Applicant shall retain a Native American observer to monitor earthwork activities. The Native American observer shall represent a tribe that has ancestral ties and cultural affiliations to the project site.*

b) ***No Impact**. Although the County flood control channel (PD 1445) (Diamond Bar Creek) is an unvegetated, concrete-lined drainage facility, USGS maps continue to depict that portion of the channel adjacent to the project site as a "blue-line stream." The continuing depiction of that "blue-line stream" suggests that the channel historically replaced a naturally-occurring watercourse of unknown characteristics that existing adjacent or proximal to the project site and supporting associated riparian vegetation and habitats of unknown quality. The existing channel, as well as the project site, is presently highly disturbed and no remaining evidence of any such past resources remain present thereupon.*

c) ***Less-than-Significant with Mitigation Incorporated**. Based on a physical inspection of the subject property, there is no information suggesting that human remains may be interred on the project site. If human remains are, however, encountered during excavations, all work would be halted and the County Coroner (Coroner) notified (Section 5097.98, PRC). The Coroner would determine whether the remains are of forensic interest. If the Coroner determines that the remains are prehistoric, the Coroner would contact the NAHC. The NAHC would be responsible for designating the most likely descendant (MLD), who would be responsible for the ultimate disposition of the remains (Section 7050.5, Health and Safety Code [H&SC]). The MLD would make recommendations within 24 hours following notification. Those recommendations may include scientific removal and nondestructive analysis of human remains and any recoverable items associated with Native American burials (Section 7050.5, H&SC).*

In the event that human remains are encountered, the following recommended mitigation measure has been formulated by the Department:

- ***MM-11. Discovery of Human Remains**. If human remains are encountered during construction excavation and grading activities, Section 7050.5 of the Health and Safety Code requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Section 5097.98 of the Public Resources Code. If the remains are determined to be of Native American descent, the County Coroner has 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent (MLD) of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.*

6. Energy

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
(b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Findings of Fact

a) ***Less-than-Significant Impact****. Based on the "default" values presented in the air quality analysis' California Emissions Estimator Model (CalEEMod) annualized model results (annual emissions), estimated annual natural gas (measured in kilo-British Thermal Units per year [kBTU/year]) and electrical (measured in kilowatt hours per year [kWh/year]) consumption is presented in Table 3 (Estimated Annual Natural Gas and Electrical Consumption).*

Table 3
ESTIMATED ANNUAL
NATURAL GAS AND ELECTRICAL CONSUMPTION

Land Use	*Electrical Use (kWh/year)*	*Natural Gas Use (kBTU/year)*
4-Story Hotel	*468,012*	*1,480,600*
3-Story General/Medical Office Building	*415,654*	*333,099*
1-Story Medical Office Building	*321,243*	*257,439*
Parking Lot	*69,369.3*	*0*
Total	*1,274,278.3*	*2,071,138*

Source: City of Diamond Bar Community Development Department

Unless permits are issued after the effective dates of the most recent updates thereof, the proposed project will be designed, constructed and operated in accordance with the 2016 "California Building Standards Code" (Title 24, CCR) (2016 CBC), including the 2016 "Building Energy Efficiency Standards for Residential and Nonresidential Buildings" (Title 24, Part 6, CCR) (2016 BEES) and the 2016 "Green Building Standards Code" (Title 24, Part 11, CCR) (2016 CalGreen). Compliance with those standards will reduce energy consumption associated with lighting, water heating, and heating, ventilation, and air condition (HVAC). In addition, as depicted in Figure 3 (Conceptual Floor Plan – Proposed 4-Story Hotel Building [Lot 3]), the proposed hotel project will be designed to incorporate a solar electric generation system or photovoltaic (PV) system.

b) ***No impact****. The proposed project is fully compliance with applicable State or local plan for renewable energy and energy efficiency.*

7. Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace?	☐	☒	☐	☐
(2) Strong seismic ground shaking?	☐	☒	☐	☐
(3) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
(4) Landslides?	☐	☐	☐	☒
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Background Information

Technical sources used in the preparation of this analysis included numerous site-specific and project-specific geologic, geotechnical, and seismic reports submitted by the Applicant. Those reports which were subsequently reviewed and accepted by the City's Department of Public Works (Public Works) for inclusion herein included: (1) "Percolation/Infiltration Testing - Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" Geotechnical Professionals, Inc., July 12, 2017); (2) "Report of Geotechnical Investigation, Proposed Brea

Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., July 11, 2017); (3) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., September 6, 2017); (4) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business Park, Lot 2 – Medical Office Building, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., March 15, 2019); (5) "Response to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., June 11, 2019); (6) "Update No. 3 to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., April 4, 2019); and (7) "Update to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., November 13, 2017). Pursuant to Section 15150(a) of the State CEQA Guidelines, each of those project-related documents are incorporated herein by reference. Based on their size and/or technical nature, those technical studies are not physically included herein but are available for review at the Department during the Department's regular business hours

The presence of multiple geotechnical investigations is based, in part, on an Applicant-initiated change in the proposed development plan, including the relocation of the proposed buildings on the project site, subsequent to the submission of a number of initiation reports. Updated reports were submitted to reflect those design changes.

Seismic Hazards Mapping Act

In 1990, the State Legislature passed the Seismic Hazards Mapping Act (SHMA), codified in Division 2, Chapter 7.8 of the PRC. The SHMA was adopted for the purpose of protecting the public from the effects of strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. As required therein, the California Division of Mines and Geology (CDMG), now the California Geological Survey (CGS), was directed to delineate the various "seismic hazard zones" located throughout the State.

The State's minimum criteria for projects within "zones of required investigation" are defined in Section 3724 in Title 14 of the CCR. As indicated, in part, therein, a project shall be approved only when the nature and severity of the seismic hazards at the site have been evaluated in a geotechnical report and appropriate mitigation measures have been proposed.

The CGS' "Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication No. 117A"[40] (2008) provided guidelines for evaluating and mitigating seismic hazards (other than surface fault rupture) and for recommending mitigation measures as required under Section 2695(a) of the PRC.[41] As defined in Section 2693(c) therein, "mitigation" means those measures that are consistent with established practice and that will reduce seismic risk to acceptable levels." As defined in Section 3721(a) of the CCR, "acceptable level" means that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project."

[40]/ California Department of Conservation, California Geological Survey, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication No. 117A, September 11, 2008.

[41]/ As indicated, in part, therein, "the Seismic Hazards Mapping Act and related regulations establish a Statewide minimum public safety standard for mitigation of earthquake hazards. This means that the minimum level of mitigation for a project should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of buildings for human occupancy, but in most cases, not to a level of no ground failure at all" (Special Publication No. 117A, p. 4).

The applicable portions of the San Dimas quadrangle is presented in Figure 35 (Portion of the Earthquake Zones of Required Investigation – San Dimas Quadrangle [March 25, 1999]). As illustrated therein, the project site contain liquefaction "zones of required investigation."



SEISMIC HAZARD ZONES

Liquefaction Zones
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslide Zones
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Figure 35
PORTION OF THE
EARTHQUAKE ZONES OF REQUIRED INVESTIGATION
SAN DIMAS 7.5-MINUTE QUADRANGLE
(March 25, 1999)
Source: California Department of Conservation

The CDMG has prepared a "seismic hazard zone report" for the San Dimas quadrangle. As indicated therein: "Localities most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface. These geological and ground-water conditions exist in parts of southern California, most notably in some densely populated valley regions and alluviated floodplains. In addition, the potential for strong earthquake ground shaking is high because of the many nearby active faults. The combination of these factors constitutes a significant seismic hazard in the southern California region in general, including areas in the San Dimas Quadrangle."[42]

Liquefaction may occur in water-saturated sediment during moderate to great earthquakes. Liquefaction hazard may exist in areas where depth to ground water is 40 feet or less. In the preparation of seismic hazard zone maps, the CDMG used the highest known ground-water levels

[42]/ California Department of Conservation, Division of Mines and Geology, Seismic Hazard Zone Report for the San Dimas 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 032, 1998, p. 4.

because water levels during an earthquake cannot be anticipated because of the unpredictable fluctuations caused by natural processes and human activities.

Liquefaction zones are described as those areas meeting one or more of the following criteria:

- *Areas known to have experienced liquefaction during historical earthquakes.*
- *All areas of uncompacted artificial fill containing liquefaction-susceptible material that are saturated, nearly saturated, or may be expected to become saturated.*
- *Areas where sufficient existing geotechnical data and analyses indicate that the soils are*
- *potentially liquefiable.*
- *Areas where existing geotechnical data are insufficient. In areas of limited or no geotechnical data, susceptibility zones may be identified by geologic criteria as follows: (a) Areas containing soil deposits of late Holocene age (current river channels and their historic floodplains, marshes and estuaries), where the M7.5-weighted peak acceleration that has a 10% probability of being exceeded in 50 years is greater than or equal to 0.10 g [gravity] and the water table is less than 40 feet below the ground surface; or (b) Areas containing soil deposits of Holocene age (less than 11,000 years), where the M7.5-weighted peak acceleration that has a 10% probability of being exceeded in 50 years is greater than or equal to 0.20 g and the historical high water table is less than or equal to 30 feet below the ground surface; or (c) Areas containing soil deposits of latest Pleistocene age (11,000 to 15,000 years), where the M7.5-weighted peak acceleration that has a 10% probability of being exceeded in 50 years is greater than or equal to 0.30 g and the historical high water table is less than or equal to 20 feet below the ground surface.[43]*

As shown in Figure 24 (Portion of the Geologic Map of the USGS San Dimas 7.5-Minute Quadrangle [1998]),[44] the project site is depicted as containing surficial surface sediments (Qa). With regards thereto, the CDMG noted[45]:

Map Unit	Age	Environment of Deposition	Primary Texture	General Consistency	Susceptibility to Liquefaction
Qa	Latest Holocene	Active alluvial basin deposits	Sand, silt, clay	Very loose to loose	Yes

As a result, all or a portion of the project site is susceptible to potential liquefaction hazards.

Alquist-Priolo Earthquake Fault Zoning Act

Effective in 1973, the Alquist-Priolo Earthquake Fault Zoning Act (APEFZA),[46] codified in Section 2621 et seq. in Chapter 7.5 of Division 2 of the PRC, was adopted to "provide policies and criteria to assist cities, counties, and State agencies in the exercise of their responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults."[47] As defined therein, an "active fault" is one along which surface displacement has occurred within

[43]/ *Ibid*., p. 12.
[44]/ Tan, Siang S., Digital Geologic Map of the San Dimas 7.5-Minute Quadrangle, Open File Report -71, California Department of Mines and Geology, 1998.
[45]/ *Op. Cit*., Seismic Hazard Zone Report for the San Dimas 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 032, Table 1.1 (General Geotechnical Characteristics and Liquefaction Susceptibility of Quaternary Sedimentary Deposits in the San Dimas Quadrangle), p. 10.
[46]/ Formerly known as the "Alquist-Priolo Special Studies Zone Act" (APSSZ).
[47]/ Section 2621.5(a), PRC.

Holocene time (during the past 11,000 years).[48] Faults that have not moved in the last 1.6 million years are considered "inactive." A "fault trace" is a line formed by the intersection of a fault and the earth's surface.[49]

The intended purpose of the APEFZA was to regulate land development near active faults in an effort to mitigate the hazard of surface fault rupture and was enacted to prohibit the location of structures for human occupancy across the trace of active faults.[50] In furtherance thereof, the APEFZA's implementing regulations provided that "[n]o structure for human occupancy. . .shall be permitted to be placed across the trace of an active fault. Furthermore, as the area within fifty (50) feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report. . .no such structures shall be permitted in this area."[51] The law requires the State Geologist to establish regulatory zones, known as "earthquake fault zones,"[52] around the surface traces of active faults and to issue appropriate maps.[53] Earthquake fault zones are defined by turning points (e.g., roads, drainages, or other features on the ground) connected by straight lines. The zones vary in width but average about one-quarter-mile wide.[54]

No APEFZA have been published for the San Dimas Quadrangle.

Findings of Fact

In accordance with City requirements, a preliminary geotechnical investigation was conducted to assess the feasibility of the proposed development.

a1) ***Less-than-Significant with Mitigation Incorporated**. No "earthquake fault zones" have been mapped in the San Dimas 7.5-Minute Quadrangle. Based on the absence of known active faults on the project site, the potential for ground rupture due to faulting is considered to be unlikely.[55]*

The most significant faults in the general project area include the San Jose, Elsinore, Chino, and Coyote Hills Faults, located approximately 3, 5, 6, and 7 miles from the site, respectively. Based on the findings of the geotechnical investigation, the project site could be subjected

[48]/ This definition does not mean that faults lacking evidence for surface displacement within Holocene time are necessarily inactive (California Department of Conservation, California Geological Survey, Fault-Rupture Hazard Zones in California, Special Publication 42, Interim Revision 2007, p. 5).

[49]/ Section 3601(a)-(b), CCR.

[50]/ Section 2621.5, PRC and Section 3603(a), CCR.

[51]/ Section 3603(a), CCR.

[52]/ "Earthquake fault zones" are regulatory zones that encompass surface traces of active faults that have a potential for future surface rupture. A "surface rupture" is the breakage of ground along the surface trace of a fault caused by the intersection of the fault surface area ruptured in an earthquake with the Earth's surface. Areas that are so designated contain active faults that may pose a risk of surface rupture to existing or future structures. If a property is undeveloped, a fault study may be required before the parcel can be subdivided or before most structures can be permitted. If a property is developed, the APEFZA requires that all real estate transactions within the earthquake fault zone must contain a disclosure of those potential hazards by the seller to prospective buyers.

[53]/ The California Geological Survey (CGS), previously the CDMG, administers the APEFZA. As required, the State Geologist maps special study zones along potentially active and recently active fault traces. The zones are ordinarily less than 396 meters (one-quarter mile) wide unless special considerations indicate the need for a greater wide. Once the special study zone maps have been officially issued, local jurisdictions must require geologic reports prior to most new construction within those zones.

[54]/ California Department of Conservation, Division of Mines and Geology, Fault-Rupture Hazard Zones in California, Special Publication 42, Revised 1997, Supplements 1 and 2 added in 1999, p. 6.

[55]/ Geotechnical Professionals, Inc., Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, July 11, 2017, p. 5.

to a peak ground acceleration (PGA_M) of 0.78 g for a modal magnitude 6.5 earthquake. The predominant earthquake magnitude was determined using a 2-percent probability of exceedance in a 50-year period. In accordance therewith, structural design will need to incorporate measures to mitigate the effects of strong ground motion.[56] In response thereto, the following recommended mitigation measure has been formulated by the Department:

- ***MM-12. Geology and Soils.*** *All buildings will conform to applicable "Earthquake Design Regulations" specified in Section 1613 in Chapter 16 (Structural Design) of the 2016 California Building Code and, unless otherwise waived or superseded, all development activities conducted on the project site shall conform to and be consistent with the recommended seismic parameters and recommended design and development standards identified in the following technical studies:*

  (1) "Response to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., June 11, 2019);
  (2) "Update No. 3 to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., April 4, 2019);
  (3) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business Park, Lot 2 – Medical Office Building, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., March 15, 2019);
  (4) "Update to Geotechnical Review Comments – Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., November 13, 2017);
  (5) "Supplemental Geotechnical Investigation, Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., September 6, 2017);
  (6) "Percolation/Infiltration Testing - Proposed Brea Canyon Business 850 Brea Canyon Road, Diamond Bar, California" Geotechnical Professionals, Inc., July 12, 2017);
  (7) "Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California" (Geotechnical Professionals, Inc., July 11, 2017); and/or
  (8) Such additional actions and recommendations as may be approved by the City Engineer based on further technical analyses conducted by or for the City Engineer, including the findings of more detailed project-specific seismic, soils, geologic, and geotechnical investigations.

a2) ***Less-than-Significant Impact with Mitigation Incorporated****. The project site is located in seismically-active southern California and the project site, as well as the City and the region, is susceptible to and will be exposed to strong ground shaking over the life of the project.*

The 2016 CBC, codified in Part 2 in Title 24 of the CCR, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength and general building stability by regulating and controlling the design, construction, quality of materials, use, occupancy, location, and maintenance of buildings and structures. The 2016 CBC contained amendments based on the American Society of Civil Engineers (ASCE) "Minimum Design Standards 7.05." ASCE 7.05 provided

[56] *Ibid.*

requirements for general structural design and included means for determining earthquake loads. Those earthquake design requirements took into account the occupancy category, site class, soil classifications, and various seismic coefficients to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motion at a given site. Design specifications are then determined according to the SDC.

As indicated in Section 1613A (Earthquake Loads) in Chapter 16A (Structural Design) of Division IV of the 2016 CBC: "Every structure, and portion thereof, including nonstructural components attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of ground motions in accordance with ASCE 7 with all the modifications incorporated herein. . .The seismic design category for structures shall be determined with Section 1613A." As a result, although sufficient design standards exist to ensure that the proposed project will be designed and constructed in recognition of the anticipated occurrence of ground motion, a recommended mitigation measure (MM-13) has been formulated by the Department for the purpose of mitigating potential ground motion hazards and, upon implementation, reduce potential hazards to a less-than-significant level.

a3) ***Less-than-Significant with Mitigation Incorporated**. Relative to the project site, a historically high groundwater depth of 20 feet has been identified by the State. Based on exploratory investigations conducted on June 8, 2017 and identified in the project's geotechnical investigation, groundwater was encountered at depths of 28 to 33 feet below existing grades.*[57]

The project's geotechnical investigated indicated "a potential for liquefaction of layers of sandy soils at the northwest corner of the project site" and "predicted 1¼ inches of liquefaction settlement at the location of the CPT [Cone Penetration Test] C-1 using the CLiq computer program. CLiq predicted less than ¼ inch liquefaction at the remaining 6 CPT's at the site."[58] *Liquefaction hazards primarily exist in the area of the proposed single-story office building. Based on the findings of a supplemental geotechnical analysis, the following actions were identified:*

> *In order to help mitigate the seismic settlements (total and differential) at the site after remedial grading, the Structural Engineer should consider the following for the single-story building: [1] Pad footings tied-together-laterally with grade beams; [2] Additional reinforcement in continuous footings; [3] Slab-on-grade floors of a minimum of 5 inches thick; [4] Additional reinforcement in floor slab; [5] Dowel connection between footing and floor slab. The above items will help mitigate the potential liquefaction settlements for spread footings and slab on grade floors in the event of a design level earthquake. The actual method of structural mitigation should be determined by the Project Structural Engineer.*
>
> *Ground improvement may also be used to mitigate the potential liquefaction settlements if the static and seismic settlements (total and differential) presented in this supplemental report are beyond the structural mitigation methods provided above. If a ground improvement method is selected for the magnitude of seismic*

[57]/ Geotechnical Professionals, Inc., Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, July 11, 2017, pp. 5-6.

[58]/ Geotechnical Professionals, Inc., Supplemental Geotechnical Investigation, Proposed Brea Canyon Business Park, Lot 2 – Medical Office Building, 850 Brea Canyon Road, Diamond Bar, California, March 15, 2019.

> *settlement discussed in this report, a dynamic compaction, rammed aggregate pier system could be used as a cost-effective method for treatment of liquefaction to depths of 35 feet below existing ground. Ground improvement would likely be needed over one-quarter to one-half of the building pad to reduce settlements to an acceptable magnitude for the Structural Engineer. Ground modification is designed and constructed by specialty design/build contractors utilizing their proprietary methods.*[59]

A recommended mitigation measure (MM-13) has been formulated by the Department for the purpose of mitigating potential liquefaction hazards and, upon implementation, reduce potential hazards to a less-than-significant level.

a4) ***No Impact**. The project site is not located within a zone of potential earthquake-induced landslide hazards based on the CDMG's "Portion of the Geologic Map of the USGS San Dimas 7.5-Minute Quadrangle [1998]" (Figure 24).*

b) ***Less-than-Significant Impact**. The project site has previously been cleared and made ready for development. As a result, the potential presently exists for soil erosion. Those conditions will be exacerbated during construction. Construction activities remain subject to SCAQMD's Rule 403 which* establishes requirements for dust control associated with grading and construction activities.

On November 8, 2012, superseding "Order No. 01-182" as amended, the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) adopted "Order No. R4-2012-0175" (NPDES Permit No. CAS004001), establishing "Wastewater Discharge Requirements for Municipal Separate Storm Sewer System Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4" (Amended 2012 MS4 Permit). The Amended 2012 MS4 Permit became effective on December 28, 2012. As specified in Part VI.D.8.1 (Development Construction Program) of the Amended 2012 MS4 Permit:

> *(a) Each Permittee shall develop, implement, and enforce a construction program that: (i) Prevents illicit construction-related discharges of pollutants into the MS4 [municipal separate storm sewer systems] and receiving waters. (ii) Implements and maintains structural and non-structural BMPs [Best Management Practices] to reduce pollutants in storm water runoff from construction sites. (iii) Reduces construction site discharges of pollutants to the MS4 to the MEP [maximum extent practicable]. (iv) Prevents construction site discharges to the MS4 from causing or contributing to a violation of water quality standards. (b) Each Permittee shall establish for its jurisdiction an enforceable erosion and sediment control ordinance for all construction sites that disturb soil.*

Prior to issuing a grading or building permit, each Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an "erosion and sediment control plan" (ESCP) prior to the disturbance of land for the Permittee's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval by the Permittee.

[59]/ *Ibid*., p. 3.

ESCPs are year-round BMPs that must be incorporated into construction plans. All grading projects, non-residential sites, residential sites of 6 stories or greater, and projects with soil disturbing activities greater than one acre require an ESCP. All BMPs must be detailed on the ESCP or reference standard details found in the California Stormwater Quality Association's (CASQA) "Stormwater Best Management Practice Handbook – Construction" (January 2003, revised July 2012) and/or the Caltrans' "Construction Site Monitoring Program Guidance Manual" (revised August 2013).

The ESCP plan must include appropriate BMPs for general site management, construction materials and waste management, and erosion and sediment controls. Erosion and sediment control BMPs must be provided for both wet and dry seasons. To control site erosion and sediments, an ESCP must be submitted (or revised) every year to reflect site conditions at the start of the rainy season (October 15). Grading and building plans in for plan check, which will have construction work occurring during the rainy season, will not be permitted until ESCP are submitted and approved. For sites where the disturbed area is one acre or more, project proponents must file a "Notice of Intent" (NOI) and a "stormwater pollution prevention plan" (SWPPP) and obtain a waste discharge identification number with the State Water Resources Control Board (SWRCB).

c) ***Less-than-Significant with Mitigation Incorporated****. "Unstable" soil conditions can be attributable to a number of possible causes, including, but not limited to, on-site landslides, lateral spreading, subsidence, liquefaction, and collapse. Each of these factors are separately addressed below.*

- ***On-Site Landslides****. As illustrated in Figure 35 (Portion of the Earthquake Zones of Required Investigation – San Dimas Quadrangle [March 25, 1999]), no earthquake-induced landslide hazards have been identified on the project site.*

- ***Lateral Spreading****. Lateral spreading is the permanent lateral deformation of soils during liquefaction, typically on the order of inches to feet. Lateral spreading occurs when ground shaking causes the driving shear stresses demand to temporarily exceed the undrained shear strength, causing an accumulation of displacement in the direction of the static shear stress. Static shear stresses are present in slopes or in level ground near a free-face. Lateral movement of the soil can result in a wide range of structural damage, ranging from none when ground displacement is small or the structure is resistant to partial or complete collapse when lateral spreading demands exceed structural capacity.*

  As indicated in the project's geotechnical investigation:

  > *Lateral spreading is the differential movement of the ground surface due to open face excavations. The drainage channel on the east side of the site is an open face excavation with an estimated depth on the order of approximately 10 to 15 feet. The project site is essentially flat with an estimated ground slope of 1 percent toward the southeast.*
  >
  > *Lateral spreading requires continuous liquefiable layers throughout to the drainage channel. At the northwest portion of the site, the liquefiable layer liquefaction is at a depth of approximately 20 to 25 feet below existing grade. Several CPT's [sic] performed between the drainage channel and CPT C-1*

did not indicate a consistent liquefiable layer at these depths. Based on this data, lateral spreading is not likely to adversely impact the site. [60]

Compliance with the applicable provisions of the 2016 CBC and adoption of the recommended mitigation measure (MM-13) will reduce potential lateral spreading impacts to a less-than-significant level.

- ***Subsidence**. Land surface subsidence can result from both natural and human-made phenomena. Natural phenomena include subsidence resulting from tectonic deformations and seismically-induced settlements, soil subsidence due to consolidation, subsidence due to oxidation or dewatering of organic-rich soils, and subsidence related to subsurface cavities. Subsidence or settlement related to human (anthropic) activities can be caused by decreased pore pressure due to the withdrawal of subsurface fluids (i.e., water and hydrocarbons).*

  A major cause of land subsidence is the withdrawal of groundwater from compressible sediments. As water is withdrawn and the water table lowered, the effective pressure in the drained sediments is increased. Compressible layers then compact under the over-pressure burden that is no longer compensated by hydrostatic pressure.

  The project site is located within the service area of the Walnut Valley Water District (WVWD).[61] *The WVWD's potable water supply consists of water imported from northern California and the Colorado River. To supplement recycled water supplies, the WVWD pumps groundwater from two groundwater basins, including the Puente Groundwater Basin (which underlies the project site) and the Spadra Basin. As depicted in Figure 36 (Main San Gabriel and Puente Groundwater Basins), the Puente Groundwater Basin is a tributary basin to the Main San Gabriel Groundwater Basin.*

  As more thoroughly described in Appendix F (Main San Gabriel and Puente Groundwater Basins),[62] *the groundwater basin is divided into two main parts, the Main San Gabriel Basin and the Puente Basin. The Puente Basin is tributary to the Main Basin and hydraulically connected to it, with no barriers to groundwater movement. It is, however, not within the legal jurisdiction of Main San Gabriel Basin Watermaster and is considered a separate entity for management purposes.*

  The Main San Gabriel Basin lies in eastern Los Angeles County. The hydrologic basin coincides with a portion of the upper San Gabriel River watershed and the aquifer or groundwater basin underlies most of the San Gabriel Valley. The groundwater basin is bounded by the San Gabriel Mountains to the north, the San Jose Hills to the east, the Puente Hills to the south, and by a series of hills and the Raymond Fault to the west. The watershed is drained by the San Gabriel River and Rio Hondo, a tributary of the *Los Angeles River.*

[60]/ *Op. Cit*., Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, July 11, 2017, p. 6.

[61]/ Walnut Valley Water District, 2015 Urban Water Management Plan, June 2016, Figure 1 (Service Area Map), p. 11.

[62]/ Langridge, R., Brown, A., Rudestam K., et al, An Evaluation of California's Adjudicated Groundwater Basins, University of California, Santa Cruz, 2016.

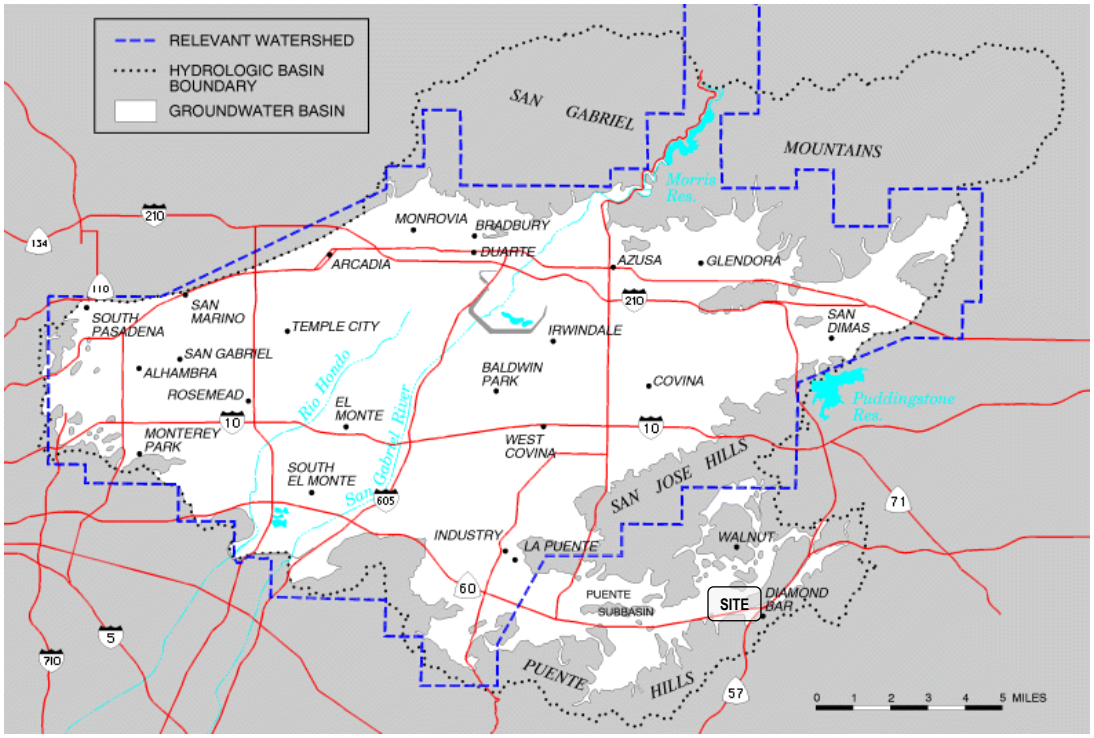


Figure 36
MAIN SAN GABRIEL AND PUENTE GROUNDWATER BASINS
Source: Main San Gabriel Watermaster

Principal water-bearing formations of the basin are unconsolidated and semi-consolidated sediments which range in size from coarse gravel to fine-grained sands. The major sources of natural recharge are infiltration of rainfall on the valley floor and percolation of runoff from the adjacent mountains. The basin also receives imported water and return flow from applied water.

Surface area of the groundwater basin is approximately 167 square miles. The fresh water storage capacity of the basin is estimated to be about 8.6 million acre-feet.

As indicated in the WVWD's "2015 Urban Water Management Plan" (2015 UWMP), groundwater withdraws from the five wells operated by the WVWD within the Puente Subbasin are not projected to increase between 2020 and 2035[63]

- ***Liquefaction**. Liquefaction hazards are separately addressed in response "a3" above.*

- **Collapsible Soils**. Collapsible soils shrink upon being wetted and/or after being subject to a load. Project implementation includes the removal of surficial site soils and replacement with engineered fill. As a result, potential collapsible soil hazards are less than significant.

[63]/ *Ibid*., Table 24 (Groundwater Projections for Recycled and Potable Uses), p. 32.

d) ***Less-than-Significant with Mitigation Incorporated***. *Expansive soils are soils that experience significant volume change associated with changes in water content. These volume changes can either be in the form of swell or shrinkage and are sometimes known as "shrink/swell soils." "Shrink-swell" (expansion and contraction) is the cyclic change in volume that occurs in fine-grained clay sediments associated with the process of wetting and drying. Structural damage to buildings can occur as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.*

As defined in Subsection 1803.5.3 (Expansive Soils) of Section 1803 (Geotechnical Investigations) in Chapter 18 (Soils and Foundations) of the 2016 CBC: "Soils meeting all four of the following provisions shall be considered expansive, except that tests to show compliance with Items 1, 2 and 3 shall not be required if the test prescribed in Item 4 is conducted: (1) Plasticity index (PI) of 15 or greater, determined in accordance with ASTM D4318. (2) More than 10 percent of the soil particles pass a No. 200 sieve (75 µm), determined in accordance with ASTM D422. (3) More than 10 percent of the soil particles are less than 5 micrometers, in size, determined in accordance with ASTM D422. (4) Expansion index greater than 20, determined in accordance with ASTM D4829."[64,65]

As indicated in the geotechnical investigation, laboratory testing indicates that the near surface soils, including sandy clays, have a very low expansion potential (EI<9).[66] *The geotechnical investigation, however, recommends that if on-site clays not be placed within one foot of the slab-on-grade floors or flatwork, those soils should not be allowed to dry prior to placing a vapor/moisture retarder or concrete.*

A recommended mitigation measure (MM-13) has been formulated by the Department for the purpose of mitigating potential expansive soil hazards and, upon implementation, reduce potential hazards to a less-than-significant level.

e) ***No Impact***. *No septic or alternative wastewater disposal system is proposed.*

f) ***No Impact***. *Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor and Section 622.5 of the California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources*

The project site is underplayed with younger Quaternary deposits. Younger Quaternary deposits typically do not contain significant vertebrate fossils, at least in upper layers, and no vertebrate fossil localities have been identified in younger Quaternary deposits in the study area region.

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[64]/ The expansion index (EI) provides an indication of swelling potential of a compacted soil.

[65]/ This test was developed in in the mid-1960s and introduced in the 1973 Uniform Building Code as UBC Test Standard 29-2. It was re-designated as UBC Test Standard 18-1 in the 1994 code and adopted by ASTM in 1988. Soil material is disaggregated and passed through the No. 4 sieve and then brought to approximately the optimum moisture content (as determined by ASTM D-1557). The optimum moisture content equates to approximately 80 to 85 percent of saturation. After setting for 6 to 30 hours, the moisture-conditioned soil is compacted into a 4-inch diameter mold. The moisture content is then adjusted, if necessary, to bring the sample to 50 percent saturation. A 144 psf surcharge is applied and the sample is wetted and monitored for 24 hours, measuring the volumetric swell. The "Expansion Index" (EI) is calculated as follows: EI = 100 x .h x F, Where .h = percent swell and F = fraction passing No. 4 sieve. The resulting expansion potential is categorized as "very low" (0-20), "low" (21-50), "medium" (51-90), "high" (91-130), and "very high" (>130).

[66]/ Geotechnical Professionals, Inc., Report of Geotechnical Investigation, Proposed Brea Canyon Business Park, 850 Brea Canyon Road, Diamond Bar, California, July 11, 2017, p. 4.

8. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Background Information

In order to more thoroughly assess potential air quality impacts, a detailed air quality analysis was performed as part of this CEQA-compliance effort. The resulting "Air Quality Analysis" (August 2019) is included in Appendix D (Brea Canyon Business Park - Air Quality Analysis). The detailed analysis supporting the following conclusions is presented in that study and, for brevity, has not again been repeated herein.

Findings of Fact

a) ***Less-than-Significant Impact**. The California Emissions Estimator Model (CalEEMod) model projects that combined, mobile, area source, energy, waste, and water conveyance associated with the proposed project would generate an estimated 2,809.65 metric tons of carbon dioxide equivalent (Mtons of CO_2e) on an annual basis. When the construction emissions are amortized over 30 years (23.45 Mtons of CO_2e) and added thereto, the total is increased to an estimated 2,833.10 Mtons of CO_2e per year. Because this value remains under SCAQMD's suggested threshold of 3,000 Mtons per year, the resulting GHG impact is less than significant and no mitigation is required or recommended.*

b) ***Less-than-Significant Impact**. Projects that generate de minimus levels (i.e., less than 3,000 Mtons of CO_2e per year) and do not result in a significant impact or can be mitigated to less than significant would be deemed to be in compliance of the local policies with respect to GHG emissions. As such, GHG emission impacts are less than significant and no additional mitigation measures are required or recommended*.

9. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school?	☐	☐	☒	☐
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e) For a project located within an airport land-use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

Background Information

As indicated in the Code of Federal Regulations (CFR), "hazardous materials" are defined as "materials that may pose an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). Hazardous materials are listed in Appendix A of 49 CFR Part 172.101 and include hazardous wastes, as defined in the federal Resource Conservation and Recovery Act (RCRA), the Federal Hazardous and Solid Waste Amendments (HSWA) of 1984, and the California Hazardous Waste Control Law (HWCL).

"Hazardous wastes" are regulated under RCRA, HSWA, and Title 22, Chapter 6.5 of the California Code of Regulations (CCR). Hazardous wastes are those wastes classified as ignitable, corrosive, reactive, or toxic and are classified under the following four categories (22 CCR

66261.100-66261.126): (1) RCRA hazardous wastes; (2) Non-RCRA hazardous wastes; (3) extremely hazardous wastes; and (4) special wastes.

In order to assess the presence or potential presence of hazardous materials and petroleum products on the project site, the Applicant submitted a "Phase I Environmental Assessment Report – 850 Brea Canyon Road (APN 8719-013-017), Walnut, CA 91789" (Robin Environmental Management, January 26, 2018). Pursuant to Section 15150(a) of the State CEQA Guidelines, that project-related document is are incorporated herein by reference. Based on its size, that technical study is not physically included herein but is available for review at the Department during the Department's regular business hours.

Findings of Fact

a) ***Less-than-Significant Impact**. Under federal and State laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).*

During construction, hazardous materials (e.g., fuels and lubricants) would be transported to the project site in construction vehicles and equipment and consumed at the site in accordance with good-business and occupational safety practices and in compliance with all applicable federal, State, and local regulations governing the use of hazardous materials, including the mandatory installation of environmental protective measures and best management practices (BMPs). Compliance provides reasonable assurance that potential hazards to the general public and to the environment are reduced to a less-than-significant level.

In limited quantities, not excessing regulated quantities, both office and hotel operations would routinely include the use, handling, and storage of numerous products that would constitute hazardous materials and/or contain hazardous substances. A variety of commercial cleaning products, disinfectants, lubricants, paints, solvents, insecticides, fertilizers, and similar products are used in routine maintenance. The use of these materials would be limited, and their transport, storage, use, and disposal would be subject to federal, State, and local requirements.

Routine storage, handling, and disposal practices include: (1) keeping each object in its original contain; (2) periodically checks for signs of deterioration and leakage; (3) maintaining separate storage areas for potentially incompatible or dissimilar products; (4) storage in secure places and away from children: (5) disposal at regional household hazardous material collection centers; and (5) not disposing of these products by pouring liquids down drains, onto the ground, or into the storm drain system.

The Medical Waste Management Act (Part 14 commencing with Section 117600, Division 104, H&SC) (MWMA), as administered by the California Department of Public Health (CDPH), regulates the management, handling, and disposal of medical wastes, as defined.[67] The MWMA provides that transporting, storing, treating, disposing of causing the treatment or

[67]/ The California Medical Waste Management Act (MWMA) became effective in 1991. The California Department of Public Health (CDPH) assumed responsibility as the oversight agency for medical waste management in 2007. Several amendments to the MWMA have been enacted since its initial adoption. Assembly Bill 333 (as approved by the Governor on September 25, 20 14) was the initial comprehensive change to the MWMA by restructuring the definition of medical waste, mandating use of separate and distinct tracking and shipping documents, modifying large and small generator requirements, and amending rules for self-transport of small amounts of medical waste.

disposal of medical wastes in a manner not authorized by permit or regulation or by the MWMA is a crime.

Medical uses may include unique hazardous wastes distinct from general administrative offices. As defined in Section 22.80.020 (Definitions of Specialized Terms and Phrases) in Article VI (Development Code Definitions) in Title 22 (Development Code) of the MC, "medical services – clinics and laboratories" are defined as "[f]acilities primarily engaged in furnishing outpatient medical, mental health, surgical and other personal health services, but which are separate from hospitals, including: [1] Health management organizations (HMOs); [2] Medical and dental laboratories; [3] Medical, dental and psychiatric offices; [4] Out-patient care facilities; [5] Other allied health services; [and] [6] Counseling services by other than medical doctors or psychiatrists are included under 'offices.'" Specifically, while "clinics and labs" are identified as "permitted" uses in the "Regional Commercial (C-3)" zone, the precise nature of those "clinics and laboratories" are not further defined therein.

Medical offices routinely include physician offices, examination rooms, outpatient pharmacies, laboratories, imaging/radiology, and administrative offices. Certain medical testing is provided "waiver" status and not subject to the provisions of the Clinical Laboratory Improvement Amendments of 1988 (42 U.S.C. 263[a]; PL 100-578). Facilities performing "non-waived" (moderate and/or high complexity) clinical laboratory tests must apply for the appropriate California clinical laboratory license and a federal CLIA certificate.

As defined in Section 1206(a)(8) of the California Business and Professions Code (B&PC): "'Clinical laboratory' means any place used, or any establishment or institution organized or operated, for the performance of clinical laboratory tests or examinations or the practical application of the clinical laboratory sciences. That application may include any means that applies the clinical laboratory sciences." "Clinical laboratory science" means "any of the sciences or scientific disciplines used to perform a clinical laboratory test or examination" (Section 1206[a][6], B&PC). As specified in Section 1265(a)(1) if the B&PC, a "clinical laboratory performing clinical laboratory tests or examinations classified as of moderate or of high complexity under CLIA shall obtain a clinical laboratory license." California law is broadly applied to include all facilities providing analyses of all human body specimens, including blood, urine, feces, hair, breath, saliva, and body fluids (Section 1206, B&PC).

"Providers of health care" are defined as "any person licensed or certified pursuant to Division 2 (commencing with Section 500) of the Business and Profession Code; an person licensed pursuant to the Osteopathic Initiative Act or the Chiropractic Initiate Act; any person certified pursuant to Division 2.5 (commencing with Section 1797) of the Health and Safety Code; any clinic, health dispensary, or health facility licensed pursuant to Division 2 (commencing with Section 1200) of the Health and Safety Code" (Section 56.05[m], California Civil Code)

Routine visits to "providers of health care" and both "waived" and "non-waived" clinical laboratory testing procedures associated therewith would be expected to generate "medical wastes" and "biohazardous wastes." As defined in Section 117690 of the H&SC:

> *(a) "Medical waste" means any biohazardous, pathology, pharmaceutical, or trace chemotherapy waste not regulated by the federal Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended; sharps and trace chemotherapy wastes generated in a health care setting in the diagnosis, treatment, immunization, or care of humans or animals; waste generated in autopsy or necropsy; waste generated during preparation of a*

body for final disposition such as cremation or interment; waste generated in research pertaining to the production or testing of microbiologicals; waste generated in research using human or animal pathogens; sharps and laboratory waste that poses a potential risk of infection to humans generated in the inoculation of animals in commercial farming operations; waste generated from the consolidation of home-generated sharps; and waste generated in the cleanup of trauma scenes. Biohazardous, pathology, pharmaceutical, sharps, and trace chemotherapy wastes that meet the conditions of this section are not subject to any of the hazardous waste requirements found in Chapter 6.5 (commencing with Section 25100) of Division 20.

(b) For purposes of this part the following definitions apply:

(1) "Biohazardous waste" includes all of the following:

(A) (i) Regulated medical waste, clinical waste, or biomedical waste that is a waste or reusable material derived from the medical treatment of a human or from an animal that is suspected by the attending veterinarian of being infected with a pathogen that is also infectious to humans, which includes diagnosis and immunization; or from biomedical research, which includes the production and testing of biological products. (ii) Regulated medical waste or clinical waste or biomedical waste suspected of containing a highly communicable disease.

(B) Laboratory waste such as human specimen cultures or animal specimen cultures that are infected with pathogens that are also infectious to humans; cultures and stocks of infectious agents from research; wastes from the production of bacteria, viruses, spores, discarded live and attenuated vaccines used in human health care or research, discarded animal vaccines, including Brucellosis and Contagious Ecthyma, as defined by the department; culture dishes, devices used to transfer, inoculate, and mix cultures; and wastes identified by Section 173.134 of Title 49 of the Code of Federal Regulations as Category B "once wasted" for laboratory wastes.

(C) Waste that, at the point of transport from the generator's site or at the point of disposal contains recognizable fluid human blood, fluid human blood products, containers, or equipment containing human blood that is fluid, or blood from animals suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

(D) Waste containing discarded materials contaminated with excretion, exudate, or secretions from humans or animals that are required to be isolated by the infection control staff, the attending physician and surgeon, the attending veterinarian, or the local health officer, to protect others from highly communicable diseases or diseases of animals that are communicable to humans.

(2) Pathology waste includes both of the following:

(A) Human body parts, with the exception of teeth, removed at surgery and surgery specimens or tissues removed at surgery or autopsy that are suspected by the health care professional of being

contaminated with infectious agents known to be contagious to humans or having been fixed in formaldehyde or another fixative.

(B) Animal parts, tissues, fluids, or carcasses suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

Section 118275 of the H&SC establishes "medical waste" segregation and storage requirements. As specified: (1) medical waste shall be contained separately from other waste at the point of origin in the producing facility; (2) "biohazardous waste" shall be placed in a biohazard bag and labeled in compliance with Section 117630; (3) "sharps waste" shall be contained in a United States Food and Drug Administration (USFDA) approved sharps container that meets USFDA labeling requirements and is handled pursuant to Section 118285; (4) "trace chemotherapy waste" shall be segregated for storage and labeled with the words "Chemotherapy Waste" (CHEMO); (5) "pathology waste" shall be segregated for storage and labeled "Pathology Waste" (PATH); (6) "pharmaceutical waste" shall be segregated for storage in accordance with the facility's medical waste management plan. When this waste is prepared for shipment offsite for treatment, it shall be properly containerized for shipment in compliance with United States Department of Transportation and the United States Drug Enforcement Administration (DEA) requirements.

Although no such facilities are explicitly required, the proposed site plan does not appear to contain facilities for the consolidated on-site storage of those wastes, thus requiring each separate medical office to independently address those requirements.

Since those "medical office" uses that may occur on the project site remain undefined, it is neither possible to estimate the quantity of nor to category the nature of any such wastes. Some or all of those uses would reasonably constitute "medical waste generators." As defined in Section 117705 of the H&SC, "medical waste generator" means any person whose act or process produces medical waste and includes, but is not limited to, a provider of health care, as defined in Section 56.05 of the Civil Code." Examples of businesses that generate medical waste include "medical and dental offices, clinics, hospitals, surgery centers, laboratories, research laboratories, unlicensed health facilities, those facilities required to be licensed pursuant to Division 2 (commencing with Section 1200), chronic dialysis clinics, as regulated pursuant to Division 2 (commencing with Section 1200), and education and research facilities."

All such generators are required by statute to prepare a "medical waste management plan" (MWMP). "Medical waste management plan" means "a document that is completed by generators of medical waste that describes how the medical waste generated at their facility shall be segregated, handled, stored, packaged, treated, or shipped for treatment, as applicable, pursuant to Section 117935 for small quantity generators and Section 117960 for large quantity generators, on forms prepared by the enforcement agency, if those forms are provided by the enforcement agency" (Section 117710, H&SC).[68] In compliance therewith, each medical use is required to prepare a "medical waste management plan" and to comply with all management, storage, recordation, and transportation requirements relating to those wastes.

Neither the City nor the County regulate the management and disposal of medical wastes. The regulatory authority over medical waste management remains with the CDPH, Medical Waste

[68]/ A "small quantity generator" (SQG) is a medical waste generator, other than a trauma scene waste practitioner, that generates less than 200 pounds per month of medical waste.

Program, functioning as the medical waste enforcement agency for Los Angeles County (Section 117650, H&SC).

In addition, the United States Department of Labor - Occupational Safety and Health Administration's (OSHA) "Occupational Exposures to Hazardous Chemicals in Laboratories" (Laboratory Standard)[69] establishes regulatory requirements for occupational exposure to hazardous chemicals in laboratory environments. As required, employers are required to prepare a laboratory "chemical hygiene plan," setting forth procedures, equipment, personal protective equipment and work practices that are capable of protecting employees from the health hazards presented by hazardous chemicals used in that particular workplace, and meet the requirements of 29 CFR 1910.1450(e)(1)(ii). For laboratory uses of OSHA-regulated substances, the employer shall assure that laboratory employees' exposures to such substances does not exceed the permissible exposure limits specified in 29 CFR 1910, Subpart Z.

OSHA standards affect some key laboratory design and construction issues, including special ventilation requirements. Referencing the National Research Council's (NRC) "Laboratory Design, Construction, and Renovation: Participants, Process, and Product": "The ventilation system in chemical laboratories must satisfy two principal health-related objectives: occupational health, which is achieved through the proper installation and operation of chemical laboratory hoods, and occupant comfort, which is achieved by heating and humidifying the general laboratory air in the winter and cooling it in the summer. A secondary function of the laboratory ventilation system is to prevent the migration of contaminants caused by incidental and accidental release of chemicals from the laboratory into other areas of the building. This is accomplished in part by providing single-pass air (air discharged from the laboratory directly outdoors) and in part by controlling the direction of airflow."[70]

As further indicated in the NRC's "Prudent Practices for Handling, Storage, and Disposal of Chemicals in Laboratories," [t]he release of vapors to the atmosphere, via, for example, open evaporation or fume hood effluent, is not an acceptable disposal method. Apparatus for operations expected to release vapors should be equipped with appropriate trapping devices. Although the disposition of laboratories under the [Federal] Clean Air Act is not established at this time, it is reasonable to expect that releases to the atmosphere will be controlled."[71]

Technologies for treating fume hood exhausts include, but not necessarily limited to, scrubbers and containment removal systems, gas-phased filters, and particulate filters. As further indicated by the NRC, "[a]ir from fume hoods and biological safety cabinets in which radioactive or biologically active materials are used should be properly filtered to remove these agents so that they are not released into the atmosphere. Other hazardous particulates may require this type of treatment as well. The most popular method of accomplishing this removal is by using a HEPA [high efficiency particulate arrestance] filter bank. These HEPA filters trap 99.97% of all particulates greater than 3 microns in diameter."[72]

[69]/ 29 CFR 1910.1450.

[70]/ National Research Council, Laboratory Design, Construction, and Renovation: Participants, Process, and Product, 2000, p. 66.

[71]/ National Research Council, Prudent Practices for Handling, Storage, and Disposal of Chemicals in Laboratories, 1995, p. 149.

[72]/ *Ibid*., p. 189.

b) ***Less-than-Significant Impact****. All medical and non-medical tenants will comply with all federal, State, and local regulations relating to the use, consumption, storage, and transport of hazardous materials and wastes.*

c) ***Less-than-Significant Impact****. Separated only by the Brea Canyon Road right-of-way, Discovery World Preschool and Private Elementary School (801 Brea Canyon Road, Diamond Bar) is located approximately 150 feet (0.03 miles) west of the project site.*

The terms "hazardous materials" (Section 25501[o], Chapter 6.95, H&SC), "acutely hazardous materials" (Section 25532[a], Chapter 6.95, H&SC), "hazardous wastes" (Sections 25117, 25141, and 25142.3, H&SC; Section 40141, PRC; Sections 66261.10-66261.24, Title 22, CCR; Section 1004 of the Federal Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6903]), "extremely hazardous wastes" (Section 25115, Chapter 6.95, H&SC), and "hazardous substances" (Section 25316, Chapter 6.95, H&SC; Section 101[14], Comprehensive Environmental Response Compensation and Liability Act [42 U.S.C. 9601]; 40 CFR 116.4 [Table 116.4A]) are assumed to have the same meanings as provided under State and federal regulations.

A "hazardous waste" is a waste that appears on one of the Federal Resource Conservation and Recovery Act of 1976, as amended (Public Law 94-580) hazardous waste lists (F-, K-, P, U-, or M-list) or that exhibits one of the four characteristics of a hazardous waste (ignitability, corrosivity, reactivity, or toxicity).

- ***F-List*** *(Non-Specific Source Wastes). This list identifies wastes from many common manufacturing and industrial processes, such as solvents that have been used for cleaning or degreasing. Since the processes producing these wastes occur in many different industry sectors, F-listed wastes are known as wastes from non-specific sources (22 CCR 66261.31).*

- ***K-List*** *(Source-Specific Wastes). This list includes certain wastes from specific industries, such as petroleum refining or pesticide manufacturing, including certain sludges and wastewaters from treatment and production processes in these specific industries (22 CCR 66261.32).*

- ***P-List/U-List*** *(Discarded Commercial Chemical Products). These lists include specific commercial chemical products that have not been used but that will be (or have been) discarded. Industrial chemicals, pesticides, and pharmaceuticals are example of commercial chemical products that appear on these lists and become hazardous waste when discarded (22 CCR 66261.33[e] and [f]).*

- ***M-List*** *(Discarded Mercury-Containing Products). This list includes certain wastes known to contain mercury, such as fluorescent lamps, mercury switches, the products that house these switches, and mercury-containing novelties.*

Although regulated at the federal level, certain medical wastes, including needles and syringes, are not State-listed hazardous wastes.

Based on the nature of their use and operational characteristics, neither general administrative offices nor hotels are typically considered as uses that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes. The project's compliance with applicable federal, State, and local regulations pertaining to the transport, storage, use,

and disposal of hazardous materials, substances, and wastes provide reasonable assurance that impacts attributable to any such hazardous materials, substances, and wastes would not elevate to a level of significance.

d) ***No Impact**. The project site has not been included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the CGC.*

e) ***No Impact**. The project site is not located within the boundaries of an airport land-use plan or within two miles of a public airport or public use airport.*

f) ***No Impact**. "Evacuation" is defined as the "act or process of evacuating. To leave a dangerous place or remove someone from a dangerous place. To withdraw from a site and/or building in an organized way especially for protection. Organized, phased, and supervised withdraw, dispersed, or removal of children from dangerous or potentially dangerous areas, and their reception and care in safe areas."[73]*

Distinct from "evacuation routes," County-designated "disaster routes" are freeways, highways, or arterial routes pre-identified for use during times of crisis. These routes are utilized to bring in emergency personnel, equipment, and supplies to impacted areas in order to save lives, protect property, and minimize impact to the environment. During a disaster, these routes have priority for clearing, repairing and restoration over all other roads. Disaster routes for the County Operational Area (OA) have been split into "north" and "south" OA maps and separate maps for each city have been developed.

As illustrated in Figure 37 (County-Designated Disaster Rotes in the Diamond Bar Area [July 7, 2008]), in part, in in addition to the Pomona (SR-60) Freeway, Brea Canyon Road, Valley Boulevard, and Colima Road/Golden Springs Road serve as County-designated "disaster routes." To the extent that the proposed project improves traffic conditions along Brea Canyon Road, multi-jurisdictional disaster response efforts would be enhanced.

g) ***No Impact**. "Fire Hazard Severity Zones" are geographical areas designated pursuant to Sections 4201 through 4204 of the PRC and classified as "very high," "high," or "moderate" in State Responsibility Areas (SRAs) or as "Local Agency Very High Fire Hazard Severity Zones" in Local Responsibility Areas (LRAs) designated pursuant to Sections 51175 through 51189 of the CGC. New buildings located in any "Fire Hazard Severity Zone" within SRAs or any "Wildland-Urban Interface Fire Area" designated by the enforcing agency for which an application for a building permit was submitted on or after December 1, 2005, shall comply with Section 7A (Materials and Construction Methods for Exterior Wildfire Expose) of the 2016 California Building Code. The project site has not been included within a designed "Fire Hazard Severity Zone and is not subjected to significant wildfire hazards.*

[73]/ National Fire Protection Association, NFPA 1616: Standard for Mass Evacuation, Sheltering, and Re-Entry Programs, 2017 Edition, Section 3.3.14 (Evacuation).

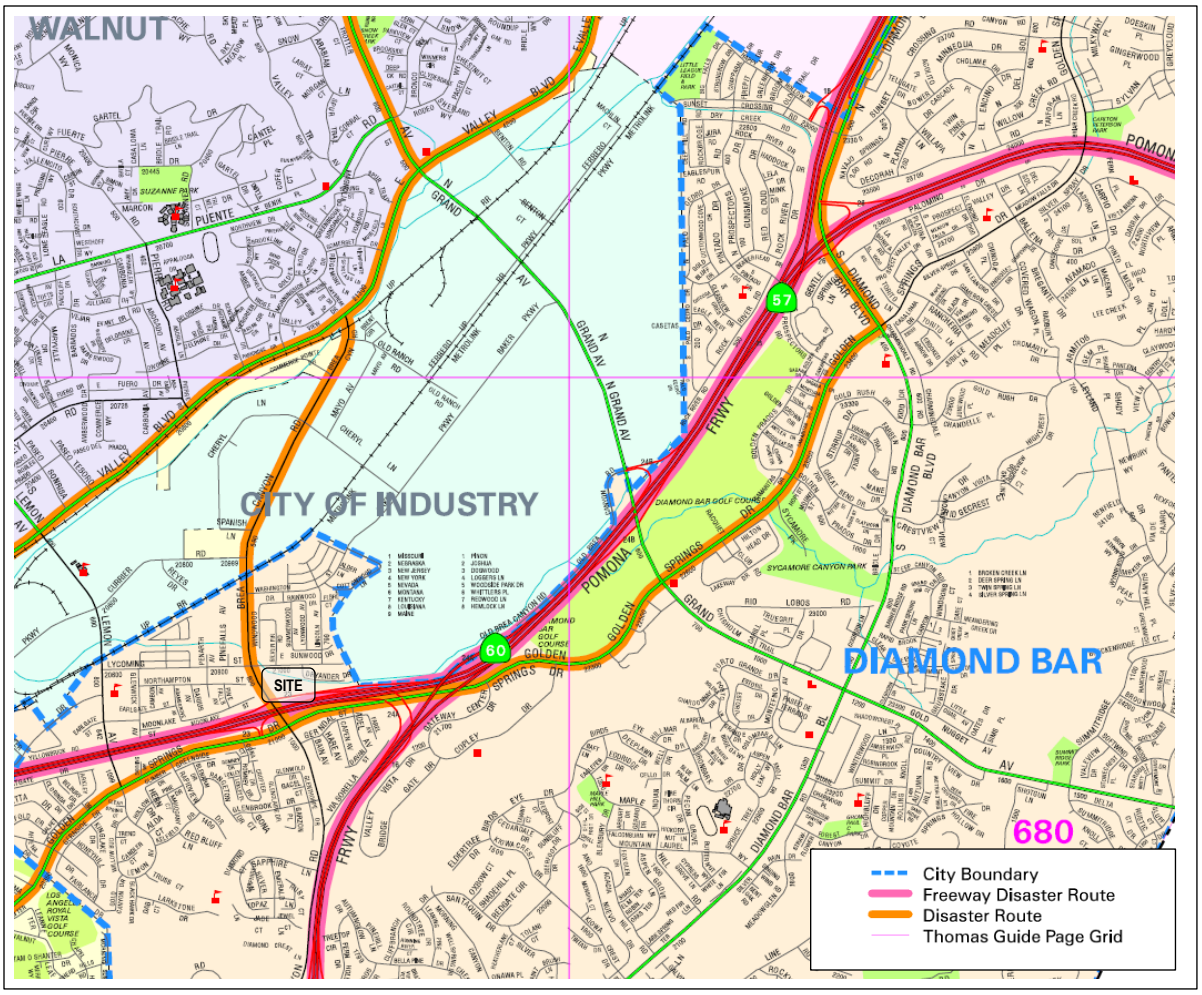


Figure 37
COUNTY-DESIGNATED DISASTER ROUTES IN THE DIAMOND BAR AREA (July 7, 2008)
Source: Los Angeles County

10. Hydrology and Water Quality

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

Background Information

The following regulatory provisions govern and/or guide the development of the proposed project:

- ***Federal Clean Water Act**. The 1972, the United States Congress enacted amendments to the Federal Water Pollution Control Act (originally enacted in 1948), as amended, commonly known as the federal Clean Water Act (CWA). As stipulated in Section 101(a), the CWA's primary goal is "to restore and maintain the chemical, physical and biological integrity of the Nation's waters" by eliminating the discharge of pollutants into navigable waters" (33 U.S.C. 1251[a]).*

The CWA requires each state to establish water quality standards for each waterbody within its jurisdiction and review them at least once every three years for appropriate modifications. Water quality standards set the degree of water quality to attain or maintain. States must set water quality standards for all waters within their boundaries "regardless of the sources of the pollution entering the waters." At a minimum, water quality standards must include: (1) designated uses (e.g., agricultural, recreation, navigation, the protection and propagation of fish, shellfish and wildlife); (2) water quality criteria that are established at levels sufficient to protect the designated uses; and (3) an antidegradation policy to prevent degrading "waters of the United States" (WOTUS). California's Porter Cologne Water Quality [Control] Act of 1970 has similar goals and regulates discharges of pollutants through the issuance of "waste discharge requirements" (WDRs).

In designating uses of a water body and the appropriate criteria for those uses, the State shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.

The CWA broadly segregates water pollution into two categories: "point sources" and "nonpoint sources."[74] To control and ultimately eliminate the discharge of point source pollutants, permits are issued pursuant to the National Pollutant Discharge Elimination System (NPDES) program (33 U.S.C. 1342).[75,76] Under this approach, discharges from point sources are illegal unless issued an NPDES permit that includes technology-based controls and such other requirements as may be required to implement water quality standards. Nonpoint sources are not regulated under the NPDES program.

- ***Construction General Permit**. On August 19, 1999, the State Water Resources Control Board (SWRCB) issued a "National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities" (NPDES No. CAS000002) (Construction General Permit), as amended by Order Nos. 99-08-DWQ (December 8, 1999), 2009-0009-DWQ (September 2, 2009), 2010-0014-DWQ (November 16, 2010), and 2012-0006-DWQ (July 17, 2012). Order No. 2009-009-DWQ has been administratively extended until a new order is adopted by the SWRCB.*

  The Construction General Permit (CGP) regulates storm water runoff from construction sites. Because the proposed project would disturb greater than one acre, the Applicant must comply with the requirements of the CGP, including the preparation of a "storm water pollution prevention plan" (SWPPP) and implementation of the construction BMPs during construction activities. Construction BMPs include, but not be limited to, erosion and sediment control BMPs designed to minimize erosion and retain sediment and good housekeeping BMPs to prevent spills and leaks and the discharge of construction debris and wastes into receiving waters.

  The CGP requires that storm water discharges and authorized non-storm water discharges must not contain pollutants that cause or contribute to an exceedance of any applicable water quality objective or water quality standards. To obtain coverage, dischargers are

[74]/ "Point source" means "any discernable, confined and discrete conveyance" such as pipe, ditch, channel, tunnel, or conduit. The CWA does not define nonpoint source pollution but it has been generally described as discharges that do not qualify as point sources" (33 U.S.C. 1362[14]).

[75]/ The Code of Federal Regulations (40 CFR 22.48) requires that all NPDES permits specify monitoring and reporting requirements. In addition, the CWC (Sections 13267 and 13383) authorize the SWRCB and RWQCBs to require technical and monitoring reports.

[76]/ Pursuant to Section 13389 of the CWC, the SWRCB and the RWQQCBs are exempt from the requirement to comply with Chapter 3, Division 13 of the PRC when adopting NPDES permits.

required to file "permit registration documents" (PRDs), including a "Notice of Intent" (NOI), "storm water pollution prevention plan" (SWPPP), other compliance documents, pay the appropriate permit fee to the SWRCB and obtain "waste discharger identification number" (WDID). The discharger may terminate coverage under this CGP for a complete project by submitting to SWRCB a "Notice of Termination" (NOT) and a post-construction BMP plan.

A construction project is considered complete only when the following conditions have been met: (1) there is no potential for construction-related storm water pollution; (2) all elements of the SWPPP have been completed; (3) construction materials and waste have been disposed of properly; (4) the site is in compliance with all local storm water management requirements; and (5) a post-construction "storm water management plan" (SWMP) is in place, as described in the site's SWPPP. Compliance with CGP requirements and procedures will ensure that construction-related impacts on water quality remain at a less-than-significant level.

- ***Construction Dewatering Permit**. On June 6, 2013, the LARWQCB adopted "Order No. R4-2013-0095 (General NPDES Permit No. CAG99004 - Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties)" (Construction Dewatering Permit [CDP]), covering discharges to surface waters or ground water from dewatering operations and other types of wastewaters, as deemed appropriate, and authorizing discharges of treated or untreated ground water generated from dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits.[77]*

  Discharges from facilities to WOTUS that do not cause, have the reasonable potential to cause or contribute to an in-stream excursion above any applicable State or federal WQOs, or cause acute or chronic toxicity in the receiving water constitute authorized discharges subject to the conditions set forth in the CDP. Prior to discharge to the MS4, discharge limitations for dewatering treatment BMPs for total suspended solids (TSS), turbidity, and oil and grease are 100 mg/L, 50 NTU, and 10 mg/L, respectively.[78]

  To be authorized to discharge under the CDP, the discharger must submit a "Notice of Intent" (NOI). Upon receipt, the LARWQCB will determine the CDP's applicability. If the discharge is eligible, the LARQWCB will notify the discharger that the discharge is authorized and prescribes an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the LARWQCB's written determination of eligibility for coverage under the CDP or until an individual NPDES permit is issued.

- ***National Pollutant Discharge Elimination System (NPDES) Permit**. On March 8, 2000, development planning program requirements, including the "standard urban storm water mitigation plan" (SUSMP) requirements, as established under federal regulations (40 CFR 122.26[d]), were approved by the LARWQCB as part of the "Los Angeles County Municipal*

[77]/ Dewatering methods are temporary measures for filtering sediment-laden water, managing the discharge of pollutants or to keep water away from a worksite. Dewatering operations are used to manage removal of water from excavations, cofferdams, diversions, and areas of ponding (accumulated precipitation). Sediment is the most common pollutant associated with dewatering operations.

[78]/ *Op. Cit.*, Order No. R4-2012-0175, NPDES Permit No. CAS004001 (Wastewater Discharge Requirements for Municipal Separate Storm Sewer System [MS4] Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4, November 8, 2012, Part VI.9.g.x.3.d,Table 19 (Discharge Limitation for Dewatering Treatment BMPs), p. 134.

Storm Water Permit (NPDES Permit No. CAS004001)" (Order No. 01-182), as amended by Order No R4-2006-0074 on September 14, 2006.

On November 8, 2012, superseding "Order No. 01-182" as amended, the LARWQCB adopted "Order No. R4-2012-0175" (NPDES Permit No. CAS004001), establishing "Wastewater Discharge Requirements for Municipal Separate Storm Sewer System Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4" (Amended 2012 MS4 Permit). The Amended 2012 MS4 Permit became effective on December 28, 2012.

The Amended 2012 MS4 Permit serves as a system-wide general NPDES permit for MS4 storm water and non-storm water discharges within the coastal watersheds of the County (receiving waters) under which the Los Angeles County Flood Control District (LACFCD), the County, and 84 incorporated cities (including the City of Diamond Bar and excluding the City of Long Beach) collectively constitute the "Permittees" The Amended 2012 MSF Permit's main purpose is to implement effective pollution prevention programs to reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) in order to protect receiving waters and their beneficial uses.

"Order No. R4-2012-0175" implements the federal Phase I NPDES Storm Water Program requirements. These requirements include three fundamental elements: (1) a requirement to effectively prohibit non-storm water discharges through the MS4s; (2) requirements to implement controls to reduce the discharge of pollutants to the maximum extent practicable (MEP); and (3) other provisions the LARWQCB has determined appropriate for the control of such pollutants. Pursuant Section 13263(a) of the CWC, the requirements of that order implement the adopted "basin plan."

For certain categories of new development and redevelopment projects, the Amended 2012 MS4 Permit stipulates that all Permittees shall implement a "planning and land development program" in order to:

- ◊ *Lessen the water quality impacts of development by using smart growth practices such as compact development, directing development towards existing communities via infill or redevelopment, and safeguarding of environmentally sensitive areas;*
- ◊ *Minimize the adverse impacts from storm water runoff on the biological integrity of natural drainage systems and the beneficial uses of water bodies in accordance with requirements under CEQA;*
- ◊ *Minimize the percentage of impervious surfaces on land developments by minimizing soil compaction during construction, designing projects to minimize the impervious area footprint, and employing low-impact development (LID) design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use;*
- ◊ *Maintain existing riparian buffers and enhance riparian buffers when possible;*
- ◊ *Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs, LID strategies, and treatment-control BMPs;*
- ◊ *Properly select, design and maintain LID and hydromodification control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function, and avoid the breeding of vectors; and*
- ◊ *Prioritize the selection of BMPs to remove storm water pollutants, reduce storm water runoff volume, and beneficially use storm water to support an integrated approach to*

protecting water quality and managing water resources in the following order of preference: (a) on-site infiltration, bioretention, and/or rainfall harvest and use and (b) on-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.

Those new development and redevelopment projects that are subject to conditioning and to the approval of design and implementation plans of post-construction controls established for the purpose of mitigating storm water pollution include, but are not limited to: (1) All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area; and (2) Parking lots 5,000 square feet or more of impervious surface area or with 25 or more parking spaces.

The Amended 2012 MS4 Permit required new development projects to: (1) control pollutants, pollutant loads, and runoff volume emanating from the project site by (a) minimizing the impervious surface area and (b) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use; and (2) unless deemed infeasible, retain, on the project site, the "Stormwater Quality Design Volume" (SWQDv) from a design storm event, defined as the runoff from: (a) the 0.75-inch, 24-hour rain event; or (b) the 85th percentile, 24-hour rain event, as determined from the County's 85th percentile precipitation isohyetal map, whichever is greater.[79] As specified therein: "Permittees are encouraged to adopt respective BMPs from latest versions of the California BMP Handbook, Construction or Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual and addenda."

- ***Low Impact Development Ordinance**. Pursuant to Section 8.12.1690 (Requirements for Industrial/Commercial and Construction Activities), Division 5 (Storm Water and Urban Runoff Pollution Control), Chapter 8.12 (Environmental Protection) in Title 8 (Health and Safety) of the MC:*

  (a) Each industrial discharger, discharger associated with construction activity, or other discharger described in any general storm water permit addressing such discharges, as may be issued by the U.S. Environmental Protection Agency, the state water resources control board, or the regional board, shall comply with all requirements of such permit. Each discharger identified in an individual NPDES permit shall comply with and undertake all activities required by such permit. Proof of compliance with any such permit may be required in a form acceptable to the authorized enforcement officer prior to the issuance of any grading, building or occupancy permits, or any other type of permit or license issued by the city.

  (b) The following shall apply to all construction activities within the city not otherwise governed by Section 8.12.1695 of this [Municipal] Code and such construction activities shall be required from the time of land clearing, demolition or commencement of construction until receipt of a certificate of occupancy: (1) Sediment, construction wastes, trash and other pollutants from construction activities shall be reduced to the maximum extent practicable. (2) Structural controls such as sediment barriers, plastic sheeting, detention ponds, filters, berms, and similar controls shall be utilized to the maximum extent practicable in order to minimize the escape of sediment and other pollutants from the site. (3) Between October 1 and April 15, all excavated soil shall be located on the site in a manner that

[79]/ *Ibid*., Part IV.D.7.c.i. 1-2, p. 98.

minimizes the amount of sediment running onto the street, drainage facilities or adjacent properties. Soil piles shall be bermed or covered with plastic or similar materials until the soil is either used or removed from the site. (4) No washing of construction or other vehicles is permitted adjacent to a construction site. No water from the washing of construction vehicle of equipment on the construction site is permitted to run off the construction site and enter the municipal storm water system. (5) Trash receptacles must be situated at convenient locations on construction sites and must be maintained in such a manner that trash and litter does not accumulate on the site nor migrate off site. (6) Erosion from slopes and channels must be controlled through the effective combination of best management practices

As further specified in Subsection "(e)(3)" in Section 8.12.1695 (Low Impact Development Measures for New Development and/or Redevelopment Planning and Construction Activities) of the MC:

(a) Retain stormwater runoff onsite for the stormwater quality design volume (SWQDv) defined as the runoff from: (i) The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or (ii) The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

(b) Minimize hydromodification impacts to natural drainage systems as defined in Order No. R4-2012-0175.

(c) To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following: (i) The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite. (ii) Locations where seasonal high groundwater is within five to ten feet of surface grade; (iii) Locations within 100 feet of a groundwater well used for drinking water; (iv) Brownfield development sites or other locations where pollutant mobilization is a documented concern; (v) Locations with potential geotechnical hazards; (vi) Smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

(d) If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in Order No. R4-2012-0175. Additional alternative compliance options such as offsite infiltration and groundwater replenishment projects may be available to the project site. The project site should contact the city to determine eligibility.

(e) The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per Order No. R4-2012-0175. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of: (i) 0.2 inches per hour, or (ii) The one-year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

(f) All new and existing development and redevelopment projects which are required to include structural and treatment BMPs shall be properly maintained and operated to achieve the purpose for which the BMP was designed. Records shall be kept documenting that the BMP is being operated and maintained to achieve the purpose for which it was designed.

- ***Water Quality Control Plan, Los Angeles Basin**. Under the Porter-Cologne Act and the CWA, the State's nine Regional Water Quality Control Boards (RWQCBs) are directed to "formulate and adopt water quality control plans for all areas within the region," including both surface waters and groundwater (Section 13240, CWC). A water quality control plan for the waters of an area is defined as having the following component parts: (1) beneficial uses to be protected; (2) water quality objectives (WQOs) that protect those uses; and (3) a program of implementation needed to achieve those WQOs (Section 13050, CWC).*

  The proposed project is subject to compliance with the LARWQCB's "Water Quality Control Plan, Los Angeles Basin" (1994) (Basin Plan) and the "Wastewater Discharge Requirements for Municipal Separate Storm Sewer System Discharges Within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," as amended (Amended 2012 MS4 Permit).

  As indicated in the Basin Plan, Diamond Bar Creek is located in Hydrologic Unit 180701060501,[80] tributary to San Jose Creek. Beneficial, potentially beneficial, and intermittent beneficial uses of those inland surface waters include: (1) municipal and domestic supply (MUN) (potentially beneficial use); (2) groundwater recharge (GWR) (intermittent beneficial use); (3) warm freshwater habitat (WARM) (intermittent beneficial use); and (4) wildlife habitat (WILD) (existing beneficial use).[81]

  A summary of regulatory provisions of the Basin Plan is codified in Sections 3930 et seq. in Title 23 (Waters), Division 4 (Regional Water Quality Control Boards), Chapter 1 (Water Quality Control Plans, Policies, and Guidelines), Article 4 (Los Angeles Basin), California Code of Regulations

- ***National Flood Insurance Reform Act of 1994**. The Federal Emergency Management Agency's (FEMA) flood insurance rate maps (FIRM) identify those areas that are located within the 100-year floodplain boundary, termed "Special Flood Hazard Areas" (SFHAs).*

  The National Flood Insurance Reform Act of 1994, which amended the Flood Disaster Protection Act of 1973, requires mortgage lenders and servicers to require their borrowers whose dwellings lie within federally-designated SFHAs to purchase and maintain flood insurance for the term of the loan. If a property is located within a SFHA, as shown on a

[80]/ California Regional Water Quality Control Board, Los Angeles Region, Water Quality Control Plan, Los Angeles Region, 1994, as revised, Table 1 (Inventory of Major Surface Waters and Waters to which they are Tributary), p. A-15.

[81]/ *Ibid*., Table 2-1 (Beneficial Uses of Inland Surface Waters), p. 2-14.

flood map published by FEMA, the law requires mortgage lenders and servicers to require flood insurance for any loan secured by property with a building located in a SFHA. The purpose of the National Flood Insurance Program (NFIP) designations is to encourage state and local governments to consider potential flood hazards when rendering decisions on the future use of such lands, thereby minimizing damage caused by flooding.

In flood hazard areas, the federal standard require that the finished floor elevation of proposed dwellings be at least one-foot above the "base flood elevation" (BFE) (1-percent annual chance). The BFE is the elevation of the one percent annual chance flood.

The project site is bordered on the north by a County flood control channel (PD 1445) (Diamond Bar Creek). As indicated in the City's "Natural Hazards Mitigation Plan" (2004):

> *One small section of Diamond Bar Creek, at the intersection of Old Brea Canyon Road, just north of the 60 Freeway, was identified by the FIRM [Federal Insurance Rate Map] study as having a slight flooding potential. This portion of the creek is referred to as the Reed Canyon Channel. A small area immediately upstream (just east) of the roadway is classified as flood zone 'A,' which means that it is an area of 100-year flooding, but no base flood elevations or flood hazard factors have been determined. A slightly larger area downstream (just west) of Brea Canyon has a flood zone designation of 'AO,' which means areas of shallow flooding during a 100-year flood, where depths are between one (1) and three (3) feet. Average depths of inundation are shown (on the FIRM map), but no specific flood assessment has been made (FEMA 1980). Since then, the area has been mitigated and the FIRM map will need to be updated. Reed Canyon is no longer considered a flood problem area.[82]*

As indicated in Figure 38 (Flood Insurance Rate Map No. 06037C1725F [September 26, 2008]), the project site is depicted on "Flood Insurance Rate Map Los Angeles County, California and Unincorporated Areas, Panel 1725 of 2350, Panel 1725F, Map No. 06037C1725F" (effective September 26, 2008) and is designated "Zone X," described as "areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or within drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood."

Findings of Fact

In order to more thoroughly assess potential hydrological impacts, detailed hydrologic analyses were provided by the Applicant and independently reviewed and accepted for public release by Public Works. Technical studies used in the preparation of this analysis includes: (1) "Hydrology & LID Calculations for Brea Canyon Business Park, 850 S. Brea Canyon Road, Diamond Bar, CA 91789" (Plotnik & Associates, June 7, 2019); and (2) "Storm Drain Analysis – 54" Lines for Brea Canyon Business Park, 850 S. Brea Canyon Road, Diamond Bar, CA 91789" (Plotnik & Associates, July 8, 2019, revised August 7, 2019 and August 29, 2019). Pursuant to Section 15150(a) of the State CEQA Guidelines, each of those project-related documents are incorporated herein by reference. Based on their size and/or technical nature, those technical studies are not physically included herein but are available for review at the Department during the Department's regular business hours.

[82]/ City of Diamond Bar, Natural Hazards Mitigation Plan, Resolution No. 2004-57, October 5, 2004, p. 110.

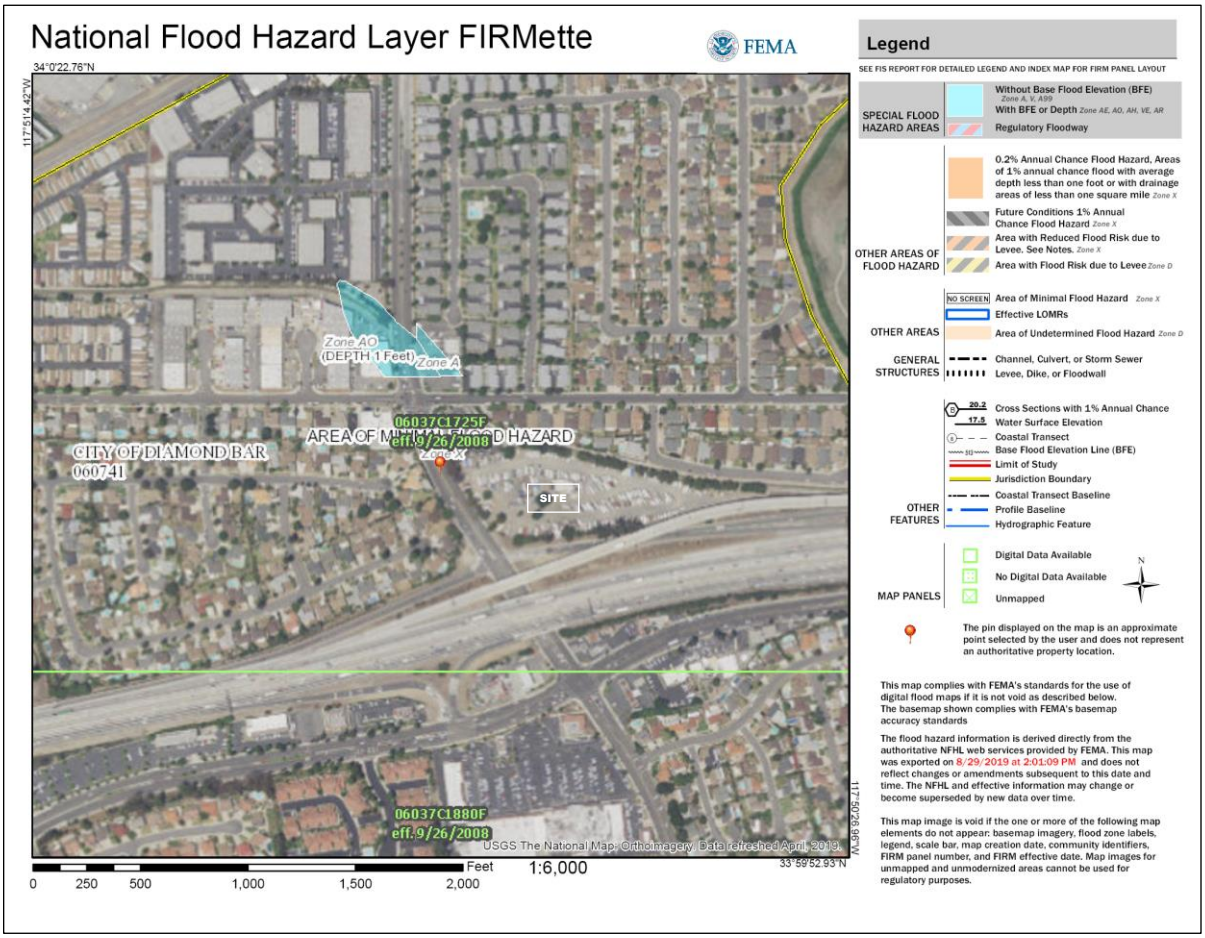


Figure 38
FLOOD INSURANCE RATE MAP NO. 06037C1725F
(September 26, 2008)
Source: Federal Emergency Management Agency

a) ***Less-than-Significant Impact****. The proposed project will fully comply with the applicable provisions of the Amended 2012 MS4 permit, the CGP/CDP, and the City's LID Ordinance (e.g., Sections 8.12.1690 and 8.12.1695, MC). Through compliance therewith, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.*

In compliance with the Amended 2012 MS4 permit, at a minimum, the Applicant shall implement the following sediment, construction, and material controls:

- *Sediment controls:*
  - ◊ *Eroded sediments generated on the project site shall be retained on the project site using BMPs and may not be transported via sheet flow, swales, area drains, natural drainage course or wind;*
  - ◊ *Vehicle traffic may not track sediments and other materials from the site;*
  - ◊ *Accidental depositions must be swept up immediately; and*

- ◊ *Catch basins must be protected.*

- *Construction material controls:*
  - ◊ *Excess or waste concrete may not be washed into the public way or drainage system;*
  - ◊ *Trash and construction-related solid waste must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind;*
  - ◊ *Fuels, oils, solvents, and toxic materials must be stored in accordance with their listing and are neither to contaminate the soil nor surface waters; spills must be cleaned up immediately and disposed of in a proper manner;*
  - ◊ *Stockpiles or earth and other construction-related materials must be protected from being transported from the site by wind or water and must be covered with tarps or plastic.*
  - ◊ *Non-storm water runoff from equipment and vehicle washing and other activities shall be contained on the project site.*

b) ***Less-than-Significant Impact**. As reported in the geotechnical investigation: "Groundwater was measured in our borings at a depth of approximately 28 to 33 feet below grade immediately after drilling. Historic groundwater levels are reported near a contour of approximately 20 feet below existing grades." Grading operations are not anticipated to occur at sufficient depths so as to encounter groundwater.*

c1) ***Less-than-Significant Impact**. As required under the Amended 2012 MS4 Permit, prior to issuing a grading or building permit, each Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an "erosion and sediment control plan" (ESCP) prior to the disturbance of land for the Permittee's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval by the Permittee.*

ESCPs are year-round BMPs that must be incorporated into construction plans. All grading projects, non-residential sites, residential sites of 6 stories or greater, and projects with soil disturbing activities greater than one acre require an ESCP. All BMPs must be detailed on the ESCP or reference standard details found in the California Stormwater Quality Association's (CASQA) "Stormwater Best Management Practice Handbook – Construction" (January 2003, revised July 2012) and/or the Caltrans' "Construction Site Monitoring Program Guidance Manual" (revised August 2013).

The ESCP plan must include appropriate BMPs for general site management, construction materials and waste management, and erosion and sediment controls. Erosion and sediment control BMPs must be provided for both wet and dry seasons. To control site erosion and sediments, an ESCP must be submitted (or revised) every year to reflect site conditions at the start of the rainy season (October 15). Grading and building plans in for plan check, which will have construction work occurring during the rainy season, will not be permitted until ESCP are submitted and approved. For sites where the disturbed area is one acre or more, project proponents must file a "Notice of Intent" (NOI) and a "stormwater pollution prevention plan" (SWPPP) and obtain a waste discharge identification number with the State Water Resources Control Board (SWRCB).

c2) ***Less-than-Significant Impact**. As required under Subsection "(a) in Section 8.12.1695 (Low Impact Development Measures for New Development and/or Redevelopment Planning and Construction Activities) of the MC, the Applicant shall be required to "retain stormwater*

runoff onsite for the stormwater quality design volume (SWQDv) defined as the runoff from: (i) The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or (ii) The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater." In accordance therewith, based on the incorporation of both structural and non-structural BMPs, the quantity of storm waters being discharged to the storm drain system will not increase over pre-project levels.

c3) ***Less-than-Significant Impact**. See Response "c2" above.*

C4) ***Less-than-Significant Impact**. Through the proposed on-site relocation of two existing 54-inch diameter RCP pipes, limited to the site boundaries and subject to County-imposed permits and approvals, the proposed project includes the planned redirection of flood flows.*

d) ***No Impact**. The project site is not located in a flood hazard, tsunami or seiche hazard area.*

e) ***Less-than-Significant Impact**. "Discharge prohibitions" under the provisions of the CGP include, but are not limited to, any prohibition contained in the Basin Plan or in any Statewide water quality control plans. The discharge of non-storm water is authorized if the discharger: (1) does not cause or contribute to a violation of any water quality standard; (2) does not violate any other provision of this CGP; (3) is not prohibited by the applicable Basin Plan; (4) has included and implemented specific BMPs required by the CGP to prevent or reduce the contact of the non-storm water discharge with construction materials or equipment; (5) does not contain toxic constituents in toxic amounts or other significant quantities of pollutants; (6) is monitored and meets the applicable numeric action levels; and (7) reports the sampling information in the annual report. In compliance therewith, the proposed project will neither conflict with nor obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

11. Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Physically divide an established community?	☐	☐	☐	☒
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Background Information

The Southern California Association of Governments' (SCAG) Intergovernmental Review section (part of the Environmental Planning Division of Planning and Policy) is responsible for performing consistency reviews of "regionally significant" local plans, projects, and programs. "Regionally significant" projects are required to be consistent with SCAG's adopted regional plans and policies, including regional comprehensive plans (RCPs) and regional transportation plans (RTPs). SCAG has formulated independent criteria for the categorization of proposed projects as "regionally significant." The proposed project is not considered to be a project of "regional significance" pursuant to the criteria outlined in SCAG's "Intergovernmental Review Procedures Handbook" (November 1995) and Section 15206 of the Guidelines. Under CEQA, the City is, not required to assess the proposed project's consistency with SCAG's regional plans.

Findings of Fact

a) ***No Impact**. The project site is bordered on the south by the Pomona (SR-60) Freeway, on the north by a County flood control channel (Diamond Bar Creek) and by an existing commercial use ("Farmer Boys Restaurant" [810 Brea Canyon Road, Diamond Bar]), and on the west by Brea Canyon Road. Each of those features constitute existing "edges" and effectively physically isolate the subject property.*

Because vehicular and non-vehicular access to the project site does not require site users to traverse any existing residential areas, no "cut through" traffic has the potential to affect those areas. Similarly, the proposed land use does not appear inherently incompatible with those existing single-family residential uses located west of Brea Canyon Road and north of the County flood control channel.

b) ***No Impact**. Because the Department has not identified the existence or potential existence of a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, no significant environmental impacts associated with or attributable to any such conflict is noted herein.*

12. Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Background Information

The Surface Mining and Reclamation Act of 1975 (SMARA), codified in Section 2710 et seq. in Chapter 9 of Division 2 of the PRC, and its accompanying regulations (14 CCR 3500 et seq.), mandated the initiation, by the State Geologist, of a "Mineral Land Classification System" in order to help identify and protect mineral resources in areas within the State subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Construction aggregate was selected to be the initial commodity targeted for classification because of its importance to society, its unique economic characteristics, and the imminent threat that continuing urbanization poses to that resource.[83]

Mineral lands are mapped according to jurisdictional boundaries, mapping all mineral commodities at one time in the area (including aggregate, common clay, and dimension stone). Priority is given to areas where future mineral resource extraction could be precluded by "incompatible land uses" or to mineral resources likely to be mined during the 50-year period following their classification.

The State Geologist subsequently developed the mineral resource zone (MRZ) nomenclature and criteria. In accordance therewith, the SMGB has classified mineral areas as one of five "MRZs." Those major classifications include: (1) "MRZ-1" (Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence); (2) "MRZ-2" (Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists); (3) "MRZ-3" (Areas containing mineral deposits the significance of which cannot be evaluated from available data); (4) "MRZ-4" (Areas where available information is inadequate for assignment to any other MRZ zone); and (5) "MRZ-5" or "SZ" (Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone).[84] *The general project area is designed "MRZ-1."*[85]

[83]/ Presently, the only mineral commodity classified by the State Mining and Geology Board (SMGB) has been construction aggregate (sand, gravel, and crushed road). Nothing in SMARA precludes the SMGB from similarly classifying other mineral resources.

[84]/ California Department of Conservation, Division of Mines and Geology and State Mining and Geology Board, California Surface Mining and Reclamation Policies and Procedures, Special Publication 51: Guidelines for Classification and Designation of Mineral Resources, 1998, p. 3.

[85]/ Anderson, T.P, Loyd, R.C., Clark, W.B., Miller, R.V., Corbaley, R, Kohler, S., Bushnell, M.M., Mineral Land Classification of the Greater Los Angeles Area: Part IV: Classification of Sand and Gravel Resource Area, San Gabriel

The California Geological Survey (CGS), formally the Division of Mines and Geology (GDMG or DMG), operates under the provisions of Chapter 2 (The California Geological Survey) (Sections 2200-2211) in Division 2 (Geology, Mines and Mining) (Sections 2001-2815) of the PRC. The CGS' "Mineral Resources and Mineral Hazards Program"[86] provides information about California's non-fuel mineral resources (metals and industrial minerals), naturally-occurring mineral hazards (asbestos, radon, and mercury), and information about active and historic mining activities throughout the State. As described therein, non-fuel mineral resources are categorized as metals (gold, silver, iron, and copper), industrial minerals (e.g., boron compounds, rare-earth elements, clays, limestones, gypsum, salt, and dimension stone), and construction aggregate (sand and gravel and crushed stone). Construction aggregate is typically associated with past and present rivers and streams, in alluvial basins, along marine and lake shorelines, and in previously glaciated areas.

The CGS has noted that "[a]ggregate (sand and gravel, crushed stone) is currently the most important mineral resource consumed in California. It is the foundation of the modern construction industry. Land use that precludes mining of this resource is a problem in many urbanizing areas of the State. The cost of aggregate rises significantly when it has to be mined and transported from increasingly greater distances from its point of use."[87]

The San Gabriel Valley area, as defined by the CDMG, is a major aggregate producer in the Los Angeles District. The majority of aggregate is produced from an alluvial fan developed at the southern base of the San Gabriel Mountains. The fan extends approximately eight miles in a southwestern direction and attains a maximum width of about four miles. The project site is located to the east of that area and is not located in the "San Gabriel Valley Production-Consumption Region."[88]

Findings of Fact

a) ***No Impact**. The CDMG classifies the general project area as "urban." As noted, the State Mining and Geology Board "does not design area presently dedicated to land use that are incompatible with mining."[89] Based on the State's determination that the project area contains land uses that are incompatible with mining operations, absent any identifiable mineral resources on the project site, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.*

b) ***No Impact**. As defined in SMARA, an "area of local significance" constitutes "[a]n area that contains mineral deposits and is not of regional or Statewide significance" (Section 2761[b][1], PRC). The project site neither constitute an "area of local significance" nor contains any "locally-important mineral resources."*

Valley Production-Consumption Region, California Department of Conservation, Division of Mines and Geology, Special Report 143, 1982, Areas Classified MRZ-1, p. 1.

[86]/ California Department of Conservation, Mineral Resources and Mineral Hazards Program, Mineral Resources and Mineral Hazards (http://www.conservation.ca.gov/cgs/mineral-resources/mineral-resource-mapping).

[87]/ California Geological Survey, Using Satellites to Help Conserve Aggregate Resources in California (http://www.consrv.ca.gov/CGS/minerals/mlc/nasa/nasa.htm).

[88]/ *Op. Cit*., Mineral Land Classification of the Greater Los Angeles Area: Part IV: Classification of Sand and Gravel Resource Area, San Gabriel Valley Production-Consumption Region, California Department of Conservation, Division of Mines and Geology, Special Report 143, 1982, Figure 4.2 (Map of the San Gabriel Valley P-C Region).

[89]/ *Ibid*, Evaluation of Aggregate Resources in the San Gabriel Valley PC Region, p. 8.

13. Noise

Would the project result in:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
(b) Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Background Information

The primary existing noise sources in the general project area are those associated with automobile and truck traffic along the Pomona (SR-60) Freeway and along Brea Canyon Road.

In order to more thoroughly assess potential noise impacts, a detailed acoustical analysis was performed as part of this CEQA-compliance effort. The resulting "Acoustical Analysis" (August 2019) is included in Appendix G (Brea Canyon Business Park – Acoustical Analysis). The detailed analysis supporting the following conclusions is presented in that study and, for brevity, has not again been repeated herein.

Findings of Fact

a) ***Less-than-Significant with Mitigation Incorporated****. The closest point of interaction between the proposed project and the existing residential units to the north of the County flood control channel (PD 1445), as located along Dryander Drive and Lycoming Street, is with regards to those proposed uses and on-site activities most closely related thereto. Bordering much of the project's northern boundary are those 8-foot-wide and 16-foot-long parking stalls, separated from those homes by only the 50-foot wide flood control easement. Although those stalls are indicated as being "employee parking," those same "spaces will be open for customers."*[90]

Parking areas generate operational noise, including amplified noises associated with vehicle radios and music systems, security alarms, back-up beepers installed on commercial vehicles, door slams, unmuffled exhaust systems, and conversational noise. Among other causes, errant door swings from tightly packed vehicles often active the alarm systems

[90]/ Linscott Law & Greenspan, Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California, January 25, 2019, p. 10.

installed on adjacent vehicles. Although unregulated, while most blaring alarms cease after a specified time periods, alarm noise from unattended vehicles is typically perceived as a nuisance. Back-up beepers (97-112 dB) and vehicle alarms (125 dB) typically represent the loudest noise sources associated with parking lots.

As reported in "The Atlantic," vehicle security experts state that "people rarely pay them [vehicle alarms] any mind, rendering them even less effective. Since blaring alarms usually mean someone accidentally bumped into a vehicle, or even just happened to play loud music down the street, an alarm rarely means an actual theft is taking place."[91]

Based on the minimum opening widths required for occupants to enter and exit closely parked vehicles and the confined nature of each parking stall, the concentration of 8-foot-wide parking stalls would likely increase the number and frequency of vehicle alarm activation, as compared to the number and frequency in standard-sized parking. Absent any stated operating hours for the proposed medical/office uses and the 24/7 operation of the proposed project's hotel component, these conditions could exist during daytime, evening, and nighttime hours. Relative to those spaces, noise associated with activated vehicle alarms would be clearly perceptible to the homes located along Dryander Drive and Lycoming Street that abut the County flood control channel (PD 1443) (Diamond Bar Creek).

Because they occur on private property, the LACSD would be unable to issue citations for disruptive vehicle alarms. Similarly, it can be reasonably assumed that the Applicant, the BOA, and/or other management entity would not take actions to remove any vehicle otherwise appropriately parked on the project site.

As described in Appendix G (Brea Canyon Business Park - Acoustical Analysis), construction noise has the potential to exceed the provisions of the "City of Diamond Bar Municipal Code" (Municipal Code or MC). As a result, the following recommended construction-term mitigation measures have been identified and, if implemented, would reduce potential short-term noise impacts to a less-than-significant level:

- ***MM-13. Construction Noise**. In accordance with the provisions of the "City of Diamond Bar Municipal Code," construction shall be restricted to between the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays. No construction shall occur at any time on Sundays or on federal holidays. These days and hours shall also apply to the servicing of equipment and to the delivery or removal of equipment and materials to or from the site.*

- ***MM-14. Construction Noise**. All construction equipment shall be properly maintained and tuned to minimize noise emissions.*

- ***MM-15. Construction Noise**. All equipment shall be fitted with properly operating mufflers, air intake silencers, and engine shrouds no less effective than originally equipped.*

- ***MM-16. Construction Noise**. During site preparation and paving operations, the construction contractor shall place temporary noise barriers, in the form of continuous ¾-inch plywood or hay bales, or similar dense material acceptable to the Department, along the site perimeter when performing construction operations within 100 feet of the*

[91]/ Strauss, Ilana E., The Alarming Truth, The Atlantic, May 16, 2016.

rear yard areas of any existing residential units located to the north of the County flood control channel. Such barriers shall be a minimum of 8-feet tall and block the line-of-sight between any proximal residences and the top of the exhaust stack associated with the on-site use of heavy construction equipment.

This mitigation measure is intended to apply specifically to those single-family residences located at 807-814 Dryander Drive and 21110-21054 Lycoming Street, Diamond Bar.

- ***MM-17. Construction Noise**. The construction contractor shall specify the use of electric stationary equipment (e.g., compressors) that can operate off of the power grid, where feasible. Where infeasible, stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as feasible.*

- ***MM-18. Construction Noise**. The construction contractor shall post details of the project's construction schedule and the names and telephone numbers of both an on-site project representative and that of the City's Community Development Department (Department) that can be contacted by local residents seeking to register a noise complaint. The Applicant shall maintain records of all such contacts, including any actions taken, and make those records available to authorized inspectors upon request.*

- ***MM-19. Construction Noise**. The proposed project shall be designed and constructed in accordance with any and all additional conditions as may be set forth by the Department for noise mitigation.*

Subsequent to construction, the project site would include a mix of non-residential, commercial uses. This analysis finds that noise generated by vehicles traveling along the Pomona (SR-60) Freeway and Brea Canyon Road could create noise levels at the proposed uses that are in excess of both the City's and the State's standards for exterior noise (i.e., 70 dBA CNEL for commercial uses). The following recommended operational mitigation measures would reduce this impact to a less-than-significant level:

- ***MM-20. Operational Noise**. No accessible exterior balconies shall be included in the design of the hotel structure for those guest rooms located along the hotel's southern (freeway-oriented) wall.*

- ***MM-21. Operational Noise**. The Applicant shall provide habitable on-site structures with forced air ventilation designed and installed in accordance with the 2016 "California Building Standards Code" (Title 24, California Code of Regulations), including the 2016 "California Green Building Standards Code" (Title 24, Part 11, California Code of Regulations).[92]*

- ***MM-22. Operational Noise**. All exterior fittings that enter the structures (e.g., electrical conduits; heating, ventilation and air conditioning [HVAC] ducts) are to be sealed with caulk such that the fittings are rendered as air-tight. Any metal duct-work that is*

[92]/ January 1, 2020 is the Statewide effective date established by the California Building Standards Commission for the 2019 "California Building Standards Code" (2019 CBC). In accordance with Section 18938.5 of the California Health and Safety Code, all applications for a building permit submitted on or after January 1, 2020 are subject to compliance with the 2019 CBC. The 2016 CBC remains in effect and is applicable to all plans and specifications for and to construction performed where the application for a building permit is received on or before December 31, 2019 (California Building Standards Commission, Information Bulletin 19-04, June 24, 2019).

exposed to the exterior environment shall be enclosed and insulated to avoid noise transference through the ducting.

b) ***Less-than-Significant Impact**. Caltrans has noted that the generation of groundborne vibration is typically associated with blasting operations, the use of pile drivers, and large-scale demolition activities, none of which are anticipated for the construction or operation of the proposed project. As such, no excessive groundborne vibrations would be created by the proposed project.*

c) ***No Impact**. The project site is not located in proximity to a private airstrip or within an airport land-use plan area.*

14. Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
(b) Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Background Information

On August 18, 2019, the California Employment Development Department's Labor Market Information Division reported that:

> *The seasonally adjusted unemployment rate in Los Angeles County was unchanged over the month at 4.5 percent in July 2019 from a revised 4.5 percent in June 2019 and was below the rate of 4.6 percent one year ago. Civilian employment decreased by 3,000 to 4,872,000 in July 2019, while unemployment declined by 2,000 to 227,000 over the month. The civilian labor force decreased by 5,000 over the month to 5,099,000 in July 2019. The unadjusted unemployment rate for the county was 5.0 percent in July 2019. The California seasonally adjusted unemployment rate was 4.1 percent in July 2019, 4.2 percent in June 2019, and 4.1 percent a year ago in July 2018. The comparable estimates for the nation were 3.7 percent in July 2019, 3.7 percent in June 2019, and 3.9 percent a year ago.*[93]

As further noted therein:

> *Education and health service maintained its position as the dominant sector of the economy, adding 25,300 jobs over the year. These additions equaled 40 percent of total growth in nonfarm employment. Health care and social assistance recorded 22,100 additions and private educational services posted 3,200 job increases. Construction continued to climb, bolstering by 12,100 jobs over the year. Additions were divided into gains in specialty trade contractors (up 8,300), construction of buildings (up 2,400), and heavy and civil engineering construction (up 1,400).*[94]

Findings of Fact

a) ***Less-than-Significant Impact****. The proposed project does not include a housing component and the potential employment opportunities associated with the proposed office and hotel uses can be reasonably filled by the area's existing labor force. Additionally, no*

[93]/ California Employment Development Department, Labor Market Information Division, Los Angeles-Long Beach-Glendale Metropolitan Division (Los Angeles County), Government Leads Six Sectors Losing Jobs Over the Monty, August 18, 2019, p. 1.

[94]/ *Ibid*.

infrastructure improvements are proposed that would increase the available capacity of those improvements so as to accommodate additional growth beyond the project site.

b) ***No Impact**. The project site is presently vacant. As a result, no existing on-site population and no exiting on-site housing will be "displaced" or otherwise affected as a result of the proposed project's implementation.*

15. Public Services

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
(1) Fire protection?	☐	☐	☒	☐
(2) Police protection?	☐	☐	☒	☐
(3) Schools?	☐	☐	☒	☐
(4) Parks?	☐	☐	☒	☐
(5) Other public facilities?	☐	☐	☐	☒

Background Information

Fire Protection

The 2016 "California Building Standards Code" (Title 24, CCR) (2016 CBC), and 2016 California Fire Code (Title 24, Part 9, CCR) (2016 CFC) provide design and development standards governing public and private facilities in California. The following relevant or potentially relevant information is extracted therefrom.

Section 202 (Definitions) of the 2016 CBC include the following definition of a "high-rise building: "In other than Group I-2 occupancies, "high-rise buildings," as used in this code: [1] Existing high-rise structures. A high-rise structure, the construction of which is commended or completed prior to July 1, 1974. [2] High-rise structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest floor level having access (see Section 403.1.2), except buildings used as hospitals as defined in Health and Safety Code Section 12.50. [3] New High-rise Building. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such building shall commence on or before January 1, 1976. [4] High-rise structure. A high-rise structure, the construction of which is commenced on or after July 1, 1974."

Although not explicitly defined therein, a "low-rise building" is often defined as a building that is four or fewer stories in height from the lowest level of fire department access, as measured from

the topside of the roof above the topmost space that can be occupied to the lowest floor level of building access, as defined in Section 202 of the 2016 CBC. Low-rise buildings have a maximum height of 55 feet from the lowest level of fire department access. In contrast, a "mid-rise" building can be defined as: (1) any building having space used for human occupancy consisting of four or more stories and with a height of between 55 and 75 feet, as measured from the topside of the roof above the topmost space that can be occupied to the lowest floor level of building access, as defined in Section 202; or (2) any building not defined as a "high-rise" building in Section 202 of the 2016 CBC. The proposed project does not include any high-rise buildings and is, therefore, not subject to the corresponding provisions of Sections 403.2 through 403.7 of the 2016 CFC.

Pursuant to the 2016 CBC, the maximum height and allowable number of stories of a building are limited based on a number of factors. Factors that may influence code-required building heights and floor areas include: (1) construction type (the stricter the construction type and the more noncombustible the building, the larger the allowable building area and height); (2) occupancy classification (certain occupancy classifications restrict the building size); (3) number of occupants (as the number of occupants increase or the mobility of those occupants decrease, more restrictions are imposed on building height and area); (4) location (the location of or distance from adjacent buildings and the amount of street frontage can influence allowed area); (5) sprinkler systems (the use of approved automatic sprinkler system in accordance with "NFPA 13: Standard for Fire Sprinkler System" [2016][95] standards) can increase the allowable number of stories allowed); (6) fire walls (fire walls can subdivide a building so that each area is treated as a separate entity).

Relative to building height, the project shall comply with the requirements of Sections 503 and 504 of the 2016 CBC. As specified in Section 504 (Building Height and Number of Stories) therein: (1) "The height, in feet, and the number of stories of a building shall be determined based on the type of construction, occupancy classification and whether there is an automatic sprinkler system installed throughout the building" (Subsection 504.1 [General]); (2) "The maximum height, in feet, of a building shall not exceed the limits specified in Table 504.3 [Allowable Building Height in Feet above Ground Plane]" (Subsection 504.3 [Height in Feet]); and (3) "The maximum number of stories of a building shall not exceed the limits specified in Table 504.4 [Allowable Number of Stories above Ground Plane]" (Section 504.4 [Number of Stories]). Nothing therein would suggest that the proposed 59-feet 1-inches height of the proposed 4-story hotel is infeasible based on the variety of design options and construction techniques available.

As indicted, in part, in Section D105 (Aerial Fire Apparatus Access Road) in Appendix D (Fire Apparatus Access Road) of the 2016 CFC: "Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided" (Section D105.1)" and "Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof" (D105.2). As illustrated in Figure 39 (Proposed "Brea Canyon Business Park" – Fire Department Access Plan [June 7, 2019]), the proposed project conforms to those standards.

All structures shall have the minimum fire flow (measured in gallons per minute) required by Section 507.5 (Fire Hydrant System, Appendix B (Fire Flow Requirements for Buildings) Section 105.2, Table B105.1 and the quantity and spacing of fire hydrants as required by Section 507.5 (Fire Hydrant System), Appendix C (Fire Hydrant Locations and Distribution), Table C105.1 of the 2016 CFC.

[95]/ National Fire Protection Association, NFPA 13: Standards for Fire Sprinkler Systems, 2016.

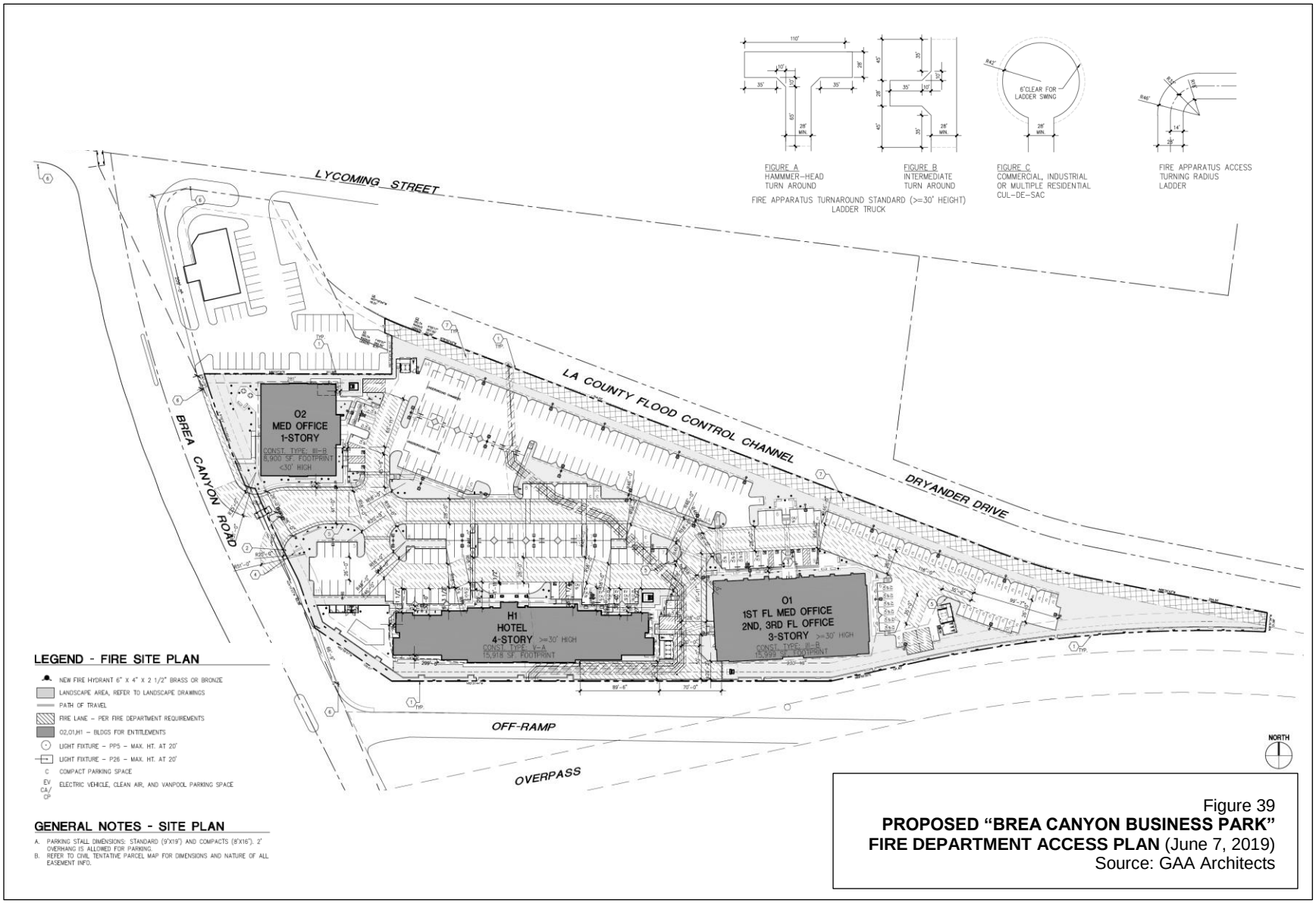


Figure 39
PROPOSED "BREA CANYON BUSINESS PARK" FIRE DEPARTMENT ACCESS PLAN (June 7, 2019)
Source: GAA Architects

Law Enforcement

The Los Angeles County Sheriff's Department (LACSD) administers the police functions of the County and is responsible for enforcing all laws and regulations as required by statute. The LACSD operates County detention facilities, participates in rehabilitation programs, crime prevention programs, and programs to suppress delinquency, assists in the functions of the superior and municipal courts, maintains security, and directs and coordinates emergency services. The LACSD provides police services to all unincorporated County areas and, under contract, to 58 municipalities within the County, including the City of Diamond Bar.

The LACSD's Walnut-Diamond Bar Station (231695 E. Valley Boulevard, Walnut 91789) is located approximately 0.5 miles west of Brea Canyon Road. The station generally serves the Cities of Diamond Bar, Rowland Heights, Walnut and the unincorporated areas of Covina Hills and West Covina. The LACSD routinely reviews proposed development plans as part of City's plan check process and, as appropriate, provides the Department comments thereupon.

As reported by the LACSD, "Part I" crime statistics for the Walnut-Diamond Bar Station for the 2017 and 2018 calendar years are summarized in Table 4 (2017-2018 "Part I" Crime Statistics for the Walnut-Diamond Bar Station).[96] As noted therein, during that period, the number of rapes, robberies, violent crimes, and arson increased while the number of aggravated assaults, larceny thefts, grand automobile thefts, and total property crimes increased. The number of reported burglaries and total "Part I" crimes remained statistically unchanged.

Educational Facilities

As illustrated in Figure 40 (Walnut Valley Unified School District Boundaries), the project site is located within the boundaries of the Walnut Valley Unified School District. The nearest public school facilities to the subject property include Walnut Elementary School (841 Glenwick Avenue, Walnut) and Ron Hockwalt Academies (High School) (476 Lemon Avenue, Industry).

Section 17620 of the California Education Code (CEC) authorizes school districts to assess development fees within district boundaries to fund the construction or reconstruction of school facilities, subject to the limitations set forth in Chapter 4.9 (commencing with Section 65995) of the CGC. Section 65995(h) of the CGC provides that "[t]he payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities."

[96]/ "Part I" offenses are used by law enforcement agencies throughout the United States to reveal the extent and trend in criminal activity. Any significant change from the anticipated pattern of the figures alerts law enforcement administrators to possible problem areas. "Part I" offenses include criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny theft, grant theft auto, and arson. Statistics regarding "Part II" crimes (e.g., forgery, fraud and not-sufficient-funds checks, sex offenses, non-aggravated assaults, weapon laws, offenses against family, narcotics, liquor laws, drunk/alcohol/drugs, disorderly conduct, vagrancy, gambling, drunk driving, vehicle laws, vandalism, receiving stolen property, federal offenses without money, federal offenses with money, miscellaneous felonies and misdemeanors) and other non-criminal incidents (e.g., persons missing, non-criminal juvenile, non-criminal miscellaneous, suicides and attempts, mentally ill, traffic accidents, miscellaneous accidents, deaths) are not reported therein.

Table 4
2017-2018 "PART I" CRIME STATISTICS
FOR THE WALNUT-DIAMOND BAR STATION

Crime	Area	2017	2018	Percent Change
Criminal Homicide	Diamond Bar	0	2	N/C
	Walnut	0	0	N/C
	Unincorporated	0	0	N/C
	Station Total	0	2	N/C
Rape	Diamond Bar	5	7	**40.00**
	Walnut	12	4	**(66.67)**
	Unincorporated	8	18	**125.00**
	Station Total	25	29	16.00
Robbery	Diamond Bar	25	30	20.00
	Walnut	8	9	12.50
	Unincorporated	38	52	**36.84**
	Station Total	71	91	28.17
Aggravated Assault	Diamond Bar	27	19	(29.63)
	Walnut	23	9	**(60.87)**
	Unincorporated	40	53	**32.50**
	Station Total	90	81	(10.00)
Violent Crimes Total	Diamond Bar	57	58	1.75
	Walnut	43	22	**(48.84)**
	Unincorporated	86	123	**43.02**
	Station Total	186	203	9.14
Burglary	Diamond Bar	381	360	(5.51)
	Walnut	232	217	(6.47)
	Unincorporated	308	336	9.09
	Station Total	921	913	(0.87)
Larceny Theft	Diamond Bar	592	521	(11.99)
	Walnut	221	228	3.17
	Unincorporated	588	539	(8.33)
	Station Total	1,401	1,288	(8.07)
Grand Theft Auto	Diamond Bar	70	55	(21.43)
	Walnut	32	38	18.75
	Unincorporated	88	82	(6.82)
	Station Total	190	175	(7.89)
Arson	Diamond Bar	2	5	**150.00**
	Walnut	2	0	N/C
	Unincorporated	0	1	N/C
	Station Total	4	6	**50.00**
Property Crimes Total	Diamond Bar	1,945	941	(9.95)
	Walnut	487	483	(0.82)
	Unincorporated	984	958	(2.64)
	Station Total	2,516	2,382	(5.33)
"Part I" Crimes Total	Diamond Bar	1,102	999	(9.35)
	Walnut	530	505	(4.72)
	Unincorporated	1,070	1,081	1.03
	Station Total	2,702	2,585	(4.33)

Notes:
N/C – Not calculated.
***Red** depicts a 30 percent or greater increase. **Green** depicts a 30 percent or greater decrease.*

Source: Los Angeles County Sheriff's Department (http://shq.lasdnews.net/CrimeStats/LASDCrimeInfo.html).



Figure 40
WALNUT VALLY UNIFIED SCHOOL DISTRICT BOUNDARIES
Source: Walnut Valley Unified School District

Findings of Fact

a1) ***Less-than-Significant Impact****. As noted in the 1995/2013/2014 General Plan: "[T]he Insurance Service Organization (ISO) gives the developed portion of the City a rating of 3, which is considered good for urbanized areas. . .Fire protection services for the area are presently provided by the Los Angeles County Consolidated Fire Protection District, which maintains three stations in or adjacent to the City. County Stations 119, 120, and 121 are fully equipped and staffed. Analysis of available service level data indicates that the City will probably not need an additional fire station, although any significant development in the Sphere of Influence area might require additional protection."*[97]

The City is a part of the Los Angeles County Consolidated Fire Protection District, more commonly referred to as the Los Angeles County Fire Department (LACoFD). Those Los Angeles County Consolidated Fire Protection District facilities located in the general project area are listed in Table 5 (Los Angeles County Fire Department - Fire Stations in the General Project Area), including the estimated emergency response time from those stations to the project site. As noted, the LACoFD presently maintains three fire stations within a two-mile radius of the project site (Stations 61, 119, and 120).

[97] *Op. Cit.*, City of Diamond Bar General Plan, Public Health and Safety Element, July 25, 1995, p. IV-4.

Table 5
LOS ANGELES COUNTY FIRE DEPARTMENT
FIRE STATIONS IN THE GENERAL PROJECT AREA

Station Number	***Division***	***Battalion***	***Distance*** *(miles)*	***Resources***[1,2]	***Estimated Response Time*** *(minutes)*
Fire Station 61 *20011 La Puente Road* *Walnut, CA 91789*	*8*	*19*	*1.7*	*Engine 61* *Squad 61*	*3.6*
Fire Station 120 *1051 Grand Avenue* *Diamond Bar, CA 91765*	*8*	*19*	*1.8*	*Paramedic Engine 120* *Patrol 120* *Water Tender 120* *Battalion 19*	*3.8*
Fire Station 119 *20480 Pathfinder Road* *Diamond Bar, CA 91789*	*8*	*19*	*1.9*	*Engine 119* *Paramedic Squad 119*	*3.9*
Fire Station 145 *Battalion 12 Headquarters* *1525 S. Nogales Avenue* *Rowland Heights, CA 91748*	*8*	*12*	*2.7*	*Engine 145* *EST 145* *Battalion 12* *Utility 12*	*5.3*
Fire Station No. 5 *2650 E. Shadow Oak Drive* *West Covina, CA 91792*	*9*	*10*	*2.8*	*Engine 5*	*5.5*
Fire Station 121 *346 Armitos Place* *Diamond Bar, CA 91765*	*8*	*19*	*3.4*	*Engine 121*	*6.5*

Notes:
1. Fire companies whose primary functions are to pump and deliver water and perform basic fire fighting at fires, including search and rescue, are known as engine companies. An EST (Emergency Support Team) is a 2-person unit that provides first-alarm firefighting support to a specific area.
2. Los Angeles County Fire (http://www.code2high.com/lacofd.htm).

Source: Los Angeles County Fire Department

Although neither the 1995/2013/2014 General Plan nor the "Los Angeles County General Plan Update" (October 6, 2015) establishes specific response time goals or standards for the LACoFD, the County's "Final Environmental Impact Report - Los Angeles County General Plan Update, SCH No. 2011081042" (certified October 6, 2015) 2015 County General Plan Update-FPEIR noted: "The LACoFD has several standards to maintain adequate fire protection within their service area. The current standards for response times are: 5 minutes or less for response times for urban areas; 8 minutes or less for suburban areas; 12 minutes or less for rural areas."[98]

The ISO's "Field Suppression Rating Schedule" (FSRS) states that "[t]he built-upon area of the fire protection area should have a first-due engine company within 1.5 road miles and a ladder-service company within 2.5 road miles." The distances are based on a formula developed by the RAND Institute and uses the equation: T = 0.65 + 1.7D, T = travel time in minutes and D = distance in miles. The formula is based on an average 35 miles per hour

[98]/ County of Los Angeles, Final Environmental Impact Report - Los Angeles County General Plan Update, SCH No. 2011081042, October 6, 2015, Section 5.14 (Public Services), p. 5.14-1.

(mph) road speed and converts to engines 3.2 minutes, ladders 4.9 minutes, and a maximum response distance of 9.15 minutes.

Because none of the above referenced documents describe the manner in which "response time" is to be defined, reliance upon a single numeric standard does not ensure a reasonable basis for assessing compliance.

The National Fire Protection Association's "NFPA 1710" (Standards for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments) defines "total response time" as the "time interval from the receipt of the alarm at the primary PSAP [public safety answering point] to when the first emergency response unit is initiating action or intervening to control the incident."[99] In accordance therewith, total response time is defined as being inclusive of the following three distinct phases: (1) Phase One (Alarm Handling Time), inclusive of alarm, alarm answering time, alarm transfer time, alarm handling time, and alarm processing time; (2) Phase Two (Turnout Time and Travel Time); and (3) Phase Three (Initiating Action/ Intervention Time)"[100]

- ***Phase One: Alarm Handling Time***

  - ◊ *Public safety answering point. "Public safety answering point" is "a facility in which 9-1-1 calls are answered" (NFPA 1710, Section 3.3.42);*
  - ◊ *Alarm answering time. "Alarm answering time" is the "time interval that begins when the alarm is received at the communication center and ends when the alarm is acknowledged at the communication center" (NFPA 1710 Section 3.3.53.1);*
  - ◊ *Alarm transfer time. "Alarm transfer time" is the "time interval from the receipt of the emergency alarm at the PSAP [public safety answering point] until the alarm is first received at the communication center" (NFPA 1710, Section 3.3.53.4);*
  - ◊ *Alarm handing time. "Alarm handing time" is the "time interval from the receipt of the alarm at the primary PSAP until the beginning of the transmittal of the response information via voice or electronic means to emergency response facilities (ERFs) or the emergency response units (ERUs) in the field" (NFPA 1710, Section 3.2.53.3); and*
  - ◊ *Alarm processing time. "Alarm processing time" is the "time interval from when the alarm is acknowledged at the communication center until response information begins to be transmitted via voice or electronic means to emergency response facilities (ERFs) and emergency response units" (NFPA 1710, Section 3.3.53.3).*

- ***Phase Two: Turnout Time and Travel Time***

  - ◊ *Turnout time. "Turnout time" is the "time interval that begins when the emergency response facilities (ERFs) and emergency response units (ERUs) notification process begins by an audible alarm or visual annunciation or both and ends at the beginning point of travel time" (NFPA 1710, Section 3.3.53.8); and*
  - ◊ *Travel time. "Travel time" is the "time interval that begins when the unit is en route to the emergency incident and ends when the unit arrives at the scene" (NFPA 1710, Section 3.3.53.7).*

[99]/ National Fire Protection Association, NFPA 1710 Implementation Guide: NFPA 1710 Standards on Fire Department Deployment and Operations, 2002 Edition, Section 3.3.53.6.

[100]/ *Ibid.*, Annex A (Explanatory Material), Section A.3.53.6 (Total Response Time) .

- ***Phase Three: Initiating Action/Intervention Time***

  ◊ *Initiating action/intervention time. "Initiating action/intervention time" is the "time interval from when a unit arrives on the scene to the initiation of emergency mitigation" (NFPA 1710, Section 3.3.53.5).*

Based on the manner in which response times are fully characterized, the response times presented in Table 5 (Los Angeles County Fire Department - Fire Stations in the General Project Area) do not appear to fully characterize or accurately represent total emergency response time.

As recommended in NFPA 1710, with regards to structural fires, fire departments are encouraged to establish the following time objectives: (1) 80 seconds for turnout time and operations response and one minute (60 seconds) turnout time for emergency medical service (EMS) response; (2) Four minutes (240 seconds) or less travel time for the arrival of the first arriving engine company at a fire suppression incident; (3) Eight minutes (480 seconds) or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident; (4) Four minutes (240 seconds) or less for the arrival of a unit with first responder with automatic external defibrillator (AED) or higher level capability at an emergency medical incident; and (5) Eight minutes (480 seconds) or less travel time for the arrival of an advanced life support (ALS) unit at an emergency medical incident, where this service is provided by the fire department provided a first responder with ASD or basic life support (BLS) unit arrived in 240 second or less travel time.[101] *As further recommended in "NFPA 1710," the "fire department shall establish a performance objective of not less than 90 percent for the achievement of each turnout time and travel time objectives."*[102]

Neither the County nor the City has adopted NFPA 1710 as a formal standard. Because, as indicated in Table 5 (Los Angeles County Fire Stations in the General Project Area), the LACoFD has the ability to achieve the performance standards recommended therein from multiple fire stations, the resulting impact would be less than significant.

1b) ***Less-than-Significant Impact****. Although certain uses may be predisposed to certain types of criminal activities, crime statistics neither typically characterized as either "residential" or "non-residential" (commercial property) crimes nor draw distinctions between the types of residential (single-family and multi-family) and commercial (gas stations, shopping centers, convenience stores, banks, movie theatres, and offices).*

The United States Department of Justice's "Uniform Crime Reporting Program" divides offenses "Part I" and "Part II" crimes. "Part I" offenses include criminal homicide, forcible rape (excluding statutory offenses), robbery, aggravated assault, burglary (breaking or entering), larceny-theft (excluding motor vehicle theft), motor vehicle theft, and arson. "Part II" offenses include other assaults (where no weapon was used), forgery and counterfeiting, fraud, embezzlement, stolen property (buying, receiving, and possessing), vandalism, weapons (carrying and possessing), prostitution and commercial vice (unlawful promotion of or participation in sexual activities for profit), sex offenses (except forcible rape, prostitution, and commercial vice), drug abuse violation, gambling, offenses against the family and children (unlawful nonviolent acts by a family member), driving under the

[101]/ *Ibid*., Section 4.1.2.1.
[102]/ *Ibid*., Section 4.1.2.4.

influence, liquor laws, drunkenness, disorderly conduct, vagrancy, all other offences (not specifically identified as "Part I" or "Part II" offenses, except traffic violations.

It has been noted that "[c]rime is a relatively rare event which occurs in high concentrations in and around crime attractors and crime generators. Some land uses facilitate crime or disorder, but even amongst highly facilitative land-use types only some will have combinations of locations and characteristics that will be attractive to potential offenders. This importance of location means that there will be high and low crime areas in a city. There will be land uses that have higher crime rates, but not all units in that category will experience crime. Crimes tend to follow a power law: clustering intensely in some locations while tapering to few or no crimes in others. Land use can be seen as a selection filter that helps make the pattering of crime in an urban mosaic more understandable."[103]

Administrative offices, medical offices, and hotels are common uses throughout the Los Angeles metropolitan area. No data has been identified by the Department suggesting that the proposed project presents a disproportional risk of encountering or contributor to criminal behavior. In a broad context, without inference that any of the following criminal conduct is or will be directly applicable to the proposed project, certain generalities can be posited with regards to each of the proposed uses.[104] With regards to the proposed office use, other than the potential presence of pharmaceutics and limited cash for those medical offices accepting payment for services rendered, administrative and medical offices may be equally susceptible to similar criminal risks.

Due to the concentration of unattended vehicles, property crimes, including motor vehicle offenses (vehicle thefts and their possessions) may be more prevalent in larger parking lots, including those with parking stalls reasonably removed from direct observation from adjoining windows. Although vehicle thefts may be more prevalent at residential premises, they are often more concentrated in parking lots. National data shows that vehicles are usually stolen at night, on streets, and close to residential properties with less than 20 percent stolen from business locations. Some types of businesses appear to be more prevalent in vehicle theft than others. Based on data from the Federal Bureau of Investigation (FBI), 28 percent of the vehicle thefts at business premises occurred at offices and commercial properties. Additionally, a substantial amount of vehicle theft occurred at bars/nightclubs (15 percent), hotels/motels (7 percent), and at service stations/convenience stores (13 percent).[105]

With regards to the proposed hotel use, the nature of hotel crimes can be generally regarded as opportunistic and convenient. As a result, hotel crimes are more likely to be property related (e.g., burglary, robbery, and theft). "Borrowing heavily from the rational choice tradition, routine activities posits that offenders elect to engage or refrain from crime based on a calculation. One item playing in the offender's favor with crime dedicated to tourists is appreciably greater likelihood of anonymity. The benefit of anonymity is coupled with a corresponding increase in their ability to detect tourists, a double prophylactic against

[103]/ Kinney, J.B., Brantingham, P.L., Wuschke, K., Kirk, M.G., Brantingham, P.J., Crime Attractors, Generators and Detractors: Land Use and Urban Crime Opportunities, Built Environment, Vol. 34, No. 1, 2008.

[104]/ Certain crimes in commercial facilities can be perpetrated by employees (e.g., fraud and embezzlement), showing no outward manifestation observable beyond the confines of those facilities. Because CEQA discourages unreasonable speculation (14 CCR 15145), it is assumed that all on-site uses are operated in strict compliance with all applicable policies and procedures germane thereto and that such criminality or any such violations, including cyber crimes, are not within the realm of CEQA review.

[105]/ Weisel, D.L., Smith, W.R., Garson, G.D., Pavlichev, A., and Wartell, J., Motor Vehicle Theft: Crime and Spatial Analysis in a Non-Urban Region, United States Department of Justice, August 2006.

potential apprehension."[106] Criminal victimizations against hotel guests happened around the clock but a notable number of incidents took place during the evening or mid-night hours.

As reported in "Exploring the Relationship between Hotel Characteristics and Crime" (January 1998),[107] the authors noted that "security measures alone cannot ensure guests' safety; a hotel equipped with a comprehensive security system may still have a high number of crimes because employees are not trained for security awareness or screened for criminal records. Some hotels, due to their size and location, may also be at greater risk of being victimized."

Without suggesting any direct relationship to the proposed project, citing a study of 214 hotels conducted in 1994, crimes that happened most often in hotels involved thefts of guests' belongings, followed by automobile theft and burglary, and, to a much lesser degree, physical attacks, sexual assaults, robberies outside and around the premise, and robberies inside the premise.

No detailed information on the proposed security measures to be incorporated into the project has been requested from or provided by the Applicant. Typically, hotels provide a variety of measures, including chain locks and dead bolts and one-way viewing mirrors on guest room doors; centralized-video camera systems; 24-hour security patrol on guest room floors; criminal record checks of new employees; printed safety tips on bulletin boards to educate guests about crime prevention; security instruction for new employees; and enhancing the lighting system and security measures at the parking lots surrounding the hotel. Those and other similar actions can reduce the number of potential incidences, enhance the real or perceived safety of site users, and potentially reduce emergency and non-emergency demands on the LACSD.

No proximal dedicated parking is provided or proposed for the hotel. Site users would endeavor to find parking closest to their destinations. During high demand periods, more distal parking may be required. As a result, uniform lighting levels are encouraged throughout on-site parking areas. As noted in Figure 19 (Proposed "Brea Canyon Business Park" Project – Photometric Analysis), however, lighting levels in those parking areas located closest to the proposed hotel are often lower than comparable lighting levels in other on-site parking areas. Lighting levels attributable only to pole-mounted parking lot lighting would be enhanced by the presence of other exterior lighting, including building lighting and vehicle headlights.

While the proposed project may incrementally contribute to Citywide demands for police services, the resulting increase would be less-than-significant. Because the Applicant, the "business-owners' association/condominium association" (BOA), or such other representative management entity created thereupon are each self-motivated to reduce criminal conduct affecting on-site businesses, visitors, and property alike, once operational, should conditions warrant, additional remedial actions can be instituted in response thereto (e.g., additional security personnel). The proposed office/hotel project is, therefore, neither expected to result in any substantial increase in "Part I" or "Part II" offenses predicating the need for additional law enforcement personnel nor contribute to any adverse physical

[106]/ Ho, T., Zhao, J., and Dooley, B., Hotel Crimes: An Unexplored Victimization in the Hospitality Industry, Security Journal, Vol. 30, No. 4, 2017.

[107]/ Huang, W.S., Hospitality Review Journal, Vol. 16, No. 1, Article 9, January 1998.

impacts associated with the provision of any new or physically altered police facilities, the construction of which could cause significant environmental impacts.

1c) ***Less-than-Significant Impact**. The proposed project is not expected to result in any substantial adverse physical impacts associated with the provision of any new or physically altered school facilities, the construction of which could cause significant environmental impacts.*

Because the proposed project does not have a residential component, project implementation will not result in any direct impacts to the WVUSD; however, new employment opportunities associated with the proposed office and hotel uses could promote household formation and/or the in-migration of families into the school district's boundaries.

Local school districts are authorized to impose and collect school "impact fees" for all residential and non-residential development activities that occur within their jurisdiction to off-set the additional costs associated with the new students that result directly from the construction of new homes and indirectly from the creation of new employment opportunities. The governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. The fee that can be imposed by the affected school district can vary based on the type of use proposed. Local school districts are authorize to adjust those fees for inflation every two (even numbered) years, as determined by the State Allocation Board (SAB) at its January meeting.

As of August 2019, the fees assessed by the WVUSD are $2.97 per square foot for residential development and $0.47 per square foot commercial and industrial development. Payment of applicable fees (estimated to total $55,681.37) to the WVUSD constitutes full and complete mitigation of project-related impacts on the provision of school facilities. Fees are collected by the City at the time building permits are issued.

a4) ***Less-than-Significant Impact**. No City-operated public parks or trails are presently located in the general project area and no planned or proposed facilities are identified in the "City of Diamond Bar Parks & Recreation Master Plan" (July 19, 2011).*

The proposed project is not expected to result in any substantial adverse physical impacts associated with the provision of any new or physically altered recreational facilities, the construction of which could cause significant environmental impacts.

Non-residential uses typically do not directly impose substantial demands on recreational services and/or park facilities. Based on the project's size and the nature of the proposed uses, implementation would not be expected, either directly or indirectly, to substantively impact available recreational services and/or proximal recreational facilities.

a5) ***No Impact**. The proposed project is not expected to result in any substantial adverse physical impacts associated with the provision of any new or physically altered library or other governmental facilities, the construction of which could cause significant environmental impacts.*

16. Recreation

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
(b) Does the project include neighborhood or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Findings of Fact

a) ***Less-than-Significant Impact****. No neighborhood, local, community, or regional parks are located within one mile of the project site. Office workers and hotel guests would not be anticipated to utilize neighborhood, local, community, or regional parks to any significant degree.*

Public golf courses in the general project area include the Diamond Bar Golf Course (22751 E. Golden Springs Drive, Diamond Bar), whose entrance is located about 1.3 miles from the nearest portion of the project site. The minimal level of any increased usage would not be expected to result in any substantial physical deterioration of that facility.

b) ***No Impact****. The proposed project neither includes any public recreational facilities nor, based on the anticipated minimal usage thereof, requires the expansion of any existing public recreational facilities.*

17. Transportation

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Conflict with program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
(b) Would the project conflict or be inconsistent with Section 15064.3(b) of the State CEQA Guidelines?	☐	☐	☐	☒
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d) Result in inadequate emergency access?	☐	☐	☒	☐

Background Information

On August 6, 2014, the Governor's Office of Planning and Research (OPR) released "Updated Transportation Impacts Analysis in the CEQA Guidelines, Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743 (Steinberg, 2013)"[108] and, on November 27, 2017, OPR released "Technical Advisory on Evaluating Transportation Impacts in CEQA." As indicated therein:

Senate Bill 743 (Steinberg, 2013) required changes to the guidelines implementing CEQA (CEQA Guidelines) (California Code of Regulations, Title 14, Division 6, Chapter 3, § 15000 et seq.) regarding the analysis of transportation impacts. OPR has proposed changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. The proposed changes also provide that the analysis of certain transportation projects must address the potential for induced travel. Once the California Natural Resources Agency adopts these changes to the CEQA Guidelines, automobile delay, as measured by "level of service" and other similar metrics, generally will no longer constitute a significant environmental effect under CEQA.[109]

In November 2017, OPR submitted "Proposed Updates to the CEQA Guidelines, Final" to the CNRA as part of the State's formal rulemaking policy. As outlined therein, "these [State CEQA] Guidelines provide that transportation impacts of projects are, in general, best measured by evaluating the project's vehicle miles traveled. Methodologies for evaluating such impacts are already in use for most land use projects, as well as many transit and active transportation projects. Methods for evaluating vehicle miles traveled for roadway capacity projects continue to evolve, however, and so these [State CEQA] Guidelines recognize a lead agency's discretion to

[108]/ State of California, Governor's Office of Planning and Research, Updated Transportation Impacts Analysis in the CEQA Guidelines, Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743 (Steinberg, 2013), August 6, 2014.

[109]/ State of California, Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA, November 27, 2017, p. 1.

analyze such projects, provided such analysis is consistent with CEQA and applicable planning requirements."[110]

In accordance therewith, effective July 1, 2020, Section 15064.3 of the State CEQA Guidelines was recently (December 28, 2018) revised to read:

> *(a) Purpose. This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.*
>
> *(b) Criteria for Analyzing Transportation Impacts.*
>
> *(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.*
>
> *(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.*
>
> *(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.*
>
> *(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.*

[110]/ State of California, Governor's Office of Planning and Research, Proposed Updates to the CEQA Guidelines, Final, November 2017, p. 77.

> *(c) Applicability. The provisions of this section shall apply prospectively as described in Section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.*

The California Air Resources Control Board (CARB) is responsible for developing a plan to detail how the State will achieve its GHG emissions reduction targets mandated by law. In January 2017, the CARB adopted "2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals," reflecting the Statewide GHG emissions reduction goals called for in SB 32 (40 percent below 1990 emissions levels by 2030). In the transportation sector, GHG emissions reducing measures identified therein included low carbon fuels, cleaner vehicles, and strategies to promote sustainable communities and improved transportation choices resulting in the curbing the growth in VMT. An additional source for the identification and assessment of the efficacy of VMT-based mitigation measures is the California Air Pollution Control Officers Association's (CAPCOA) "Quantifying Greenhouse Gas Mitigation Measures" (August 2010).

As reported by the Public Policy Institute of California (PPIC):

> *Three primary approaches can reduce VMT: changing land use patterns to reduce the need to drive; investing in mass transit and other alternatives to driving; and increasing the cost of driving and parking to encourage the use of alternatives. Although each of these strategies has received some attention in past planning efforts, SB 375 focuses specifically on ways to increase the effectiveness of these approaches.*[111]
>
> *Land use patterns – density, the proximity of jobs and housing, and design elements, such as shorter blocks and more street intersections – have a modest but often statistically significant effect on transportation behaviors, such as trip length, trip frequency, and the decision to drive or travel by other means. Evidence also suggests that people who live in denser neighborhoods drive less. But VMT reductions of more than a couple of percentage points would require increases in residential density that many researchers consider infeasible.*
>
> *Higher employment densities appear to boost transit ridership (and therefore reduce VMT) more than high residential densities, in part because it is relatively easy for workers to drive or bike from home (where their cars or bikes are) to a transit stop or station but not as easy to drive or bike from a transit station or stop to their workplace.*[112]

As reported by UCLA's School of Public Affairs' Program:

> *VMT is not an ideal proxy for vehicle greenhouse gas emissions. Fuel consumption is directly related to CO_2 emissions at a rate of 8.81 kg CO_2 per gallon of motor gasoline. Vehicle CO_2 emissions account for 99.4% CO_2-e of non-refrigerant vehicle greenhouse gas emissions. VMT is used to calculate N_2O and CH_4 emissions, which account for the remaining .6%. VMT is used because the EPA and CARB calculate emissions from criteria pollutants and other gasses on a per mile basis, based on vehicle control technology. The link between VMT and greenhouse gas emissions is dependent on actual vehicle fuel efficiency, which varies based on driving behavior, average speed,*

[111]/ Bedsworth, Louise, Hanak, Ellen, and Kolko, Jed, Driving Change – Reducing Vehicle Miles Traveled in California, Public Policy Institute of California, 2011, p. 6.
[112]/ *Ibid*.

vehicle maintenance (tire inflation, engine condition), and variance of speed (starts and stops which require acceleration).

Vehicle greenhouse gas emissions resulting from traffic congestion are significant. Traffic congestion reduces vehicle fuel economy versus uncongested travel. Greenhouse gas emissions resulting from traffic congestion in the Los Angeles area account for approximately 3.4 $MMTCO_2$ per year, or roughly two-thirds of the 5 $MMTCO_2e$ reduction goal for SB 375 implementation from the AB 32 Scoping Plan. Statewide, congestion accounts for nearly 6 $MMTCO_2e$ of greenhouse gas emissions. These emissions would not be measured by a model that relied solely on VMT and ignored congestion.

Not all vehicle greenhouse gas emissions are created equal. Greenhouse gas emissions from congestion are the result of an activity that hinders economic productivity. Because of vehicle idling and vehicle speed variance reduce fuel economy, vehicle CO_2 emissions in congested conditions are higher per VMT than emissions resulting from uncongested travel. These emissions are unique in that they are negatively correlated to economic activity. Although traffic congestion is a symptom of economic success, it also serves to limit growth by imposing a deadweight loss in the form of travel delays. Even ignoring the environmental effects of congestion, a reduction in congestion would produce a net social benefit.[113]

In the context of SB 375, as part of a decision-making process, a focus on VMT appears most applicable where a CEQA lead agency is evaluating the comparable environmental implications of a proposed general plan amendment or zone change. Here, because the proposed project includes both a general plan amendment and a zone change, the consideration of VMT would appear warranted.

As indicated in the project's traffic study, an estimated 911 new weekday trip ends associated with the proposed hotel and 1,166 new weekday trip ends associated with the proposed office uses (2,977 new weekday trip ends) based on generation rates formulated by the Institute of Transportation Engineers (ITE).[114] *Based on default values in the California Emissions Estimator Model (CalEEMod), for the SCAB, assuming all hotel trips are comparable to "commercial-work" (C-W) and all office trips are comparable to "home-work" (H-W) trips, based on an average distance of 16.6 and 14.7 miles per trip, respectively.*[115] *Based on those assumptions, the proposed project could generate approximately 32,264 total weekday vehicle miles traveled.*

Findings of Fact

In order to more thoroughly assess potential traffic and transportation-related impacts, a detailed traffic impact analysis and separate shared-parking study were provided by the Applicant and independently reviewed and accepted for public release by Public Works. Technical studies used in the preparation of this analysis includes: (1) "Revised Traffic Impact Analysis Report – Brea

[113]/ University of California, Los Angeles, School of Public Affairs, The Ralph & Goldy Lewis Center for Regional Policy Studies, Program in Local Government Climate Action Policies, Measuring Vehicle Greenhouse Gas Emission for SB 375 Implementation, undated, pp. 1-2.

[114]/ Linscott Law & Greenspan, Revised Traffic Impact Analysis Report – Brea Canyon Business Center, Diamond Bar, California, August 23, 2019, Table 5-1 (Project Trip Generation), p. 16.

[115]/ California Air Pollution Control Officers Association (BREEZE Software), California Emissions Estimator Model, Appendix D (Default Data Tables), Table 4.2 (Mobile Trip Characteristics Dependent upon Location), October 2017, p. D-85.

Canyon Business Center, Diamond Bar, California" (Linscott Law & Greenspan, August 23, 2019); and (2) "Revised Parking Demand Analysis for Brea Canyon Business Park, Diamond Bar, California" (Linscott Law & Greenspan, January 25, 2019). Pursuant to Section 15150(a) of the State CEQA Guidelines, each of those project-related documents are incorporated herein by reference. Based on their size and/or technical nature, those technical studies are not physically included herein but are available for review at the Department during the Department's regular business hours.

a) ***Less-than-Significant Impact**. The corresponding provisions outlined in Section 22.40.030 (Transportation Demand Management Program Requirements) in Chapter 22.40 (Transportation Demand Management) of the MC neither specify the timing when project proponents are required to submit proposed project-specific transportation demand management (TDM) programs nor include any performance standards with regards thereto.*

Because the ordinance does not specify the timing for submitting the TDM program, the Department has discretion as to: (1) when that program should be submitted; and (2) beyond the minimum requirements specified in the MC, the level of specificity relating thereto. Since the requisite information could have implications relative to the configuration of the proposed site plan, at a minimum, the Department has both stipulated the timing for TDM program submittal and formulated specific performance standards relative to targeted reductions in both average daily vehicle trips (ADT) and vehicle miles traveled (VTM). As a recommended mitigation measure (MM-3), more detailed information beyond that incorporated on the proposed site plan shall be required prior to final subdivision map approval.

b) ***No Impact**. With regards to Section 15064.3(b) of the State CEQA Guidelines, because the Department has yet to formulate a methodology for assessing compliance therewith, no universally applicable, accurate, consistent, and transparent approach to calculating, analyzing, determining the significance of, and mitigating VMT impacts across a diversity of sectors presently exists. Additionally, the analysis called for therein does not yet constitute an obligatory obligation in CEQA documents where the City is the CEQA lead agency.*

c) ***Less-than-Significant Impact**. Both with regards to vehicular and non-vehicular circulation, the proposed project's internal circulation system, including, but not limited to, ingress and egress, emergency access, turning radii, and parking have been reviewed and conditionally approved by Public Works. No inherently incompatible uses have been identified by the Department.*

d) ***Less-than-Significant Impact**. With regards to emergency access, the Department has not identified any conflicts with regards to the applicable provisions of the 2016 CBC and 2016 CFC.*

18. Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Section 21074 of the Public Resources Code as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(a) Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Section 5020.1 of the Public Resources Code; or	☐	☐	☐	☒
(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Section 5024.1(c) of the Public Resources Code. In applying the criteria set forth in Section 5024.1(c) of the Public Resources Code, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Background Information

As mandated under SB 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) (Section 21080.3.1, CEQA), certain consultation requirements apply when adopting or amending general plans. Prior to the adoption of or a "substantial amendment" to a general plan, the Lead Agency must refer the proposed action to those tribes on the Native American Heritage Commission's (NAHC) contact list and have traditional lands located within the City's jurisdiction. The referral must allow a 45-day comment period (Section 65352, CGC).

The principal objective of SB 18 is the preservation and protection of "cultural places" of California Native Americans, as defined in Sections 5097.9 and 5097.993 of the Public Resources Code (PRC). Prior to the adoption or amendment of a general plan, the local government must: (1) notify the appropriate California Native American tribe of the opportunity to conduct consultation for the purpose of preserving or mitigating impacts to cultural places; (2) refer the proposed action to those tribes that are on the NAHC contact list that have traditional lands within the agency's jurisdiction; and (3) send notice of a public hearing to tribes that have filed a written request for such notice.

AB 52 (Native American Historic Resource Protection Act), which added "tribal cultural resources" (TCR) to the list of specific cultural resources protected under CEQA, applies to all projects on or after July 1, 2015, for which a lead agency has issued a "Notice of Preparation" for an environmental impact report (EIR) or a "Notice of Intent" (NOI) to adopt a negative declaration or

mitigated negative declaration (MND). In accordance with AB 52 therewith, following receipt of NAHC's contact list, lead agencies shall provide an invitation for tribal consultation to each of the Native American groups and organizations listed thereupon.

As defined in Section 21074(a) of CEQA, "tribal cultural resources" consist of either of the following: "(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources. (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; or (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1" of the PRC. In defining a "cultural landscape," Section 21074(b) of CEQA states that "[a] cultural landscape that meets the definition of [Section 21074] subsection (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape."

Tribal Consultation

Assembly Bill 52 (AB 52) (Section 21080.3.1[b]-[e] and 21080.3.2, PRC) requires that the City consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of mitigating any potential project-related impacts to tribal cultural resources. Additionally, Senate Bill 18 (SB 18) (Section 65352.3, CGC) requires local governments to consult with tribes prior to taking certain planning actions. Prior to the approval of any general or specific plan or an amendment thereto, a local government must notify those tribes identified on the NAHC's contact list of the opportunity to conduct consultation for the purpose of preserving or mitigation impacts on cultural places that may be affected by the proposed action.

On July 24, 2019, through written correspondence, the Department provided government-to-government notification to those tribal contacts identified by the NAHC. In response to the Department's outreach efforts, the Gabrieliño Tongva Indians of California Tribal Council and the Gabrieleno Band of Mission Indians - Kitz Nation responded to the City's invitation for tribal consultation. In a meeting conducted at City Hall (21810 Copley Drive, Diamond Bar), Department staff met with a representative of the Gabrieliño Tongva Indians of California Tribal Council on August 22, 2019. In addition, Department staff conducted a telephone conference with representatives of the Gabrieleno Band of Mission Indians - Kitz Nation on September 5, 2019.

Both the Department's outreach efforts are included in Appendix H (Tribal Consultation) herein.

Findings of Fact

a) ***No Impact**. The project is vacant and all improvements located thereupon have been removed. As part of those demolition activities, the project site has been highly disturbed and any near-surface features or other objects removed therefrom. As a result, the property is not eligible for inclusion in the California Register of Historic Resources and has never been included in any local registry. Since the project site exists in an urbanized setting, other than within the limits of the property itself, the landscape cannot be otherwise defined in term of size and scope.*

b) ***Less-than-Significant Impact**. Although the precise language of the proposed excavation monitoring measures were not discussed in substantial detail, it was the Department's understanding that both the Gabrieliño Tongva Indians of California Tribal Council and the Gabrieleno Band of Mission Indians - Kitz Nation were supportive of such actions.*

Pursuant to Section 21080.3.2(b)(1) of CEQA, in compliance with AB 52, all parties appear to be in general agreement as to the measures to be undertaken by the City to mitigate or avoid any potential significant effect to tribal cultural resources that might be associated with the approval, construction, and operation of the proposed project. The Department, therefore, has preliminarily concluded that tribal consultation with those Native American tribes that formally requested consultation has now successfully concluded.

19. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Require or result in the relocation of construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
(c) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Background Information

In order for the Sanitation Districts of Los Angeles County (CDLAC or Sanitation Districts) to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Sanitation Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans prepared by the South Coast Air Quality Management District (SCAQMD) in order to improve air quality in the South Coast Air Basin. All expansions of Sanitation Districts' facilities must be sized and their services phased in a manner that will be consistent with the SCAG's regional growth forecasts. The available capacity of the Sanitation Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG.

Although the proposed project includes both a general plan amendment and zone change, neither action fundamentally changes the nature of the project site's planned non-residential use nor changes the allowable floor-area-ratio that could be developed thereupon. As a result, notwithstanding those actions, the proposed development would appear consistent with SCAG's

regional growth projections relative to reasonably foreseeable development activities occurring within the City during SCAG's most-recent planning horizon.

Findings of Fact

a) ***Less-than-Significant Impact**. As illustrated in Figure 41 (Walnut Valley Water District – Existing Water Facilities [August 2010]), Figure 42 (Diamond Bar Truck Sewer Main in Brea Canyon Road [Drawing 21 – P-0019]), and in Figure 43 (Portion of the Consolidated Sewer Maintenance District Operations Map [Sheet 2348]), water and wastewater facilities of sufficient size and capacity presently serve the project site. Included in Appendix I (Service Commitments) are "will-serve" letters received from the Walnut Valley Water District (WVWD or District) and the County Sanitation Districts of Los Angeles County (CSDLAC).*

b) ***Less-than-Significant Impact**. Water services, including potable water and fire flow, are provided by the WVWD. Existing water facilities within the general project area, including an 18-inch diameter asbestos cement pipe (ACP) water main within Brea Canyon Road, are illustrated in Figure 41 (Walnut Valley Water District – Existing Water Facilities [August 2010]).*

The WVWD has concluded that the "District is prepared to continue to provide water service to the location and hereby certifies that the current water facilities are adequate to meet any increased demands for this specific project."[116]

c) ***Less-than-Significant Impact**. The CSDLAC constructs, operates, and maintains trunk sewers and wastewater treatment and disposal facilities serving residential, industrial, institutional, and commercial users throughout a major portion of the County. Local wastewater collection systems (lateral sewers) are constructed, operated, and maintained by other public agencies, including the County and various cities. Such systems are typically tributary to and discharge into the CSDLAC's sewerage systems. Operation and maintenance of local sewers and laterals that connect to CSDLAC's trunk sewers are the responsibilities of local jurisdictions.*

The project site is located in District 21. Local sewer lines in the general project area, which are not maintained by the CSDLAC, convey wastewater to a 27-inch diameter RCP gravity trunk sewer main (Diamond Bar Trunk Sewer) located in Brea Canyon Road. That truck sewer has a capacity of 24.7 mgd and conveyed a peak flor of 4 mgd when last measured in 2014.

Presented in Figure 42 (Diamond Bar Truck Sewer Main in Brea Canyon Road [Drawing 21-P-0019]) is the corresponding section drawing extending between the Pomona (SR-60) Freeway (identified as Fifth Avenue) and Lycoming Street, discharging to the District 21 Outfall Trunk Sewer south of Valley Boulevard. A portion of the corresponding Los Angeles County Department of Public Works' Sewer Maintenance District Map is presented in Figure 43 (Portion of the Consolidated Sewer Maintenance District Operations Map [Sheet 2348])

Municipal sewer flows generated within the City are treated at the CSDLAC's San Jose Creek Water Reclamation Plant (SJWRP) (1965 Workman Mill Road, Industry). The SJWRP has a capacity of 100 mgd and currently processes an average flow of 64.6 mgd).

[116]/ Correspondence from Erik Hitchman, Assistant General Manager/Chief Engineer, Walnut Valley Water District to the City (Re: Water Service Availability – 850 S. Brea Canyon Road, Diamond Bar), November 24, 2017.

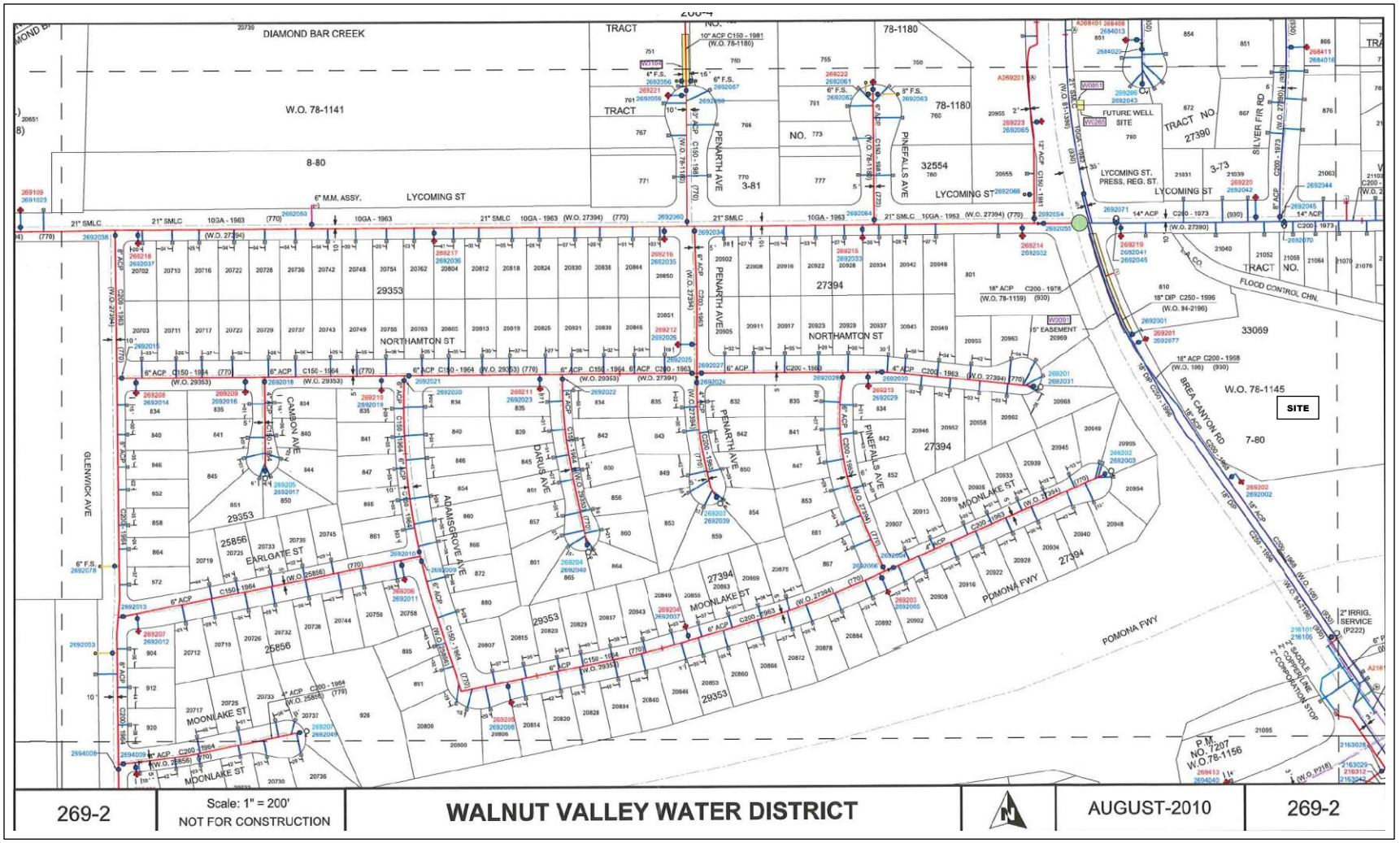


Figure 41
WALNUT WATER DISTRICT FACILITIES
EXISTING WATER FACILITIES (August 2010)
Source: Walnut Valley Water District

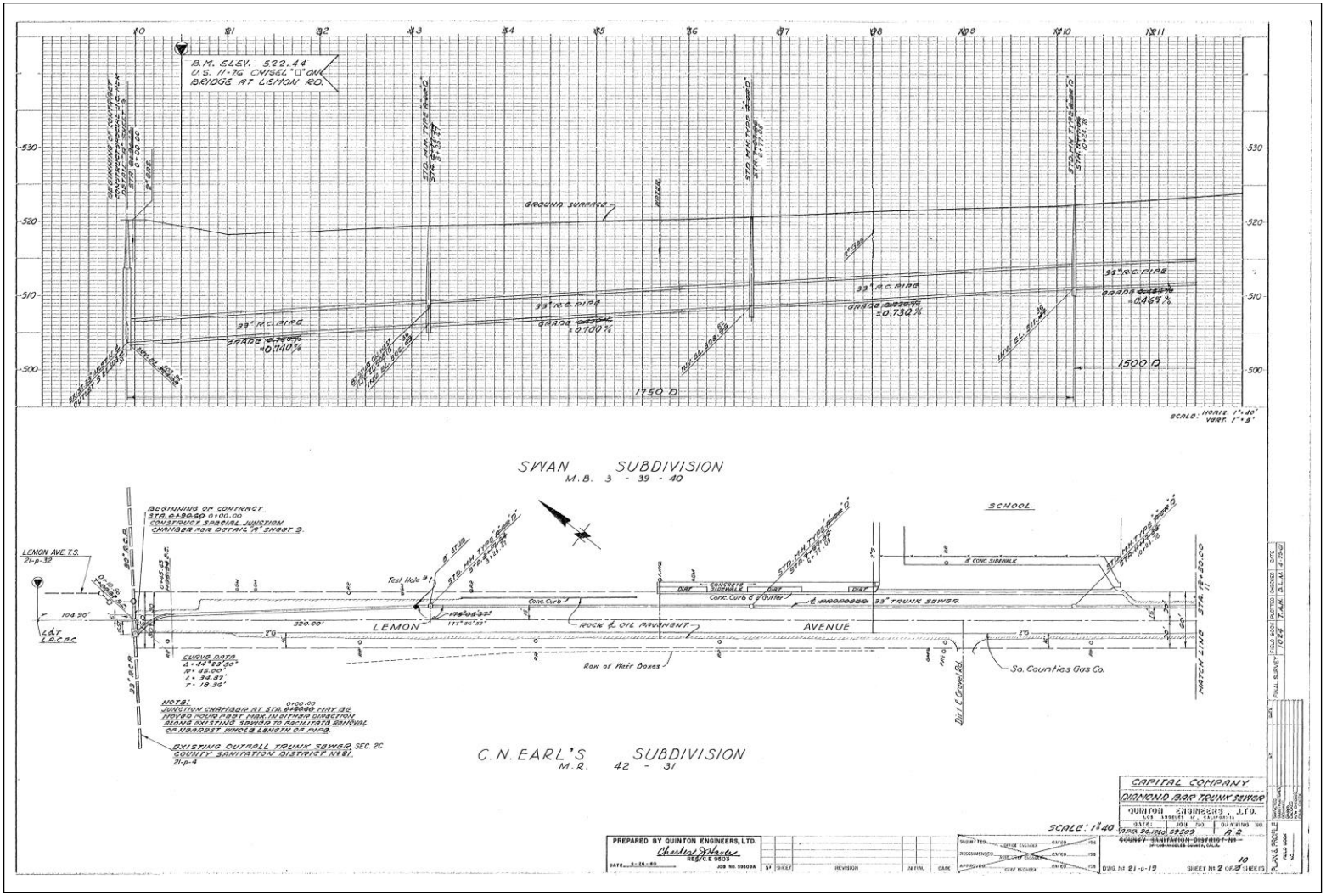
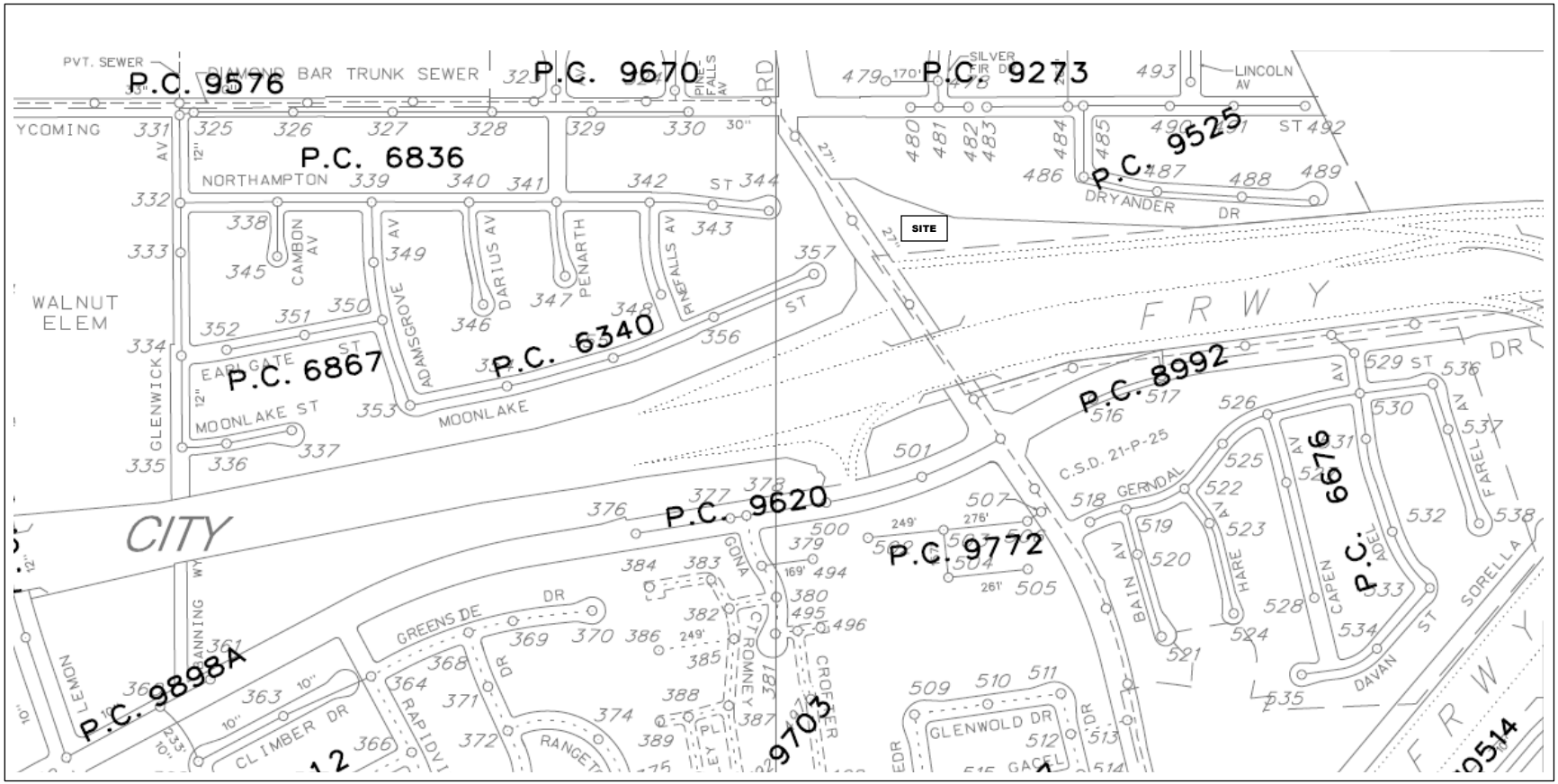


Figure 42
DIAMOND BAR TRUCK SEWER MAIN IN BREA CANYON ROAD (Drawing 21-P-0019)
Source: County Sanitation Districts of Los Angeles County



LEGEND

- CLAY SEWERS MAINTAINED BY SMD. 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

Figure 43
PORTION OF THE CONSOLIDATED SEWER MAINTENANCE DISTRICT OPERATIONS MAP (Sheet 2348)
Source: Los Angeles County Department of Public Works Sewer Maintenance District

Wastewater that exceeds the capacity of the SJWRP and all sludge are diverted to and treated at the CSDLAC's Joint Water Pollution Control Plant (JWPCP) (24501 South Figueroa Street, Carson). The JWPCP has a capacity of 400 mgd and currently processes an average flow of about 256 mgd.

Relative to wastewater, the Sanitation Districts have formulated estimated loading rates for different land uses.[117] Based on a flow rate (gallons per day [gpd]) of 125 gpd/hotel room and 200 gpd/1,000 square feet of office use, the proposed project is expected to generate approximately 37,320 gallons of wastewater per day (13,625 + 23,695 = 37,320). Applying a peaking factor of 2.7, the peaked flow rate would be about 100,764 gallons of wastewater per day (0.1 mgd).

A "truck sewer connection permit" is required from the CSDLA for any the direct connection of a 6-inch diameter or smaller private sewer lateral to Sanitation Districts' trunk sewers.

The CSDLAC are authorized by the H&SC to charge a fee for the privilege of connecting (directly or indirectly) to the Sanitation Districts' sanitary sewer system or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the sewerage system to accommodate project-related demands. Payment of the connection fee is required prior to the issuance of a permit to connect to the sewer line.

As stipulated in the "Los Angeles County Code of Ordinance" (County Code), no sewer construction permit shall be issued until the County Engineer (Section 20.32.040, County Code) and the Public Works Director (Section 20.32.420, County Code) has approved the project's final sewer plans. As further stipulated in the City's Municipal Code, no sewer construction permit shall be issued until the City Engineer has checked and approved the plans (Section 13.00.640, MC) and a sewer construction permit may be issued (Section 13.00.1200, MC). Since adequate provisions exist under the County Code and Municipal Code, the identified impact would be less than significant and no mitigation measures are recommended or required.

d) ***Less-than-Significant Impact**. Relative to construction wastes, because the project site is presently vacant, no or only minimal site clearance and/or demolition wastes will be generated from the proposed project. Pursuant to Section 8.16.610 (Construction or Demolition Waste) in Division 6 (Construction and Demolition Waste) in Title 8 (Health and Safety) of the MC: "Every covered construction project shall divert at least 75 percent, measured by weight, of all construction/demolition waste generated by the covered construction project." "Covered construction projects" include all "construction, demolition or remodel projects of 1,000 square feet or more." Compliance therewith will reduce construction and demolition (C&D) wastes to the maximum extent feasible.*

Relative to operational wastes, operational waste generation factors are presented in the California Emissions Estimator Model (CalEEMOD) based on a variety of land uses. The following generation rates are projected therein: (1) medical office (10.8 tons/year/1,000 square feet and 3.09 tons/year/employee); (2) general office building (0.93 tons/year/1,000

[117]/ Sanitation Districts of Los Angeles County, Table 1 (Loading for Each Class of Land Use), undated (https://www.lacsd.org/wastewater/willserveprogram.asp).

square feet); (3) hotel (0.55 tons/year/room and 1.95 tons/year/employee).[118] Note that medical wastes are more than 11.6 times greater than general office wastes on a square footage basis and would be assumed to include a different composition of those wastes.

Assuming 31,998 square feet of general office use, 24,730 square feet of medical office use, and 109 hotel rooms, the proposed project is projected to generate approximately 356.73 tons of solid waste per year (267.01 + 29.76 + 59.96 = 356.73), the majority of which would be wastes generated from medical offices. Not all of which may be categorized as solid waste and may, therefore, be subject to specific prohibitions.

California operates a "cradle-to-grave" tracking system for medical waste. Generators of medical waste are required to register with their respective Local Enforcement Agencies (LEAs) and are legally responsible to ensure that medical waste generated by their facilities are treated appropriately and managed in a manner that protects the public and the environment by minimizing or eliminating the risk of exposure to agents that cause disease. The Medical Waste Management Act (MWMA) required that "tracking documents" accompany medical waste from their point of generation through transport to a "medical waste treatment facility" and point of destruction. The MWMA also governs the proper storage of medical waste, treatment for different types of medical wastes, requirements for generators of medical waste, operating conditions for medical waste treatment facilities; and jurisdictional oversight by State or local authorities.

As specified in Section 20889 (Medical Waste) in Title 27 of the CCR, unless treated and deemed to be solid waste, those medical wastes that are regulated pursuant to the MWMA shall not be accepted for disposal at solid waste landfills. As further specified in Section 17408.2 (Medical Waste) in Title 14 of the CCR, unless treated and deemed to be solid waste, medical wastes regulated pursuant to the MWMA shall not be accepted at an operation or facility, unless approved by the appropriate regulatory agency.[119] Both landfills (27 CCR 20880) and construction and inert debris transfer processing facilities (14 CCR 17408.2) prohibit the receipt of medical wastes which have not be treated to be received and disposed.

Although medical waste (Section 117690[a], H&SC) is always prohibited, treated medical waste (which is considered to be solid waste) is allowed on a case-by-case basis, depending on the facility's permit, the local enforcement agency (LEA), the nature of the environmental review which was performed for the site, and whether the operator elects to accept it. In order to be considered a solid waste, medical waste may be treated by incineration, steam sterilization (autoclave), extremely high temperature (>1,300°F), or by other methods approved by the CDPH.

Since no such treatment processes are assumed to operate on the project site, medical wastes would be individually collected from each medical waste generator by either "self-transport"[120] or licensed "medical waste transporters" and transported to a State-licensed

[118]/ California Air Pollution Control Officers Association (BREEZE Software), California Emissions Estimator Model, Appendix D (Default Data Tables), Table 10.1 (Solid Waste Disposal Rates), October 2017, pp. D-351-352.

[119]/ Some types of household medical wastes are specifically excluded from the definition of medical wastes. Medical waste generated by home health care can include dressings, bandages, diapers, and medicines. Current law requires that all sharps waste be transported to a collection center in an approved sharps container.

[120]/ Prior to 2014 amendments to the MWMA under Assembly Bill (AB) 333, the act allowed medical waste generators to self-transport small quantities of medical waste through the issuance of a "limited quantity hauling exemption" permit through their respective LEA. AB 333 replaced that exemption with the United States Department of

off-site "medical waste treatment facility" or transfer station. Off-site treatment facilities are required to scan for radioactive materials in the medical waste stream.

Subject to Department of Toxic Substances Control (DTSC) registration, excluding limited provisions for self-transport, only those medical waste transporters listed with the California Department of Public Health (CDPH) are allowed to transport medical waste (Section 118025, H&SC). Section 118029 of the H&SC requires medical waste transporters to submit to CDPH a quarterly report of all medical waste generators that they service and file that information with the Medical Waste Management Program in an electronic format. Quarterly reports are required within ten days of the close of each calendar quarter ending March 31, June 30, September 30, and December 31.

In response to the passage of Assembly Bill 333 (Statutes of 2014), amending the MWMA, the CDHC issued a legislatively mandated report to the California legislature outlining State policies relating to medical wastes. Provided for informational purposes, that report, entitled "Medical Waste Report to the Legislature" (February 2016), which predated further amendments to the MWMA adopted in 2017, is included in Appendix J (Medical Waste Report to the Legislature [February 2016]) herein. In addition, although likely outdated, for informational purposes, presented in Appendix K (Dental, Medical and Veterinary Offices: Managing Your Hazardous Wastes [July 2009]) is a 2009 DTSC "fact sheet" relating to the management of hazardous wastes associated with medical offices.

The federal Occupational Safety and Health Administration (OSHA) has established and enforces standards to ensure safe working conditions for employees. OSHA enforces the blood-borne pathogen standard to ensure the safety of workers who may be exposed to biological fluids potentially containing etiologic agents that could cause disease. The United States Postal Service (USPS) has authority over waste sent through the mail and the USDOT regulates commercial transport of medical waste over public roads.

The improper on-site and/or off-site generation, collection, storage, transport, and disposal of medical wastes, as those wastes are defined under the MWMA, including the potential placement of such wastes in on-site trash receptacles, could introduce safety hazards to employees, other site users, and medical waste transporters; however, under CEQA, it is assumed that all existing rules, procedures, protocols, policies, laws, regulations, and standards applicable to the proposed project and the uses thereupon are strictly adhered to (14 CCR 15145). It is, therefore, assumed that all such rules, procedures, protocols, policies, laws, regulations, and standards relating to the generation, collection, storage, transport, and disposal of medical wastes are strictly adhered to.

The City does not require that each operator of a medical office provide public notification of the types or quantities of medical wastes being generated. Similarly, it is unlikely that the Applicant, the BOA, or such other representative management entity created thereupon would request or maintain such records.

Relative to non-medical wastes, the Health Insurance Portability and Accountability Act (HIPAA) (45 CFR Part 16) establish national standards to protect individuals' medical records and other personal health information and applies to health plans, health-care clearinghouses, and health care providers that conduct certain health care transactions

Transportation (USDOT) materials of trade (MOT) exception (49 CFR 173.6). While somewhat similar, the MOT exception does not require registration or issuance of a permit.

electronically. The HIPPA Privacy Rule requires appropriate safeguards to protect the privacy of personal health information and sets limits and conditions on the uses and disclosures that may be made of such information without patient authorization.

The rule requires that covered entities apply appropriate administrative, technical, and physical safeguards to protect the privacy of protected health information (PHI), in any form (45 CFR 164.530[c]). This means that covered entities must implement reasonable safeguards to limit incidental and avoid prohibited, uses, and disclosures of PHI, including in connection with the disposal of such information. In addition, the HIPAA Security Rule requires that covered entities implement policies and procedures to address the final disposition of electronic PHI and/or the hardware or electronic media on which it is stored, as well as to implement procedures for removal of electronic PHI from electronic media before the media are made available for re-use (45 CFR 164.310[d][2][i] and [ii]). Because failing to implement reasonable safeguards to protect PHI in connection with disposal could result in impermissible disclosures of PHI, it cannot be reasonably assumed that any such protected information would be disposed on-site as routine solid waste.[121]

e) ***Less-than-Significant Impact**. The Department is not in possession of any information concerning the potential project-specific violation of any federal, State, and/or local management and reduction statutes and regulations related to solid wastes.*

[121]/ Federal law increased penalties for HIPAA violations up to $1.5 million per violation. Civil penalties range from $100 to $50,000 per violation. Criminal penalties for lying to defraud a victim include a maximum $100,000 fine and up to five years in prison. Anyone who violates HIPAA rules to sell, transfer, or use PHI for commercial advantage, personal gain, or malicious harm faces up to a $250,000 fine and 10 years in prison.

20. Wildfire

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
If located or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☐	☒
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risks or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Background Information

Under AB 337, passed in 1992, the California Department of Forestry and Fire Protection (CDF or CalFIRE) was required to identify and classify fire hazards in "Local Responsibility Areas" (LRA). The law mandated fire hazard assessments and zoning and included related minimum fire hazard standards to be adopted at the local level. As required under Sections 51175-51189 in Division 1, Title 5 of the CGC, the CDF, acting in cooperation with local fire authorities, shall identify areas in the State as "very high fire hazard severity zones" (VHFHSZ) within designated State Responsibility Areas (SRAs),[122] based on consistent Statewide criteria addressing the severity of fire hazards expected to prevail in those areas. Very high fire hazard severity zones shall be based on fuel loading, slope, fire weather, and other relevant factors.[123]

"Fire Hazard Severity Zones" are geographical areas designated pursuant to Sections 4201 through 4204 of the PRC and classified as "very high," "high," or "moderate" in SRAs (defined as those areas identified pursuant to Section 4102 of the PRC) or as local agency "very high fire hazard severity zones" (VHFHSZs) defined as those areas designated by the CFD Director

[122]/ As defined in Section 4102 of the PRC, SRAs are "areas of the state in which the financial responsibility of preventing and suppressing fires has been determined. . .to be primarily the responsibility of the state."

[123]/ Pursuant to Section 51179 of the CGC, local agencies can accept or reject the CDF's VHFHSZ assessment and delineation and can alter and update VHFHSZ boundaries as deemed necessary.

pursuant to Section 51178 that is not a SRA), designated pursuant to Sections 51175 through 51189 of the CGC.

Beyond serving as an acknowledgement that any area so designated may be subject to wildfire hazards, the VHFHSZ designation imposes specific development-related obligations affecting new construction projects. Pursuant to Chapter 7A and Section R337 in the 2016 CBC, all new structures built within the VHFHSZ shall be constructed to resist the intrusion of embers and the possibility of ignition from fire. These construction features include non-combustible (Class "A") roofing materials and installation processes, ventilation location and design, glazing and door requirements, and fire-resistive construction materials and methods for the exterior surface.

Neither the project site nor any lands located in close proximity thereto has been recommended by CalFIRE for identification as a VHFHSZ.[124]

Findings of Fact

a) ***No Impact.*** *The proposed project will not substantially impair an adopted emergency response or evacuation plan.*

b) ***No Impact****. No significant wildland fire hazards affecting the subject property have been identified.*

c) ***No Impact****. No extraordinary infrastructure improvements are required in response to any identified potential environmental risks.*

d) ***No Impact****. No significant flood or fire-related risks have been identified affecting the subject property.*

[124]/ California Department of Forestry and Fire Protection, Fire Hazard Severity Zones in LRA as Recommended by CalFIRE, September 2011.

21. Mandatory Findings of Significance

Does the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(a) Have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
(b) Have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
(c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Findings of Fact

a) ***Less-than-Significant Impact****. As documented herein, the proposed project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.*

b) ***Less-than-Significant Impact****. As evidenced herein, the proposed project will not result in any impacts that are individually limited but cumulatively considerable.*

c) ***Less-than-Significant Impact****. As evidenced herein, the proposed project will not cause substantial adverse effects on human beings, either directly or indirectly.*

Appendix A
Brea Canyon Business Park
Conceptual Architectural Package
(June 7, 2019)

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BREA CANYON BUSINESS PARK

850 E. BREA CANYON RD. DIAMOND BAR, CA 91789

COVER
T1 TITLE SHEET
T2 PROJECT RENDERINGS

CIVIL
C1 CONCEPT GRADING & DRAINAGE PLAN
C2 CONCEPT GRADING & DRAINAGE PLAN
C3 CONCEPT UTILITY PLAN
1 OF 2 TENTATIVE PARCEL MAP
2 OF 2 TENTATIVE PARCEL MAP

LANDSCAPE
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L-2 ENLARGED LANDSCAPE PLAN
L-3 PLANT IMAGERY
L-4 SITE FURNITURE/ENHANCED PAVING
L-5 LIGHTING COORDINATION PLAN
L-6 LIGHTING COORDINATION PLAN
L-7 LIGHT FIXTURE CUTSHEETS
L-8 ARBORIST TREE SURVEY
L-9 ARBORIST TREE SURVEY
L-10 ARBORIST TREE SURVEY

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A1.1 OVERALL MASTER SITE PLAN
A1.2 SITE ENLARGEMENT
A1.3 SITE ENLARGEMENT
A1.4 FIRE DEPARTMENT ACCESS SITE PLAN / NOTES
A1.5 EMPLOYEE PARKING AND FENCING PLAN
A1.6 WALL SECTIONS AND TRASH ENCLOSURES
A1.7 SITE SECTIONS
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A1.9 SITE PHOTOMETRIC – SITE PLAN ENLARGEMENT
A1.10 SITE PHOTOMETRIC – SITE PLAN ENLARGEMENT
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A1.12 SHADE SHADOW STUDY – PROPOSED DEVELOPMENT
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A2.2 H1 HOTEL FLOOR PLAN LEVELS 3&4
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A2.4 O1 MEDICAL OFFICE FLOOR PLAN 1
A2.5 O1 OFFICE FLOOR PLAN 2
A2.6 O1 OFFICE FLOOR PLAN 3
A3.1 O2, O1, H1 ROOF PLAN
A4.1 H1 HOTEL BLDG ELEVATIONS
A4.2 O2 MEDICAL OFFICE BLDG ELEVATIONS
A4.3 O1 OFFICE BLDG ELEVATIONS
A4.1C H1 HOTEL BLDG COLOR ELEVATIONS
A4.2C O2 MEDICAL OFFICE BLDG COLOR ELEVATIONS
A4.3C O1 OFFICE BLDG COLOR ELEVATIONS

SHEET INDEX

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BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
1	DESIGN REVIEW SUBMITTAL	12/04/17
2	DESIGN REVIEW SUBMITTAL	3/21/18
3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

TITLE SHEET

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JOB NO:	SCD002.01
DATE:	12/04/17
DRAWN:	GAA
FILE NAME:	SCD002

SHEET NO:
T1



PROJECT STREET FRONTAGE AERIAL | NTS | 1



MEDICAL OFFICE ENTRY | NTS | 2



MEDICAL OFFICE PERSPECTIVE | NTS | 3



FREEWAY VIEW OF OFFICE, AND HOTEL | NTS | 4



FREEWAY VIEW OF OFFICE | NTS | 5



OFFICE BUILDING AERIAL | NTS | 6



OFFICE PERSPECTIVE | NTS | 7



OFFICE PERSPECTIVE | NTS | 8



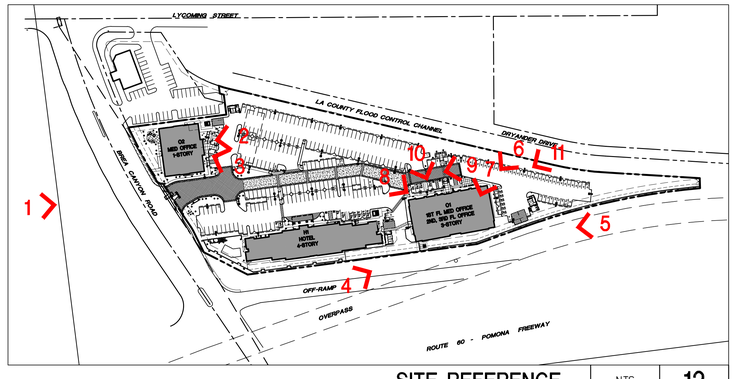
OFFICE PERSPECTIVE | NTS | 9



OFFICE FRONT FACADE | NTS | 10



RESIDENTIAL VIEW OF OFFICE | NTS | 11



SITE REFERENCE | NTS | 12

G|A|A
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BREA CANYON
BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
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3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

RENDERINGS

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JOB NO:	SCD002.01
DATE:	12/04/17
DRAWN:	GAA
FILE NAME:	SCD002

SHEET NO:
T2



0 50 100 200

NORTH

SITE UTILIZATION MAP | 1:100 | 1

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BREA CANYON BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

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3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

SITE UTILIZATION MAP

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JOB NO:	SCD002.01
DATE:	12/04/17
DRAWN:	GAA
FILE NAME:	SCD002_1.0

SHEET NO:
A1.0

SITE INFORMATION

A.P.N.:
REFER TO CIVIL DRAWINGS

LAND USE / ZONING:
EXISTING/PROPOSED ZONING & GENERAL PLAN:
"I"LIGHT INDUSTRY, PROPOSED TO "C-3" COMMERCIAL

ZONING ANALYSIS:

SETBACKS "C-3"

FRONT:	10' LANDSCAPE SETBACK, OR EQUAL TO THE FRONT SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE
SIDES:	10' WHERE THE SITE ABUTS RESIDENTIAL DISTRICT, NONE OTHERWISE
REAR:	10' WHERE THE SITE ABUTS RESIDENTIAL DISTRICT, NONE OTHERWISE
STREET SIDE:	10', OR EQUAL TO THE STREET SIDE SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE
FRONT:	10' OR EQUAL TO THE STREET SIDE SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE.
MAX COVERAGE/FAR:	.25 TO 1 FAR
MIN. LANDSCAPING COVERAGE:	15%

PARKING/LOADING

STANDARD STALL:	9'x19'
COMPACT STALL:	8'X16'
MIN. AISLE:	26'

SITE PLAN & CITY NOTES

NOTES:
1. THIS AREA IS NOT SUBJECT TO LIQUEFACTION OR OTHER GEOLOGIC HAZARDS WITHIN A SPECIAL STUDIES ZONE.
2. THIS PROPERTY IS NOT SUBJECT TO OVERFLOW, INUNDATION, OR FLOOD HAZARD.
3. SUBSURFACE SEPTIC SEWAGE IS NOT INTENDED FOR THIS SITE.
4. THE PROPERTY DOES NOT CONTAIN ANY FLAMMABLE/COMBUSTIBLE MATERIALS OR WASTE.
5. THE PROPERTY'S WATER QUALITY FEATURES ARE SHOWN AS PART OF THE CIVIL PACKAGE.
6. SERVICE GATES WILL BE MANUALLY OPERATED W/ KNOX PAD LOCK.
7. SIGN PROGRAM WILL BE UNDER SEPARATED PERMIT.
8. NO ABOVE/UNDERGROUND TANKS ARE PROVIDED.

FIRE DEPARTMENT NOTES:
1. FIRE DEPARTMENT ACCESS SHALL COMPLY WITH COUNTY OF LOS ANGELES FIRE DEPARTMENT STANDARDS.

CALGREEN NOTES:
1. PROJECT SITE IS LARGER THAN ONE ACRE – A STORM WATER POLLUTION PLAN IS REQUIRED (CG 5.106.1).
2. VISITOR BICYCLE PARKING RACKS SHALL BE PROVIDED WITHIN 200 FEET OF BUILDING ENTRANCES, FOR A MINIMUM OF 5% NEW VISITOR VEHICULAR PARKING (CG 5.106.4.1).
3. IN BUILDINGS WITH OVER 10 TENANT-OCCUPANTS, SECURE, LONG-TERM BICYCLE ENCLOSURES OR LOCKERS SHALL BE PROVIDED ON-SITE, FOR A MINIMUM OF 5% NEW TENANT VEHICULAR PARKING (CG 5.106.5.1). COMPLIANCE WITH THIS SECTION WILL BE PROVIDED IN EACH PERMIT FOR TENANT IMPROVEMENT INDOORS IN AMOUNTS PROPORTIONAL TO THE PARKING REQUIRED FOR EACH TENANT IMPROVEMENT.
4. 'CLEAN AIR' PARKING SPACES SHALL BE PROVIDED ON SITE FOR CARPOOLS & FUEL-EFFICIENT VEHICLES, FOR A MINIMUM NUMBER OF SPACES PROPORTIONAL TO REQUIRED VEHICLE PARKING PER CALGREEN TABLE (CG 5.106.5.2).
5. LIGHTING DESIGN SHALL LIMIT GLARE AND UPLIGHT AND COMPLY WITH LOCAL CODES AND CALGREEN (CG 5.106.8).
6. THIS PROJECT'S PLUMBING FIXTURES SHALL BE 20% WATER-CONSERVING (CG 5.303.2). BEING A SHELL BUILDING, COMPLIANCE WITH THIS SECTION WILL BE PROVIDED IN EACH PERMIT FOR TENANT IMPROVEMENT.
7. FOR PROJECTS WITH OVER 1,000 S.F. OF LANDSCAPING, SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR OUTDOOR POTABLE WATER USE, AND IRRIGATION SYSTEM SHALL HAVE WEATHER- OR SOIL MOISTURE-BASED AUTOMATIC CONTROLLERS (CG 5.304.2&3).
8. A CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE DEVELOPED, DEMONSTRATING A MINIMUM OF 50% RECYCLING AND/OR SALVAGING OF NON-HAZARDOUS CONSTRUCTION WASTE AND COMPLYING WITH CALGREEN REQUIREMENTS (CG 5.408.1).
9. 100% OF LAND-CLEARED SOILS AND VEGETATION SHALL BE REUSED OR RECYCLED (CG 5.408.3).
10. PER SECTION 5.410.2, EXCEPTIONS 1 & 2, COMMISSIONING IS NOT REQUIRED FOR DRY STORAGE WAREHOUSES OR AREAS USED FOR OFFICES LESS THAN 10,000 SF IN DRY STORAGE WAREHOUSES. (CG 5.410.2).
11. ALL CONSTRUCTION MATERIALS TO COMPLY WITH THE VOC AND TOXIN LIMITS LISTED (CG 5.504).
12. SMOKING SHALL BE PROHIBITED WITHIN 25 FEET OF BUILDING ENTRIES, AIR INTAKES, AND OPERABLE WINDOWS (CG 5.504.7).

KEYNOTES - SITE PLAN

1. PROPERTY LINE/ R.O.W. – REFER TO CIVIL DRAWINGS, TYP.
2. SITE ENTRANCE COMBINED FIRE AND ACCESSIBILITY WARNING SIGN,
3. MONUMENT SIGN INCLUDING APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR BUILDING IDENTIFICATION COMPLYING WITH LOS ANGELES COUNTY FIRE CODE SECTION 505.1.
4. 15' LA FLOOD CONTROL EASEMENT AREA, TO BE CLEAR OF ANY LANDSCAPE, TYP.
5. NOT USED
6. EMPLOYEE OUTDOOR SEATING AREA, TYP.
7. POOL AND EXTERIOR SEATING AREA, TYP.
8. (E) STORM DRAIN TO BE REMOVED
9. RELOCATED STORM DRAIN – REFER TO CIVIL DRAWINGS.
10. TENANT ID SIGN – PER SIGNAGE REPORT
11. THEME POST/RAIL – SEE DETAIL A AND B ON L-1

LEGEND - SITE PLAN

- NEW FIRE HYDRANT 6" X 4" X 2 1/2" BRASS OR BRONZE
- LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS
- PATH OF TRAVEL
- FIRE LANE – PER FIRE DEPARTMENT REQUIREMENTS
- O2,O1,H1 – BLDGS FOR ENTITLEMENTS
- LIGHT FIXTURE – PP5 – MAX. HT. AT 20'
- LIGHT FIXTURE – P26 – MAX. HT. AT 20'
- C – COMPACT PARKING SPACE
- EV CA/ CP – ELECTRIC VEHICLE, CLEAN AIR, AND VANPOOL PARKING SPACE

GENERAL NOTES - SITE PLAN

A. PARKING STALL DIMENSIONS: STANDARD (9'X19') AND COMPACTS (8'X16'). 2' OVERHANG IS ALLOWED FOR PARKING.
B. REFER TO CIVIL TENTATIVE PARCEL MAP FOR DIMENSIONS AND NATURE OF ALL EASEMENT INFO.

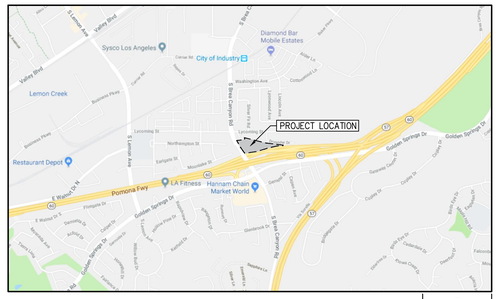
SITE AREA					SF	ACRES
GROSS SITE AREA					249,022	5.72
STREET DEDICATION					1,346	0.03
NET SITE AREA					**247,676**	**5.69**

BUILDING AREA		4 STORIES HOTEL (H1)	1 STORY MEDICAL (O2)	3 STORIES MEDICAL(O1)	3 STORIES OFFICE (O1)	TOTAL
LEVEL 1		15,918	8,900	15,644	0	**40,462**
LEVEL 2		15,182			15,999	**31,181**
LEVEL 3		15,180			15,999	**31,179**
LEVEL 4		15,180				**15,180**
TOTAL BUILDING AREA		61,460	8,900	15,644	31,998	**118,002**
SUBTOTAL PER BUILDING		**61,460**	**8,900**		**47,642**	
FLOOR ARE RATIO (BLDG./OVERALL)		52%	8%		40%	100%
PARKING REQUIRED	RATIO					
HOTEL						
109 ROOMS	1/Room	109				109
Employees (22)	1/2 Employees	11				11
FREE-STANDING MEDICAL	4/1000		36			36
MEDICAL	4/1000			63		63
OFFICE	1/400				80	80
SUBTOTAL - REQUIRED PARKING		**120**	**36**		**143**	**299**
PARKING RATIO (BLDG/OVERALL)		40.1%	11.9%		47.7%	
RECIPROCAL PARKING WITH HOTEL	30.0%	-13	-4		-16	-33
TOTAL REQUIRED PARKING		107	32		127	**266**
ACCESSIBLE STALLS						7
CA/CP/EV STALLS 8%						24
CURRENT PARKING PROVIDED						**289**
ACCESSIBLE STALLS	9'X19'	2	2		4	8
CA/CP/EV STALLS 8%	9'X19'	10	3		11	24
STANDARD STALLS	9'X19'					204
COMPACT STALLS	8'X16'				19.8%	53
TOTAL		115	35		137	**289**
(FUTURE) EVCS STALLS 6%		-7	-2		-9	-18
PARKING CONVERTED TO ACCESS AISLE		-1	-1		-1	-3
PARKING w/ FUTURE CHARGING PROVIDED						**268**
COVERAGE						**16.3%**
FAR						**47.6%**

LANDSCAPE			Area (S.F.)
REQUIRED		20.0%	49,535
PROVIDED		20.8%	51,551
EMPLOYEE PARKING	22	12	96	130
BICYCLE PARKING REQUIRED				
SHORT TERM 5% of Visitor Parking	6	1	2	9
LONG TERM 5% of Employee Parking	2	1	5	8
TOTAL	8	2	7	17
BICYCLE PARKING PROVIDED				
SHORT TERM 5% of Visitor Parking	6	2	2	10
LONG TERM 5% of Employee Parking	2	2	6	10
TOTAL	8	4	8	20

TRASH REQUIREMENTS	Solid Waste	Recyclables	Total Area Required	Total Area Provided
HOTEL (H1)	144	144	288	289
MEDICAL OFFICE (O2)	24	24	48	155
MEDICAL OFFICE / OFFICE (O1)	96	96	192	221

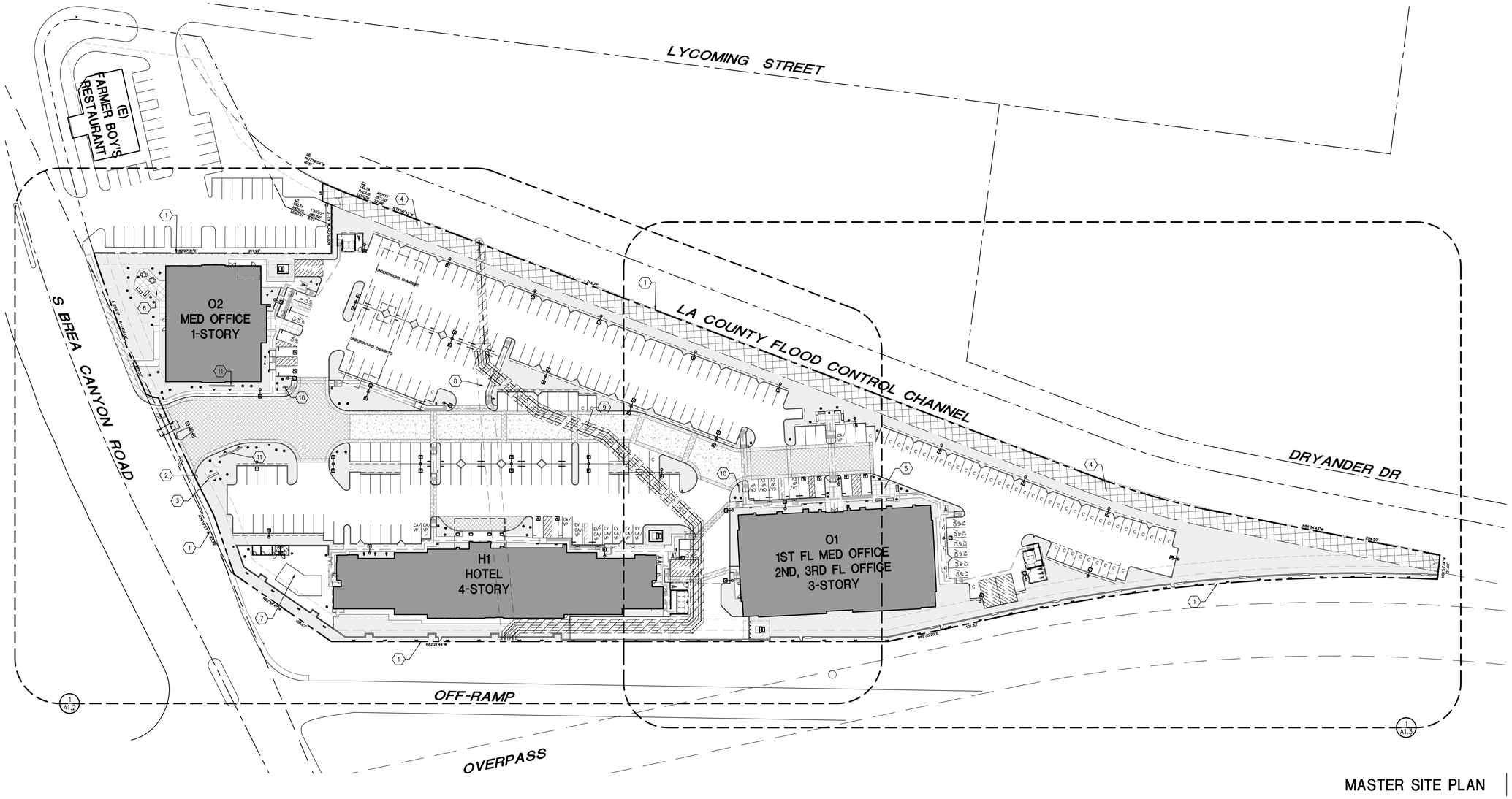
TABULATION | 4



VICINITY MAP | 3



AERIAL MAP | 2



MASTER SITE PLAN | 1:40 | 1

NORTH

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F: 949 553 9133

BREA CANYON BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
1	DESIGN REVIEW SUBMITTAL	12/04/17
2	DESIGN REVIEW SUBMITTAL	3/21/18
3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

OVERALL MASTER
SITE PLAN

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KEYNOTES - SITE PLAN

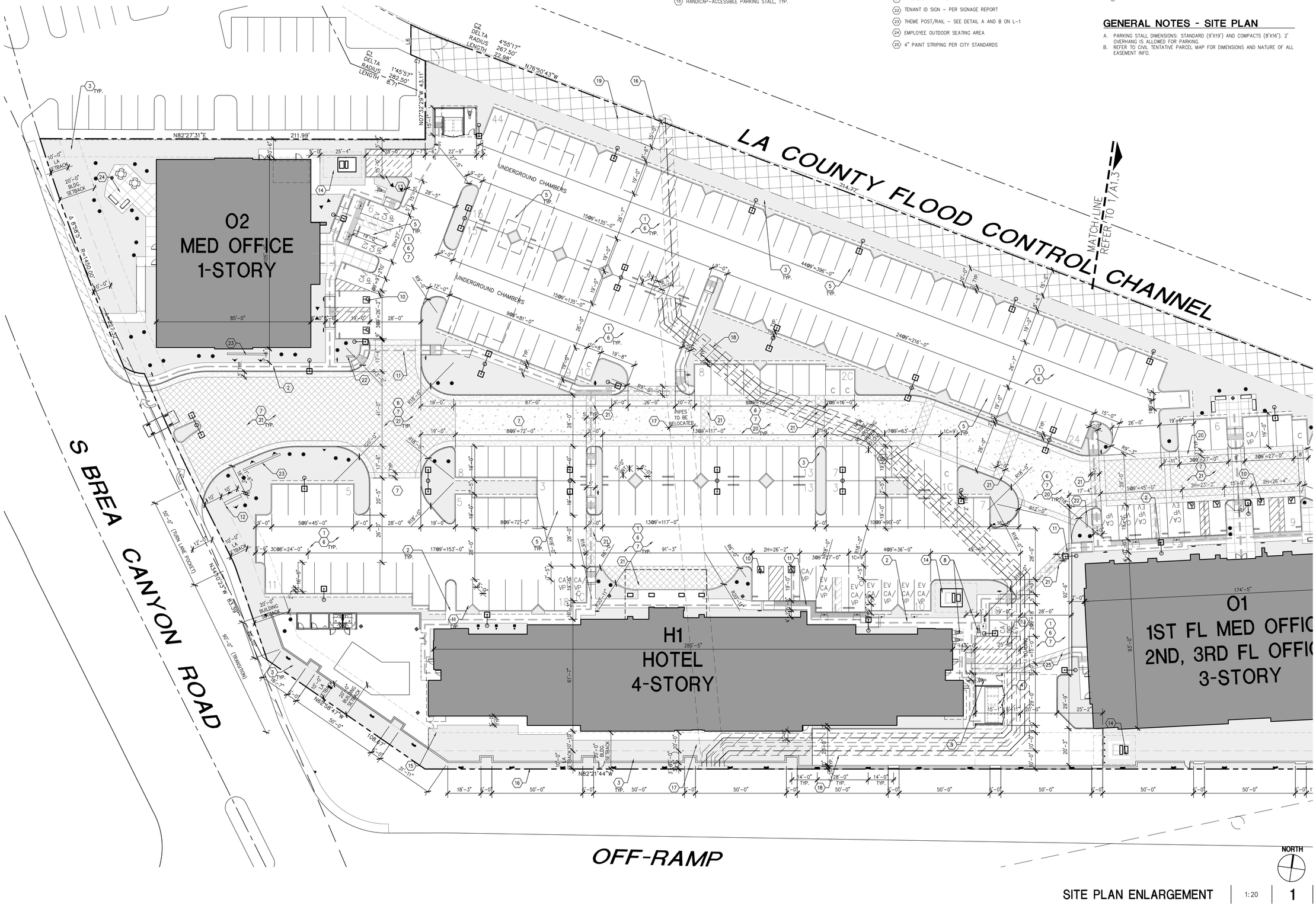
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2. CONCRETE WALKWAY
3. LANDSCAPE AREA, TYP.
4. TRASH ENCLOSURE WITH MIN. 6' SCREEN WALL, TYP.
5. PERPENDICULAR PARKING STALLS: 9'X19', COMPACT PARKING STALLS: 8'X16'. 2' OVERHANG IS ALLOWED FOR STANDARD AND COMPACT STALLS.
6. TWO-WAY DRIVE AISLE: 26'W MIN., UNLESS OTHERWISE NOTED.
7. FIRE DEPT. ACCESS DRIVE
8. "SHORT-TERM" BICYCLE PARKING – MIN. SPACES 5% VISITOR PARKING, INVERTED "U" RACK TYP.
9. "LONG-TERM" BICYCLE PARKING – MIN. SPACES 5% EMPLOYEE PARKING, INVERTED "U" RACK TYP.
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11. ACCESSIBLE PATH OF TRAVEL, TYP.
12. SIGNAGE MONUMENT, TYP.
13. LOADING ZONE
14. TRANSFORMER, TYP.
15. BLDG SETBACK, TYP.
16. PROPERTY LINE, TYP.
17. (E) STORM DRAIN TO BE REMOVED
18. RELOCATE STORM DRAIN PIPES – SEE CIVIL DRAWINGS
19. 15' L.A. FLOOD CONTROL EASEMENT AREA, TO BE CLEARED OF ANY LANDSCAPING
20. CONCRETE PAVING
21. INTERLOCKING PAVERS
22. TENANT ID SIGN – PER SIGNAGE REPORT
23. THEME POST/RAIL – SEE DETAIL A AND B ON L-1
24. EMPLOYEE OUTDOOR SEATING AREA
25. 4" PAINT STRIPING PER CITY STANDARDS

LEGEND - SITE PLAN

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SITE PLAN ENLARGEMENT | 1:20 | 1

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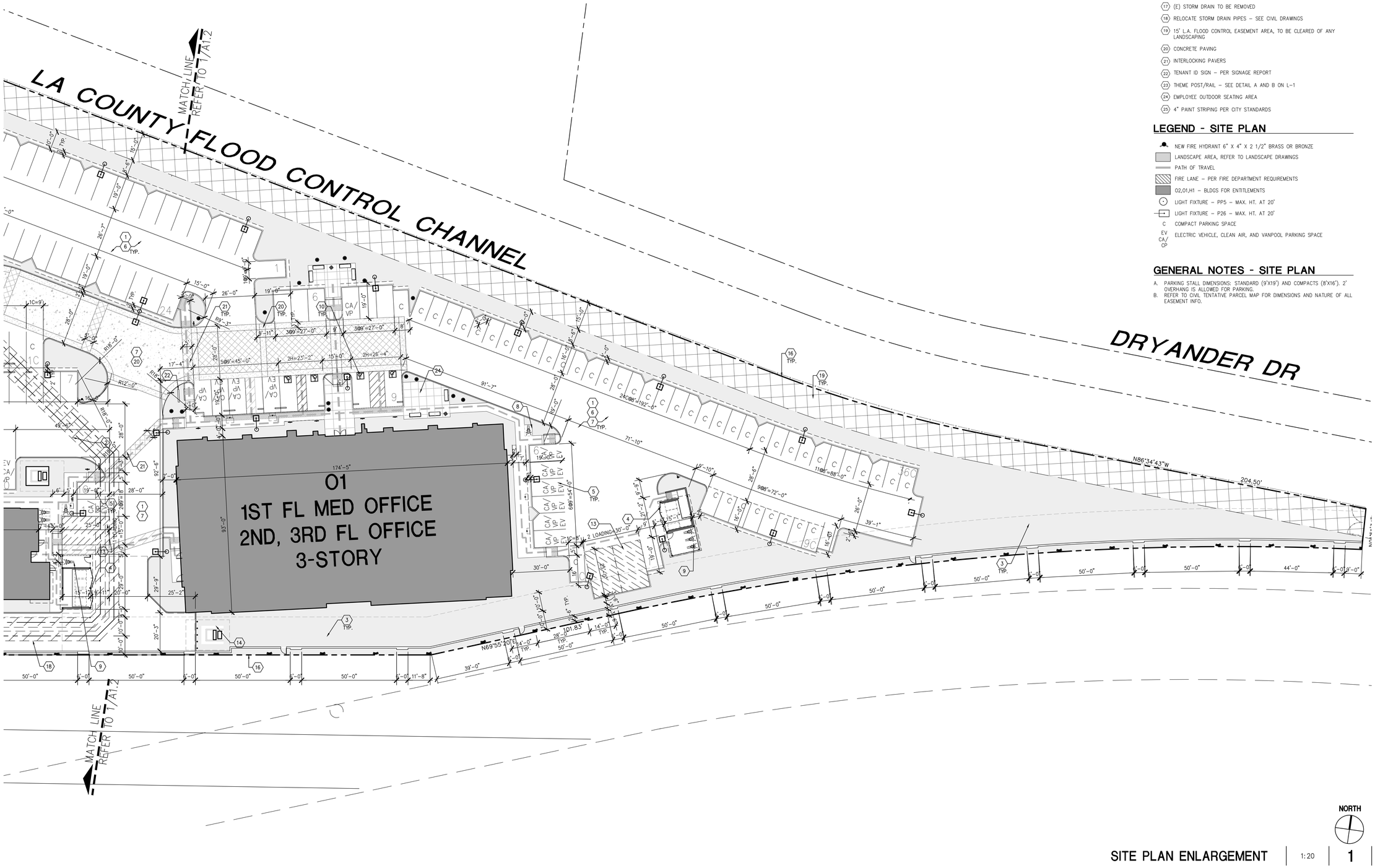
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SITE PLAN ENLARGEMENT

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SHEET NO: A1.2



KEYNOTES - SITE PLAN

1. ASPHALT
2. CONCRETE WALKWAY
3. LANDSCAPE AREA, TYP.
4. TRASH ENCLOSURE WITH MIN. 6' SCREEN WALL, TYP.
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SITE PLAN
ENLARGEMENT

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NORTH

SITE PLAN ENLARGEMENT | 1:20 | 1

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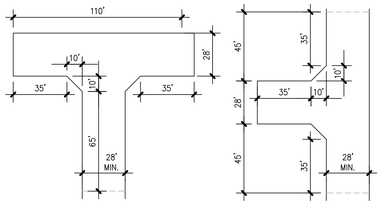


FIGURE A
HAMMMER-HEAD
TURN AROUND

FIGURE B
INTERMEDIATE
TURN AROUND

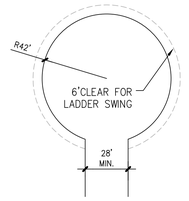
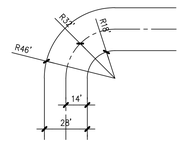


FIGURE C
COMMERCIAL, INDUSTRIAL
OR MULTIPLE RESIDENTIAL
CUL-DE-SAC



FIRE APPARATUS ACCESS
TURNING RADIUS
LADDER

FIRE APPARATUS TURNAROUND STANDARD (>=30' HEIGHT)
LADDER TRUCK

KEYNOTES - FIRE SITE PLAN

1. PROPERTY LINE/ R.O.W. – REFER TO CIVIL DRAWINGS
2. SITE ENTRANCE COMBINED FIRE AND ACCESSIBILITY WARNING SIGN,
3. FIRE DEPARTMENT ACCESS KEY BOX (KNOX BOX),
4. MONUMENT SIGN INCLUDING APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR BUILDING IDENTIFICATION COMPLYING WITH LOS ANGELES COUNTY FIRE CODE SECTION 505.1,
5. NEW FIRE HYDRANT
6. (E) PUBLIC FIRE HYDRANT
7. 15' LA FLOOD CONTROL EASEMENT AREA, TO BE CLEAR OF ANY LANDSCAPE

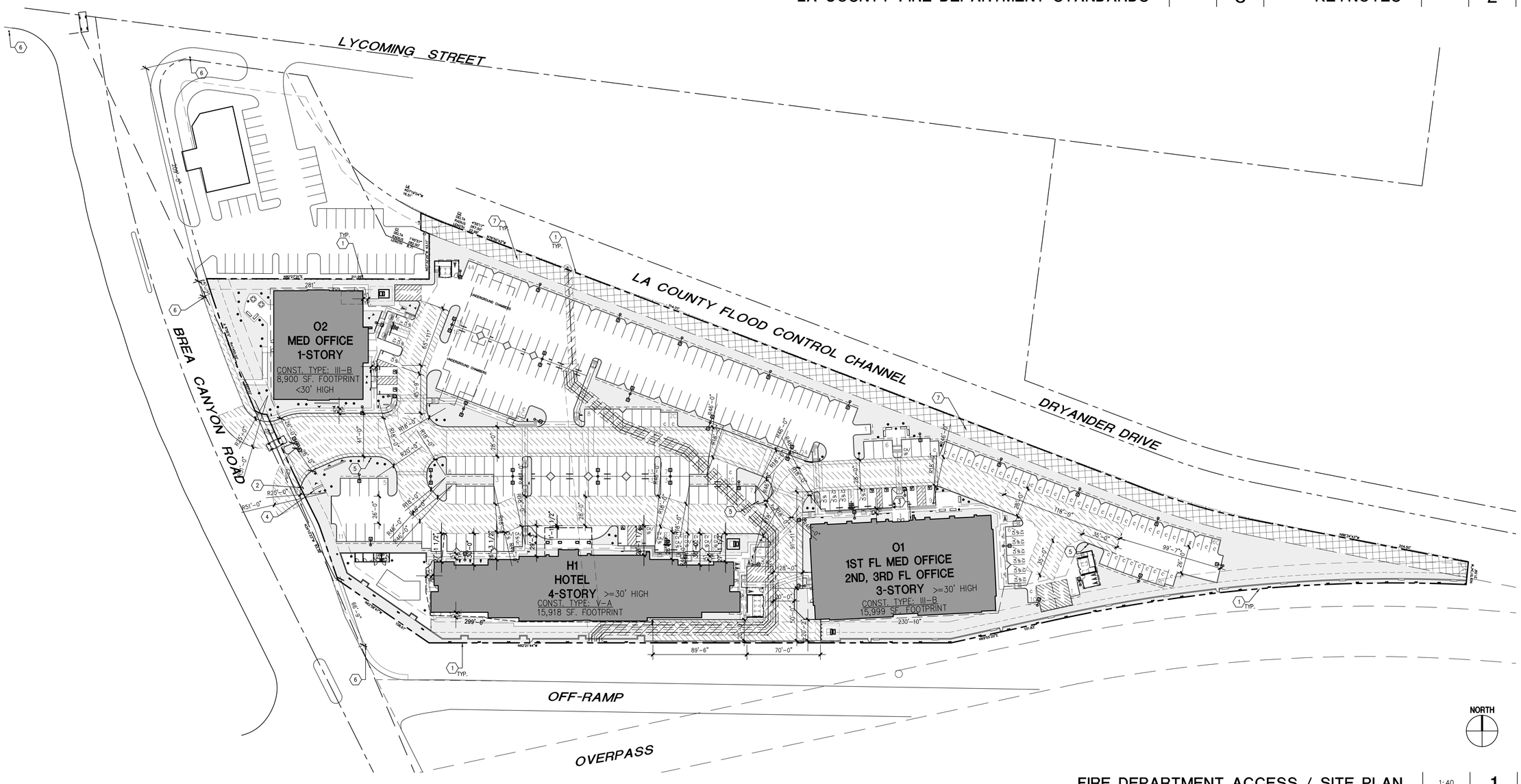
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B. REFER TO CIVIL TENTATIVE PARCEL MAP FOR DIMENSIONS AND NATURE OF ALL EASEMENT INFO.

LA COUNTY FIRE DEPARTMENT STANDARDS | 1:40 | 3 | KEYNOTES | N.T.S. | 2



FIRE DEPARTMENT ACCESS / SITE PLAN | 1:40 | 1

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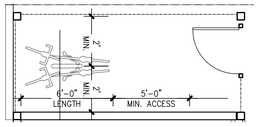
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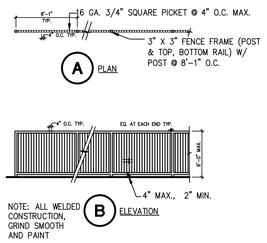
FIRE DEPARTMENT ACCESS
SITE PLAN / NOTES

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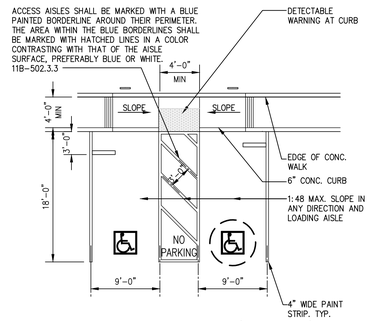
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DATE: 12/04/17	
DRAWN: GAA	
FILE NAME: SCD002_1.4	



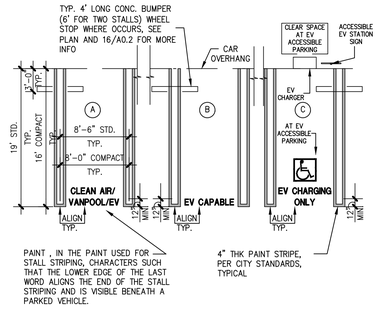
BICYCLE PARKING DETAIL | 1/4"=1'-0" | 7



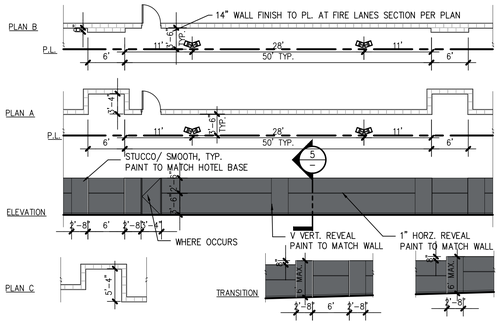
W.I. FENCE DETAIL | 1/8"=1'-0" | 6



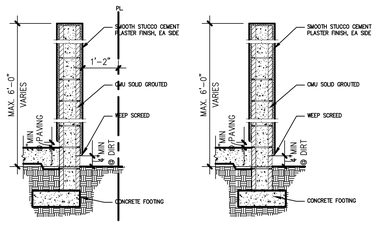
PARKING AT BUILDING | 1/8"=1'-0" | 4



TYPICAL PARKING | 1/8"=1'-0" | 3



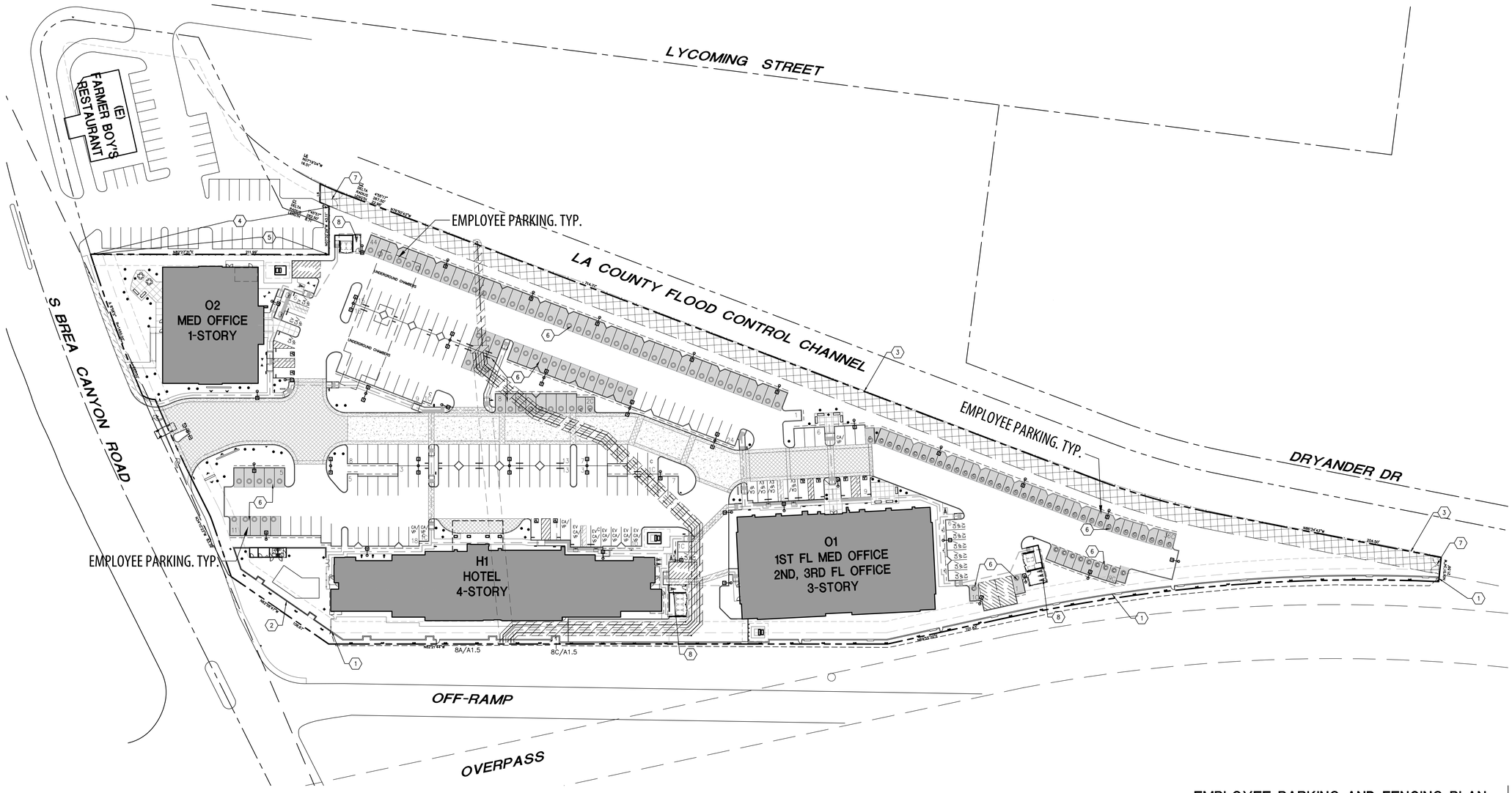
SOUTH SCREEN WALLS | 1/2"=1'-0" | 8



6' HT. SOLID WALL SECTION | 1/2"=1'-0" | 5

EMPLOYEE PARKING CALCULATION | - | 2

PARKING REQUIRED	RATIO					EMPLOYEE	
HOTEL							
109 ROOMS	1/Room	109				109	
Employees (22)	1/2 Employees	11				11	22
FREE-STANDING MEDICAL	4/1000		36			36	12 Parking
MEDICAL	4/1000			63		63	Study by
OFFICE	1/400				80	80	96 LLG
SUBTOTAL - REQUIRED PARKING		**120**	**36**	**143**		**299**	130
PARKING RATIO (BLDG/OVERALL)		40.1%	11.9%	47.7%			
RECIPROCAL PARKING WITH HOTEL	30.0%	-13	-4	-16		-33	
TOTAL REQUIRED PARKING		107	32	127		**266**	
ACCESSIBLE STALLS						7	
CA/CP/EV STALLS 8%						24	
CURRENT PARKING PROVIDED						**289**	
ACCESSIBLE STALLS	9'X19'	2	2	4		8	
CA/CP/EV STALLS 8%	9'X19'	10	3	11		24	
STANDARD STALLS	9'X19'					204	
COMPACT STALLS	8'X16'			19.8%		53	
TOTAL		115	35	137		**289**	
(FUTURE) EVCS STALLS 6%		-7	-2	-9		-18	
PARKING CONVERTED TO ACCESS AISLE		-1	-1	-1		-3	
PARKING w/ FUTURE CHARGING PROVIDED						**268**	



EMPLOYEE PARKING AND FENCING PLAN | 1:40 | 1

KEYNOTES - SITE PLAN

1. 6' HIGH SCREEN WALLS STUCCO FINISH CMU WALL, REFER TO 8/A1.5
2. 6' MAX. HIGH SCREEN WALLS – W/ 42" MAX. HIGH STUCCO FINISH CMU WALL AND TRANSLUCENT GLAZING ON TOP, REFER TO 3/A2.2
3. (E) CHAIN LINK FENCE TO BE REMAINED
4. 6' HIGH WROUGHT IRON FENCING, PAINTED BLACK, REFER TO 6/A1.5
5. (E) CONCRETE MASONRY UNIT WALL (CMU) TO BE REMOVED
6. EMPLOYEE PARKING
7. 6' HIGH WROUGHT IRON GATES, PAINTED BLACK
8. BICYCLE PARKING, REFER TO 7/A1.5

LEGEND - SITE PLAN

- NEW FIRE HYDRANT 6" X 4" X 2 1/2" BRASS OR BRONZE
- EMPLOYEE PARKING
- PATH OF TRAVEL
- O2,O1,H1 – BLDGS FOR ENTITLEMENTS
- LIGHT FIXTURE – PP5 – MAX. HT. AT 20'
- LIGHT FIXTURE – P26 – MAX. HT. AT 20'
- C — COMPACT PARKING SPACE
- EV CA/ CP — ELECTRIC VEHICLE, CLEAN AIR, AND VANPOOL PARKING SPACE
- EMPLOYEE PARKING SPACE TO BE DEMARCATED TO ENCOURAGE USE BY EMPLOYEES PER EXECUTIVE DEVELOPMENT LLC AND/OR THE CENTER MANAGEMENT COMPANY

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BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
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6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

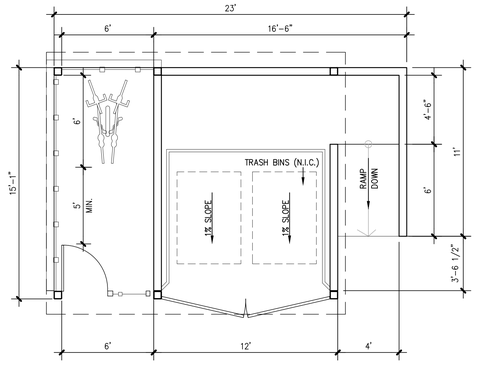
EMPLOYEE PARKING AND FENCING PLAN

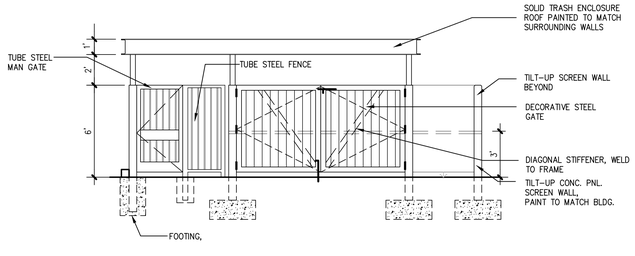
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NORTH

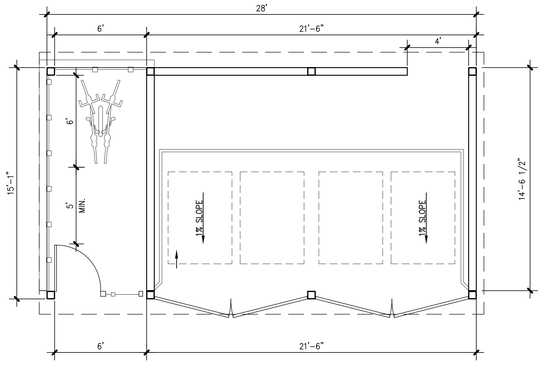
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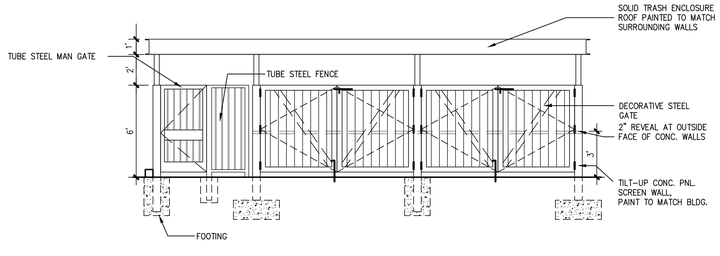
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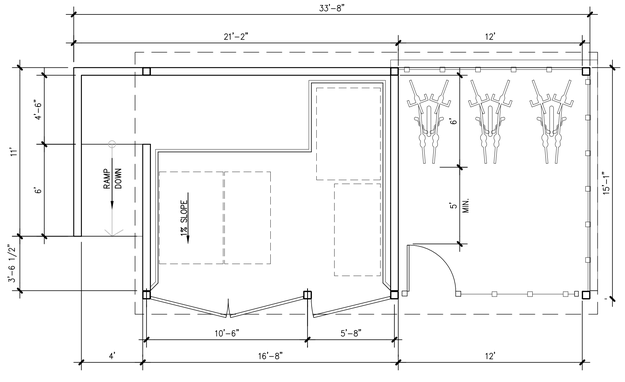


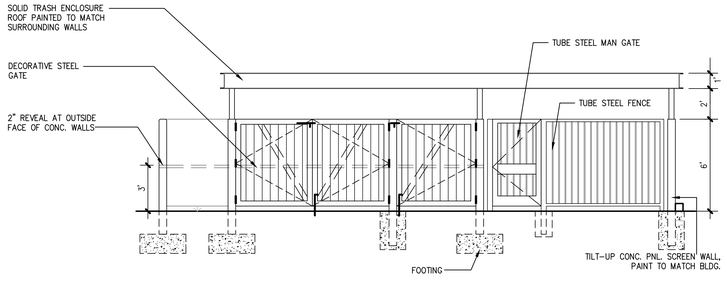
TRASH ENCLOSURE AT MOB | 1/4"=1'-0" | 4



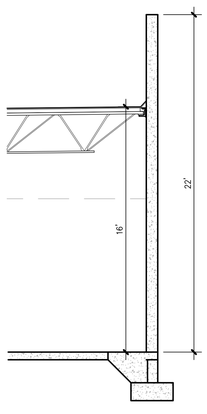


TRASH ENCLOSURE AT HOTEL | 1/4"=1'-0" | 3

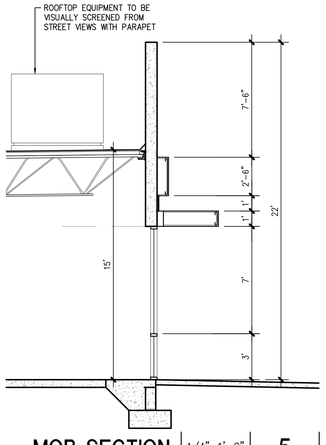




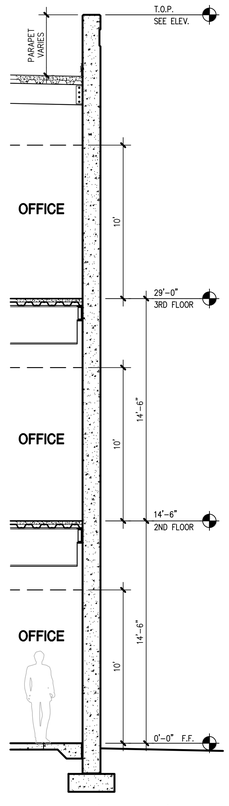
TRASH ENCLOSURE AT OFFICE BUILDING | 1/4"=1'-0" | 2



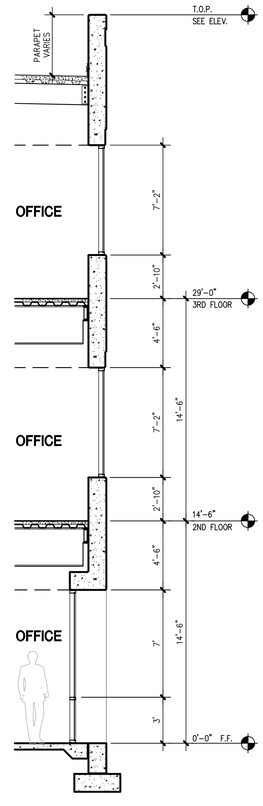
MOB SECTION | 1/4"=1'-0" | 6



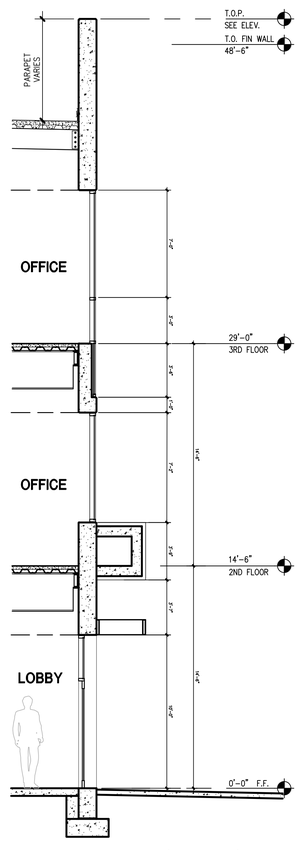
MOB SECTION | 1/4"=1'-0" | 5



PANEL SECTION | 1/4"=1'-0" | 1C



WINDOW SECTION | 1/4"=1'-0" | 1B



ENTRY SECTION | 1/4"=1'-0" | 1A

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BUSINESS PARK

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6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

WALL SECTIONS AND
TRASH ENCLOSURES

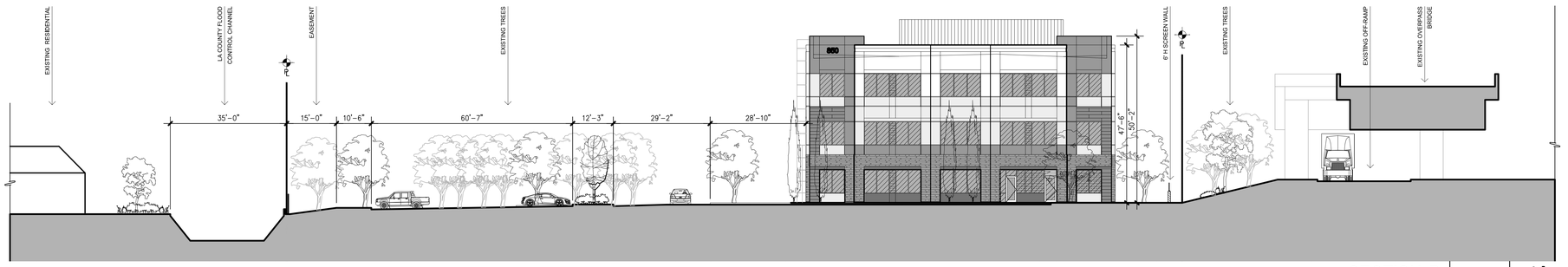
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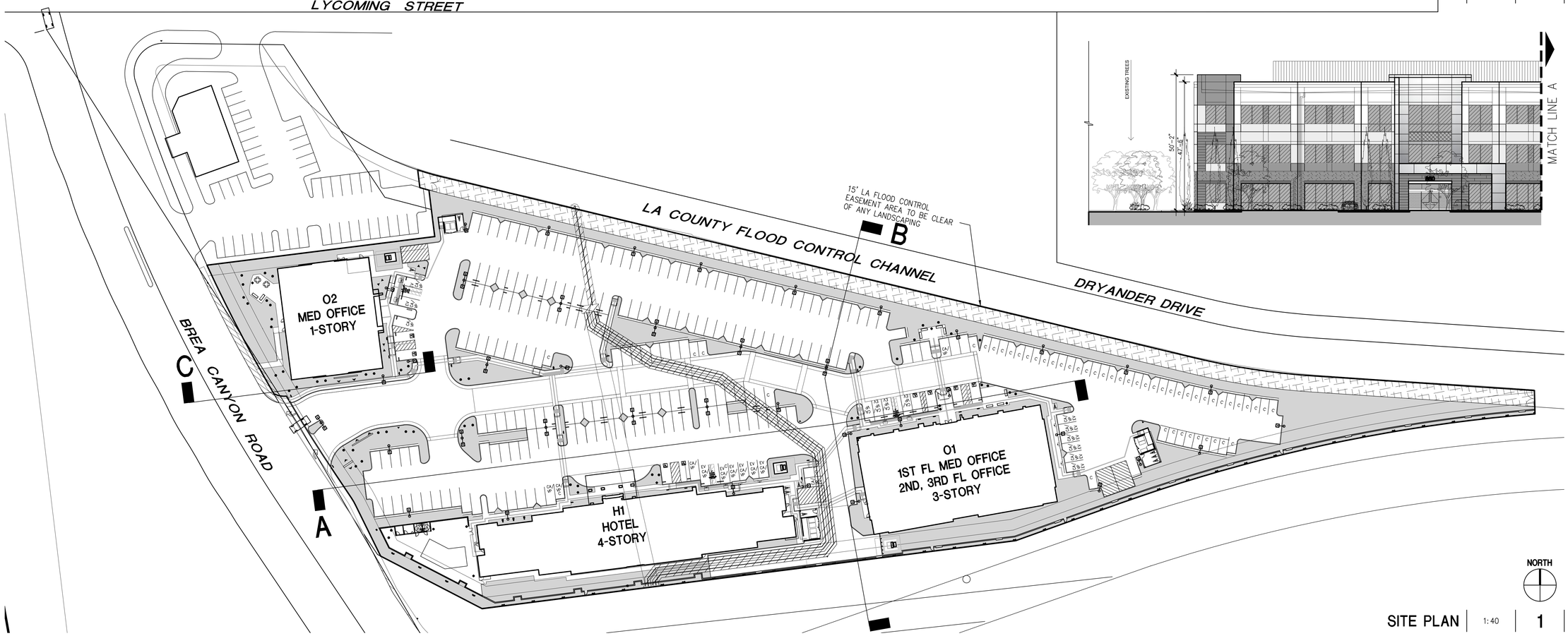
SECTION C | 1/16"=1'-0" | 3



SECTION B | 1/16"=1'-0" | 1A



SECTION A | 1/16"=1'-0" | 2



SITE PLAN | 1:40 | 1

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SITE SECTIONS

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STREET VIEW FROM BREA CANYON ROAD | NTS | 4



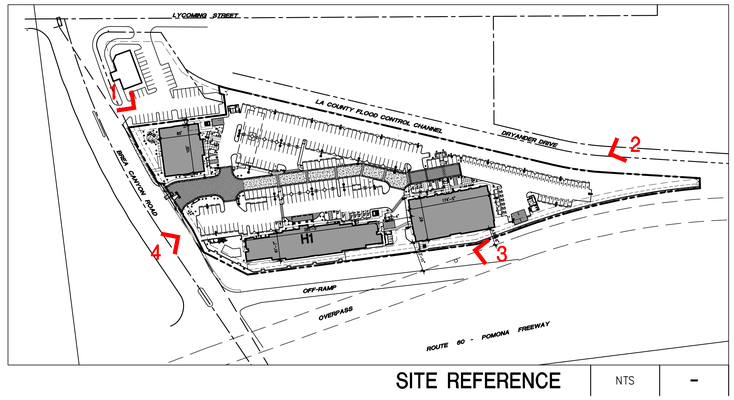
STREET VIEW FROM DRYANDER DRIVE | NTS | 2



VIEW FROM OFF RAMP | NTS | 3



VIEW FROM NORTH BREA CANYON ROAD | NTS | 1



SITE REFERENCE | NTS | -

BREA CANYON BUSINESS PARK

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PROJECT STREET VIEWS

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STREET VIEW WITH PROPOSED BUILDING AT DRYANDER DRIVE | NTS | 2





EXISTING STREET VIEW AT DRYANDER DRIVE | NTS | 1

BREA CANYON
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7	DESIGN REVIEW RESUBMITTAL	6/7/19

PROJECT
STREET VIEWS

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SHEET NO:
A1.7B

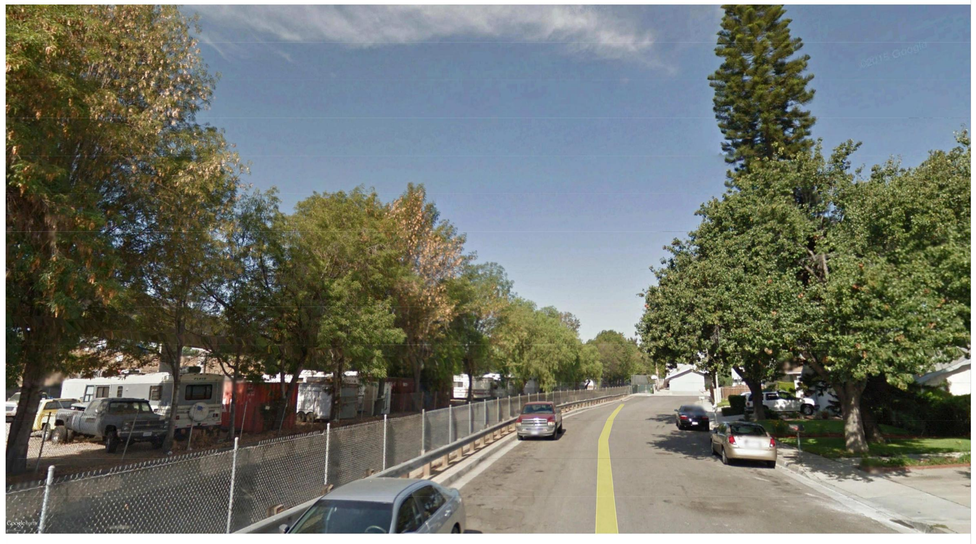
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STREET VIEW WITH PROPOSED BUILDING AT DRYANDER DRIVE | NTS | 2





EXISTING STREET VIEW AT DRYANDER DRIVE | NTS | 1



BREA CANYON
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PROJECT
STREET VIEWS

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DATE:	12/04/17
DRAWN:	GAA
FILE NAME:	SCD002_1.7C

SHEET NO:
A1.7C

Luminaire Schedule						
Symbol	Qty	Label	LLF	Description	Lum. Lumens	Lum. Watts
	8	FX-3	0.903	PHILIPS - CXFxx32-G2-5W5-16	4708	51.2
	29	FX-5A	0.849	PHILIPS - PIMA CXF548-G2-4W5-16	8028	75
	11	FX-5B	0.849	PHILIPS - PIMA CXF548-G2-4W5-16	8028	75
	80	V7	0.903	VIVID LTG - 4100k70ies1	2365	20.91

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
FRONT OF 01 MED	Illuminance	Fc	2.01	3.5	1.2	1.68	2.92
FRONT OF 02 MED _1	Illuminance	Fc	1.42	2.2	1.0	1.42	2.20
FRONT OF HOTEL	Illuminance	Fc	2.20	3.0	1.6	1.38	1.88
HOTEL PERIMETER WALL_Side_13_1	Illuminance	Fc	11.83	22	6	1.97	3.67
HOTEL PERIMETER WALL_Side_14_1	Illuminance	Fc	11.88	42	2	5.94	21.00
HOTEL PERIMETER WALL_Side_15_1	Illuminance	Fc	10.79	40	2	5.40	20.00
HOTEL PERIMETER WALL_Side_16	Illuminance	Fc	10.66	41	2	5.33	20.50
HOTEL PERIMETER WALL_Side_17	Illuminance	Fc	10.66	37	2	5.33	18.50
HOTEL PERIMETER WALL_Side_18	Illuminance	Fc	10.26	34	2	5.13	17.00
HOTEL PERIMETER WALL_Side_19	Illuminance	Fc	10.21	30	2	5.11	15.00
HOTEL PERIMETER WALL_Side_20	Illuminance	Fc	9.21	29	2	4.61	14.50
HOTEL PERIMETER WALL_Side_21	Illuminance	Fc	8.82	32	1	8.82	32.00
HOTEL PERIMETER WALL_Side_22	Illuminance	Fc	9.37	29	1	9.37	29.00
HOTEL PERIMETER WALL_Side_24	Illuminance	Fc	13.20	65	0	N.A.	N.A.
PARKING	Illuminance	Fc	2.26	7.0	0.9	2.51	7.78
PARKING PARK	Illuminance	Fc	2.46	3.4	1.9	1.29	1.79
POOL DECK	Illuminance	Fc	2.07	3.7	0.6	3.45	6.17
POOL WALL_Side_31	Illuminance	Fc	10.24	26	2	5.12	13.00
POOL WALL_Side_35	Illuminance	Fc	10.88	28	2	5.44	14.00
POOL WALL_Side_39	Illuminance	Fc	10.38	25	2	5.19	12.50
POOL WALL_Side_43	Illuminance	Fc	14.83	40	4	3.71	10.00
POOL WALL_Side_44	Illuminance	Fc	9.45	39	1	9.45	39.00
POOL WALL_Side_48	Illuminance	Fc	10.62	28	2	5.31	14.00
POOL WALL_Side_52	Illuminance	Fc	13.50	28	3	4.50	9.33
POOL WALL_Side_53	Illuminance	Fc	8.57	49	0	N.A.	N.A.
POOL WALL_Side_54	Illuminance	Fc	0.41	1	0	N.A.	N.A.
POOL WALL_Side_55	Illuminance	Fc	1.00	1	1	1.00	1.00



Project:
Location:
Cat No
Type
Lamps Qty
Notes:

The Philips Hadco Pima pendant family offers a simple modern take on the traditional pendant lantern, providing style and elegance to downtown areas, commercial developments, parks and residential communities. These pendants use the latest LED technology which maximizes energy savings and provides uniform and comfortable light.

Ordering guide: Luminaire

Example: CXF4-32-G2-A-A-2-W-A-3-OA-AST-SP2-N

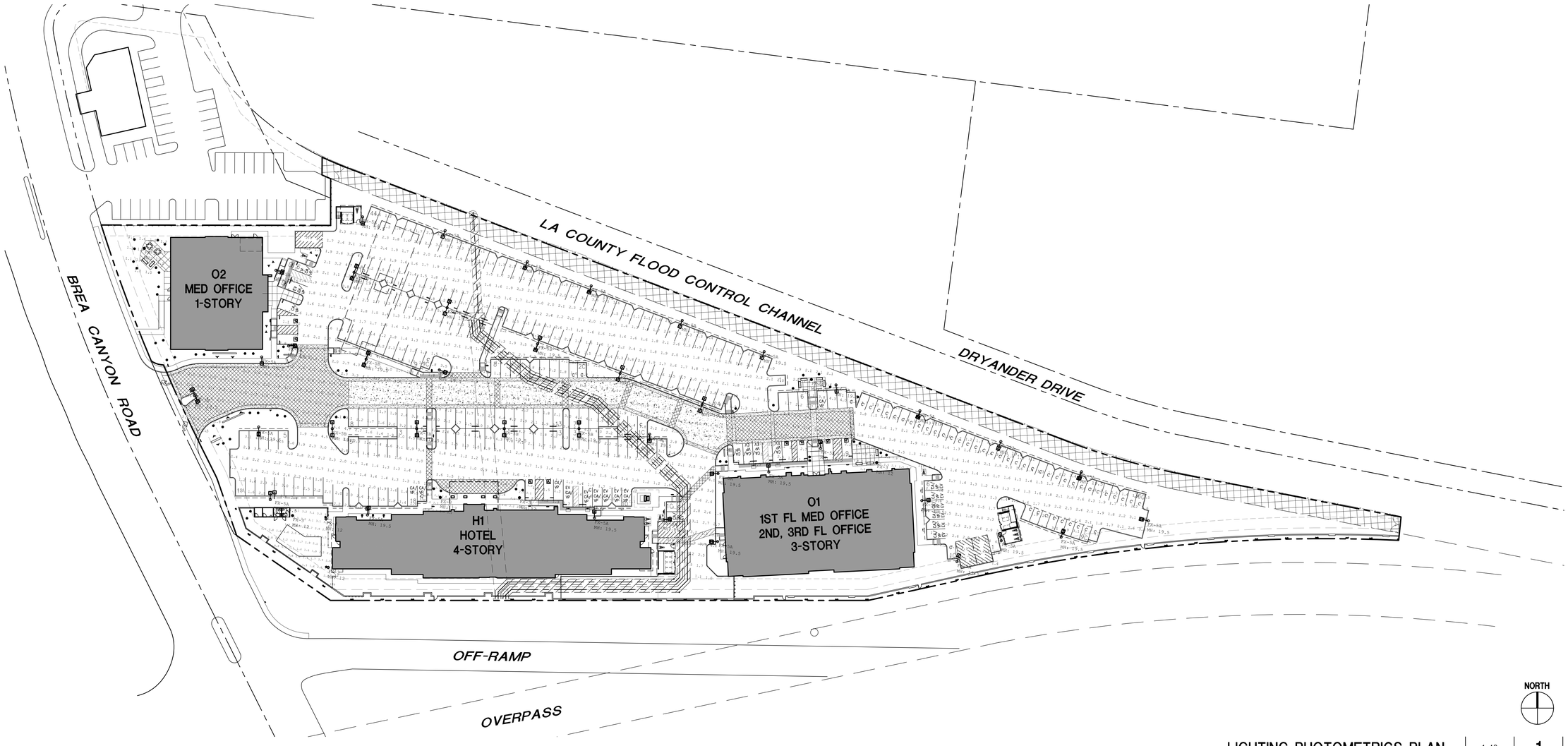
Series	LED's	Generation	Mounting	Finish	Optics	CCT	Voltage	Drive current
CXF5 Pima	32[1] 32 LEDs 48 48 LEDs 64 64 LEDs 80[1] 80 LEDs	G2	T Top arm	A Black B White G Verde H Bronze I Gray J Green	2 Type II 3 Type III 4 Type IV 5 Type V	W 3000K N 4000K	A 120-277 VAC B[2][3] 347-480 VAC	3 350mA 5 530 mA 7[2] 700mA

Ordering guide (continued)

Optional dimming	Optional programs: 1st option	2nd option	3rd option	Surge protection	Luminaire options
OA 4 Hrs 25% Reduction OB 4 Hrs 50% Reduction OC 4 Hrs 75% Reduction OD 6 Hrs 25% Reduction OE 6 Hrs 50% Reduction OF 6 Hrs 75% Reduction OG 8 Hrs 25% Reduction OH 8 Hrs 50% Reduction OJ 8 Hrs 75% Reduction DALI Compatible with DALI N No dimming	AST Adjustable start up N No 1st option	CLO Constant light output N No 2nd option	OTL Over the life N No 3rd option	SP1 10kV/10kA SP2 20kV/20kA	H House side shield N No options

Footnotes
1. 32 LED at 350mA and 320mA are not compatible with 347-480V.
2. Can't use 700mA with 80 LED's.
3. 347-480V not compatible with optional dimming or optional programming.

LIGHT FIXTURE: CXF5
FIXTURE COLOR: WHITE



LEGEND - SITE PLAN

- NEW FIRE HYDRANT 6" X 4" X 2 1/2" BRASS OR BRONZE
- LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS
- PATH OF TRAVEL
- FIRE LANE – PER FIRE DEPARTMENT REQUIREMENTS
- 02,01,H1 – BLDGS FOR ENTITLEMENTS
- LIGHT FIXTURE – PP5 – MAX. HT. AT 20'
- LIGHT FIXTURE – P26 – MAX. HT. AT 20'
- C COMPACT PARKING SPACE
- EV CA/ CP ELECTRIC VEHICLE, CLEAN AIR, AND VANPOOL PARKING SPACE

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DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

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2	DESIGN REVIEW SUBMITTAL	3/21/18
3	DESIGN REVIEW SUBMITTAL	6/18/18
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5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/7/19

SITE PHOTOMETRIC
OVERALL SITE PLAN

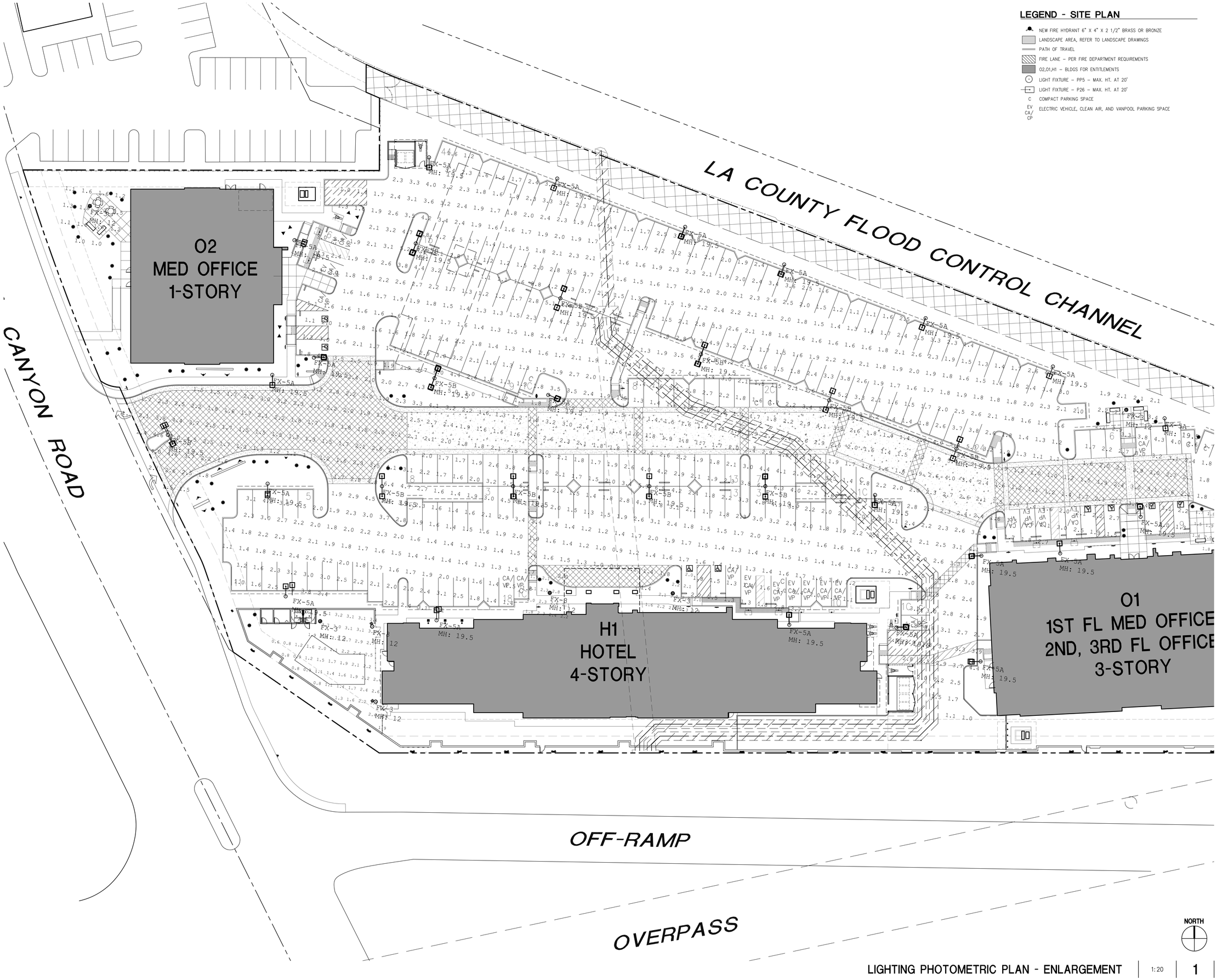
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FILE NAME:	SCD002_1.8

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LIGHTING PHOTOMETRICS PLAN | 1: 40 | 1



LIGHTING PHOTOMETRIC PLAN - ENLARGEMENT | 1:20 | 1

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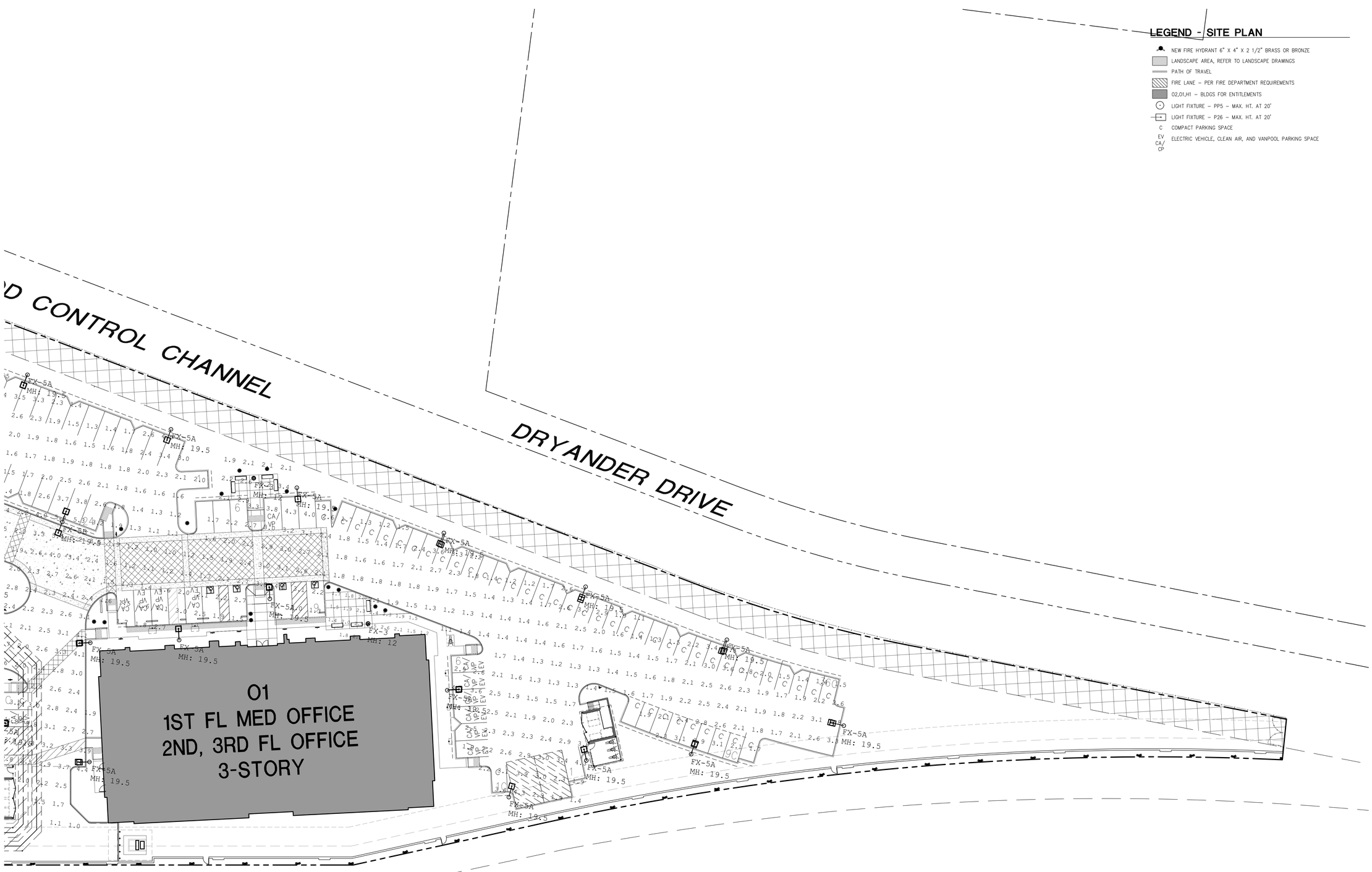
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7	DESIGN REVIEW RESUBMITTAL	6/7/19

SITE PHOTOMETRIC
SITE PLAN ENLARGEMENT

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LEGEND - SITE PLAN

- NEW FIRE HYDRANT 6" X 4" X 2 1/2" BRASS OR BRONZE
- LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS
- PATH OF TRAVEL
- FIRE LANE – PER FIRE DEPARTMENT REQUIREMENTS
- 02,01,H1 – BLDGS FOR ENTITLEMENTS
- LIGHT FIXTURE – PP5 – MAX. HT. AT 20'
- LIGHT FIXTURE – P26 – MAX. HT. AT 20'
- C – COMPACT PARKING SPACE
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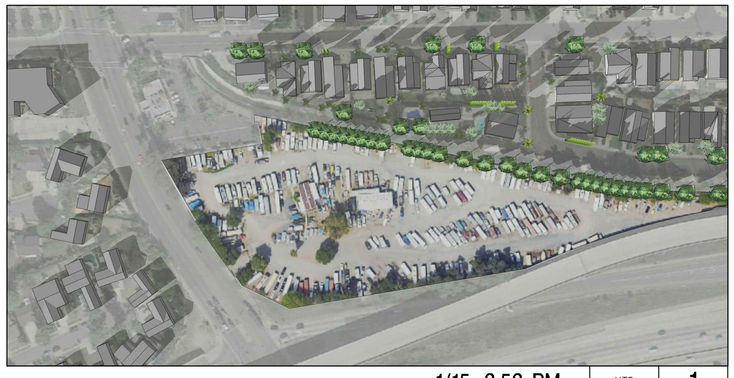
SITE PHOTOMETRIC
SITE PLAN ENLARGEMENT

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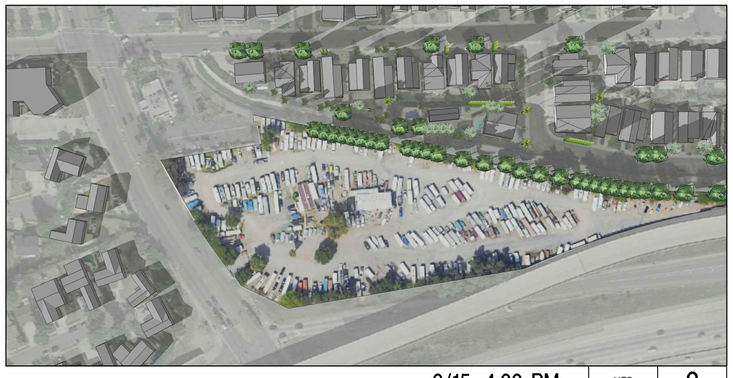
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LIGHTING PHOTOMETRIC PLAN - ENLARGEMENT | 1:20 | 1

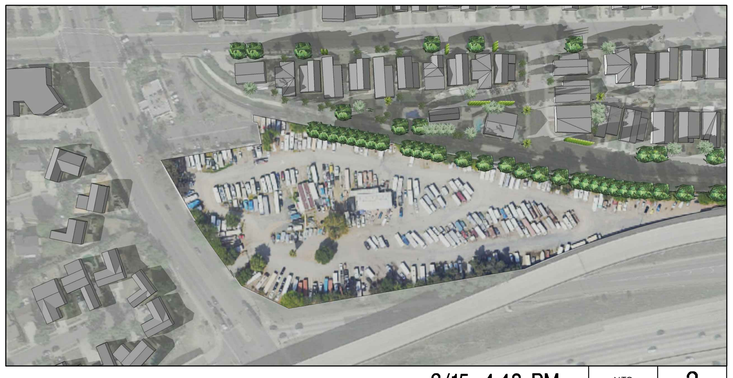
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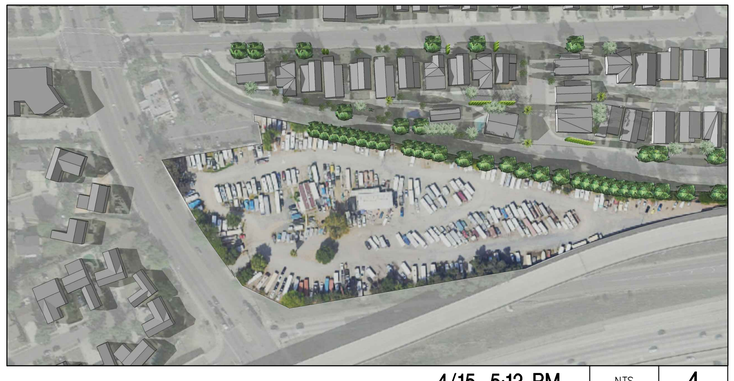
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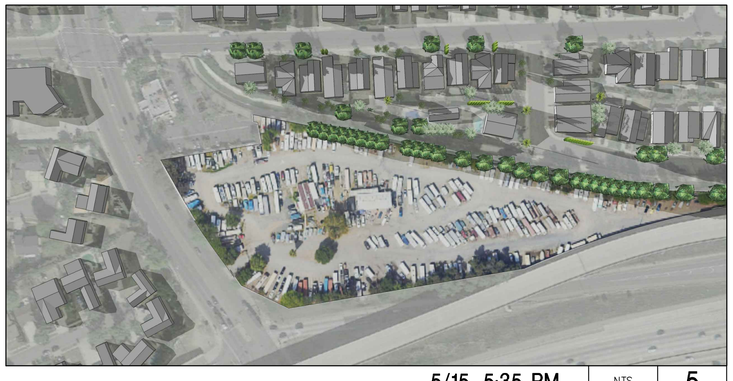
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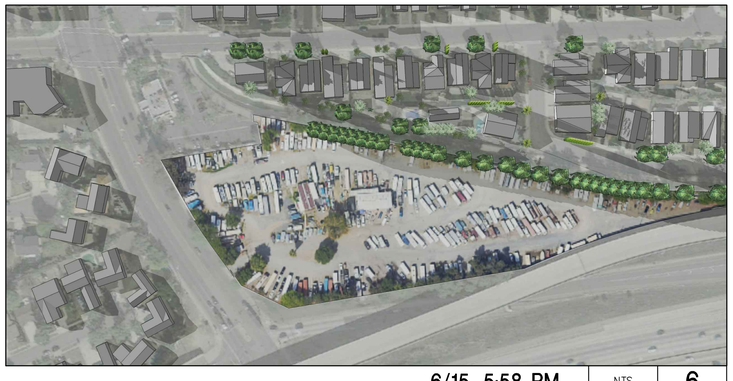
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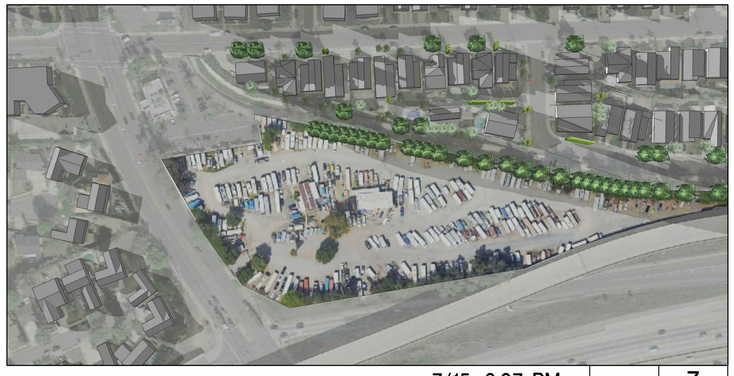
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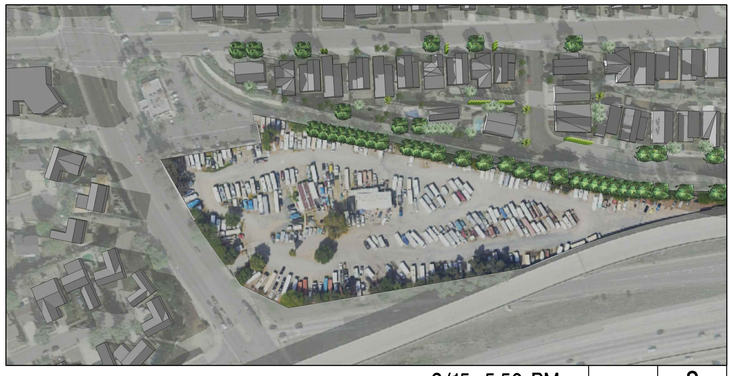
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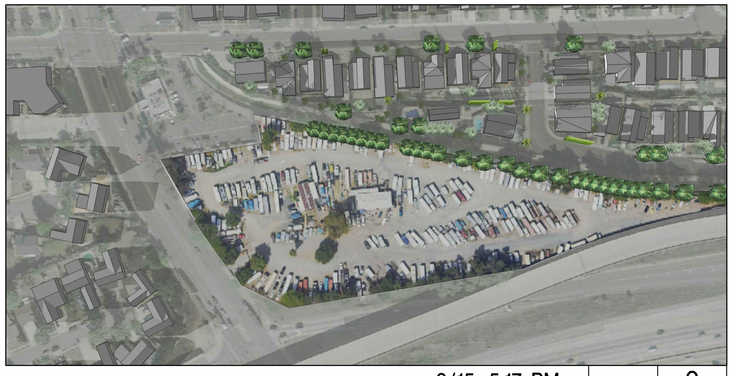
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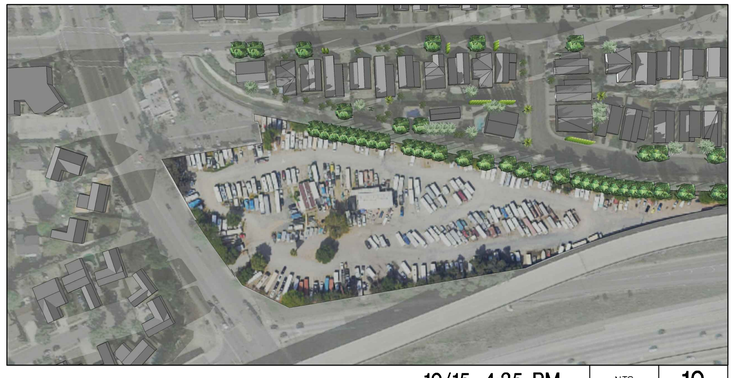
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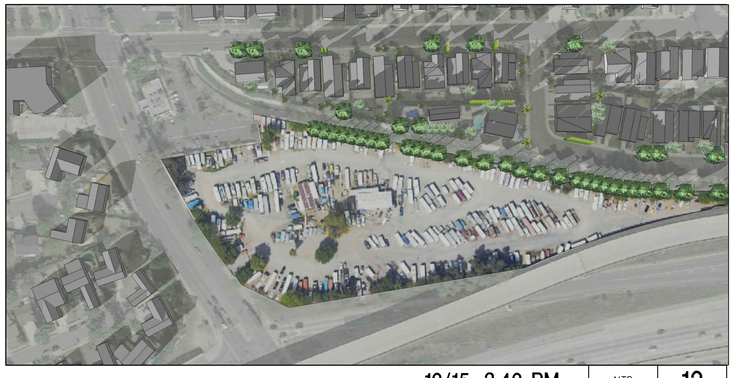
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SHADE SHADOW STUDY
EXISTING SITE CONDITION

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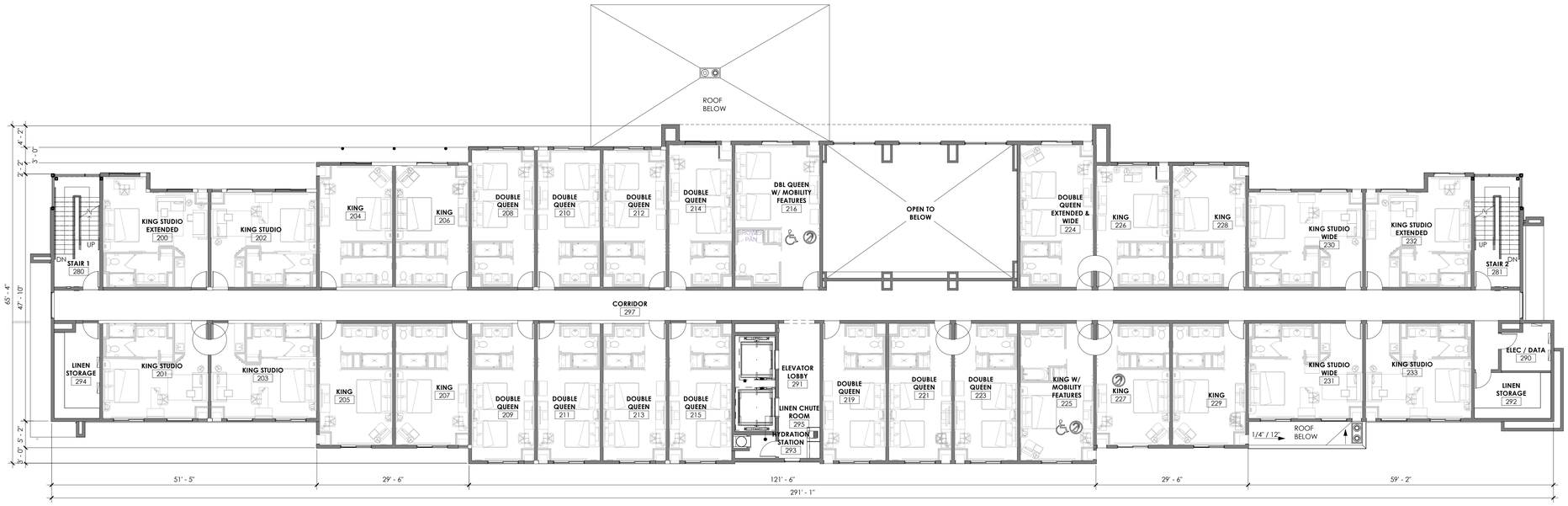
SITE SHADOW STUDY
PROPOSED DEVELOPMENT

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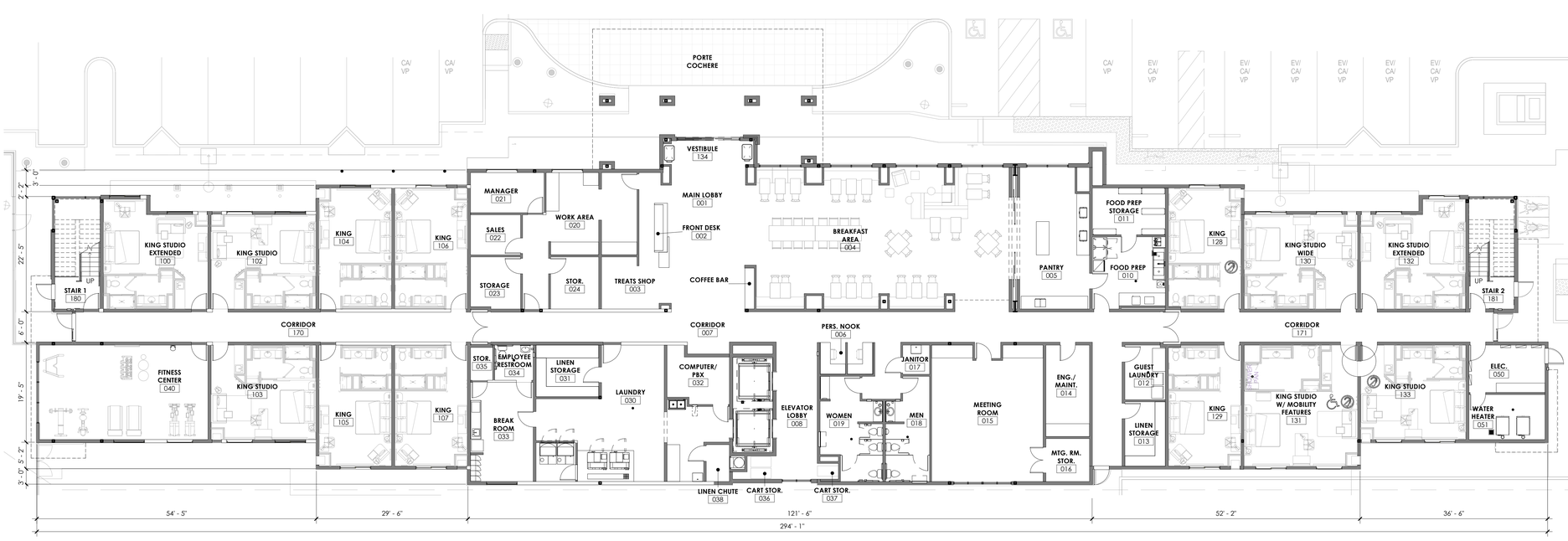
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2 SECOND FLOOR PLAN (30 ROOMS)

1" = 10'-0"

TRUE NORTH PROJECT NORTH



1 FIRST FLOOR PLAN (13 ROOMS)

1" = 10'-0"

TRUE NORTH PROJECT NORTH



1A POOL EQUIPMENT BUILDING FLOOR PLAN

1" = 10'-0"

TRUE NORTH PROJECT NORTH

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H1
HOTEL FLOOR PLANS

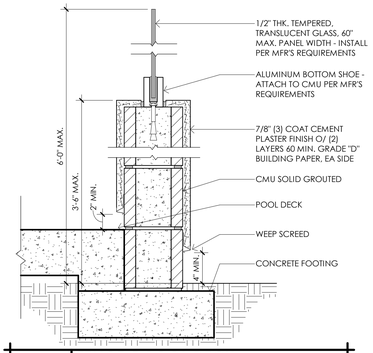
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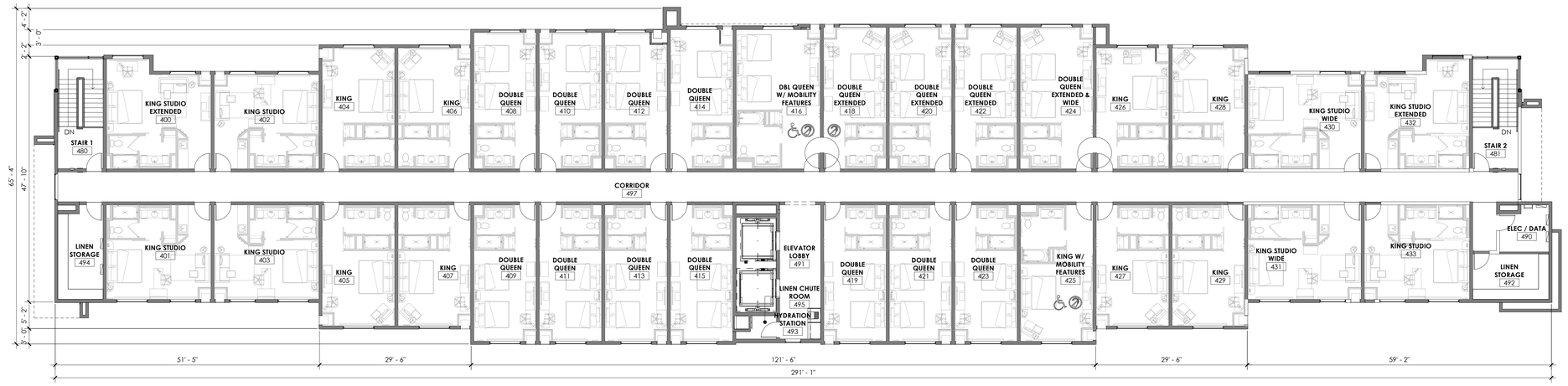
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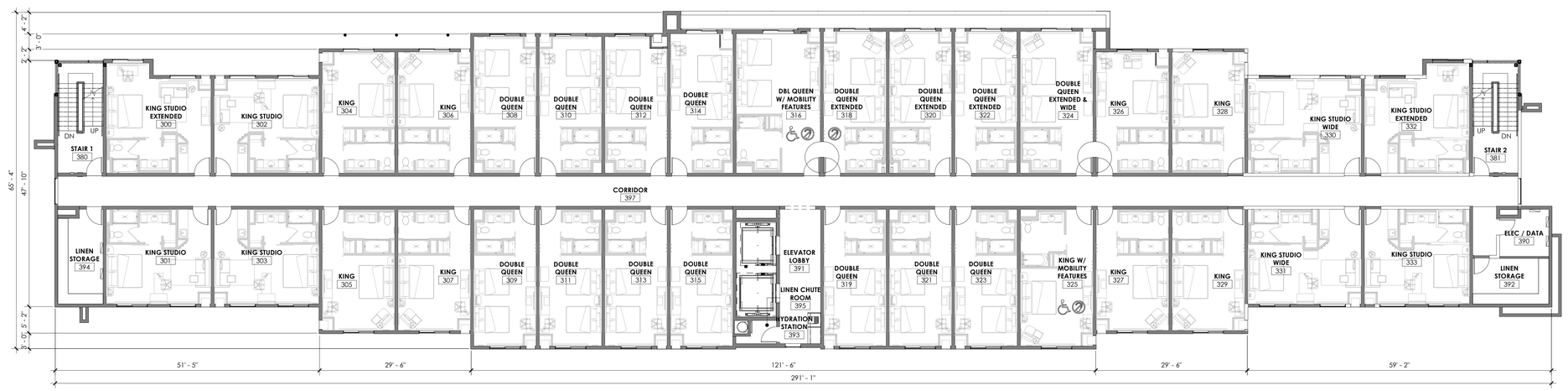
A2.1



3 FENCE @ POOL DECK
1 1/2" = 1'-0"



2 FOURTH FLOOR PLAN (33 ROOMS)
1" = 10'-0"



1 THIRD FLOOR PLAN (33 ROOMS)
1" = 10'-0"

TRUE NORTH PROJECT NORTH

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H1
HOTEL FLOOR PLANS

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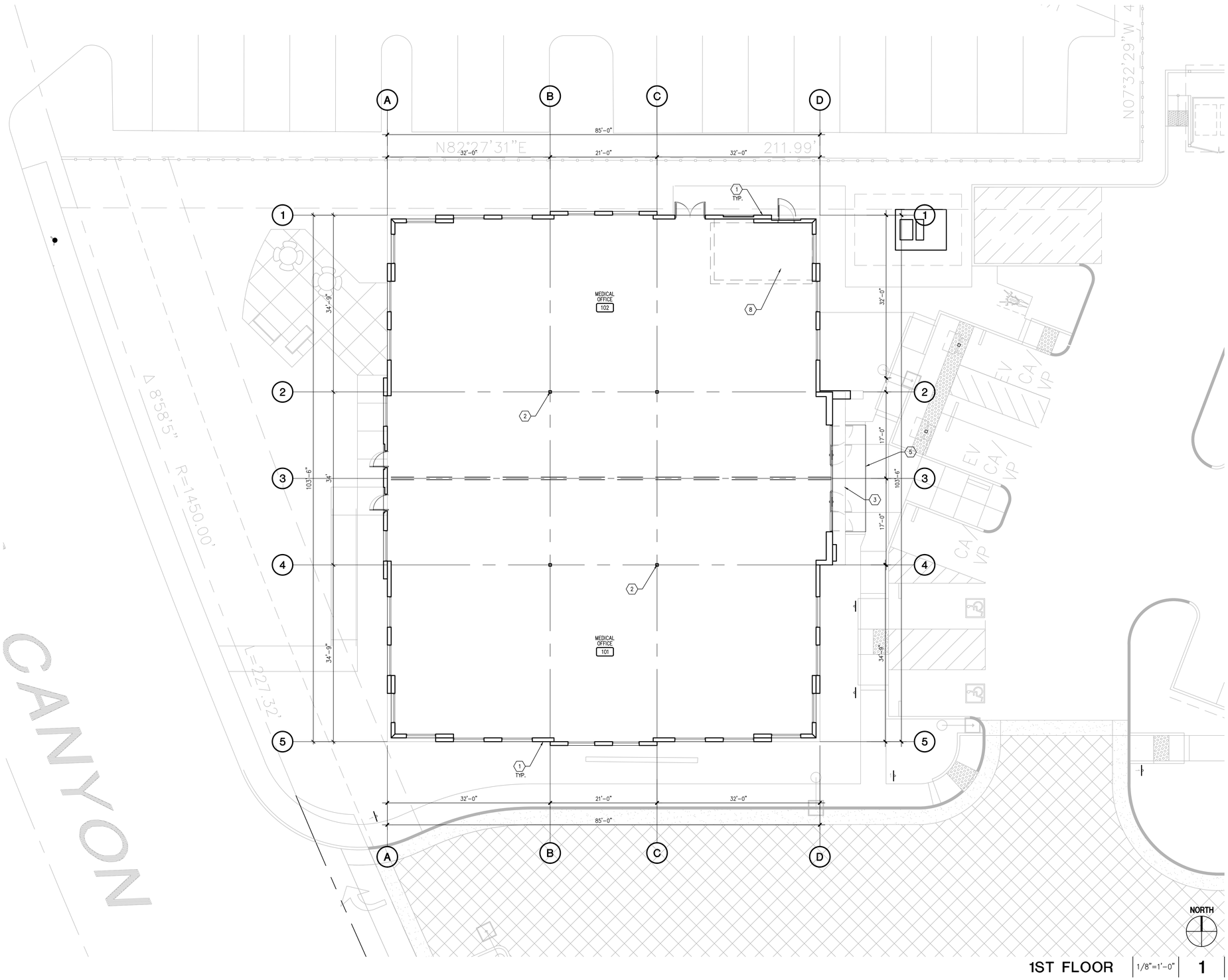
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KEYNOTES - MOB FLOOR PLAN

1. TILT UP CONCRETE PANEL
2. STRUCTURAL STEEL COLUMN
3. TYPICAL STOREFRONT SYSTEM W/ GLAZING
4. MAIN TELE. BACKBOARD
5. LINE OF CANOPY
6. CONCRETE SLAB
7. LINE OF TOWER ABOVE – WHERE OCCURS
8. ELEC. ROOM
9. ELEVATOR
10. UNISEX RESTROOMS/RESTROOMS

GENERAL NOTES - MOB FLOOR PLAN

1. ALL DIMENSIONS ARE TO FACE OF WALL, GRIDLINE, OR FACE OF FINISHED WALL U.N.O.
2. PROVIDE SIGN ON INSIDE OF EXTERIOR DOORS STATING "EXIT CONTAINS A STAIR" AT ALL REQUIRED AND NON-REQUIRED EXITS THAT ARE NOT ACCESSIBLE BY A RAMP. EXIT ONLY DOORS WHICH ARE NOT ACCESSIBLE TO THE DISABLED SHALL NOT HAVE ENTRY HARDWARE.
3. PROVIDE A "NO SMOKING WITHIN 25 FEET OF BUILDING" SIGN AT BUILDING ENTRIES, OUTDOOR AIR INTAKES AND OPERABLE WINDOWS (EXCEPT EMERGENCY EXIT ONLY AND ELECTRICAL/UTILITY ROOMS).
4. ADEQUATE NUMBER OF PLUMBING FIXTURES SHALL BE PROVIDED TO COMPLY WITH THE CALIFORNIA PLUMBING CODE TABLE 422.1 PRIOR TO CERTIFICATE OF OCCUPANCY OF THE BUILDING OR THE RESPECTIVE TENANT SPACE.
5. BUILDING SIGNAGE UNDER SEPARATE PERMIT.
6. FIRE EXTINGUISHERS SHALL BE PROVIDED PER 2013 CFC.
7. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
8. REFER TO PLUMBING DRAWINGS FOR FLOOR DRAIN WHERE OCCURS.
9. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL
10. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED W/ SECONDARY POWER SOURCE.
11. ANY TIME A BUILDING OR A PORTION OF A BUILDING IS OCCUPIED, THE MEANS OF EGRESS SERVING THE OCCUPIED PORTION SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THAN 1-FOOT-CANDLE (11 LUX) AT THE WALKING SURFACE LEVEL.
12. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL BE PROVIDED BY THE PREMISES' ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, ILLUMINATION SHALL BE AUTOMATICALLY PROVIDED FROM AN EMERGENCY SYSTEM FOR THE FOLLOWING AREAS:
13. AISLES AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS
14. EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1008.1.6, FOR EXIT DISCHARGE DOORWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS
15. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1-FOOT-CANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF 0.1-FOOT-CANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED.



1ST FLOOR | 1/8"=1'-0" | 1

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7	DESIGN REVIEW RESUBMITTAL	6/7/19

O2
MEDICAL OFFICE BUILDING
FLOOR PLAN

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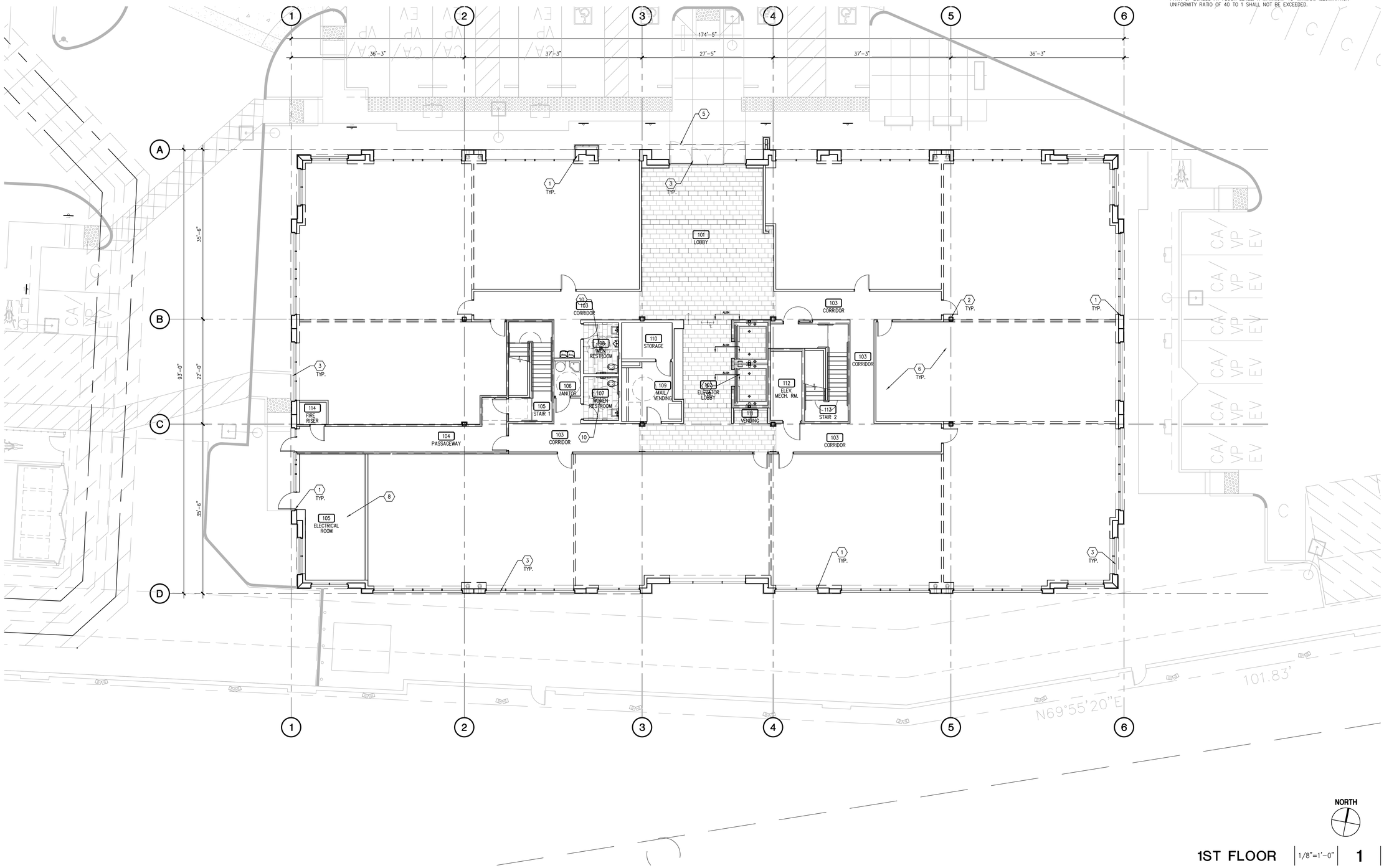
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A2.3

KEYNOTES - OFFICE FLOOR PLAN

1. TILT UP CONCRETE PANEL
2. STRUCTURAL STEEL COLUMN
3. TYPICAL STOREFRONT SYSTEM W/ GLAZING
4. MAIN TELE. BACKBOARD
5. LINE OF CANOPY
6. CONCRETE SLAB
7. LINE OF TOWER ABOVE – WHERE OCCURS
8. ELEC. ROOM
9. ELEVATOR
10. RESTROOMS
11. FLOOR ASSEMBLY

GENERAL NOTES - OFFICE FLOOR PLAN

1. ALL DIMENSIONS ARE TO FACE OF WALL, GRIDLINE, OR FACE OF FINISHED WALL U.N.O.
2. PROVIDE SIGN ON INSIDE OF EXTERIOR DOORS STATING "EXIT CONTAINS A STAIR" AT ALL REQUIRED AND NON-REQUIRED EXITS THAT ARE NOT ACCESSIBLE BY A RAMP. EXIT ONLY DOORS WHICH ARE NOT ACCESSIBLE TO THE DISABLED SHALL NOT HAVE ENTRY HARDWARE.
3. PROVIDE A "NO SMOKING WITHIN 25 FEET OF BUILDING" SIGN AT BUILDING ENTRIES, OUTDOOR AIR INTAKES AND OPERABLE WINDOWS (EXCEPT EMERGENCY EXIT ONLY AND ELECTRICAL/UTILITY ROOMS).
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5. BUILDING SIGNAGE UNDER SEPARATE PERMIT.
6. FIRE EXTINGUISHERS SHALL BE PROVIDED PER 2013 CFC.
7. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
8. REFER TO PLUMBING DRAWINGS FOR FLOOR DRAIN WHERE OCCURS.
9. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL.
10. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED W/ SECONDARY POWER SOURCE.
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01
MEDICAL OFFICE BUILDING
1ST FLOOR PLAN

NORTH

1ST FLOOR | 1/8"=1'-0" | 1

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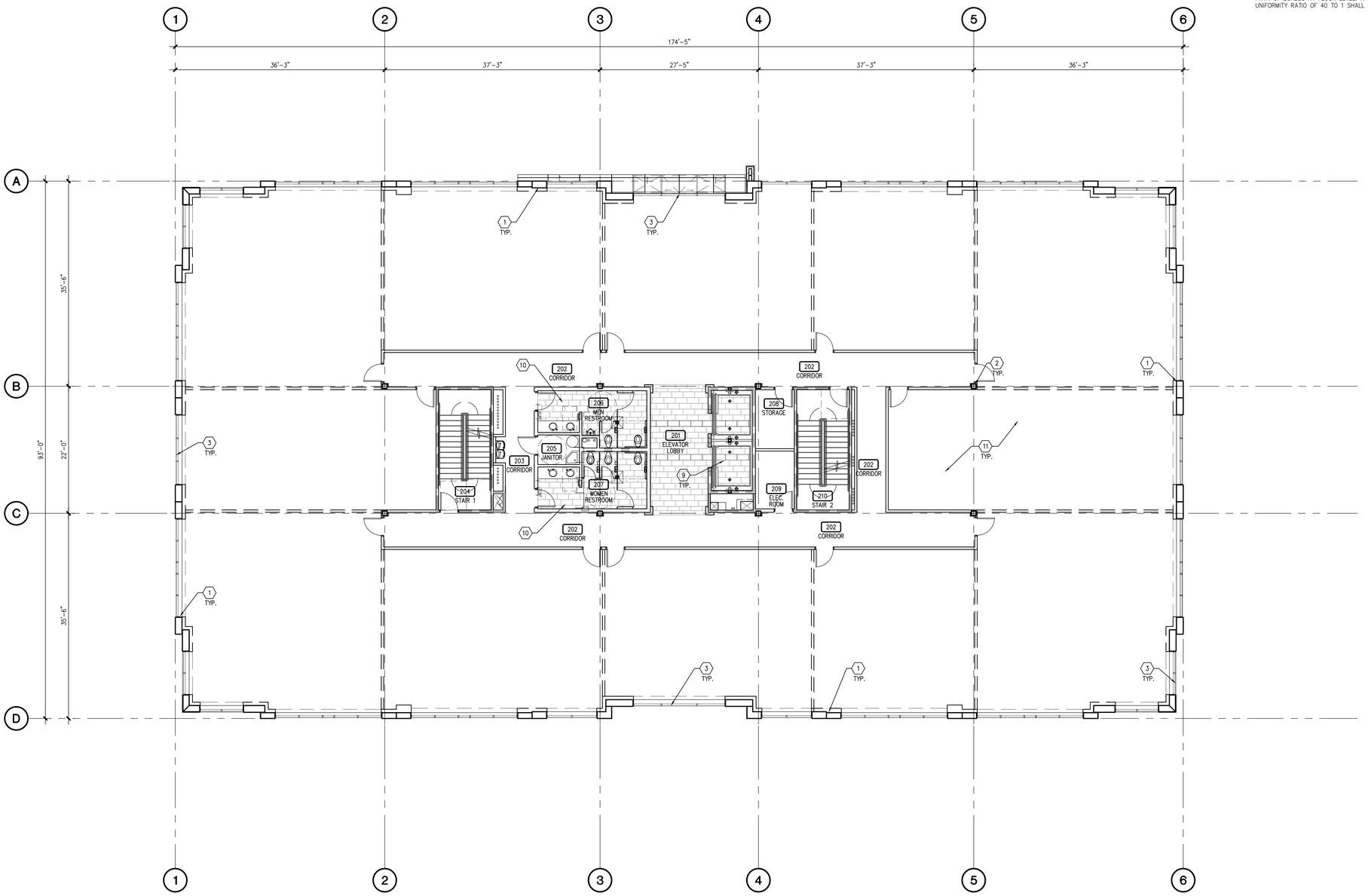
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DATE: 12/04/17	
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FILE NAME: SCD002_2.4	

KEYNOTES - OFFICE FLOOR PLAN

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O1
OFFICE BUILDING
2ND FLOOR PLAN

NORTH

2ND FLOOR | 1/8"=1'-0" | 1

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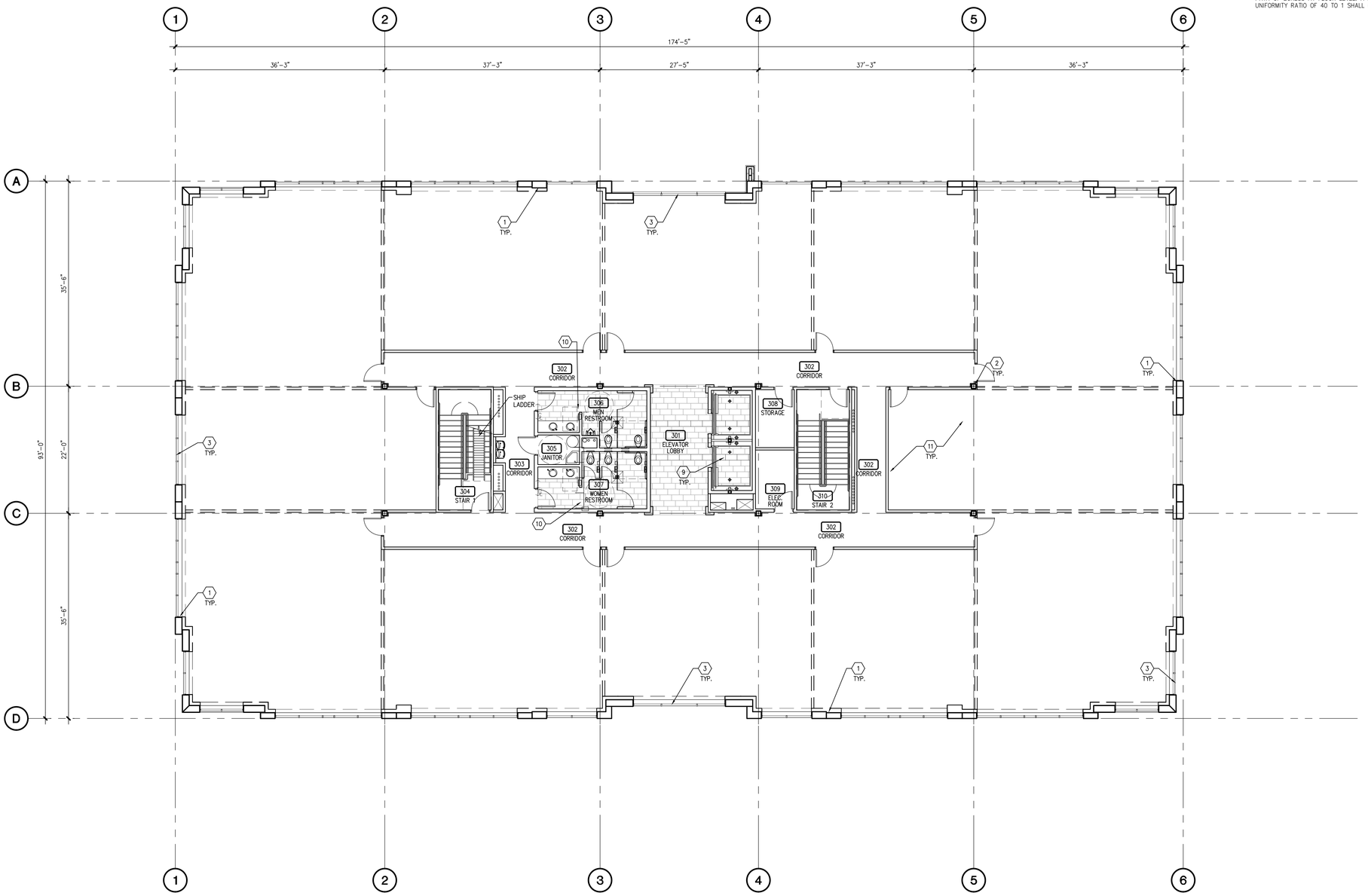
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FILE NAME:	SCD002_2.5		

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O1
OFFICE BUILDING
3RD FLOOR PLAN

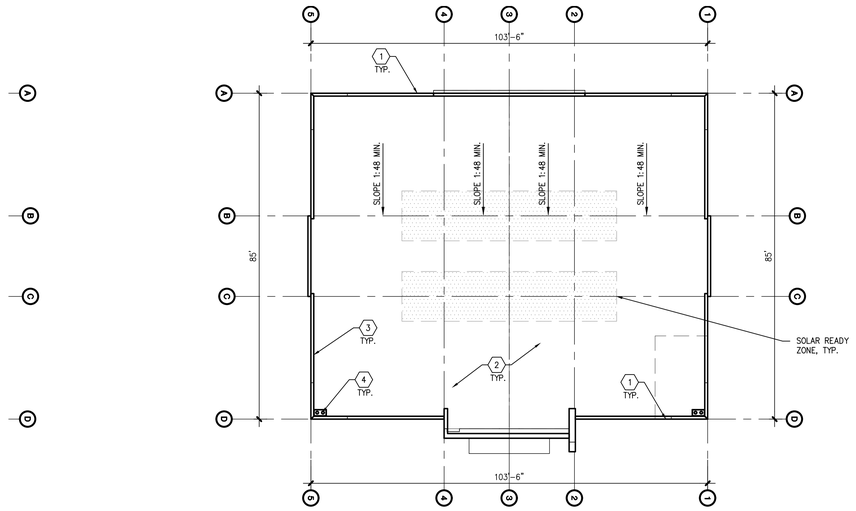
NORTH

3RD FLOOR | 1/8"=1'-0" | 1

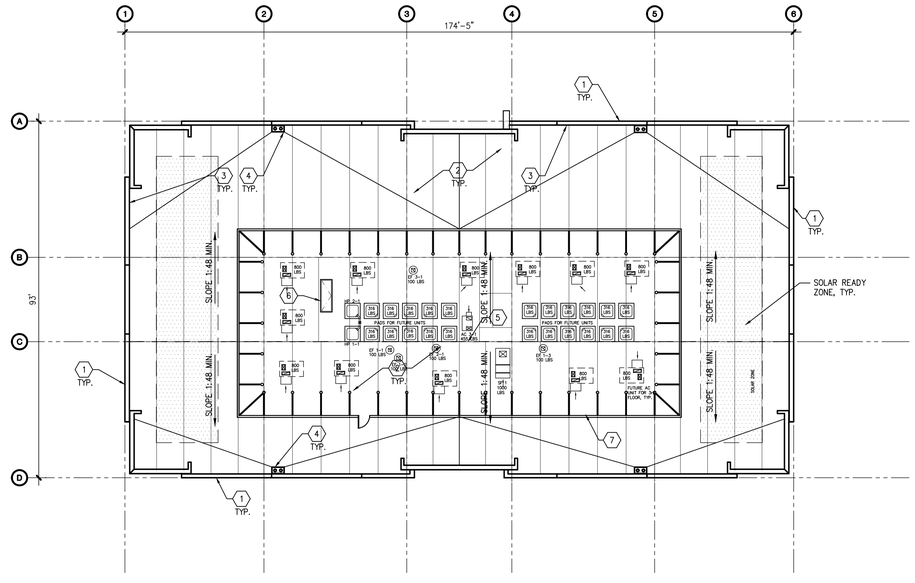
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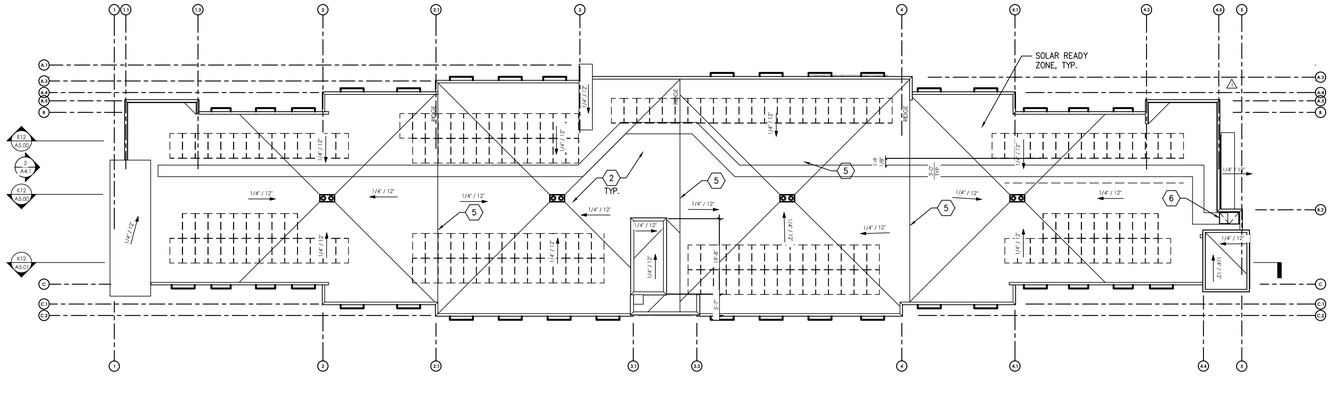
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O2 MEDICAL OFFICE ROOF PLAN | 1/16"=1'-0" | 3



O1 OFFICE ROOF PLAN | 1/16"=1'-0" | 2



H1 HOTEL ROOF PLAN | 1/16"=1'-0" | 1

KEYNOTES - ROOF PLAN

1. TILT-UP CONCRETE WALL PANEL (PAINTED, ALL EXTERIOR SURFACES)
2. 4 PLY MINERAL CAP SHEET FACED BUILT-UP ROOF (CLASS A, U.L. 790) OVER ROOF SHEATHING
3. BASE FLASHING WITH 4" FIBER CANT WITH PRE-FABRICATED COUNTER FLASHING,
4. ROOF DRAIN W/ OVERFLOW DRAIN
5. RIDGE LINE OF ROOF
6. ROOF HATCH
7. MECHANICAL SCREEN

SOLAR READY ZONE:
ROOF AREA X 15% = SOLAR ZONE READY ZONE SF. REQUIRED

HOTEL 15,284 SF Z 15% = 2,293 SF
RETAIL 9,500 SF X 15% = 1,425 SF
OFFICE 16,000 SF X 15% = 2,400 SF

GENERAL NOTES - ROOF PLAN

1. ALL PENETRATIONS, CONDUITS, PIPES, ETC. BY ALL TRADES AND DISCIPLINES SHALL CONFORM TO THE TYPICAL DETAILS.
2. COORDINATE INSTALLATION OF ROOFING MATERIALS WITH OWNER'S ROOFING CONSULTANT IF ANY.
3. PAINT INSIDE OF PARAPET.
4. THE LOCATIONS OF BEAMS, CURBS AND PLATFORMS BELOW MECHANICAL UNITS AND MECHANICAL PENETRATIONS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE MECHANICAL CONTRACTOR AND COORDINATED BY THE GENERAL CONTRACTOR.

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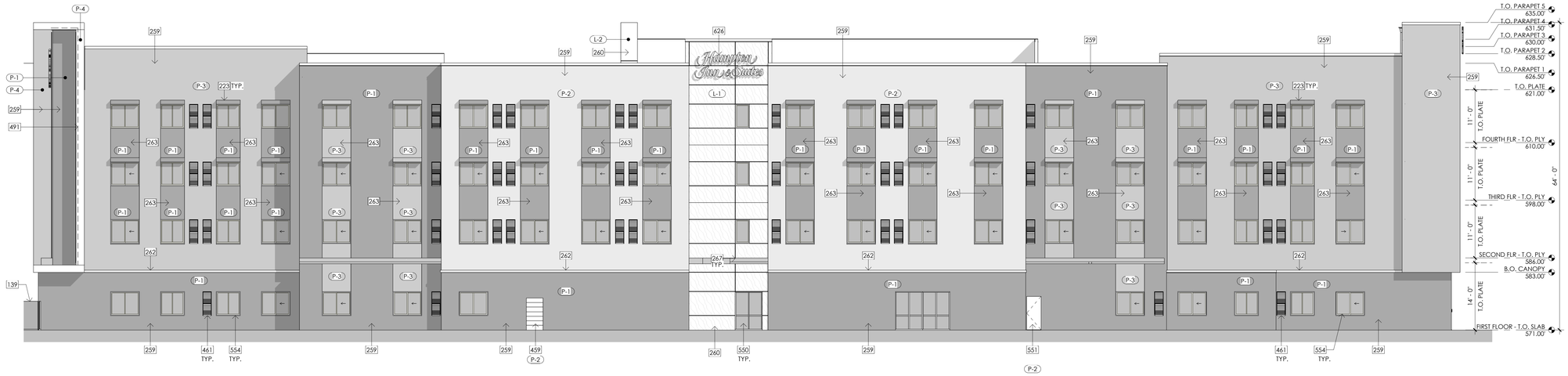
O2, O1, H1 ROOF PLANS

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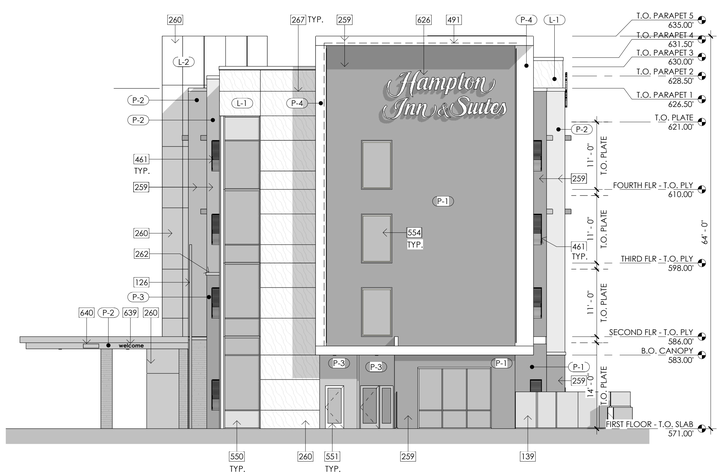
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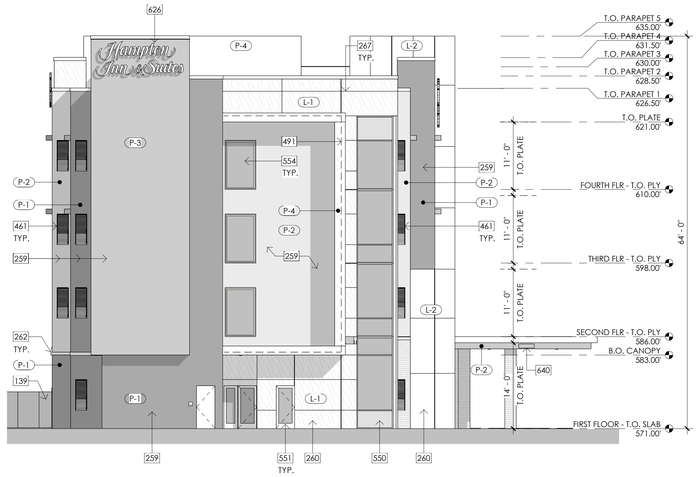
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1 SOUTH ELEVATION
1" = 10'-0"



2 WEST ELEVATION
1" = 10'-0"



3 EAST ELEVATION
1" = 10'-0"



4 NORTH ELEVATION
1" = 10'-0"

COLORS AND MATERIALS

STUCCO: 3 COAT 20/30 FINE SAND COAT

ROOF TOPPING: 60 MIL TPO
LOWER ROOFS: TAN COLOR

GLASS/WINDOWS: CLEAR ANODIZED ALUMINUM
WINDOW WITH INSULATED GLASS
MANUF: WOJAN: STYLE: M85 w/FINS

ALUMINUM STOREFRONT: CLEAR ANODIZED ALUMINUM STOREFRONT
MANUF: ARCADIA: STYLE: AFG451 WITH 1" VIRACON VNE30-59 OPTIGRAY INSULATED GLASS

PAINT COLORS: BENJAMIN MOORE
NOTE: PAINT COLOR, CHANGES SHALL ONLY OCCUR AT INSIDE CORNERS. IF THERE ARE ANY DISCREPANCIES, CONTACT ARCHITECT. PAINT COLORS OVER STUCCO SURFACES, SEE FLOOR PLANS & WALL ASSEMBLIES.

P-1 BENJAMIN MOORE: 1616 "STORMY SKY"
P-2 BENJAMIN MOORE: 2151-60 "LINEN SAND"
P-3 BENJAMIN MOORE: 1536 "NORTHERN CLIFFS"
P-4 BENJAMIN MOORE: 879 "WHITE OPULENCE"

LAMINATE PANELS

L-1 TRESPA PURA: MATT FINISH "ROMANTIC WALNUT"
L-2 EQUITONE: TECTIVA "TE90"

STONE VENEER

M-3 CORONADO STONE: PRO-LEDGE "BLACK FOREST"

GENERAL NOTES

1. ALL ROOF TOP EQUIPMENT, PLUMBING, VENTS, CONDENSING UNITS, EXHAUST FANS, BOILER FLUES, ETC., ARE TO BE CONCEALED FROM VIEW BEHIND PARAPET WALLS.
2. DO NOT EXCEED (5) STRUCTURAL BAYS WITHOUT INTRODUCING A VERTICAL ELEMENT (I.E. BUILDING OFFSET, PLASTER, ETC.)

BUILDING SIGNAGE

1. ALL SIGNAGE INDICATED FOR ILLUSTRATIVE PURPOSES ONLY. LOCATION, SIZE, ETC. TO BE DETERMINED ON AN INDIVIDUAL PROJECT BASIS.
2. MINIMUM 3/4" PLYWOOD BACKERBOARD REQUIRED AT SIGN LOCATIONS. AREA SHOULD COVER ENTIRE LENGTH AND HEIGHT OF FASCIA OR SPACE AVAILABLE FOR SIGN.
3. ELECTRICAL AND FINAL CONNECTION BY CONTRACTOR. ELECTRICAL REQUIREMENTS MAY BE OBTAINED FROM SIGN COMPANY. TYPICAL 120V REQUIREMENT.
4. RACEWAYS / WIREWAYS ARE NOT ALLOWED
5. PERMANENT ACCESS DOORS TO INTERIOR OF ALL PARAPETS WHERE SIGNS ARE LOCATED TO BE PROVIDED BY CONTRACTOR. CONTRACTOR TO FURNISH AND CONNECT PRIMARY ELECTRICAL SERVICE INSIDE PARAPET WALL.
6. GUESTROOMS OR PUBLIC SPACES WITH SIGNAGE ON EXTERIOR WALLS MUST HAVE ELECTRICAL PENETRATIONS AND/OR REMOTE TRANSFORMERS COORDINATED AND/OR INSTALLED PRIOR TO CLOSING UP THE WALL. PENETRATION LAYOUT MAY BE OBTAINED FROM SIGN COMPANY.

REFERENCE NOTES

126 30' FLAGPOLE, ILLUMINATED W/ GROUND-MOUNTED DUSK TO DAWN LIGHT, S.E.D.
139 MINIMUM 48" POOL AREA FENCE, PER HILTON STANDARDS.
223 CANTILEVERED CANOPY ABOVE WINDOW, S.S.D.
259 7/8" CEMENT PLASTER STUCCO, SMOOTH STUCCO, SEE COLORS & MATERIALS.
260 HIGH PRESSURE LAMINATE (HPL) PANELS, SEE COLORS & MATERIALS.
262 TRIM BAND.
263 RECESSED WALL AREA.
267 CONTROL JOINT.
275 STONE VENEER, SEE COLORS & MATERIALS.
459 WALL EXHAUST FAN, S.M.D.
461 EXTERIOR GRILLE AT VTAC UNIT, PAINT TO MATCH ADJACENT SURFACE , S.M.D.
491 EXTERIOR LED STRIP LIGHT EQUIVALENT TO ACCLAIM MODEL FLEXPE3 WITH FLKEXL TRACK RATED AT 3000k AND 5.5 W/FT, S.E.D.
550 ALUMINUM STOREFRONT, SEE STOREFRONT SCHEDULE AND TYPES.
551 EXTERIOR DOOR, SEE DOOR SCHEDULE AND TYPES.
554 ALUMINUM WINDOW, SEE WINDOW SCHEDULE AND TYPES.
626 HOTEL WALL SIGNAGE, UNDER SEPARATE PERMIT.
639 WELCOME SIGNAGE, UNDER SEPARATE PERMIT.
640 CLEARANCE SIGN, UNDER SEPARATE PERMIT.

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H1
HOTEL FLOOR PLANS

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SHEET NO: A4.1



1 A4.1 SCALE: 1" = 10'-0"

SOUTH ELEVATION



2 A4.1 SCALE: 1" = 10'-0"

WEST ELEVATION



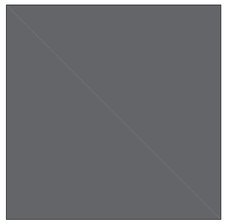
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EAST ELEVATION

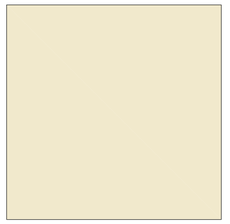


4 A4.1 SCALE: 1" = 10'-0"

NORTH ELEVATION



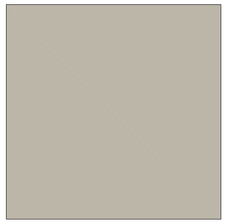
P1 PAINT BENJAMIN MOORE 1616 STORMY SKY



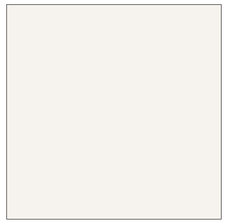
P2 PAINT BENJAMIN MOORE 2151-60 LINEN SAND



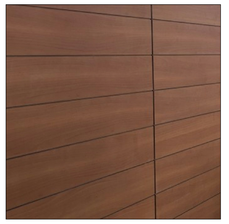
M3 STONE CORONADO STONE STYLE PRO-LEDGE COLOR BLACK FOREST



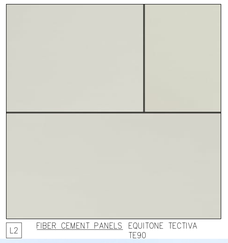
P3 PAINT BENJAMIN MOORE 1536 NORTHERN CLIFFS



P4 PAINT BENJAMIN MOORE 879 WHITE OPULENCE



L1 LAMINATE PANELS TRESPA PURA ROMANTIC WALNUT



L2 FIBER CEMENT PANELS EQUITONE TECTIVA TE90



G2 M2 STOREFRONT ALUMINUM CLEAR ANODIZE

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BREA CANYON BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
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2	DESIGN REVIEW SUBMITTAL	3/21/18
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4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19

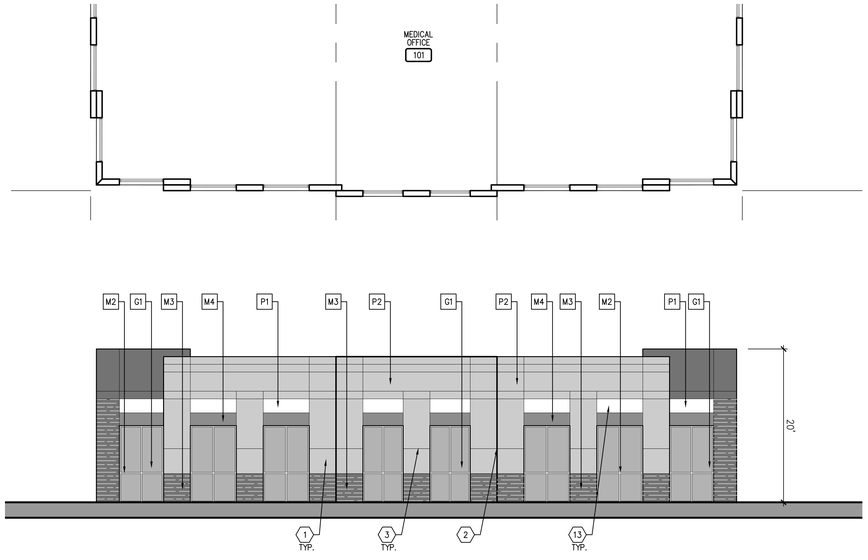
H1
HOTEL BLDG ELEVATIONS

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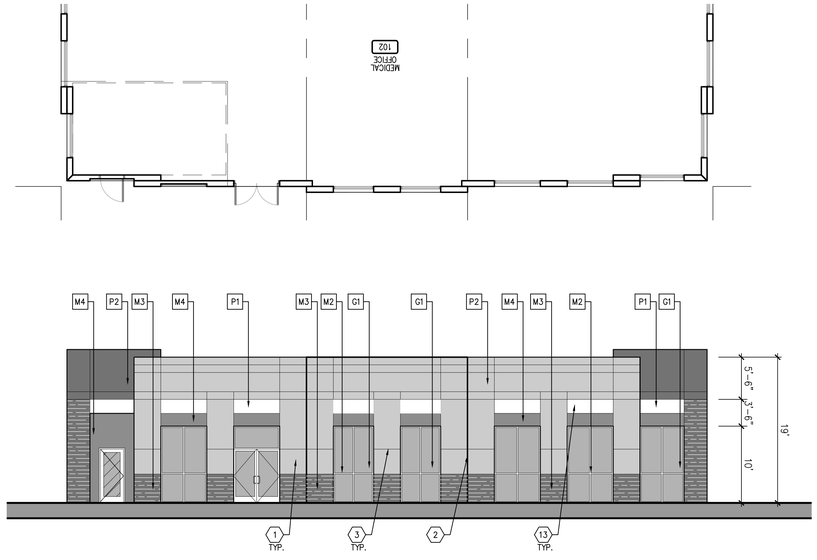
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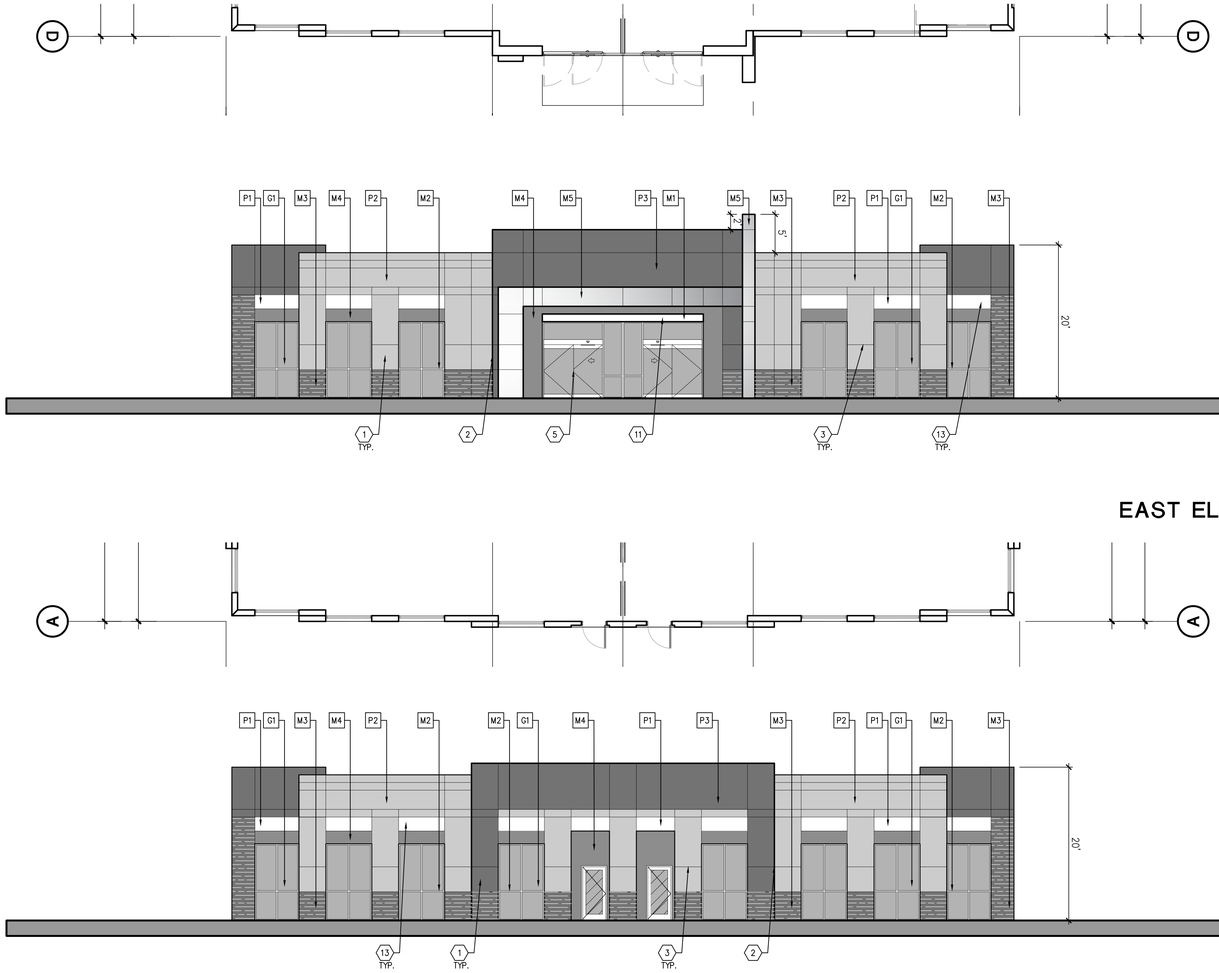
SHEET NO:
A4.1C



SOUTH ELEVATION | 1/8"=1'-0" | 4



NORTH ELEVATION | 1/8"=1'-0" | 3



EAST ELEVATION | 1/8"=1'-0" | 2

WEST ELEVATION | 1/8"=1'-0" | 1

KEYNOTES - OFFICE ELEVATIONS

1. CONCRETE TILT-UP PANEL (PAINTED)
2. PANEL JOINT
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX OF 3/4" CHAMFER. REVEAL COLOR TO MATCH ADJACENT FIELD COLOR.
4. 3' X 7' HOLLOW METAL DOOR, MAN DOOR.
5. ALUMINUM STOREFRONT FRAMING W/ TEMPERED GLAZING @ ALL DOORS, SIDELIGHTS ADJ. TO DOORS, AND GLAZING WITH BOTTOMS LESS THAN 18" ABV. F.F.
6. EXT. METAL DOWNSPOUT W/ OVERFLOW SCUPPER
7. INT. ROOF DRAIN W/ OVERFLOW SCUPPER
8. BUILDING ADDRESS/SIGNAGE PER FIRE DEPT.
9. CONCRETE PARAPET RETURN
10. 3" X 3" X 1-1/2" DEEP REVEAL WITH DECORATIVE METAL
11. METAL CANOPY
12. MECHANICAL SCREEN
13. 3/4" RECESS BAND

GENERAL NOTES - OFFICE ELEVATIONS

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B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. = TOP OF PARAPET ELEVATION
D. F.F. = FINISH FLOOR ELEVATION
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS, AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT CONCRETE PANELS W/ AT LEAST THREE (3) ALTERNATE COLORS SPECIFIED BY ARCHITECTS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.

COLOR SCHEDULE / MATERIALS

1	G1	GLAZING	MEDIUM PERFORMANCE COLOR: GREY
2	G2	GLAZING	NOT USED
3	M1	CANOPY	METAL FINISH: CLEAR ANODIZED
4	M2	MULLIONS	ALUMINUM FINISH: CLEAR ANODIZED
5	M3	VENEER	CORONADO STONE STONE "BLACK FOREST" PRO-LEDGE
6	M4	LAMINATE	LAMINATE PANELS: TRESPA METEON "ITALIAN WALNUT" - MATT FINISH
7	M5	ALUMINUM	ALUMINUM PANELS FINISH: CLEAR ANODIZED
8	P1	PAINT 1	BENJAMIN MOORE 879 WHITE OPULENCE OR SIMILAR BUILDING COLOR - WHITE
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10	P3	PAINT 3	BENJAMIN MOORE 1616 STORMY SKY OR SIMILAR ACCENT COLOR - BLUE
11	P4	PAINT 4	BENJAMIN MOORE HC-166 KENDALL CHARCOAL OR SIMILAR ACCENT COLOR - DARK GREY

GLAZING LEGEND

SPANDREL GLASS | VISION GLASS | GLASS W/ FURRED WALL

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O2
MEDICAL OFFICE
BLDG ELEVATIONS

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SOUTH ELEVATION | 1/8"=1'-0" | 4



NORTH ELEVATION | 1/8"=1'-0" | 3



EAST ELEVATION | 1/8"=1'-0" | 2



WEST ELEVATION | 1/8"=1'-0" | 1

COLORS & MATERIALS | - | -



M1 CANOPY / LOUVRES



G1 M2 WINDOWS & CURTAIN WALLS



M3 STONE VENEER



M4 LAMINATE PANEL



M5 ALUMINUM PANEL

P1 PAINT – SEE MATERIALS SCHEDULE

P2 PAINT – SEE MATERIALS SCHEDULE

P3 PAINT – SEE MATERIALS SCHEDULE

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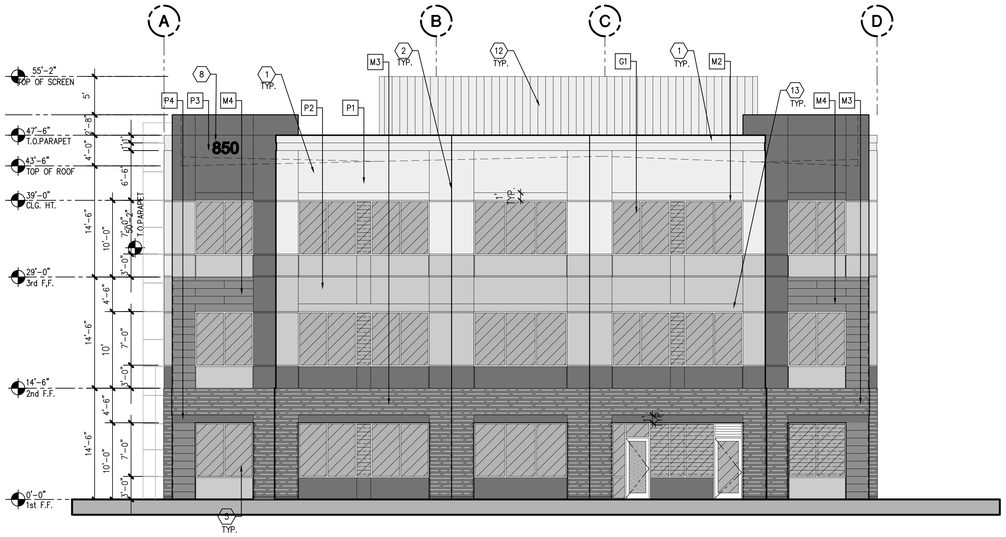
O2 MEDICAL OFFICE BLDG
BLDG ELEVATIONS

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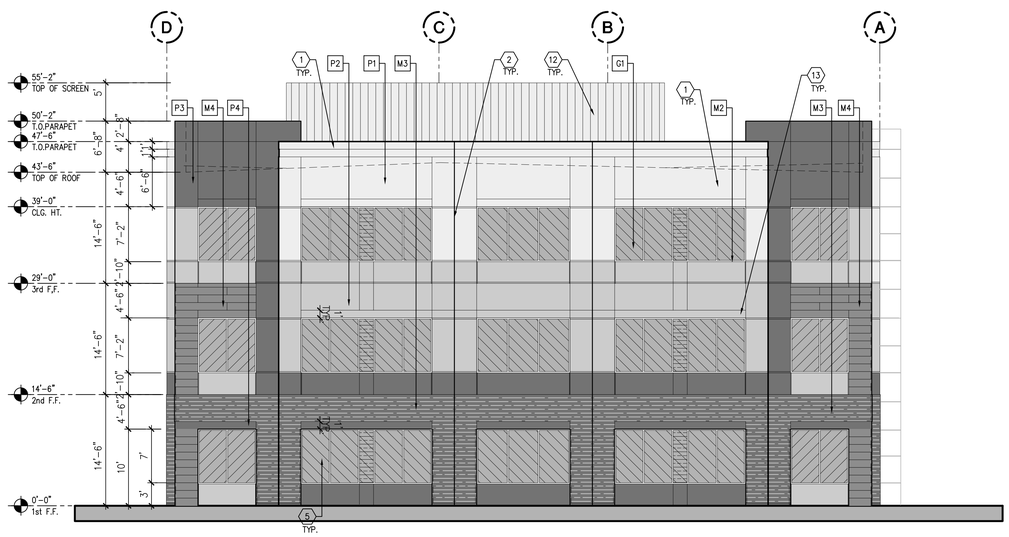
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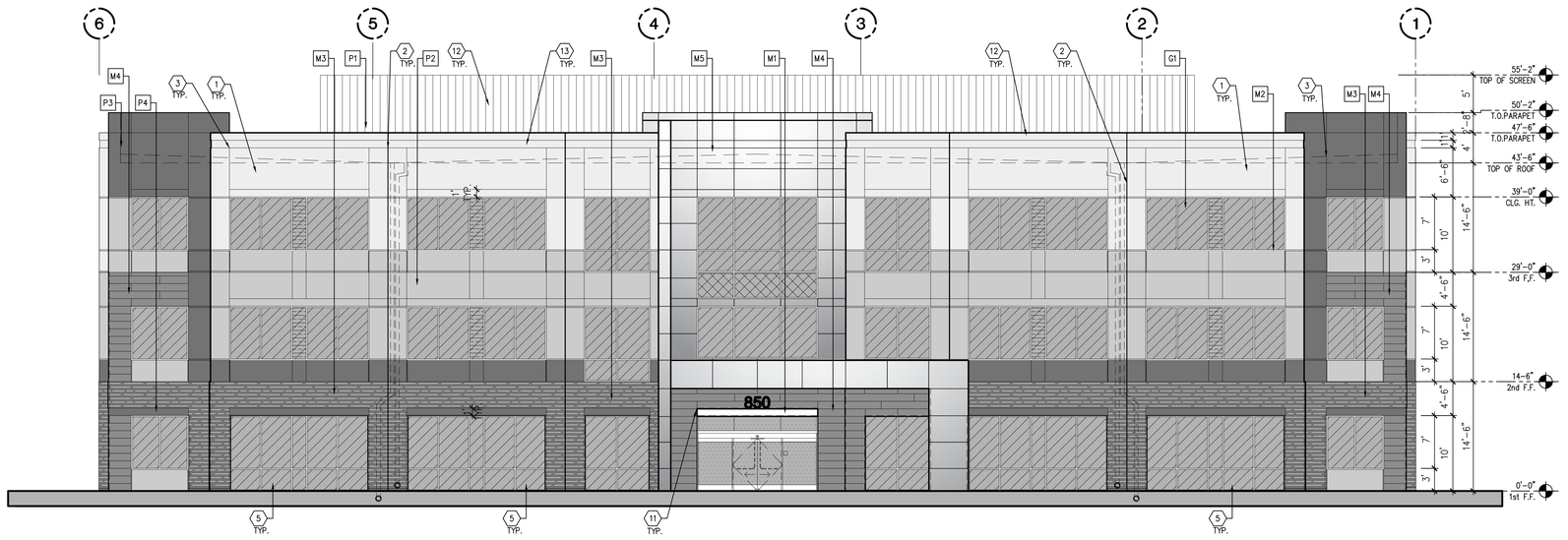
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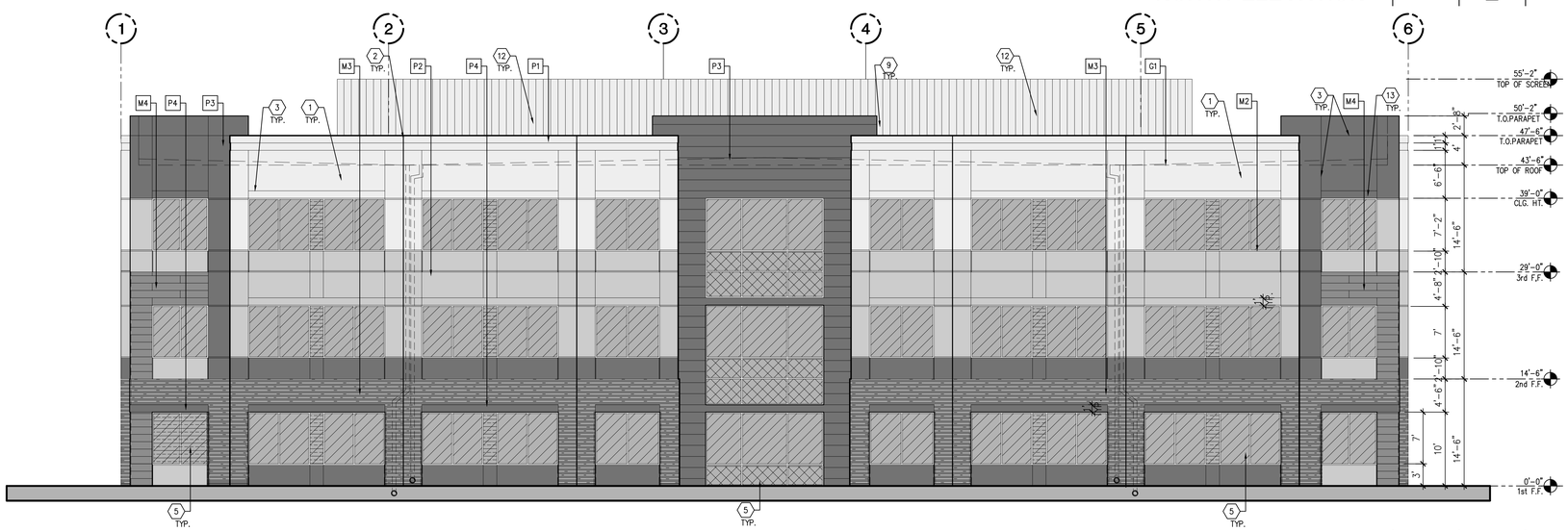
WEST ELEVATION | 1/8"=1'-0" | 4



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O1 OFFICE BUILDING ELEVATIONS

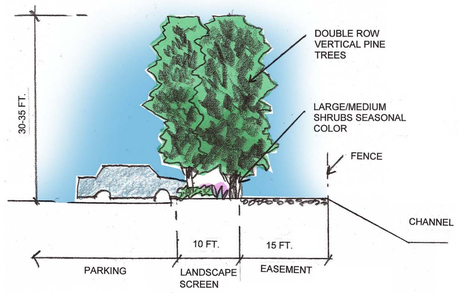
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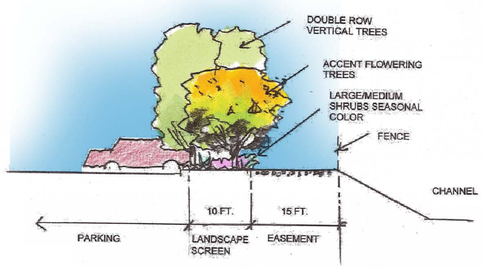
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A4.3

Appendix B
Brea Canyon Business Park Conceptual Landscape Plans
(July 12, 2019)

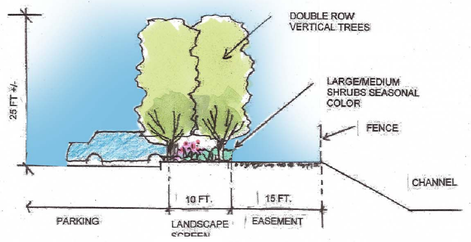
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NORTH BOUNDARY - SECTION 3



NORTH BOUNDARY - SECTION 1



NORTH BOUNDARY - SECTION 2

NORTH BOUNDARY SECTIONS

SCALE: 1" = 10'-0"

Landscape Planting Notes:

1. Landscape areas shall be maintained by the owner.
2. All shrub beds adjacent to turf areas shall be separated by metal edging.
3. Trees located within five (5) feet of any paved surface shall be provided with root barriers.
6. Shrub and groundcover areas shall have 3" deep, 1-2" shredded mulch.
7. Open parking areas shall be screened from public view using evergreen hedges. This screening shall have an eventual height of 3.0 feet.
8. Shrubs that have sharp thorns shall not be located near pedestrian areas.
9. Site perimeter trees shall be planted at 1 tree per 20 lineal feet. Final tree species along the flood channel shall be selected per Los Angeles County Flood Control landscape design requirements coordinated during the Construction Document Phase.
10. All above ground utilities shall be screened from street view with evergreen plant material.

Irrigation Notes:

1. Landscape Plans shall comply with the City of Diamond Bar Water Efficiency Guidelines per Ordinance No. 01 (2016) and State of California Ordinance AB1881.

2. Permanent automatic irrigation systems shall be provided for all landscape areas, including the bio-swales. An irrigation system shall be provided as required for proper irrigation, development and maintenance of the vegetation.

SUMMARY

SITE AREA: 247,676 SF

LANDSCAPE AREA

REQUIRED	PROVIDED
20% (49,535 SF)	20.8% (51,551 SF)

PROPERTY BOUNDARY LANDSCAPE (2,494 LF- 1 TREE PER 20 LF)

REQUIRED	PROVIDED
125 TREES	125 TREES

PARKING LOT TREES 1:8 STALLS (289 PARKING SPACES)

REQUIRED	PROVIDED
36 TREES	43 TREES

PARKING LOT LANDSCAPE (PARKING AREA 117,726 SF)

REQUIRED	PROVIDED
5% OF GROSS	16.2% (19,043 SF)

REQUIRED MIX OF PLANT MATERIALS

Plant Material	Required Percentage of Mix	Percentage of Mix Provided		# Trees
Trees				
		36" Box	44.8 %	99
24 Inch Box	20%	24" Box	35.3 %	78
15 Gallon	80%	15 Gallon	19.9 %	44
			Total	221 Trees
Shrubs				
5 Gallon	70%		70%	
1 Gallon (Herbaceous Only)	30%		30%	
Groundcover (Coverage within 2 Years)	100%		100%	

PRECAST POST & WOOD RAIL DETAIL A

NTS



PRELIMINARY PLANT LIST – CAL TRANS PROPERTY

SYMBOL	BOTANICAL NAME/COMMON NAME		SIZE	SPACING	WUCOLS	REMARKS
Shrubs						
	Yucca recurvifolia	Curve leaf yucca	15 Gal	9' O.C.	VL	8' clear of pavement and wall
	Hesperaloe parviflora	Red yucca	5 Gal	36" O.C.	L	6' clear of pavement and wall
	Senecio mandraliscae	Kleinia	1 Gal	12" O.C.	L	6' clear of pavement and wall
	Lantana 'gold spreading'	New gold lantana	1 Gal	36" O.C.	L	6' clear of pavement and wall
	Lomandra "breeze"	Spiny headed mat rush	1 Gal	30" O.C	M	6' clear of pavement and wall

Install 3" deep; 1-2" shredded mulch. Install 3" mulch within all planted areas.

PRELIMINARY PLANT LIST

SUNSET ZONE: 19
WUCOLS REGION: 4

SYMBOL	BOTANICAL NAME/COMMON NAME		SIZE	SPACING	WUCOLS
TREES					
	Brea Canyon Road Street Tree				
	Geijera parviflora	Australian Willow	24" Box	Per Plan	M
	Brea Canyon Road Frontage Accent				
	Lagerstroemia hybrid 'Muskogee'	Muskogee Crape Myrtle	24" Box	Per Plan	M
	Site Entry				
	Platanus X acerifolia	London Plane Tree	36" Box	Per Plan	M
	Hotel Entry				
	Cercidium 'Azt' Thornless	Desert Museum Multi-trunk	36" Box	Per Plan	L
	Office Employee Patio				
	Prosopis chilensis	Thornless Mesquite	24"- 36" Box	Per Plan	L
	Building Perimeter				
	Lophostemon confertus	Brisbane box	15 Gal- 24" Box	Per Plan	M
	Cercidium 'Azt' Thornless	Desert Museum Multi-trunk	24" Box	Per Plan	L
	Arbutus marina	Strawberry Tree	24" Box	Per Plan	L
	Cupressus sempervirens 'Tiny Towers'	Tiny Towers Italian Cypress	24" Box	Per Plan	L
	Parking Lot				
	Quercus virginiana	Southern Live Oak	24" Box	Per Plan	L
	Cercidium 'Azt' Thornless	Desert Museum Multi-trunk	24" -36" Box	Per Plan	L
	Geijera parviflora	Australian Willow	24" Box	Per Plan	M
	Property Boundary (1 Tree Per 20 LF Min.)				
	Lophostemon confertus	Brisbane box	15 Gal - 24" Box	Per Plan	M
	Pinus eldarica	Mondell Pine	15 Gal - 24" Box 36" Box	Per Plan Along North Property Boundary	L
	Lophostemon confertus	Brisbane box	36" Box	Location As Shown	M
	Cupressus sempervirens 'Tiny Towers'	Tiny Towers Italian Cypress	24" Box	Per Plan	L
	Accents Trees				
	Prosopis chilensis	Thornless Mesquite	24"- 36" Box	Per Plan	L
	Cercidium 'Azt' Thornless	Desert Museum Multi-trunk	24" - 36" Box	Per Plan	L
Shrubs					
	Cistus cobariensis	White Rockrose	1 Gal	30" O.C.	L
	Lantana camara 'New Gold'	Gold Spreading Lantana	1 Gal	24" O.C.	L
	Rhaphiolepis 'Gulf Green'	Dwarf Yeddo Hawthorn	5 Gal	30" O.C.	M
	Myrtus communis 'Compacta'	Dwarf Myrtle	5 Gal	18" O.C.	M
	Westringia 'Blue Gem'	Blue Gem Coast Rosemary	5 Gal	30" O.C.	L
	Rosmarinus 'Prostrata'	Prostrate Rosemary	1 Gal	18" O.C.	L
	Juniperus conferta	Shore Juniper	5 Gal	24" O.C.	M
	Agave 'Blue Glow'	Blue Glow Agave	15 Gal	30" O.C.	L
	Dasylirion wheeleri	Spoon Yucca	15 Gal	Accent	L
	Leonotis leonuris	Lion's Tail	5 Gal	42" O.C.	L
	Trachelospermum jasminoides	Star Jasmine	1 Gal	18" O.C.	M
	Romneya coulteri	Matilija Poppy	1 Gal	36" O.C.	VL
	Bulbine 'Hallmark'	Orange Stalked Bulbine	1 Gal	24" O.C.	L
	Hesperaloe parviflora	Red Yucca	5 Gal	36" O.C	L
	Rosa groundcover spp.	Rose Groundcover	5 Gal	24" O.C.	M
	Rosa floribunda spp.	Floribunda Rose	5 Gal.	30" O.C.	M
	Calyophus hartwegii	Hartweg's Sundrops	1 Gal.	18" O.C.	L
	Ligustrum j. 'Texanum'	Wax-Leaf Privet	5 Gal	30" O.C	M
	Pelargonium peltatum	Ivy Geranium	1 gal	18" O.C.	M
	Cuphea ignea	Firecracker plant	1 gal	18" O.C.	M
	Salvia clevelandii	Cleveland Sage	5 gal	36" O.C.	L
	Salvia microphylla 'Heatwave'	Autumn Sage	1 gal	24" O.C.	L
	Nepeta faasenii	Catmint	1 gal	18" O.C.	M
	Lavandula 'Goodwin Creek'	Lavender Hybrid	5 gal	20" O.C.	L
	Penstemon "Firebird"	Beard's tongue	5 gal	18" O.C.	M
	Agastache "Kudos Coral"	Hummingbird mint	1 gal	18" O.C.	M
Grasses					
	Carex tumulicola	Berkeley Sedge	1 Gal	12" O.C.	L
	Calamagrostis a. 'Karl Foerster'	Foerster's Feather Reed Grass	1 Gal	30" O.C.	M
	Festuca glauca	Fescue	1 Gal	18" O.C.	M
	Lomandra 'Breeze'	Dwarf Mat Rush	1 Gal	12" O.C.	M
Vines					
	Solanum jasminoides	Potato Vine	5 gal	as shown	M
	Macfadyena unguis cati	Cat Claw Vine	5 gal	as shown	M

LANDSCAPE DESIGN CONCEPT:

Design concept:

Planting:
The landscape design complements the architectural style and scale of the buildings; it creates a strong image at the "front door" for the Brea Canyon Business Park. Plant palette selections are based on their climate adaptability, connection to the area, aesthetic/horticultural value, durability, and drought tolerant characteristics and low maintenance. The landscape design reflects the City of Diamond Bar's streetscape theme elements for Brea Canyon Road including enhanced paving and street trees in grates. The design reinforces the community's image and the City's ranch heritage. Since the theme rails are not required due to sight line safety conflict, the plan proposes these to be installed at the main vehicular entry, visible from both Bar Canyon Road and entry drive.

The plant choices reflect generally the region's Oak and Sycamore plant community. The design features Australian Willow as street trees, Sycamore trees at the site entry, including Oak trees for the parking areas. Accent trees include Thornless Mesquite, Desert Museum and Crape Myrtle. Property boundary trees include Brisbane box, Mondell Pine, and limited Italian Cypresses 'Tiny towers' in selected areas.

Hardscape:
Interlocking pavers are proposed for the site entry, hotel porte-cochere and selected areas including pedestrian crossings. Both office entries/employee patios will feature integral color concrete paving with site furniture, places for seating and eating. Planted pots will be added for accent color at the office entries, and employee lunch areas.

Irrigation:
Irrigation will be fully automatic with smart controller, which will monitor the irrigation cycles in real time based on weather data. Irrigation will be associated with hydrozones related to the plant grouping's water needs, to conserve water and deliver the optimum amount of water needed. Landscape spaces of shrubs/ groundcovers will use drip irrigation. Tree bubblers will be valve separately from the groundcovers and shrubs in order to promote appropriate tree health and root growth.

LANDSCAPE MASTERPLAN

1: 40

GAA ARCHITECTS
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Irvine, CA 92618
T: 949 474 1775
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BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
REGINALD K. BILLUPS No. 2324
10/31/17
Renewal Date
STATE OF CALIFORNIA

SITE
design studio inc.
180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780
Ph: 714.426.0248 Fax: 714.426.0255

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8	DESIGN REVIEW RESUBMITTAL	7/12/19

OVERALL MASTER LANDSCAPE PLAN

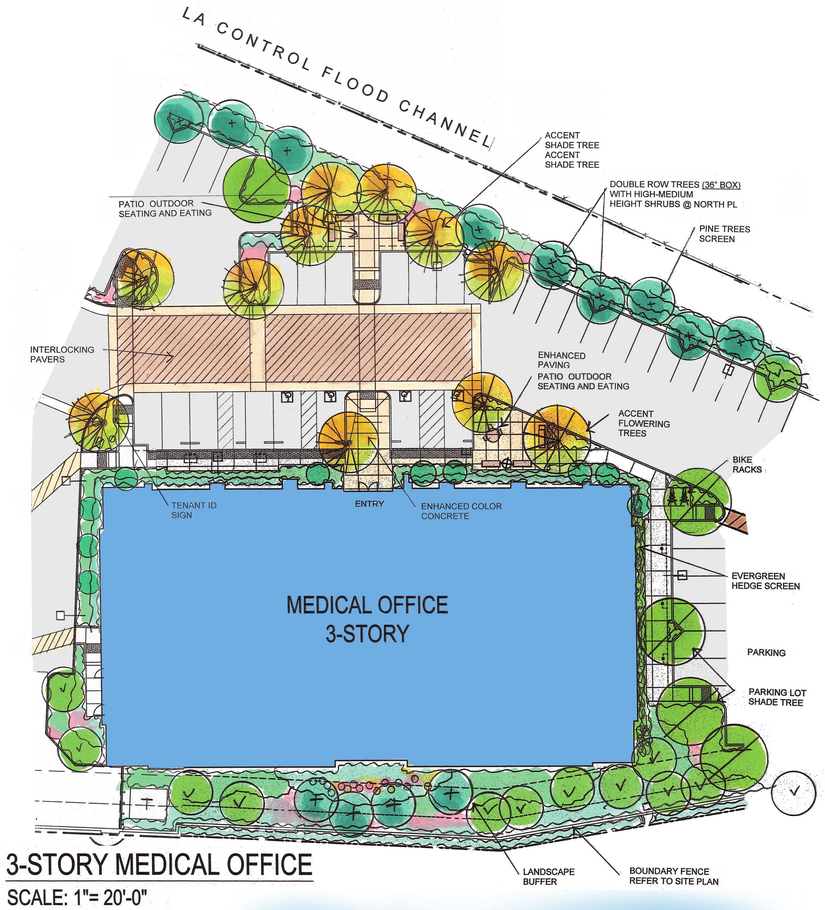
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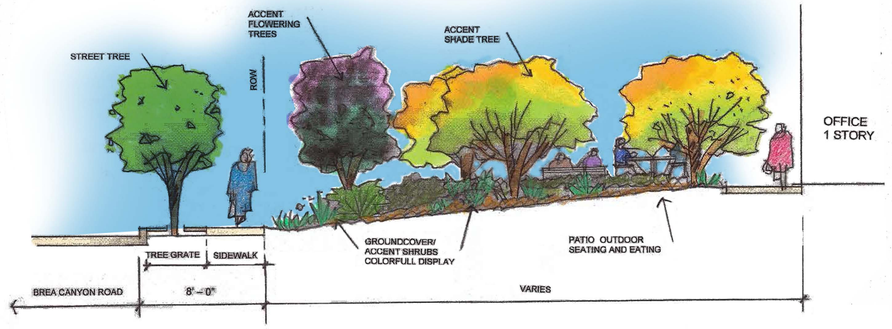


NOTE:
STREETSCAPE DESIGN ADHERES TO THE CITY OF DIAMOND BAR STREETSCAPE DESIGN GUIDELINES FOR BREA CANYON ROAD TO INCLUDE INTERLOCKING PAVERS, TREE GRATES AND STREET TREES. PRIOR TO COMMENCING LANDSCAPE CONSTRUCTION DRAWINGS LANDSCAPE ARCHITECT WILL CONTACT CITY PUBLIC WORKS. THEME RAILS ARE NOT REQUIRED ALONG BREA CANYON ROAD DUE TO SIGHT LINE CONFLICT.

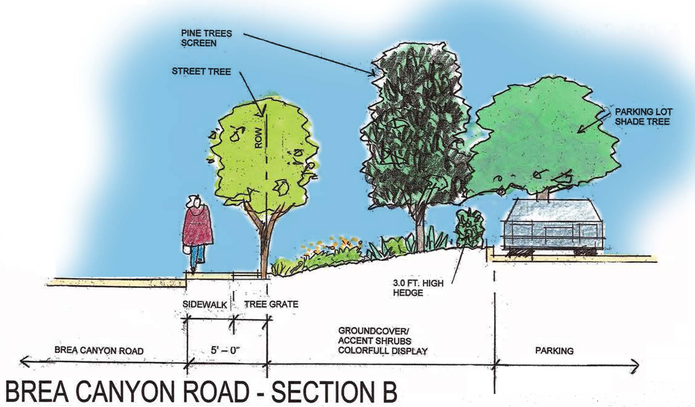
PROJECT ENTRY
SCALE: 1"= 20'-0"



3-STORY MEDICAL OFFICE
SCALE: 1"= 20'-0"



BREA CANYON ROAD - SECTION A
SCALE: 1/4" = 1'-0"



BREA CANYON ROAD - SECTION B
SCALE: 1/4" = 1'-0"

NORTH

ENLARGED LANDSCAPE PLANS | 1:20

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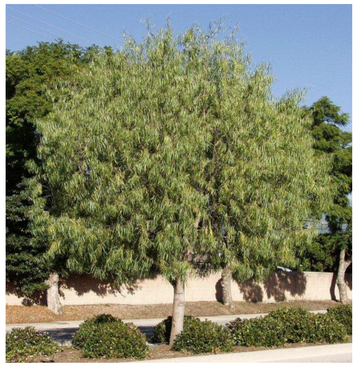
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ENLARGED LANDSCAPE PLANS

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DATE:	12/04/17		
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FILE NAME:			



Geijera parviflora-
Australian Willow



Plantanus x. acerfolia -
London Plane Tree



Lagerstroemia i. 'Muskogee'-
Crape Myrtle



Aloe striata-
Coral Aloe



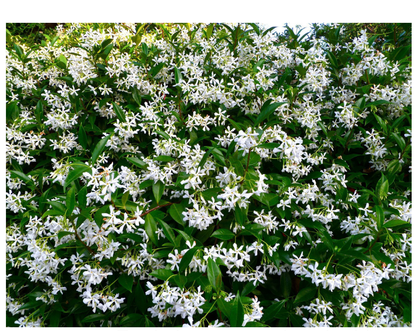
Agave perryi-
Perry's Agave



Prosopis chilensis-
Thornless Mesquite



Cercidium 'Desert Musuem'-
Desert Museum Palo Verde



Trachelospermum jasminoides-
Star Jasmine



Dianella 'Cassa Blue'-
Cassa Blue Flax Lily



Arbutus 'Marina' -
Marina Strawberry Tree



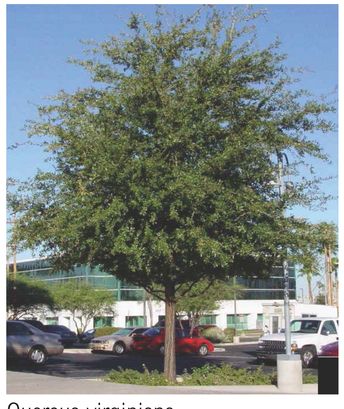
Westringia 'Wynabbie Gem'



Carex divulsa-
Berkeley Sedge



Hesperaloe parviflora-
Red Yucca



Quercus virginiana -
Southern Oak



Cupressus s. 'Tiny Towers' -
Tiny Tower Cypress



Rosa f. 'Livin Easy'-
Livin Easy Rose



Salvia leucantha-
Mexican Sage



Festuca mairei-
Atlas Fescue



Pinus eldarica-
Mondell Pine



Lophostemon confertus-
Brisbane Box



Tacoma stans 'Solar Flare'-
Yellow Bells



Lantana 'New Gold'-
Gold Spreading Lantana

GAA ARCHITECTS

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BREA CANYON
BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
REGISTERED IN SOLUTION NAME
Signature
10/31/
Renewal date
Date
STATE OF CALIFORNIA

SITE
design studio inc.

180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780

Ph: 714.426.0248 Fax: 714.426.0255

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PLANT IMAGERY

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OPTION A



SITE FURNITURE









OPTION B









OPTION C

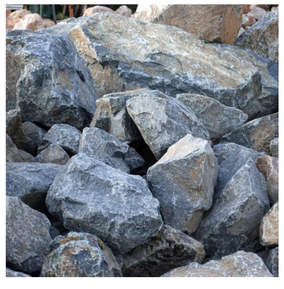


Belgard 'Urbana'
Interlocking Pavers

INTERLOCKING PAVERS



Belgard'Eco Dublin'
(PERMEABLE) Building 2
Employee Area



Cresta Boulders



Sierra Cobble

BOULDERS/ COBBLES



Davis Color 'Mesa Buff'
SRI 43

INTEGRAL COLOR CONCRETE

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F: 949 553 9133

BREA CANYON
BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
MEGAN K. SULLIVAN-WATSON
12/31/
Renewal Date
Date
STATE OF CALIFORNIA

SITE
design studio inc.

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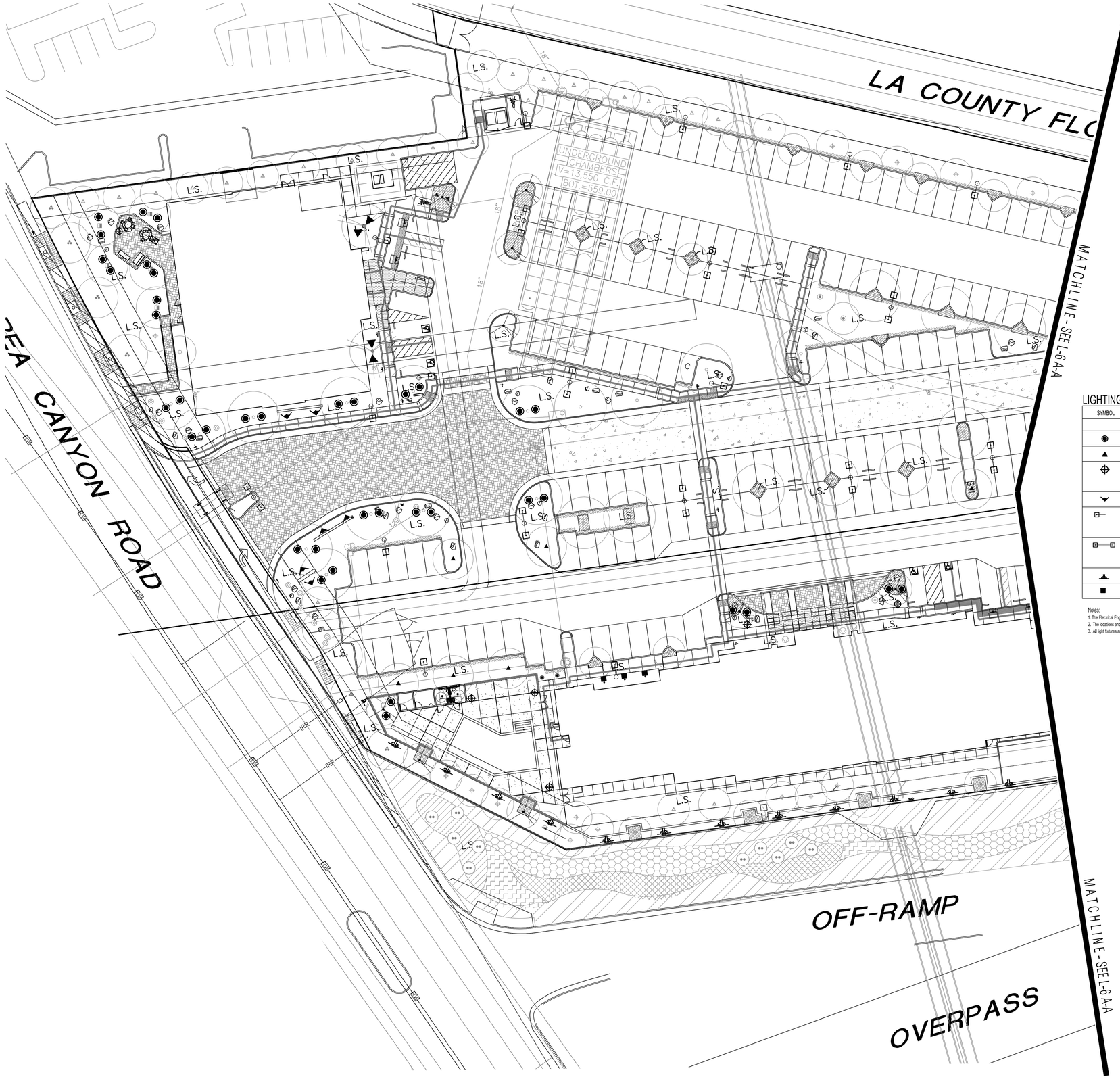
SITE FURNITURE /
ENHANCED PAVING

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SHEET NO:
L-4



LIGHTING LEGEND

SYMBOL	NO	FIXTURE TYPE	MANUF.	FIXTURE MODEL NO.	LAMP TYPE	FINISH	MOUNTING	ACCESSORIES REMARKS
◉	FX-1	TREE UP LIGHT	PHILIPS HADCO-B9 FLEXSCAPE	B9-D-W-A	33 WATT LED 3000 K	BLACK	POWER STAKE WITH CONCRETE SUB-BASE	WITH 3 LENS TO ADJUST BEAM SPREAD
▲	FX-2	TREE UP LIGHT	HEVALITE	HL-360-BK-9LED-E/FL-12V-CL11-LA-1	8.4 WATT LED 3000 K	BLACK	STAKE	IN-GRADE (120VAC-12VAC) TRANSFORMER FOR MULTIPLE FIXTURES
⊕	FX-3	12' LED PEDESTRIAN POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRVA	CXF5-32-G2-T-B-5-W-A-5-NNNN-SP2/HFP510-P-B-N/P4031-12-B/ ANCHOR BOLTS	51 WATT LED 3000 K	WHITE	POLE MOUNTED 12' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 12 FT, EVALUATE PER TITLE 24
⌄	FX-4	ENTRY PROJECT SIGN	ELLIPTIPAR	S170-M02B-V-05-M-V0-0-630-ZX	16 WATT LED 3000 K	BLACK	SLIP FITTER MOUNT OVER CONDUIT	
⊡—	FX-5A	PARKING LOT POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRWA	CXF5-48-G2-T-B-4-W-A-5-NNNN-SP2/HFP510-P-B-N/P4031-17-B/ ANCHOR BOLTS	75 WATT LED 3000 K	WHITE	POLE MOUNTED 20' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 20 FT, EVALUATE PER TITLE 24
⊡—⊡	FX-5B	TWIN HEAD PARKING LOT POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRWA	CXF5-48-G2-T-B-4-W-A-5-NNNN-SP2/HFP517-P-B-N/P4031-17-B/ ANCHOR BOLTS	150 WATT LED 3000 K	WHITE	POLE MOUNTED 20' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 20 FT, EVALUATE PER TITLE 24
◢	V-7	SOUTH WALL UPLIGHT	VIVID LEDS AXIS BULLET SERIES	V-VDFB1C3FR-41-55C-V27-BZ-ND	20 WATT LED 4000 K	BRONZE	1/2" NPT	
■	V-8	FLAG UPLIGHT	PHILIPS HADCO-B9 FLEXSCAPE	B9-D-W-A	33 WATT LED 3000 K	BLACK	STAKE	

Notes:
1. The Electrical Engineer shall provide photometric study to comply with City light levels.
2. The locations and quantities of parking pole lights are preliminary, the Electrical Engineer shall provide final location and quantities.
3. All light fixtures are to be oriented and aimed so that no light is spilled on to adjacent properties.

NORTH
SCALE: 1" = 20'-0"

UNDERGROUND SERVICE ALERT
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422-4133
TWO WORKING DAYS BEFORE YOU DIG

GAA ARCHITECTS
8811 Research Drive,
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Irvine, CA 92618
T: 949 474 1775
F: 949 553 9133

BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
RICHARD K. SULLIVAN
No. 5144
10/31/
Renewal Date
STATE OF CALIFORNIA

SITE
design studio inc.
180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780
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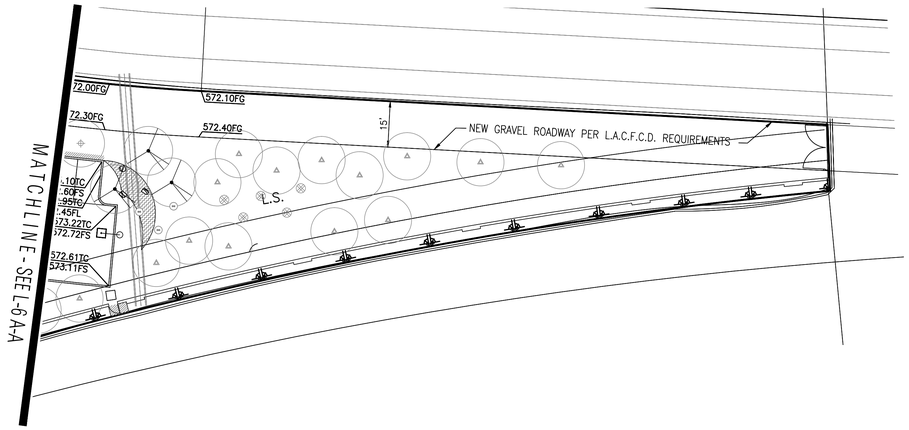
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LIGHTING COORDINATION PLAN

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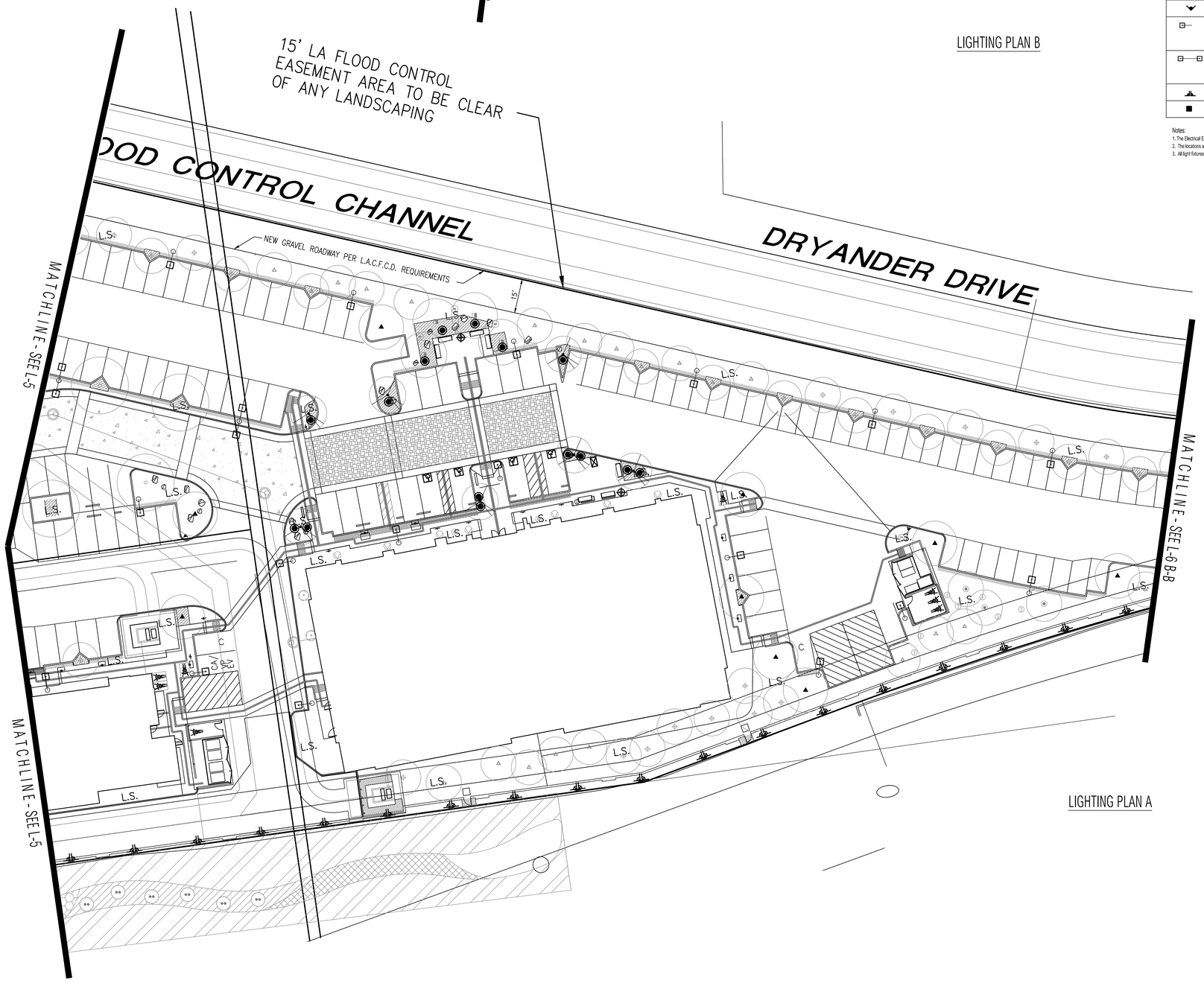


LIGHTING PLAN B

LIGHTING LEGEND

SYMBOL	NO	FIXTURE TYPE	MANUF.	FIXTURE MODEL NO.	LAMP TYPE	FINISH	MOUNTING	ACCESSORIES REMARKS
◉	FX-1	TREE UP LIGHT	PHILIPS HADCO-89 FLEXSCAPE	B6-D-W-A	33 WATT LED 3000 K	BLACK	POWER STAKE WITH CONCRETE SUB-BASE	WITH 3 LENS TO ADJUST BEAM SPREAD
▲	FX-2	TREE UP LIGHT	HEVILITE	HL-360-BK-8LED-E-FL-12V-GL11-AA-1	8.4 WATT LED 3000 K	BLACK	STAKE	IN-GRADE (120VAC-12VAC) TRANSFORMER FOR MULTIPLE FIXTURES
⊕	FX-3	12' LED PEDESTRIAN POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRIVA	CXF6-32-G2-T-B-5-W-A-5-NNNN-SP2/ HFP510-P4-B-NP4031-12-B/ ANCHOR BOLTS	51 WATT LED 3000 K	WHITE	POLE MOUNTED 12' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 12 FT. EVALUATE PER TITLE 24
⌄	FX-4	ENTRY PROJECT SIGN	ELUPTPAR	S170-M02B-I-06-M-VO-0-830-ZX	16 WATT LED 3000 K	BLACK	SUP FITTER MOUNT OVER CONDUIT	
⊡—	FX-5A	PARKING LOT POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRIVA	CXF5-48-G2-T-B-4-W-A-5-NNNN-SP2/ HFP510-P4-B-NP4031-17-B/ ANCHOR BOLTS	75 WATT LED 3000 K	WHITE	POLE MOUNTED 20' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 20 FT. EVALUATE PER TITLE 24
⊡—⊡	FX-5B	TWIN-HEAD PARKING LOT POLE LIGHT WITH CURVED ARM	PHILIPS HADCO-PRIVA	CXF5-48-G2-T-B-4-W-A-5-NNNN-SP2/ HFP517-P4-B-NP4031-17-B/ ANCHOR BOLTS	150 WATT LED 3000 K	WHITE	POLE MOUNTED 20' ROUND ALUMINUM POLE	CURVED ARM FIXTURE MOUNTED AT 20 FT. EVALUATE PER TITLE 24
◢	V-7	SOUTH WALL UPLIGHT	VIVID LEDS AXIS BULLET SERIES	V VDFB1C9FR-41-55C-V27-BZ-ND	20 WATT LED 4000 K	BRONZE	1/2" NPT	
■	V-8	FLAG UPLIGHT	PHILIPS HADCO-89 FLEXSCAPE	B6-D-W-A	33 WATT LED 3000 K	BLACK	STAKE	

Notes:
1. The Electrical Engineer shall provide photometric study to comply with City light levels.
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LIGHTING PLAN A

NORTH

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850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
MICHAEL A. GALLIVAN
10731
Renewal Date
STATE OF CALIFORNIA

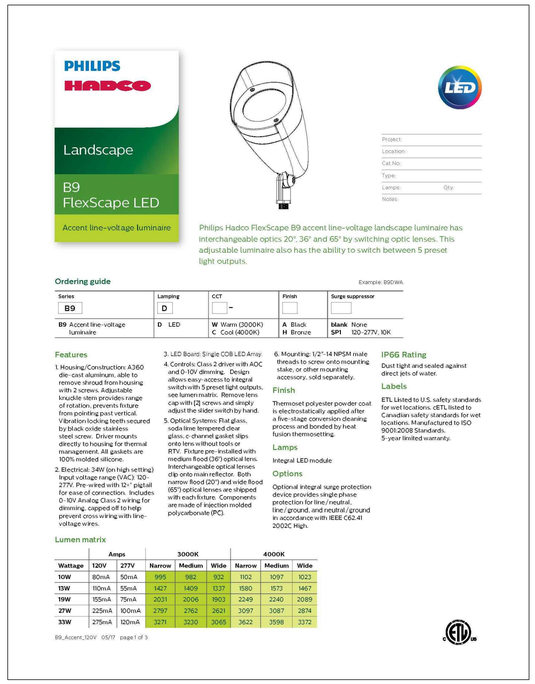
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Ph: 714.426.0248 Fax: 714.426.025

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LIGHTING COORDINATION PLAN

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DATE:	12/04/17		
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FILE NAME:			



PHILIPS HADCO

Landscape

B9 FlexScape LED

Accent line-voltage luminaire

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

Philips Hadco FlexScape B9 accent line-voltage landscape luminaire has interchangeable optics 20°, 36° and 65° by switching optic lenses. This adjustable luminaire also has the ability to switch between 5 preset light outputs.

Ordering guide Example: B9DWA

Series	Lamping	CCT	Finish	Surge suppressor
B9	D	–		
B9 Accent line-voltage luminaire	D LED	W Warm (3000K) C Cool (4000K)	A Black H Bronze	blank None SP1 120-277V, 10K

Features

1. Housing/Construction: A360 die-cast aluminum, able to remove shroud from housing with 2 screws. Adjustable knuckle stem provides range of rotation, prevents fixture from pointing past vertical. Vibration locking teeth secured by black oxide stainless steel screw. Driver mounts directly to housing for thermal management. All gaskets are 100% molded silicone.
2. Electrical: 24W (on high setting) Input voltage range (VAC): 120-277V. Pre-wired with 12" pigtail for ease of connection. Includes 0-10V Analog Class 2 wiring for dimming; capped off to help prevent cross wiring with line-voltage wires.
3. LED Board: Single COB LED Array
4. Controls: Class 2 driver with AOC and 0-10V dimming. Design allows easy-access to integral switch with 5 preset light outputs, see lumen matrix. Remove lens cap with (2) screws and simply adjust the slider switch by hand.
5. Optical Systems: Flat glass, soda lime tempered clear glass, c-channel gasket slips onto lens without tools or RTV. Fixture pre-installed with medium flood (36°) optical lens. Interchangeable optical lenses clip onto main reflector. Both narrow flood (20°) and wide flood (65°) optical lenses are shipped with each fixture. Components are made of injection molded polycarbonate (PC).
6. Mounting: 1/2"-14 NPSM male threads to screw onto mounting stake, or other mounting accessory, sold separately.

Finish

Thermoset polyester powder coat is electrostatically applied after a five-stage conversion cleaning process and bonded by heat fusion thermosetting.

Lamps

Integral LED module

Options

Optional integral surge protection device provides single phase protection for line/neutral, line/ground, and neutral/ground in accordance with IEEE C62.41 2002C High.

IP66 Rating

Dust tight and sealed against direct jets of water.

Labels

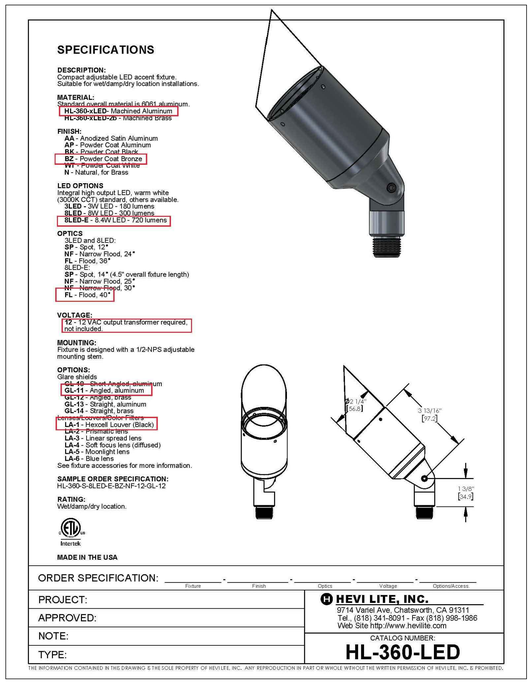
ETL Listed to U.S. safety standards for wet locations. cETL listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2008 Standards.
5-year limited warranty.

Lumen matrix

	Amps		3000K			4000K		
Wattage	120V	277V	Narrow	Medium	Wide	Narrow	Medium	Wide
10W	80mA	50mA	995	982	922	1102	1097	1023
15W	110mA	55mA	1427	1409	1337	1580	1573	1467
19W	155mA	75mA	2031	2006	1903	2249	2240	2089
27W	225mA	100mA	2797	2762	2621	3097	3087	2874
33W	275mA	120mA	3271	3230	3065	3622	3598	3372

B9_Accent_120V 05/17 page 1 of 3

FX-1- TREE UPLIGHT
V-8 - FLAG POLE UPLIGHT



SPECIFICATIONS

DESCRIPTION:
Compact adjustable LED accent fixture.
Suitable for wet/damp/dry location installations.

MATERIAL:
Standard overall material is 6061 aluminum.
HL-360-xLED- Machined Aluminum
HL-360-XLED-25 - Machined brass

FINISH:
AA - Anodized Satin Aluminum
AP - Powder Coat Aluminum
BK - Powder Coat Black
BZ - Powder Coat Bronze
WT - Powder Coat White
N - Natural, for Brass

LED OPTIONS
Integral high output LED, warm white (3000K CCT) standard, others available.
3LED - 3W LED - 180 lumens
8LED - 8W LED - 300 lumens
8LED-E - 8-9W LED - 720 lumens

OPTICS
3LED and 8LED:
SP - Spot, 12°
NF - Narrow Flood, 24°
FL - Flood, 36°
8LED-E:
SP - Spot, 14° (4.5° overall fixture length)
NF - Narrow Flood, 25°
NF - Narrow Flood, 30°
FL - Flood, 40°

VOLTAGE:
12 - 12 VAC output transformer required, not included.

MOUNTING:
Fixture is designed with a 1/2-NPS adjustable mounting stem.

OPTIONS:
Glare shields
GL-10 - Short Angled, aluminum
GL-11 - Angled, aluminum
GL-12 - Angled, brass
GL-13 - Straight, aluminum
GL-14 - Straight, brass
Lenses/covers/Color Filters
LA-1 - Hexcell Louver (Black)
LA-2 - Prismatic lens
LA-3 - Linear spread lens
LA-4 - Flood light lens (diffused)
LA-5 - Spotlight lens
LA-6 - Blue lens
See fixture accessories for more information.

SAMPLE ORDER SPECIFICATION:
HL-360-S-8LED-E-B2-NF-12-GL-12

RATING:
Wet/damp/dry location.

Intertek

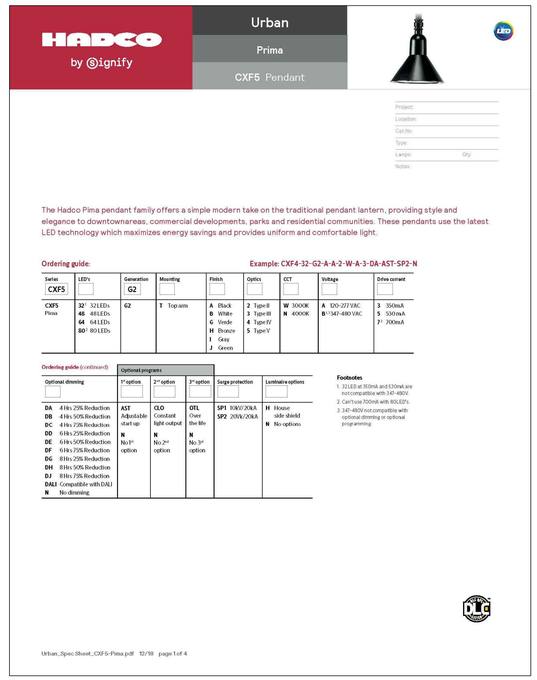
MADE IN THE USA

ORDER SPECIFICATION: ____ - ____ - ____ - ____ - ____ - ____
Fixture - Finish - Optics - Voltage - Options/Access

PROJECT:	HEVI LITE, INC. 9714 Variel Ave, Chatsworth, CA 91311 Tel.: (818) 341-8091 - Fax (818) 998-1986 Web Site http://www.hevilite.com
APPROVED:	
NOTE:	CATALOG NUMBER: HL-360-LED
TYPE:	

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FX-2- TREE UPLIGHT



HADCO by ⓘignify

Urban
Prima
CXF5 Pendant

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

The Hadco Pima pendant family offers a simple modern take on the traditional pendant lantern, providing style and elegance to downtowanreas, commercial developments, parks and residential communities. These pendants use the latest LED technology which maximizes energy savings and provides uniform and comfortable light.

Ordering guide: Example: CXF4-32-G2-A-A-2-W-A-3-DA-AST-SP2-N

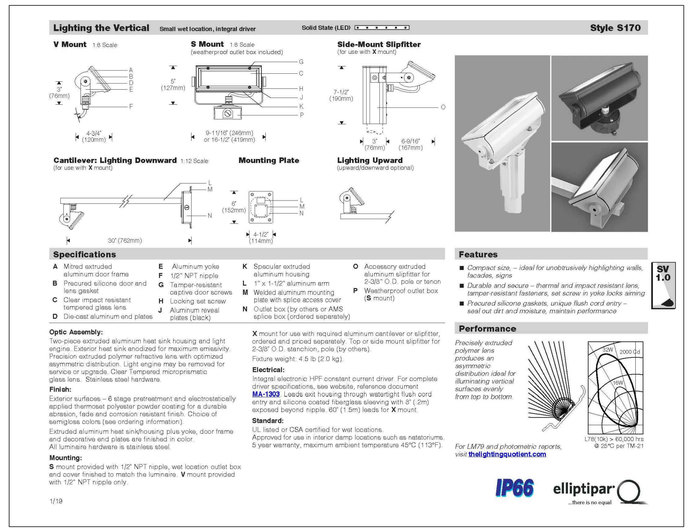
Series	LED's	Generation	Mounting	Finish	Optics	CCT	Voltage	Drive current
CXF5 Pima	32 32 LEDs 48 48LEDs 64 64 LEDs 80 80 LEDs	G2	T Top arm	A Black B White G Verde H Bronze I Gray J Green	2 Type II 3 Type III 4 Type IV 5 Type V	W 3000K N 4000K	A 120-277 VAC B 347-480 VAC	3 350mA 5 530mA 7 700mA

Ordering guide (continued)

Optional programs						
Optional dimming	1st option	2nd option	3rd option	Surge protection	Luminaire options	
DA 4 life 25% Reduction DB 4 life 50% Reduction DC 4 life 75% Reduction DD 6 life 25% Reduction DE 6 life 50% Reduction DF 6 life 75% Reduction DG 8 life 25% Reduction DH 8 life 50% Reduction DJ 8 life 75% Reduction DALI Compatible with DALI N No dimming	AST Adjustable start up N No 1st option	CLO Constant light output N No 2nd option	OTL Over the life N No 3rd option	SP1 10kV/20kA SP2 20kV/20kA	H House side shield N No options	

Footnotes
1. 32 LED at 350mA and 530mA are not compatible with 347-480V.
2. Can't use 700mA with 80LED's.
3. 347-480V not compatible with optional dimming or optional programming.

FX-3- PEDESTRIAN POLE LIGHT



Lighting the Vertical Small wet location, integral driver — Solid State (LED) — **Style S170**

V Mount 1:8 Scale

S Mount 1:8 Scale
(weatherproof outlet box included)

Side-Mount Slipfitter
(for use with **X** mount)

Cantilever: Lighting Downward 1:12 Scale
(for use with **X** mount)

Mounting Plate

Lighting Upward
(uplens/diffuser/wire guard optional)

Specifications

A Mitred extruded aluminum door frame
B Prescured silicone door and lens gasket
C Clear impact resistant tempered glass lens
D Die-cast aluminum end plates
E Aluminum yoke
F 1/2" NPT nipple
G Tamper-resistant captive door screws
H Locking set screw
J Aluminum reveal plates (black)
K Specular extruded aluminum housing
L 1" x 1-1/2" aluminum arm
M Welded aluminum mounting plate with splice access cover
N Outlet box (by others or AMS splice box (ordered separately)
O Accessory extruded aluminum slipfitter for 2-3/8" O.D. pole or tenon
P Weatherproof outlet box (**S** mount)

Optic Assembly:
Two-piece extruded aluminum heat sink housing and light engine. Exterior heat sink anodized for maximum emissivity. Precision extruded polymer refractive lens with optimized asymmetric distribution. Light engine may be removed for service or upgrade. Clear Tempered microprismatic glass lens. Stainless steel hardware.

Finish:
Exterior surfaces – 6 stage pretreatment and electrostatically applied thermoset polyester powder coating for a durable abrasion, fade and corrosion resistant finish. Choice of semigloss colors (see ordering information).
Extruded aluminum heat sink/housing plus yoke, door frame and decorative end plates are finished in color.
All luminaire hardware is stainless steel.

Mounting:
S mount provided with 1/2" NPT nipple, wet location outlet box and cover finished to match the luminaire. **V** mount provided with 1/2" NPT nipple only.

X mount for use with required aluminum cantilever or slipfitter, ordered and priced separately. Top or side mount slipfitter for 2-3/8" O.D. stanchion, pole (by others).
Fixture weight: 4.5 lb (2.0 kg).

Electrical:
Integral electronic HPF constant current driver. For complete driver specifications, see website, reference document **MA-1302**. Leads exit housing through watertight flush cord entry and silicone coated fiberglass sleeving with 8" (.2m) exposed beyond nipple. 60" (1.5m) leads for **X** mount.

Standard:
UL listed or CSA certified for wet locations.
Approved for use in interior damp locations such as natatoriums.
5 year warranty, maximum ambient temperature 45°C (113°F).

Features

- *Compact size, – ideal for unobtrusively highlighting walls, facades, signs*
- *Durable and secure – thermal and impact resistant lens, tamper-resistant fasteners, set screw in yoke locks aiming*
- *Precured silicone gaskets, unique flush cord entry – seal out dirt and moisture, maintain performance*

Performance

Precisely extruded polymer lens produces an asymmetric distribution ideal for illuminating vertical surfaces evenly from top to bottom.

L78 (10k) > 60,000 hrs @ 25°C per TM-21

For LM79 and photometric reports, visit **thelightingquotient.com**

IP66 elliptipar ...there is no equal

SV 1.0

1/19

FX-4- ENTRY PROJECT SIGN UPLIGHT

HADCO by ⓘignify

Urban
Prima
CXF5 Pendant

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

The Hadco Pima pendant family offers a simple modern take on the traditional pendant lantern, providing style and elegance to downtowanreas, commercial developments, parks and residential communities. These pendants use the latest LED technology which maximizes energy savings and provides uniform and comfortable light.

Ordering guide: Example: CXF4-32-G2-A-A-2-W-A-3-DA-AST-SP2-N

Series	LED's	Generation	Mounting	Finish	Optics	CCT	Voltage	Drive current
CXF5 Pima	32 32 LEDs 48 48LEDs 64 64 LEDs 80 80 LEDs	G2	T Top arm	A Black B White G Verde H Bronze I Gray J Green	2 Type II 3 Type III 4 Type IV 5 Type V	W 3000K N 4000K	A 120-277 VAC B 347-480 VAC	3 350mA 5 530mA 7 700mA

Ordering guide (continued)

Optional programs						
Optional dimming	1st option	2nd option	3rd option	Surge protection	Luminaire options	
DA 4 life 25% Reduction DB 4 life 50% Reduction DC 4 life 75% Reduction DD 6 life 25% Reduction DE 6 life 50% Reduction DF 6 life 75% Reduction DG 8 life 25% Reduction DH 8 life 50% Reduction DJ 8 life 75% Reduction DALI Compatible with DALI N No dimming	AST Adjustable start up N No 1st option	CLO Constant light output N No 2nd option	OTL Over the life N No 3rd option	SP1 10kV/20kA SP2 20kV/20kA	H House side shield N No options	

Footnotes
1. 32 LED at 350mA and 530mA are not compatible with 347-480V.
2. Can't use 700mA with 80LED's.
3. 347-480V not compatible with optional dimming or optional programming.

FX-5A- PARKING LOT POLE LIGHT
FX-5B- PARKING LOT POLE LIGHT



Product Description

> Quick Ship - In Stock, Ready to Ship

The Axis series is available with a knuckle mount feature, swivel pendant, post top fitter or stake and is designed with three optical outputs to replace HID lighting systems up to 100w. Typical lighting applications include retail centers, industrial parks, schools and universities, public transit and airports, office buildings and medical facilities. Mounting can be accomplished up to heights of 12 feet.

Project:		Type:	
Location:			
Prepared By:		Date:	
Comments:			

Performance Summary

- Samsung COB LEDS with high efficacy >115 Lm/W
- USA assembled product with quick warranty support
- Modern, architectural design with a streamlined appearance
- Patented heat dissipation design for optimum efficiency
- National listing lab tested to IES standards with NEMA optics
- High lumen maintenance exceeds DOE requirements
- White reflector built around the LED for enhanced light distribution
- Solid State with high-shock and vibration resistance
- Aluminum LED boards with copper tracings for best thermal management
- LED array manufactured using a state-of-the-art SMT machine
- Tempered clear borosilicate flat glass lens
- A360 extruded ingot die-cast housing, front frame and ballast box
- DuPont textured architectural bronze powdercoat finish
- Chromate conversion coating for long lasting appearance
- Mounts with included 1/2" NPS adjustable knuckle
- Angle indicators on the knuckle assist with proper aiming
- Rust resistant stainless steel hardware with durable nickel-plating
- Fin heatsinks for best heat dissipation and long life
- High CRI - RA>80 enhances original colors
- 1-10V dimmable driver with surge protection option
- Fast turn on with no warm up or cold start issues
- Contains no mercury, lead, infrared or UV radiation and cool to the touch
- Operating temperature: -40 to 50 degrees celsius
- Samsung chip platform with completed 6,000 hour LM-80 test
- 89,000 hour LED life @ L70 tested at 105 degrees celsius
- Certifications: CE, RoHS, CSA - IP67 outdoor rated
- 5 year system warranty

AXIS BULLET SERIES
1/2" NPS Adjustable Threaded Knuckle
LED Dimmable Luminaire

Models:
- VDFB1C3FR: 20W - 2372 Lm

Ordering Information: Part Number:

*Adder Applies

Ordering Example: WDFB1C3FR-41-S5C-V27-BZ-ND

Family	CCT	Optic	Voltage	Finish	Dimming	Accessories*
WDFB1C3FR	30 - 3000K** 41 - 4100K 50 - 5000K** B - Red* G - Green* B - Blue* A - Amber*	S5C - NEMA 6'x6'V with 70 Degree Reflector S5P - NEMA 6'x6'V with 100 Degree Reflector* S4P - NEMA 4'x6'V with 30 Degree Reflector*	V27 - 120-277V V12 - 12VDC	BZ - Bronze CS - Custom*	ND - Non Dim DM - 1-10V Dim	SF - Single Fuse DF - Double Fuse SP - 20kA Surge Protection 120-277VAC YS - 6" Length Rotatable Directional Visor WP - Backplate with 1/2" Coin Plugs RPM - Round Swivel Pendant Mount fits 3/4" Conduit SPM - Square Swivel Pendant Mount fits 3/4" Conduit FLP - Post Top Fitter for 2 3/8" to 3 1/2" Poles GS - Heavy Duty Ground Stake with 1/2" NPS Threads

VividLeds Vivid Leds, Inc. PO BOX 9 Sellersburg, IN 47172 800-574-3570 www.vividleds.us

Dimensions, specifications, and product pictures are subject to change without notice.

B9

The product on this page is a manufactured to order, non-stocking item. This product cannot be returned for refund or credit. Revised 3.23.18

V-7 VIVIDLENS AXIS BULLET WALL UPLIGHT

BREA CANYON BUSINESS PARK
850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

G|A|A ARCHITECTS
8811 Research Drive,
Suite 200,
Irvine, CA 92618
T: 949 474 1775
F: 949 553 9133

LICENSED LANDSCAPE ARCHITECT
MICHAEL A. SULLIVAN No. 2264
10/31/
Renewal Date
STATE OF CALIFORNIA

SITE
design studio inc.
180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780
Ph: 714.426.0248 Fax: 714.426.025

NO.	DESCRIPTION	DATE
1	DESIGN REVIEW SUBMITTAL	12/04/17
2	DESIGN REVIEW SUBMITTAL	3/21/18
3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/07/19
8	DESIGN REVIEW RESUBMITTAL	7/12/19

LIGHT FIXTURE CUTSHEETS

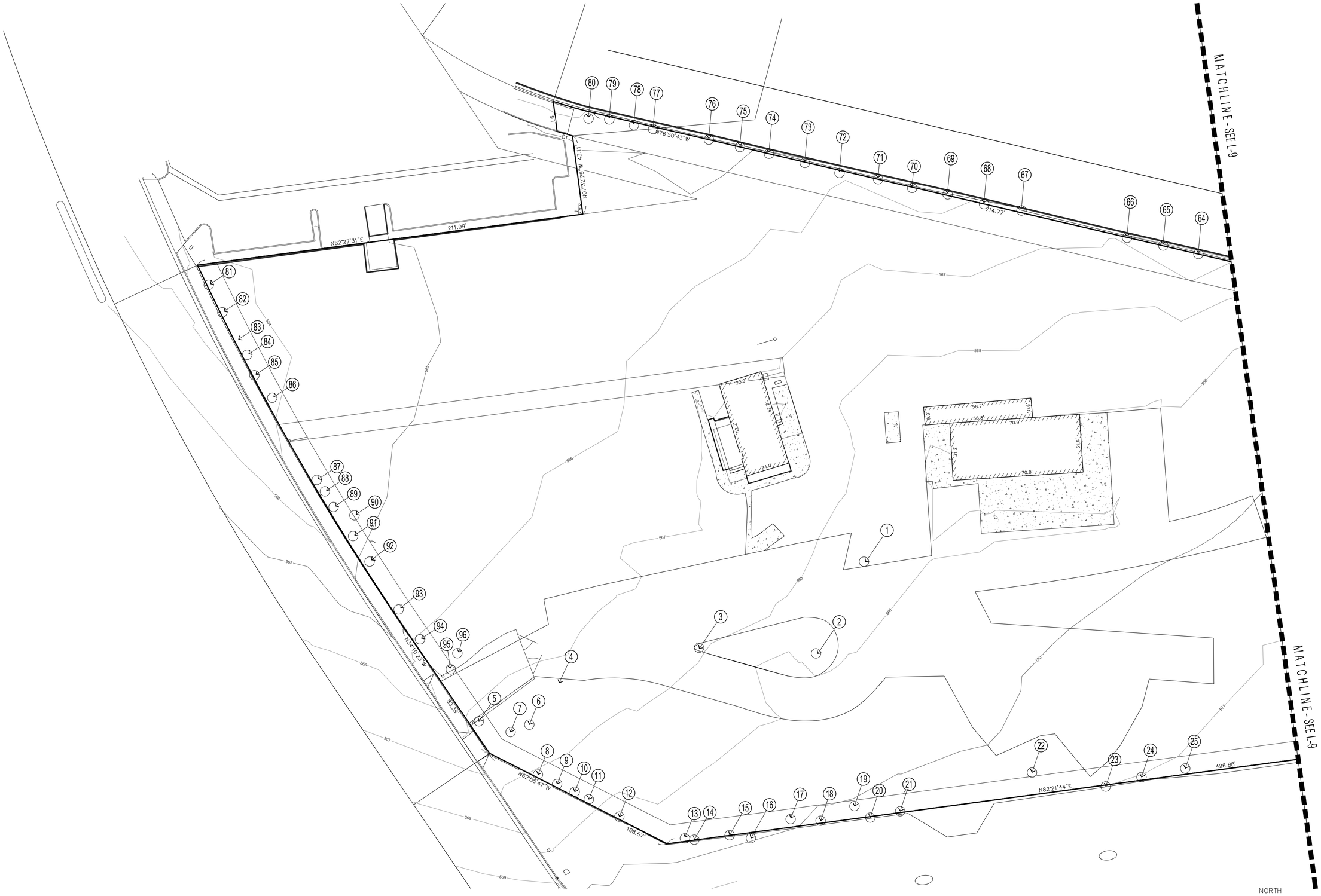
UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
422-4133
TWO WORKING DAYS BEFORE YOU DIG

FOR PLANTING DETAILS REFER TO SHEET LP-3

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NORTH

ARBORIST TREE SURVEY | 1:20

GAA ARCHITECTS

8811 Research Drive,
Suite 200,
Irvine, CA 92618
T: 949 474 1775
F: 949 553 9133

BREA CANYON BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
MICHAEL E. SULLIVAN/ASLA
License
10/31/19
Expiration Date
STATE OF CALIFORNIA

SITE

design studio inc.

180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780

Ph: 714.426.0248 Fax: 714.426.0255

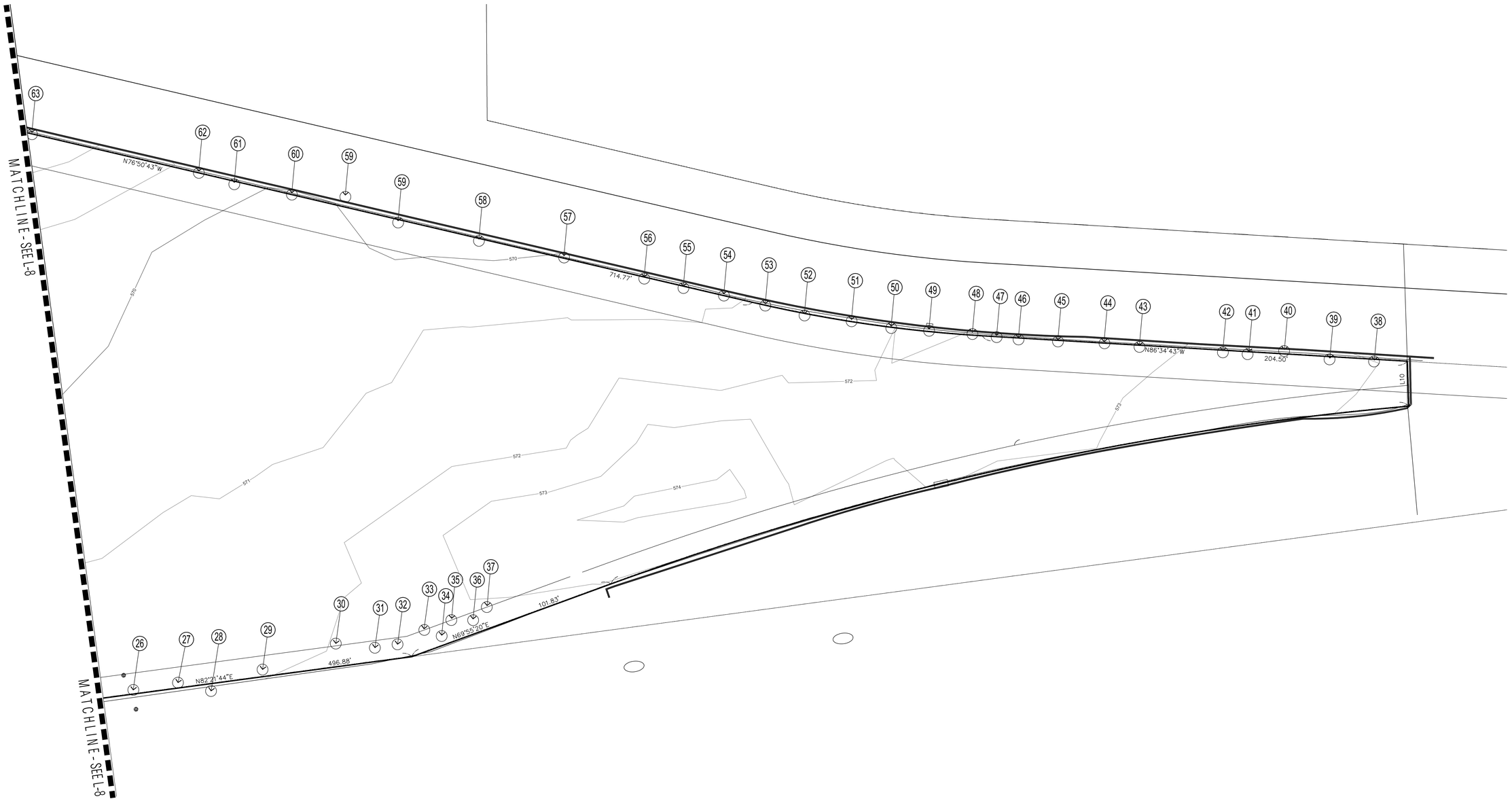
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6	DESIGN REVIEW RESUBMITTAL	3/18/19
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FILE NAME:		



NORTH

ARBORIST TREE SURVEY | 1:20

GAA ARCHITECTS

8811 Research Drive,
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BREA CANYON
BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
MICHAEL F. SULLIVAN
No. 5717
Registered
10/31/
Renewal Date
Date
STATE OF CALIFORNIA

SITE
design studio inc.

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7	DESIGN REVIEW RESUBMITTAL	6/07/19
8	DESIGN REVIEW RESUBMITTAL	7/12/19

ARBORIST TREE SURVEY

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JOB NO:	SCD002.01	SHEET NO:	L-9
DATE:	12/04/17		
DRAWN:	GAA		
FILE NAME:			

Jim Borer Certified Arborist #496

Specimen Tree Preservation, conservation and analysis

February 12, 2018

Mr. Philip Lee
Brea Canyon Road, LLc

Telefax: This page plus 1

Existing Tree Inventory
850 Brea Canyon Road
Diamond Bar, Ca.

Dear Mr. Lee,

I am writing as a follow-up to my recent on-site inspections of the existing trees within the referenced site that is planning for redevelopment. This correspondence is prepared to accompany the 'Excel' document that was prepared to index the existing specimen trees within the site.

Observations

I have reviewed and inventoried a total of 96 existing mature specimen trees within the site. This number includes one Mexican fan palm which is not a tree but is included herein based upon its status as a large plant with a woody stem. The inventory includes the following breakdown by tree type:

53 evergreen ash (***Fraxinus uhdei***)

26 Californa & Brazilian Peppers (***Schinus species***)

7 yew pine (***Podocarpus henkelii***)

4 gum trees (***Eucalyptus species*)**

2 coast beefwood (***Casuarina stricta***)

1 Mexican fan palm (***Washingtonia robusta***)

1 evergreen elm (***Ulmus parvifolia***)

1 European olive (***Olea europaea*)**

1 evergreen pear (***Pyrus kawakami***)

None of the 96 individuals are native species. There are not any oaks (***Quercus species),*** California sycamores (***Platanus racemosa),*** California black walnuts (***Juglans caifornica***), or other native species trees within the site's existing tree inventory. With the exception of the Mexican fan palm the existing trees exhibit poor conditions including drought stress, under-pruning, and in many cases mis-guided and poorly affected pruning.

PO Box 1803, Rancho Cucamonga, Ca. 91729-1803
Email: borerjim@gmail.com
Phone 909 / 997-7020

Brea Canyon Road LLC
850 Brea Canyon Road
Existing Tree Inventory
12-Feb-18

Prepared by: Jim Borer, Certified Arborist #496
Phone: 909 / 997-7020, Fax 909 / 948-8882
Email: borerjim@gmail.com

Tree #	Latin Name	Common Name	DBH	Ht & Wdth	Viability	Disposition
1	***Fraxinus uhdei***	evergreen ash	48"	50' x 50'	**Poor**	**Removal**
	Poor form including inclusion and decay					
2	***Fraxinus uhdei***	evergreen ash	24"	40' x 40'	**Poor**	**Removal**
	Poor form including inclusion and girdled roots					
3	***Washingtonia rob.***	Mexican fan palm	26"	40' x 14'	**Average**	**Could be relocated**
	Typical specimens that could be relocated					
4	***Fraxinus uhdei***	evergreen ash	26"	55' x 35'	**Poor**	**Removal**
	Poor form including inclusion and decay					
5	***Fraxinus uhdei***	evergreen ash	6"	20' x 12'	**Poor**	**Removal**
	Immature specimen that is approx. 35% dead					
6	***Fraxinus uhdei***	evergreen ash	21" m	45' x 30'	**Poor**	**Removal**
	Double trunk, poor form including inclusion and decay					
7	***Fraxinus uhdei***	evergreen ash	18"	45' x 25'	**Poor**	**Removal**
	Poor form, severe inclusion					
8	***Podocarpus henkelii***	yew pine	4"	dead	**Dead**	**Removal**
	Dead					
9	***Podocarpus henkelii***	yew pine	4"	dead	**Dead**	**Removal**
	Dead					
10	***Podocarpus henkelii***	yew pine	9"	16' x 14'	**Poor**	**Removal**
	Poor form and systemic performance					
11	***Podocarpus henkelii***	yew pine	10"	Dead	**Dead**	**Removal**
	Dead					
12	***Podocarpus henkelii***	yew pine	10"	Dead	**Dead**	**Removal**
	Dead					
13	***Fraxinus uhdei***	evergreen ash	20"	45' x 40'	**Poor**	**Removal**
	Poor form, severe inclusion					
14	***Fraxinus uhdei***	evergreen ash	11"	35' x 30'	**Poor**	**Removal**
	Immature, poor form, regrowth from severely cut back trunk					
15	***Fraxinus uhdei***	evergreen ash	16"	40' x 30'	**Poor**	**Removal**
	Immature, poor form, regrowth from severely cut back trunk					
16	***Fraxinus uhdei***	evergreen ash	14"	40' x 25'	**Poor**	**Removal**
	Poor form, severe inclusion					
17	***Schinus terebinth.***	Brazilian pepper	19"	430' x 30'	**Poor**	**Removal**
	Poor form, severe inclusion, regrowth froom being cutback					
18	***Olea europaea***	European olive	15"	35' x 30'	**Poor**	**Removal**
	Poor mature form and character					
19	***Fraxinus uhdei***	evergreen ash	11"	30' x 15'	**Poor**	**Removal**
	Poor form and character					
20	***Casuarina stricta***	coast beefwood	22"	40' x 30'	**Poor**	**Removal**
	Poor form, has been severeely cut back and regrown from suckers					
21	***Schinus molle***	California pepper	22"	30' x 35'	**Poor**	**Removal**
	Poor form, regrowth from previously cut back stumps					
22	***Schinus molle***	California pepper	20"	30' x 35'	**Poor**	**Removal**
	Poor form and character, understory and intertwined with tree # 21					
23	***Fraxinus uhdei***	Evergreen ash	15"	35' x 30'	**Poor**	**Removal**
	Poor form, competition from companions					
24	***Fraxinus uhdei***	Evergreen ash	14"	50' x 30'	**Poor**	**Removal**
	Poor form, severe inclusion					
25	***Ulmus parvifolia***	evergreen elm	8"	16' x 16'	**Poor**	**Removal**
	Poor form, cut back has resulted in the current canopy of suckers					
26	***Schinus terebinth.***	Brazilian pepepr	16"	25' x 24'	**Poor**	**Removal**
	Poor form, r egrowth from previous cut back					
27	**Fraxinus uhdei**	evergreen ash	8" dbl	Dead	**Dead**	**Removal**
	Dead					
28	***Schinus terebinth.***	Brazilian pepepr	14"	30' x 22'	**Poor**	**Removal**
	Poor form					
29	***Schinus molle***	California pepper	4"	16' x 10'	**Poor**	**Removal**
	Poor form, regrowth from previously cut back trunk					
30	***Schinus molle***	California pepper	36"	45' x 30'	**Poor**	**Removal**
	Over mature form and character					
31	***Schinus molle***	California pepper	18"	45' x 30'	**Poor**	**Removal**
	Over mature form and character					
32	***Schinus molle***	California pepper	26"	45' x 30'	**Poor**	**Removal**
	Over mature form and character					
33	***Schinus molle***	California pepper	22"	45' x 30'	**Poor**	**Removal**
	Over mature form and character					
34	***Schinus molle***	California pepper	32"	35' x 30'	**Poor**	**Removal**
	Overmature form and character					
35	***Schinus molle***	California pepper	26"	35' x 30'	**Poor**	**Removal**
	Poor form, has been cut back and resprouted					
36	***Schinus molle***	California pepper	38" m	40' x 35'	**Poor**	**Removal**
	Poor form, has been cut back and resprouted					
37	***Fraxinus uhdei***	evergreen ash	10"	30' x 25'	**Poor**	**Removal**
	Poor form, including severe inclusion					
38	***Fraxinus uhdei***	evergreen ash	16"	35' x 25'	**Poor**	**Removal**
	Poor form, including severe inclusion					
39	***Fraxinus uhdei***	evergreen ash	19"	35' x 35'	**Poor**	**Removal**
	Poor form, including severe inclusion					
40	***Fraxinus uhdei***	evergreen ash	22" m	35' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
41	***Fraxinus uhdei***	evergreen ash	24" m	30' x 25'	**Poor**	**Removal**
	Poor form, including severe inclusion					
42	***Fraxinus uhdei***	evergreen ash	21' dbl	35' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
43	***Fraxinus uhdei***	evergreen ash	15"	35' x 25'	**Poor**	**Removal**
	Poor form, including severe inclusion					
44	***Fraxinus uhdei***	evergreen ash	20"	35' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
45	***Fraxinus uhdei***	evergreen ash	32"	45' x 35'	**Poor**	**Removal**
	Poor form, including severe inclusion					
46	***Fraxinus uhdei***	evergreen ash	9"	30' x 20'	**Poor**	**Removal**
	Poor form, including severe inclusion					
47	***Fraxinus uhdei***	evergreen ash	8"	30' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
48	***Fraxinus uhdei***	evergreen ash	14"	40' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
49	***Fraxinus uhdei***	evergreen ash	15"	45' x 28'	**Poor**	**Removal**
	Poor form, including severe inclusion					
50	***Fraxinus uhdei***	evergreen ash	16"	50' x 40'	**Poor**	**Removal**
	Poor form, including severe inclusion					
51	***Fraxinus uhdei***	evergreen ash	19"	50' x 35'	**Poor**	**Removal**
	Poor form, including severe inclusion					
52	***Schinus molle***	California pepepr	18"	35' x 35'	**Poor**	**Removal**
	Poor form					
53	***Fraxinus uhdei***	evergreen ash	18"	40' x 30'	**Poor**	**Removal**
	Poor form					
54	***Schinus terebinth.***	Brazilian pepper	11"	14' x 12'	**Poor**	**Removal**
	Poor form, regrowth from cut back trunk					
55	***Schinus terebinth.***	Brazilian pepper	7"	25' x 16'	**Poor**	**Removal**
	Poor form, regrowth from cut back trunk					
56	***Schinus molle***	California pepper	28"	40' x 40'	**Poor**	**Removal**
	Poor form, has been cut back severely					
57	***Schinus molle***	California pepper	36"	40' x 40'	**Poor**	**Removal**
	Poor form, has been cut back severely					
58	***Schinus terebinth.***	Brazilian pepper	10" m	20' x 20'	**Poor**	**Removal**
	Poor form, regrowth from cut back trunk					
59	***Fraxinus uhdei***	evergreen ash	18"	45' x 40'	**Poor**	**Removal**
	Poor form, severe inclusion					
60	***Schinus molle***	California pepper	20"	40' x 40'	**Poor**	**Removal**
	Poor form, decay and related decline					
61	***Schinus terebinth.***	Brazilian pepper	14" dbl	20' x 16'	**Poor**	**Removal**
	Poor form, regeowth from cut back trunks					
62	***Fraximus uhdei***	Brazidian pepper	14"	35' x 30'	**Poor**	**Removal**
	Poof form, including severe inclusion					
63	***Fraxinus uhdei***	evergreen ash	17"	35' x 35'	**Poor**	**Removal**
	Poor form, severe inclusion					
64	***Fraxinus uhdei***	evergreen ash	17"	45' x 35'	**Poor**	**Removal**
	Poor form, including severe inclusion					
65	Fraxinus uhdei	evergreen ash	26" m	50' x 40'	**Poor**	**Removal**
	Poor form, including severe inclusion					
66	***Fraxinus uhdei***	evergreen ash	14"	50' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
67	***Fraxinus uhdei***	evergreen ash	16"	45' x 30'	**Poor**	**Removal**
	Poor form, including severe inclusion					
68	***Fraxinus uhdei***	evergreen ash	14"	40' x25'	**Poor**	**Removal**
	Poor form, including severe inclusion					
69	***Fraxinus uhdei***	evergreen ash	17"	50' x 35'	**Poor**	Removal
	Poor form, including severe inclusion					
70	***Fraxinus uhdei***	evergreen ash	16"	40' x 30'	**Poor**	Removal
	Poor form, including severe inclusion					
71	***Schinus terebinth.***	Brazilian pepper	18"	30' x 30'	**Poor**	**Removal**
	Poor form, regrowth from previous cut back					
72	***Schinus terebinth.***	Brazilian pepper	25"	55' x 40'	**Poor**	**Removal**
	Poor form, regrowth from previous cut back					
73	***Schinus terebinth.***	Brazilian pepper	13"	35' x 25'	**Poor**	**Removal**
	Poor form, crowded					
74	***Fraxinus uhdei***	evergreen ash	18"	45' x 30'	**Poor**	**Removal**
	Poor form, crowded					
75	***Fraxinus uhdei***	evergreen ash	18"	45' x 30'	**Poor**	**Removal**
	Poor form, severe inclusion					
76	***Casuarina stricta***	coast beefwood	20"	55' x 30'	**Poor**	**Removal**
	Poor form, senescent decline					
77	***Fraxinus uhdei***	evergreen ash	19"	50' x 40'	**Poor**	**Removal**
	Poor form, severe inclusion					
78	***Fraxinus uhdei***	evrergreen ash	18"	50' x 30'	**Poor**	**Removal**
	Poor form, decay and inclusion					
79	***Fraxinus uhdei***	evergree ash	26"	45' x 50'	**Poor**	**Removal**
	Poor form, severe inclusion					
80	***Fraxinus uhdei***	evergreen ash	32"	45' x 40'	**Poor**	**Removal**
	Poor form, regrowth from previous cutback					
81	***Eucalyptus glob.***	blue gum	34"	55' x 40'	**Poor**	**Removal**
	Overmature form and charactar, numerous defects could result in branch failure					
82	***Eucalyptus glob.***	blue gum	15"	35' x 25'	**Poor**	**Removal**
	Overmature form and charactar, numerous defects could result in branch failure					
83	***Eucalyptus glob.***	blue gum	28"	45' x 30'	**Poor**	**Removal**
	Overmature form and charactar, numerous defects could result in branch failure					
84	***Schinus terebinth.***	Brazoilian pepper	5"	16' x 6'	**Poor**	**Removal**
	Immature. Poor form and character					
85	***Schinus terebinth.***	Brazoilian pepper	18"	28' x 24'	**Poor**	**Removal**
	Poor form, inclusion and decay					
86	***Eucalyptus poly.***	silver dollar gum	24"	45' x 35'	**Poor**	**Removal**
	Overmature form and charactar, numerous defects could result in branch failure					
87	***Fraxinus uhdei***	evergreen ash	13"	35' x 25'	**Poor**	**Removal**
	Poor form, inclusion and decay					
88	***Podocarpus henkelii***	yew pine	3"	10' x 4'	**Poor**	**Removal**
	Poor form, understory to adjacent ash and eucalyptus					
89	***Podocarpus henkelii***	yew pine	4"	10' x 4'	**Poor**	**Removal**
	Poor form, understory to adjacent ash and eucalyptus					
90	Pyrus kawakami	evergreen pear	9"	16' x 18'	**Poor**	**Removal**
	Fireblight disease symptoms					
91	***Fraxinus uhdei***	evergreen ash	24"	40' x 30'	**Poor**	**Removal**
	Poor form, decay and inclusion					
92	***Fraxinus uhdei***	evergreen ash	16"	35' x 30'	**Poor**	Removal
	Poor form, severe inclusion					
93	***Fraxinus uhdei***	evergreen ash	7"	30' x14'	**Poor**	Removal
	Immature, poor form					
94	***Fraxinus uhdei***	evergreen ash	16"	35' x 35'	**Poor**	**Removal**
	Poor form, severe inclusion					
95	***Fraxinus uhdei***	evergreen ash	17"	40' x 30'	**Poor**	**Removal**
	Poor form, inclusion and decay					
96	***Fraxinus uhdei***	evergreen ash	15"	35' x 30'	**Poor**	**Removal**
	Poor form, inclusion and decay					

ARBORIST TREE SURVEY

G|A|A
ARCHITECTS

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BREA CANYON
BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

LICENSED LANDSCAPE ARCHITECT
MICHAEL A. SULLIVAN No. 5653
Signature
10/31/
Renewal Date
Date
STATE OF CALIFORNIA

SITE
design studio inc.

180 EAST MAIN ST., STE. 208
TUSTIN, CA 92780

Ph: 714.426.0248 Fax: 714.426.0255

NO.	DESCRIPTION	DATE
1	DESIGN REVIEW SUBMITTAL	12/04/17
2	DESIGN REVIEW SUBMITTAL	3/21/18
3	DESIGN REVIEW SUBMITTAL	6/18/18
4	DESIGN REVIEW RESUBMITTAL	8/08/18
5	DESIGN REVIEW RESUBMITTAL	9/26/18
6	DESIGN REVIEW RESUBMITTAL	3/18/19
7	DESIGN REVIEW RESUBMITTAL	6/07/19
8	DESIGN REVIEW RESUBMITTAL	7/12/19

ARBORIST TREE SURVEY

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JOB NO:	SCD002.01	**SHEET NO:**	L-10
DATE:	12/04/17		
DRAWN:	GAA		
FILE NAME:			

Appendix C
“Hampton by Hilton” Brochure

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Hampton by Hilton Instanbul Atakoy, Turkey

HAMPTON BY HILTON

EMEA Development Brochure



Hampton by Hilton Bournemouth, United Kingdom

Brand overview

Hampton by Hilton™ delivers a friendly and consistent hotel experience at a competitive price point to business and leisure travelers alike. An award-winning, global category leader, a Hampton by Hilton property is simple to develop and operate, offering one of today's most exciting and compelling investment opportunities.

Built upon the same foundation of success that has helped the brand lead the way in North America, Hampton by Hilton was designed to meet the needs of today's global guests while remaining simple to build and simple to operate.

Why Hampton by Hilton?

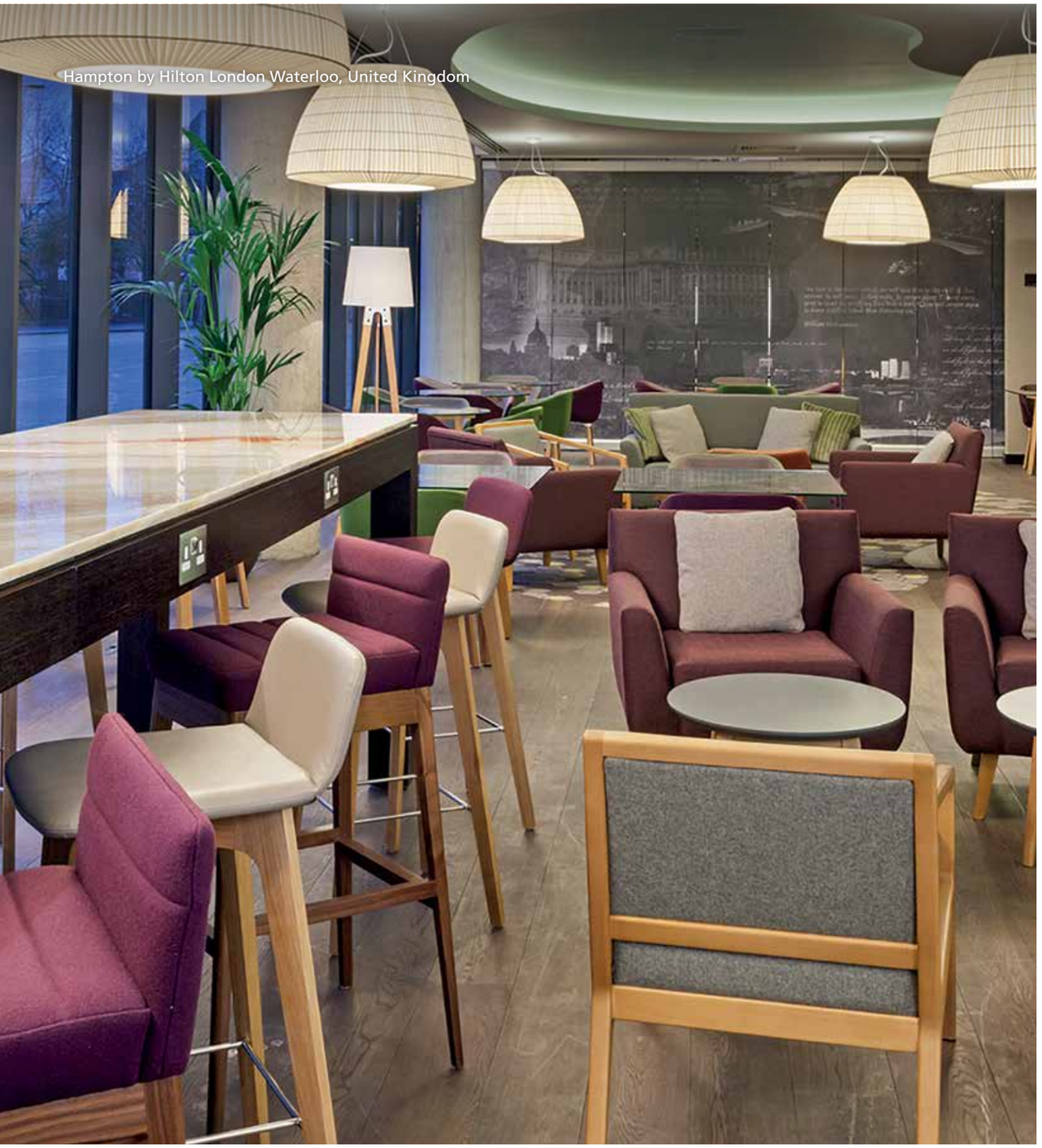
Hampton by Hilton offers a hotel design and experience that are unique and differentiated versus its competitors in the segment.

The unique kit-of-parts approach allows for "consistent flexibility"—meeting space is optional but flexible, and the food and beverage offering is focused. Everything is designed to meet the needs of a local market while holding true to brand standards.

Costs are controlled through a hands-on management style that allows a property to operate with only 25–30 full-time employees and provides the kind of environment and focus to support compelling profit margins while keeping guest satisfaction high.

Consistent quality is essential to maintaining guest satisfaction. At Hampton by Hilton this is assured through a meticulous and comprehensive internal measurement process.

Hampton by Hilton Nizhny Novgorod, Russia



Hampton by Hilton London Waterloo, United Kingdom



Hampton by Hilton Warsaw, Poland

LEADING THE EUROPEAN PIPELINE

WITH 10,954 ROOMS, REPRESENTING 7.5% (STR GLOBAL DECEMBER 2016)

Hampton by Hilton Istanbul Zeytinburnu, Turkey

BEST GLOBAL FRANCHISE

IN 2011, 2012, 2013, 2015 AND 2016 ACROSS SECTORS BY *ENTREPRENEUR MAGAZINE*'S ANNUAL FRANCHISE 500®

Hampton by Hilton Around the World

MORE THAN
2,200
PROPERTIES

FOUND IN
19
COUNTRIES

MORE THAN
220,000
AVAILABLE ROOMS

MORE THAN
490
PIPELINE HOTELS

**As of 31st December 2016*

Guest offerings

Hampton by Hilton is rapidly building a reputation as a global leader in the focused service hotel category. Through its 100% Hampton Guarantee™, the brand promises guests a great experience and value for money every time.

The consistent quality of Hampton by Hilton means guests can book any location around the world and know they will enjoy a great experience and friendly service. This has created powerful loyalty in both business and leisure guests, making the brand a preferred choice among travelers.

In addition to innovative, multipurpose public areas that provide engaging zoned spaces, guests enjoy attractive bundled services like complimentary Internet access and a complimentary hot breakfast tailored to regional tastes, all designed to help them focus on their travel goals, not on their hotel costs.



Hampton by Hilton Kocaeli, Turkey



Hampton by Hilton Liverpool, United Kingdom



Hampton by Hilton Istanbul Sabiha Gokcen Airport, Turkey



Hampton by Hilton Oxford, United Kingdom

A WORLD OF POTENTIAL.
A WEALTH OF OPPORTUNITY.

Hilton is focused on creating opportunities for our owners while building long-term relationships that offer success today and well into the future. With 14 leading brands and hotels in over 100 countries and counting, we offer global strength and scale combined with local expertise that is relevant to the many markets we serve.

As one of the world's leading global hospitality companies, we understand the importance of taking care of our owners and applying our expertise to create value through the design, construction and operation of a hotel. We also understand the importance of looking ahead, and we remain committed to our owners over the long term.

HILTON PERFORMANCE ADVANTAGE

Every Hilton hotel benefits from the unique system of innovative solutions and advanced technologies known as the Hilton Performance Advantage. Together, these services provide owners with the latest tools, forward-thinking strategies and access to some of the most influential people in the industry to help enhance guest experiences, reward customer loyalty, drive revenues and maximize efficiency of operations.

Spanning our entire portfolio of brands, the services that make up the Hilton Performance Advantage deliver leading-edge support to consistently drive profits and efficiencies. It is a powerful resource for owners and operators, unrivalled in the industry.

HILTON HONORS™ is our award-winning guest loyalty program. Its 60 million members accounted for over 50% of all room nights globally at our hotels in 2016, driving more than US$ 17 billion in revenue.

HILTON SALES with more than 850 Team Members around the world, drives high returns and revenues through increased negotiating power and higher-level access to more influential accounts and strategic partnerships. Global sales efforts account for approximately US$ 8.5 billion in yearly contracted revenue.

HILTON GLOBAL RESERVATION CENTERS provide 24-hour, multi-language global coverage in an effort to support and deliver business to your property. Our team of more than 3,000 highly skilled agents service 13 million reservations annually.

ONLINE SERVICES offers a cost-effective model to ensure your property is front and center online, providing the most convenient digital experience for guests through traditional and emerging online channels. We reach travelers at every opportunity with more than 30 websites, apps and mobile sites, featuring locally relevant content in 22 languages and registering 460 million yearly visits.

REVENUE MANAGEMENT helps hotels maximize profits with advanced tools, training and analysis to help make smart pricing and inventory decisions while increasing guest satisfaction. More than 2,000 hotels are already supported by our revenue specialists.

INFORMATION TECHNOLOGY utilizes world-class partners to create best-in-class technology solutions, from core reservation and property management systems to in-room high-speed Internet access and entertainment.

HILTON SUPPLY MANAGEMENT is a one-stop source, leveraging the combined purchasing power of our global portfolio to offer competitive value-based pricing on superior products and services.

Hampton by HILTON™

For more information or a development contact visit
www.hilton.com/development

Appendix D
Brea Canyon Business Park
Air Quality Analysis

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AIR QUALITY ANALYSIS

BREA CANYON BUSINESS PARK

850 Brea Canyon Road
Diamond Bar, California 91789



PL 2017-169
General Plan Amendment
Zone Change
Tentative Parcel Map
Development Review
Comprehensive Sign Program
Shared Parking Permit

Lead Agency:
City of Diamond Bar
Community Development Department
21810 Copley Drive
Diamond Bar, California 91765

Applicant:
Lycoming, LLC
17777 Center Court Drive, Suite 725
Cerritos, California 90703
(626) 384-5000

September 2019

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AIR QUALITY ANALYSIS

BREA CANYON BUSINESS PARK

850 Brea Canyon Road
Diamond Bar, California 91789

PL 2017-169
General Plan Amendment
Zone Change
Tentative Parcel Map
Development Review
Comprehensive Sign Program
Shared Parking Permit

Lead Agency:
City of Diamond Bar
Community Development Department
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Diamond Bar, California 91765
(909) 839-7032

CEQA Consultant:
Environmental Impact Sciences
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Mission Viejo, California 92691
(9949) 837-1195

Applicant:
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17777 Center Court Drive, Suite 725
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(626) 384-5000

September 2019

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AIR QUALITY ANALYSIS

1.0 Methodology

This air quality evaluation was prepared by or for the City of Diamond Bar Community Development Department (Department) in accordance with the requirements of the California Environmental Quality Act (CEQA) and the Guidelines for the Implementation of the California Environmental Quality Act (State CEQA Guidelines) to determine if significant air quality or greenhouse gas impacts are likely to occur in conjunction with the type and scale of development associated with the proposed "Brea Canyon Business Park" (BCBP) project proposed by Lycoming, LLC (Applicant). The project is to be located along the east side of Brea Canyon Road, north of the Pomona (SR-60) Freeway and south of Lycoming Street in the City of Diamond Bar (City of Lead Agency.

The approximately 5.73-acre project site (Figure AQ-1) was formerly used as a recreational vehicle and boat storage lot containing two on-site structures totaling approximately 3,600 square feet. As proposed, the subsequent land use shall include the construction and operation of a non-residential, mixed-use business park containing a total gross floor area of 118,471 square feet within the following stand-alone structures: (1) a 47,828 square-foot general and medical office building (Lot 1, Tentative Parcel Map No. [TPM] 82066); (2) an 8,900 square-foot medical office building (Lot 2, TPM 82066); and (3) a 61,743 square-foot, 109-room hotel (Lot 3, TPM 82066). As proposed, the completed project will include about 289 parking spaces.

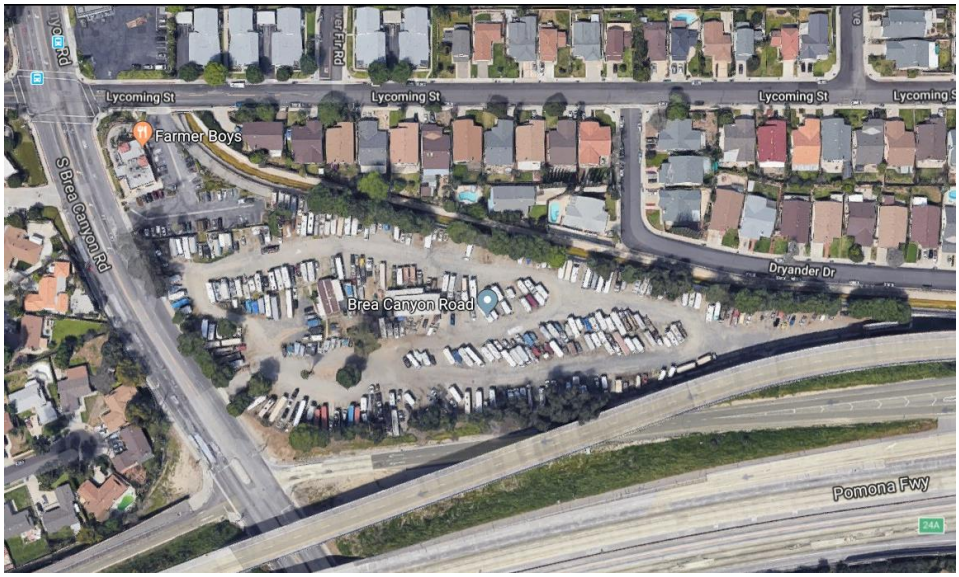


Figure AQ-1
PROPOSED "BREA CANYON BUSINESS PARK" SITE
(850 Brea Canyon Road, California 91789)
Source: Google Earth

The impact analysis contained in this report was prepared in accordance with the methodologies provided by the South Coast Air Quality Management District (SCAQMD) as included in "CEQA Air Quality Handbook" (April 1993) (Handbook) as well as updates included on the SCAQMD Internet website. The analysis makes use of the California Air Pollution

Officers Association's (CAPCOA) "California Emissions Estimator Model"® (CalEEMod Version 2016.3.2), as distributed by the SCAQMD and screening tables included in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003) and "Sample Construction Scenarios for Projects Less than Five Acres in Size" (February 2005).

The CalEEMod model uses the California "Emission Factor Model" (EMFAC2014)[1] emissions factors for vehicle traffic and the OFFROAD2011 emissions factors for construction equipment. For the purposes of this analysis, construction is estimated to begin in October 2019 and follows the CalEEMod default construction schedule.

The subsequent occupation of the site, as projected to occur in 2020, is also based on the CalEEMod model using the traffic-projections provided by Linscott, Law & Greenspan Engineers (LLG) as included in "Revised Traffic Impact Analysis Report – Brea Canyon Business Center, Diamond Bar, California" (April 24, 2019). The LLG study is based, in part, on the Institute of Transportation Engineer's (ITE) "Trip Generation Manual, 10th Edition" whereas the CalEEMod model utilizes the ITE's "Trip Generation Manual, 9th Edition." As such, the trip generation rates provided by LLG were used in the CalEEMod model runs to substitute for the "default values" otherwise contained in that model.

LLG estimates that, based on the trip generation rates presented in ITE's "Trip Generation Manual, 10th Edition," the proposed project would generate 2,084 average daily trips (ADT) on a weekday, 1,176 ADT on a Saturday, and 706 ADT on a Sunday. While the model uses the weekday value for the estimation of daily emissions, the Saturday and Sunday values are used in the calculation of the annual greenhouse gas (GHG) emissions.

Prior to the submittal of the proposed development application, the project site contained a vehicle/recreational vehicle/boat storage yard and two then existing on-site structures. For the purposes of this analysis, the proposed project results in the removal of that pre-existing use and those on-site structures. Because daily vehicle trips associated with that former land uses were assumed to be extremely limited, for the purposes of this analysis, no off-setting mobile or stationary emission "credits" have been taken for the removal of the prior use.

2.0 Existing Conditions

2.1 Climate/Meteorology

The project area lies in the South Coast Air Basin (SCAB or Basin). The SCAB includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure

[1]/ The EMFAC model is a computer model that can estimate emission rates for on-road mobile source (motor vehicles) for calendar years from 2000 to 2050 operating in California. Pollutant emissions for hydrocarbons (HC), carbon monoxide (CO), nitrogen oxides (NOx), PM_{10}, $PM_{2.5}$, lead, carbon dioxide (CO_2), and sulfur oxides are output from the model. Emissions are calculated for 51 different vehicle classes composed of passenger cars, various types of trucks and buses, motorcycles, and motor homes. EMFAC contains default vehicle activity data and the option of modifying that data. Inventories based on EMFAC are also used to meet the federal Clean Air Act's (CAA) SIP and transportation conformity requirements. Transportation conformity is required under Section 176(c) of the federal CAA to ensure that federally supported transportation plans, transportation improvement programs (TIPs), and highway and transit projects are consistent with the purpose of the State implementation plan (SIP). Conformity to the SIP means that a transportation activity will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment. Of the national ambient air quality standards (NAAQS) or interim milestones (80 FR 77337-77340, December 14, 2015).

zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild climatological pattern is infrequently interrupted by periods of extremely hot weather, winter storms, or Santa Ana winds.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station located nearest to the site in Pomona reports a yearly average of 62°F. The average low is reported at 38°F in January while the average high is 91°F in both July and August. All areas in the Basin have recorded temperatures above 100°F in recent years and temperatures as high as 114°F have been recorded at the Pomona station. January is typically the coldest month in this area of the Basin, with minimum temperatures in the 30s.

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast with slightly heavier shower activity in the east and over the mountains. Rainfall averages around 14.4 inches per year in the project area as measured in Pomona.

Although the Basin has a semi-arid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods of heavy fog, especially along the coastline, are frequent; and low stratus clouds, often referred to as “high fog” are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the east portions of the Basin.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. Annually, typical winds in the project area average about 5 to 8 miles per hour during the day and 2 to 5 miles per hour during the night.

Between the periods of dominant air flow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high pressure systems over the Basin, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally have a duration of a few days before predominant meteorological conditions are reestablished.

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” This mixing height can change under conditions when the top of the inversion does not change. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer, and the generally good air quality in the winter in the project area.

2.2 Ambient Air Quality

The following characterization of the baseline atmospheric environment includes an evaluation of the ambient air quality and applicable rules, regulations, and standards for the area. Because

the project has the ability to release gaseous emissions of criteria pollutants and dust into the ambient air, it falls under the ambient air quality standards promulgated on the local, State, and federal levels.

2.2.1 Affected Environment

Topographical features that affect the transport and diffusion of pollutants in the project area include the mountain ranges to the northeast that prevent the transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

The quality of the ambient air is affected by pollutants emitted into the air from stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.

Mobile sources refer to emissions from motor vehicles (including tailpipe and evaporative emissions) and are classified as either on-road or off-road. On-road sources are a combination of emissions from automobiles, trucks, and indirect sources. Indirect sources are sources that, by themselves, may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include a commercial center that generates vehicle trips and consumes energy resources through the use of natural gas for space and water heating. Indirect sources also include actions proposed by local governments, such as public and private development projects. In addition, indirect sources include those emissions created by the distance vehicles travel. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

2.2.2 Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal law. These regulated air pollutants are known as “criteria air pollutants” and are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NOx), sulfur dioxide (SO_2), and most fine particulate matter (PM_{10} and $PM_{2.5}$) including lead (Pb) and fugitive dust are primary air pollutants. Of these CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NOx are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reaction in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Presented below is a description of each of these primary and secondary criteria air pollutants and their known health effects. Other pollutants, including carbon dioxide (CO_2), a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming. Although these pollutants do not jeopardize the attainment status of the SCAB, these emissions are now regulated and separate threshold standards have been formulated for their release.

- **Carbon monoxide** (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

- **Reactive organic gases** (ROGs) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion, associated with motor vehicle usage, is the major source of hydrocarbons. Other sources of ROG include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG to form secondary pollutants. Note that for the purposes of this analysis ROG and volatile organic compounds (VOC), such as the emissions released from paint, are considered to be synonymous.

- **Nitrogen oxides** (NOx) serve as integral participants in the process of photochemical smog production. The two major forms of NOx are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen (O). NOx acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

- **Nitrogen dioxide** (NO_2) is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is nitric oxide (NO). NO reacts to form NO_2, creating the mixture of NO and NO_2 commonly called NOx. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm. NO_2 absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns or 0.0004 inch or less in diameter).

- **Sulfur dioxide** (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations, when combined with particulates, SO_2 may injure lung tissue.

- **Particulate matter** (PM) consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulate are now recognized. Course particles (PM_{10}) include that portion of the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Fine particles ($PM_{2.5}$) have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Wind action on the arid landscape also contributes substantially to the local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

- **Fugitive dust** poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent. Fugitive dust can also result in a nuisance factor due to the soiling of proximate structures and vehicles.

- **Ozone** (O_3) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and NOx (both by-products of the

internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the SCAB and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 may pose a health threat to those who already suffer from respiratory diseases as well as healthy people. O_3 has been tied to crop damage (typically in the form of stunted growth and pre-mature death) and acts as a corrosive (resulting in property damage such as the embitterment of rubber products).

2.2.3 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TAC) is an environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The H&SC defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP), pursuant to Section 112(b) of the Federal Clean Air Act (CAA) (42 U.S.C. 7412[b]) is a TAC.

Under State law, the California Environmental Protection Agency (CalEPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines the substance is an air pollutant which may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bills 1807 (Tanner Air Toxics Act) and 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology (T-BACT) to minimize emissions.

Air toxics from stationary sources are regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the applicable air quality management district (AQMD) or air pollution control district (APCD). High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. To date, the CARB has designated nearly 200 compounds as TACs. Additionally, the CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel particulate matter [diesel PM]).

In 2000, the SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk.

2.2.4 Other Effects of Air Pollution

Just as humans are affected by air pollution, so too are plants and animals. Animals must breathe the same air and are subject to similar types of negative health effects as are people.

Certain plants and trees may absorb air pollutants that can stunt their development or cause premature death, as well as interfere with their ability to convert CO_2 to oxygen.

There are also numerous impacts to our economy including lost workdays due to illness, a desire on the part of business to locate in areas with a healthy environment, and increased expenses from medical costs. Pollutants may also lower visibility and cause damage to property. Certain air pollutants are responsible for discoloring painted surfaces, eating away at stones used in buildings, dissolving the mortar that holds bricks together, and cracking tires and other items made from rubber.

2.2.5 Greenhouse Gas Emissions

Separately addressed herein is a limited discussion of Federal and State regulations relating to greenhouse gas (GHG) emissions. This information is neither intended to be comprehensive nor detailed but merely to present background information addressing this issue.

- **Federal Regulations**. It is both possible and highly likely that existing federal requirements relating to GHG emissions may change under the current presidential administration. Except as noted, no assumptions or suppositions as to the further policy direction of President Trump nor that of any federal agency is presented herein.

  President Obama signed Executive Order (EO) 13514 (Federal Leadership in Environmental, Energy, and Economic) in October 2009 setting aggressive targets for reducing waste and pollution in federal operations by 2020. EO 13514 was replaced by EO 13693 (Planning for Federal Sustainability in the Next Decade), as issued by then President Obama on March 19, 2015.

  EO 13514 required federal agencies to measure and reduce GHG pollution resulting from federal operations, improve energy efficiency, increase use of renewable energy, reduce water consumption, and purchase energy efficiency and environmentally preferable goods and materials. The aggregate federal government GHG emissions reduction goal resulting from EO 13514 totaled 28 percent by 2020.

  EO 13514 and EO 13693 also required federal agencies to publish an annual Strategic Sustainability Plan and called on the Office of Management and Budget (OMB) to measure and report on federal agent progress against goals in annual sustainability scorecards. Sustainability scorecard results are published by the Council on Environmental Quality's (CEQ) Office of Federal Sustainability (OFS).[2] On May 17, 2018, President Trump signed EO 13693, repealing EO 13693 and all associated requirements to reduce GHG pollution.

  The Paris climate accord, known as the "Paris Agreement" by the United Nations, is an international agreement reached in 2015 aimed at reducing carbon emissions, slowing rising global temperatures and helping countries deal with the effects of climate change. Under the terms of the agreement, signatories committed to "holding the increase in the global average temperature to well below 2 degrees Celsius (^oC) above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5^o C above pre-industrial levels."[3]

[2]/ The White House, Council on Environmental Quality, Office of Federal Sustainability (https://www.sustainability.gov/performance.html).

[3]/ United Nations Climate Change, Paris Agreement, Article 2, 2015, p. 3 (https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement).

Under the Paris Agreement, countries were required to set their own targets for reducing emissions by 2020. In accordance therewith, the former Obama administration committed the United States to reducing carbon emissions by 26 to 28 percent by 2025. The agreement also established a $100 billion fund to help vulnerable countries deal with the effects of climate change.

The final text of the agreement was adopted at the Conference of Parties to the United Nations Framework Convention on Climate Change (COP_{21}) in December 2015. The United States signed the agreement in April 2016, along with China, the European Union and 171 other nations. China and the United States account for nearly 40 percent of global carbon emissions.

The agreement took effect in November 2016 after nations accounting for 55 percent of global emissions ratified the treaty. As of May 2017, out of 195 who had initially signed the accord, 147 parties had ratified the Paris Agreement. On June 1, 2017, President Trump pulled the United States out of the Paris climate accord.

In June 2013, the Executive Office of the President released the "President's Climate Action Plan" to reduce the causes and impacts of global climate change. "The President's Climate Action Plan" included numerous steps and measures to reduce climate change. For example, to cut carbon pollution in the United States, the plan:

- Directed the USEPA to work closely with states, industry, and other stakeholder to establish carbon pollution standards for both new and existing power plants;
- Made up to $8 billion in loan guarantee authority available for a wide array of advanced fossil energy and efficiency projects supporting investments in innovative technologies;
- Directed the United States Department of the Interior (USDOI) to: (1) permit enough renewables project (e.g., wind and solar) on public lands by 2020 to power more than 6 million homes; (2) designated the first-ever hydropower project for priority permitting; (3) set a goal to install 100 megawatts of renewables on federally-assisted housing by 2020; (4) and maintained the commitment to deploy renewables on military installations;
- Expanded the President's Better Building Challenge, focusing on helping commercial, industrial, and multi-family buildings cut waste and become at least 20 percent more energy efficient by 2020;
- Set a goal to reduce carbon pollution by at least 3 billion metric tons cumulatively by 2030, representing more than half of the annual carbon pollution from the nation's energy sector, through efficiency standards set over the course of the administration for appliances and federal buildings;
- Committed to partnering with industry and stakeholders to develop fuel economy standards for heavy-duty vehicles; and
- Leveraged new opportunities to reduce pollution of hydrofluorocarbons, directs agencies to develop a comprehensive methane strategy, and committed to protecting the nation's forests and critical landscapes.

To prepare the nation for impacts of climate change, the "President's Climate Action Plan":

- Directed agencies to support local climate-resilient investment by removing barriers or counterproductive policies and modernizing programs;

- Established a short-term task force of state, local, and tribal officials to advise on key actions the federal government could take to help strengthen communities on the ground;
- Piloted innovative strategies in the Hurricane Sandy-affected region to strengthen communities against future extreme weather and other climate impacts;
- Launched an effort to create sustainable and resilient hospitals in the face of climate change through a public-private partnership with the healthcare industry;
- Maintained agricultural productivity by delivering tailored, science-based knowledge to farmers, ranchers, and landowners;
- Helped communities prepare for drought and wildfire by launching a National Drought Resilience Partnership;
- Expanded and prioritized forest- and rangeland-restoration efforts to make areas less vulnerable to catastrophic fires; and
- Provided climate preparedness tools and information needed by state, local, and private-sector leaders through a centralized "toolkit" and a "climate data initiative."

In an effort to lead international efforts addressing global climate change, the "President's Climate Action Plan":

- Committed to expanding major new and existing international initiatives, including bilateral initiatives with China, India, and other major carbon emitting countries;
- Called for the end of federal governmental support for public financing of new coal-fired powers plants overseas (except for the most efficient coal technology available in the world's poorest countries) or facilities deploying carbon capture and sequestration technologies; and
- Strengthened global resilience to climate change by expanding government and local community planning and response capacities.

On the first day of the presidency of President Trump, the White House announced that the "President's Climate Action Plan" would be eliminated, stating it to be "harmful and unnecessary."[4]

- **State Regulations**. Independent of current or future federal actions, unless otherwise preempted, State regulations relating to GHG emission reductions will continue to apply to the proposed project.[5]

  In 2005, in recognition of California's vulnerability to the effects of climate change, then Governor Schwarzenegger adopted Executive Order S-3-05, setting forth a series of target dates by which Statewide GHG emissions would be progressively reduced, as follows:

  - By 2010, reduce greenhouse gas emissions to 2000 levels;
  - By 2020, reduce greenhouse gas emissions to 1990 levels; and
  - By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

  In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), codified in Section 38500 et seq., Division 25.5, California Health and Safety

[4]/ The White House, An America's First Energy Plan, January 19, 2017.

[5]/ Section 38505 of the Health and Safety Code (H&SC) identifies seven GHGs that the California Air Resources Board (CARB) is responsible for monitoring and regulating to reduce emissions; carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and nitrogen trifluoride (NF_3). The fluorinated gases (F-gases) are also referred to as "high global warming potential gases" (HGWG).

Code (H&SC), which required the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective Statewide GHG emissions would be reduced to 1990 levels by 2020 (representing an approximate 25 percent emissions reduction).

The California Global Warming Solutions Act of 2006 (SB 32), as adopted on September 26, 2006, expanding upon AB 32 to reduce GHG emissions and required that there be a reduction in GHG emissions to 40 percent below the 1990 levels by 2030. The provisions of SB-32 were added to Section 38566, Division 25.5, of the H&SC. While AB-32 required California to reduce GHG emissions to 1990 levels by 2020, SB-32 continued that timeline to reach the targets set in Executive Order B-30-15 (April 29, 2015).[6]

In June 2007, CARB directed staff to pursue 37 early actions for reducing GHG emissions under AB 32. The broad spectrum of strategies included Low Carbon Fuel Standard, regulations for refrigerants with high global warming potentials (HGWP), guidance and protocols for local governments to facilitate GHG emission reductions, and green ports. CARB has subsequently evaluated 48 recommendations submitted by several stakeholder and several internally-generated staff ideas and published the "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California" (October 2007). Based on its additional analysis, CARB recommended the expansion of the early action list to a total of 44 measures. The measures are in the sectors of fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, solid waste, cement, oil and gas, electricity, and fire suppression.

Nine of the strategies meet the AB 32 definition of discrete early action measures, defined as those measures to be in place and enforceable by January 1, 2010. The discrete early action items included, but were not limited to: (1) a low carbon fuel standards for ethanol, biodiesel, hydrogen, electricity, compressed natural gas, liquefied petroleum gas, and biogas; (2) restrictions on HGWP refrigerants; (3) landfill methane capture; (4) "smartway" truck efficiency; (5) port electrification; (6) reduction of perfluorocarbons from the semiconductor industry; (7) reduction of propellants in consumer products; (8) tire inflation; and (9) sulfur hexafluoride (SF_6) reductions from non-electricity sector.

The 2020 target reductions are currently estimated to be 174 million metric tons of carbon dioxide (CO_2) equivalent ($MMTCO_2e$). In total, the recommended early actions have the potential to reduce GHG emissions by at least 42 $MMTCO_2e$ emissions by 2020, representing about 25 percent of the estimated reductions needed by 2020.

In December 2007, CARB adopted Resolution 07-55, approving 427 $MMTCO_2e$ as the Statewide GHG emissions limit for 2020, which is equivalent to the 1990 emissions level.

AB 32 required CARB to develop a "Scoping Plan" describing the approach the State would take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008 and must be updated every five years. The "First Update to the AB 32 Scoping Plan" (First Update) was approved by CARB on May 22, 2014 and incorporates new strategies and recommendations. The First Update identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low-carbon investments. The First Update defined CARB's climate change priorities for the next five years, and sets the

[6]/ Executive Order B-30-15 was signed by then Governor Jerry Brown in April 2015 that set an executive GHG emissions target for 2030 at 40 percent below 1990 levels.

groundwork to reach long-term goals set forth in Executive Orders S-3-05 (June 1, 2005)[7] and B-16-12 (March 23, 2012).[8] The First Update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluated how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

On January 20, 2017, the CARB released "The 2017 Climate Change Scoping Plan Update – The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target" (Second Update). The Second Update is required to incorporate 2030 target year goals. As indicated therein, the annual 2030 Statewide target emissions level for California is 260 $MMTCO_2e$.

- **City of Diamond Bar**. The City is presently in the process of preparing a "Climate Action Plan" (CAP) as part of a comprehensive update to the "City of Diamond Bar General Plan" (General Plan Update). Once adopted, the CAP will represent the City's commitment to the reduction of GHG emissions and compliance with State's GHG reduction standards. The Department has identified numerous co-benefits, including water and natural resource conservation, air quality and community health improvement, and the reduction of utility bills and maintenance costs. Additionally, as a "qualified GHG reduction strategy," once formally adopted and following its effective date, the CAP will enable the streamlining of environmental review of future development projects in accordance with CEQA.[9]

  Once adopted, relative to future development projects, the GHG emissions inventory is the starting point of the CAP planning process. The inventory is intended to identify the major sources and overall magnitude of GHG emissions in the City, by sector, based on information collected from utility providers, regional agencies, and transportation data from the General Plan Update process. As proposed, the inventory will be developed in a manner consistent with the Local Governments for Sustainability's (ICLEI) "U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions" (2013) (Community Protocol).

[7]/ Executive Order S-3-05 established GHG emission reduction targets, created the Climate Action Team and directed the Secretary of Cal/EPA to coordinate efforts with meeting the targets with the heads of other State agencies. The Executive Order required the Secretary to report back to the Governor and Legislature biannually on progress toward meeting the GHG targets, GHG impacts to California, mitigation and adaptation plans.

[8]/ Executive Order B-16-12 ordered State agencies to facilitate the rapid commercialization of zero-emission vehicles (ZEVs) and set a target of 1.5 million ZEVs in California by 2025. Also the Executive Order further set as a target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels.

[9]/ As specified in Section 15183.5(b) of the State CEQA Guidelines: "Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to Sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances. (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should: (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable; (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area; (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; (F) Be adopted in a public process following environmental review."

As proposed, the CAP will identify relevant GHG targets for the community in order to determine whether additional measures will be required in order for the City to comply with the State's GHG reduction laws. The CAP's targets will be based on Statewide GHG reduction targets of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

As proposed, emissions will be forecast for the General Plan Update's horizon year of 2040 for a range of scenarios to illustrate the effects of various City measures and policies on the generation and/or reduction of GHG emissions. These scenarios will include "business as usual," which will assume the draft General Plan Update's land uses and circulation system with no changes to existing City policies; a forecast of reductions from State actions (e.g., renewable portfolio standard, building efficiency improvements, and waste diversion); a forecast of reductions from proposed policies contained therein; and a forecast that combines the effects of the draft General Plan Update's land uses and circulation system, State actions, and the proposed General Plan Update's policies.

If the forecasts show that the City would not meet State targets through the combination of the draft General Plan Update's policies and State actions, the CAP is intended to establish additional GHG reduction measures to be implemented by the City meet or surpass those targets. Measures may address topics such as energy efficiency and conservation, alternative energy sources, waste reduction and diversion, and education. Measure included in the CAP will be evaluated for their estimated reduction impacts and their corresponding contributions to the City's attainment of the State's reduction target.

2.3 Ambient Air Quality Standards

The Clean Air Act Amendment of 1971 established National Ambient Air Quality Standards (NAAQS) with individual states retaining the option to adopt more stringent standards or to include other pollution species. These standards constitute the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare and are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State and the federal government have established health-based ambient air quality standards (AAQS) for six criteria air pollutants. Section 39606(b) of the H&SC authorizes CARB to adopt standards for ambient air quality "in consideration of public health and safety, and welfare, including but not limited to health, illness, irritation to the senses, aesthetic value, interference with visibility, and the effects of air pollution on the economy." The objective of these California Ambient Air Quality Standards (CAAQS) is to provide a basis for preventing or abating adverse health or welfare effects of air pollution (Section 70101, Title 17, California Code of Regulations).

As shown in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants), National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) both address ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), suspended particulate matter (PM_{10}, $PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. In addition to primary and secondary AAQS, the State has

established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants, which actually threaten public health.

Table AQ-1
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	*	
Sulfur Dioxide (SO_2)	Annual Average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 μg/m³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	50 μg/m³	150 μg/m³	
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 μg/m³	15 μg/m³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	*	35 μg/m³	
Lead (Pb)	Monthly	1.5 μg/m³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 μg/m³	
Sulfates (SO_4)	24 hours	25 μg/m³	*	Industrial processes.

Notes:
ppm: parts per million; μg/m³
micrograms per cubic meter
* Standard is not applicable for this pollutant/duration by this entity.

Source: California Air Resources Board

2.4 Air Quality Management Planning

2.4.1 Local Planning Requirements

The South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the "Air Quality Management Plan" (AQMP) for the SCAB. Since 1979, a number of AQMPs have been prepared and adopted. AQMPs are designed to comply with State and federal requirements, reduce the high level of pollutant emissions in the SCAB, and ensure clean air for the region through various control measures. To accomplish its task, the AQMP relies on a multi-level partnership of governmental agencies at the federal, State, regional, and local level.

On December 7, 2012, the SCAQMD adopted the "2012 Air Quality Management Plan" (2012 AQMP). For the SCAB, the 2012 AQMP set forth a comprehensive and integrated program intended to lead the SCAB into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, to satisfy the planning requirements of the federal Clean Air Act (CAA), and to provide an update to the SCAB's commitments towards meeting the federal 8-hour ozone standards. It also served to satisfy USEPA proposed requirement for a new attainment demonstration of the revoked 1-hour ozone standard, as well as a vehicle miles traveled (VMT) emissions offset

demonstration. Specifically, the 2012 AQMP served as the official "State Implementation Plan" (SIP) submittal for the federal 2006 24-hour $PM_{2.5}$ standard, for which USEPA established a due date of December 14, 2012. In addition, the 2012 AQMP updated specific new control measures and commitments for emissions reductions to implement the attainment strategy for the 8-hour ozone (O_3) SIP and reduce reliance on the CAA's Section 182(e)(5) long-term measures.

On March 3, 2017, the SCAQMD adopted the "Final 2016 Air Quality Management Plan" (2016 AQMP). The 2016 AQMP included integrated strategies and measures designed to meet the NAAQS' 8-hour ozone standard of 75 parts per billion (ppb) by 2032, the annual $PM_{2.5}$ standard of 12 $\mu g/m^3$ by 2021-2025, the 8-hour ozone standard of 80 ppb by 2024, the 1-hour ozone standard (120 ppb) by 2023, and the 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ by 2019. The 2016 AQMP also took an initial look at proposed new federal 8-hour ozone standard (in the 65-70 ppb range), as well as incorporate energy, transportation, goods movement, infrastructure and other planning efforts that affect future air quality.

Until the 2016 AQMP is adopted by the USEPA, the 2012 AQMP will continue to serve as the planning document for air quality in the SCAB. The SCAQMD continues to implement the 2012 AQMP, which received a limited approval and limited disapproval by USEPA on April 14, 2016. Progress in implementing the 2012 AQMP can be measured by the progress in implementing control measures and the resulting emission reductions. Emission reduction commitments and reductions which will be achieved in 2014 and 2023 through already-adopted measures are based on the emission inventories and milestone years from the 2012 AQMP.

2.4.2 Air Quality Attainment Status

Areas that meet the ambient air quality standards are classified as "attainment" areas while areas that do not meet these standards are classified as "non-attainment" areas. The severities of the classifications for ozone non-attainment include and range in magnitude from: "Marginal," "Moderate," "Serious," "Severe," and "Extreme." The attainment status for the SCAB is included in Table AQ-2 (Attainment Status for the South Coast Air Basin).

Table AQ-2
ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	State Status	Federal Status
Ozone (1-hour)	Extreme Non-attainment	Extreme Non-attainment (under the prior standard)
Ozone (8-hour)	Extreme Non-Attainment	Severe-17 (may petition for Extreme)
PM_{10}	Serious Non-attainment	Serious Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance

Source: California Air Resources Board

The SCAB is also designated as attainment of the CAAQS for SO_2, lead, and sulfates. Areas that are designated as "Severe-17" for the ozone standard must meet attainment of the 8-hour standard by 2021 (2024 if reclassified to "Extreme"). Areas considered as "Serious Non-Attainment" of the PM_{10} standards must have reached attainment by the end of 2006 or as expeditiously as possible. To date, the SCAB still does not meet this standard. The $PM_{2.5}$ attainment date was to be met in 2015.

2.4.3 State Planning Requirements

Under Executive Order S-3-05 (June 1, 2005), the following GHG emission reduction targets were established for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In March 2006, the California Environmental Protection Agency (CalEPA) published a Climate Action Team (CAT) report detailing how State agencies could implement a series of policies to meet the 2010 and 2020 goals. As indicated therein, among the policy actions that are cited are "smart land use and intelligent transportation." The CAT states that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. Intelligent transportation systems (ITS) involve the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and service.

Section 41700 of the H&SC requires that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, response, health, or safety of any such person or the public, or which causes, or have a natural tendency to cause, injury or damage to business or property."

Section 39607(e) of the H&SC requires that the CARB establish and periodically review area designation criteria. The CARB makes area designations for the following nine pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns (PM_{10}), sulfates (SO_4), lead (Pb), hydrogen sulfide (H_2S), and visibility-reducing particles. Assembly Bill 2595, known as the California Clean Air Act (CCAA), divided "non-attainment" areas into categories with progressively more stringent requirements (Sections 40918-40920.5, H&SC). As specified, it is the responsibility of each air pollution control district (APCD) and air quality management district (AQMD) within the State to attain and maintain California Ambient Air Quality Standards (CAAQS). The CCAA requires that an attainment plan be developed by all "non-attainment" districts for O_3, CO, sulfur oxides (SOx), and nitrogen oxides (NOx) that are either receptors or contributors of transported air pollutants. CAAQS are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Areas meeting CAAQS are classified as "attainment" and areas not meeting CAAQS are classified as "non-attainment."

Assembly Bill 32 (California Global Warming Solutions Act of 2006), codified in Section 38500 et seq. of the H&SC, established a comprehensive program to reduce GHG by 2020 and identified several major requirements that CARB is required to implement, including: (1) adoption and implementation of a list of discrete and early action GHG reduction measures; (2) approval of a Statewide1990 emission level that becomes the Statewide 2020 emissions limits; (3) adoption of mandatory GHG reporting rules for significant GHG sources; and (4) adoption of regulations to achieve the maximum technologically feasible and cost-effective reductions. As defined in Section 38505 of the H&SC, greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

2.4.4 Federal Clean Air Act Requirements

The Federal Clean Air Act of 1970 (42 U.S.C. Section 7401 et seq.) (CAA) required new major stationary sources of air pollution and any major modifications to major stationary sources to obtain an air pollution permit before commencing construction. New Source Review (NSR) requirements (42 U.S.C. 7411) differ depending on the attainment status of the area where the major facility is to be located. Prevention of Significant Deterioration (PSD) requirements (42 U.S.C. 7470-7491) apply in areas that are in "attainment" of the NAAQS. "Non-attainment" area NSR requirements apply to areas that have not been able to demonstrate compliance with the NAAQS.

Section 108 of the CAA directs the USEPA to list pollutants that may reasonably be anticipated to endanger public health and welfare and to issue air quality criteria for those pollutants. The USEPA has set NAAQS for the following pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), and sulfur dioxide (SO_2). The NAAQS for those primary pollutants are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Section 176(c) prohibits federal agencies from taking actions in NAAQS "non-attainment" or "maintenance" areas that do not conform to the State Implementation Plan (SIP) for the attainment and maintenance of NAAQS pursuant to Section 110(a) of the CAA

2.5 Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the project area are best documented by measurements made by the SCAQMD. The project is located in the central portion of Source Receptor Area (SRA) 10 (Pomona/Walnut Valley). The SCAQMD maintains an air quality monitoring station for this area that monitors ozone, carbon monoxide, and nitrogen dioxide. Because the station does not monitor either PM_{10} or $PM_{2.5}$ particulate matter, these data can be inferred from the East San Gabriel Valley station located in SRA 9 to the north of the project site. The results are included in Table AQ-3 (Air Quality Monitoring Summary for the Pomona/Walnut Valley and East San Gabriel Valley Monitoring Stations). These stations show that ozone levels continue to exceed NAAQS and CAAQS hourly standards and that pollutant level appear to be have increased over the last 5 years.

Although NO_2 measurements indicate that no standards were exceeded, NO_2 is a precursor to O_3 formation, which continually does exceed the standards. Hydrocarbons and NO_2 are emitted by both mobile and stationary sources, with the greater portion emanating from mobile sources in the SCAB. Pollutants emitted from upwind cities react during their transport downwind to produce the oxidant concentrations measured at the Pomona/Walnut Valley monitoring station; therefore, all upwind areas within the SCAB contribute to the O_3 production. These concentrations increase during the summer, with concentrations increasing from the late morning through the afternoon.

With regard to particulate matter, no trend is readily apparent. The State standard for PM_{10} was exceeded 97 of the 889 times (10.9 percent) in the last 5 years that it was monitored. The federal standard has not been violated in more than the last 5 years. The federal standard for $PM_{2.5}$ was, however, exceeded 8 of the 595 times (1.3 percent) in the last 5 years. Suspended particulate matter (both total suspended particulates [TSP] and PM_{10} and $PM_{2.5}$) is a mixture of natural and manmade materials that include soil particles, biological materials, sulfates, nitrates, organic compounds, and lead. Smaller particles (PM_{10} and $PM_{2.5}$) are created by the combustion of fossil fuels but are also given off from tire wear, brake dust, and wildfires (black carbon).

Table AQ-3
AIR QUALITY MONITORING SUMMARY FOR THE POMONA/WALNUT VALLEY AND EAST SAN GABRIEL VALLEY MONITORING STATIONS
(Number of Days Standards were Exceeded and Maximum Levels During such Violations[1])

State and Federal Pollutant/Standard	2013	2014	2015	2016	2017
Ozone (O_3)					
State 1-hour > 0.09 ppm	12	22	30	20	45
State 8-hour >0.07 ppm	22	56	55	29	60
Federal 1-hour > 0.124 ppm	1	0	2	1	5
Federal 8-hour > 0.075 ppm	15	33	53	26	35
Max. 1-hour concentration (ppm)	0.125	0.123	0.136	0.127	0.147
Max. 8-hour concentration (ppm)	0.099	0.099	0.098	0.092	0.114
Carbon Monoxide (CO)					
State 8-hour $\geq$ 9.1 ppm	0	0	0	0	0
Maximum 8-hour concentration (ppm)	1.6	1.6	1.6	1.3	2.0
Nitrogen Dioxide (NO_2)					
State 1-hour > 180 (ppb)	0	0	0	0	0
Maximum 1-hour concentration (ppb)	78.8	88.9	72.3	69.3	81.2
Inhalable Particulates (PM_{10})[2]					
State 24-hour > 50 µg/m^3	6/61	22/60	12/59	21/362	36/347
Federal 24-hour > 150 (µg/m^3)	0/61	0/60	0/59	0/362	0/347
Maximum 24-hour concentration (µg/m^3)	76	96	101	74	140
Inhalable Particulates ($PM_{2.5}$)[2]					
Federal 24-hour > 35 µg/m^3	0/120	6/118	2/120	0/122	0/115
Maximum 24-hour concentration (µg/m^3)	29.6	32.4	70.3	32.17	24.90

Notes:
1. With the exception of inhalable particulates (PM_{10} and $PM_{2.5}$), all values are based on 365 days per year.
2. Violations per number of samples.

Source: South Coast Air Quality Management District

2.6 Standard Conditions and Uniform Codes

All projects constructed in the SCAB are subject to standard conditions and uniform codes. Compliance with these provisions is mandatory and, as such, does not constitute mitigation under CEQA. Those SCAQMD conditions specific to air quality are included below.

- Rule 403 establishes requirements for dust control associated with grading and construction activities.
- Rules 431.1/431.2 requires use of low-sulfur fuel for stationary construction equipment.
- Rule 1108 sets limitations on ROG content in asphalt.
- Rule 1113 sets limitations on ROG content in architectural coatings.
- Rule 1143 sets limitations on ROG content in paint thinners and multi-purpose solvents.

In addition, the project shall comply with "California Building Standards Code" (CBC) (Title 24, Part 2, California Code of Regulations)[10] energy-efficient design requirements as well as the provision of window glazing, wall insulation, and efficient ventilation methods.

[10]/ The International Conference of Building Officials (ICBO) was formed in 1922 to develop a uniform set of building regulations and, in 1927, the first "Uniform Building Code" (UBC) was adopted. In 1994, the ICBO joined with the two other national building code publishers to form the International Code Council (ICC).

Building codes were subsequently updated on a fairly regular basis; however, adoption of those updates at the municipal-level was not mandatory. As a result, the building codes used by individual communities were often not the same. In 1980, the State legislature amended the H&SC to require local jurisdictions to adopt, at a minimum, the latest edition of the UBC, requiring individual cities and counties tasked with enforcing building regulations to adopt the provisions of Title 24 of the CCR, more commonly known as the "California Building Standards Code" (CBC), within 180 days following its publication. Based on local conditions, as authorized under the H&SC (Sections 17950, 17958, 17958.5, 17958.7, 18938, 18941.5, and 18959), each jurisdiction is authorized to impose more stringent

During construction, the project would be subject to SCAQMD Rule 403 (Fugitive Dust). SCAQMD Rule 403 does not require a permit for construction activities but sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the SCAB. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of such dust remains visible in the atmosphere beyond the property line of the emissions source. SCAQMD Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 50 micrograms per cubic meter ($\mu g/m^3$) as determined through PM_{10} high-volume sampling. The concentration standard and associated PM_{10} sampling do not apply if specific measures are implemented and documented.

In accordance with Rule 403, the SCAQMD requires that contractors implement Best Available Control Technology (BACT) for construction activities. Rule 403 identifies two sets of specific measures, one for projects less than 50 acres and another set of conditions for projects that exceed 50 acres. The requirements applicable to the proposed project are included in Table AQ-4 (South Coast Air Quality Management District Required Best Available Control Measures). These measures are regulatory requirements and do not constitute mitigation under CEQA.

2.7 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants that may be present. Schools are also considered as sensitive since children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution since exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the general public.

The project includes medical offices and a commercial hotel and because people would stay, possibly for extended periods and have expectation relative to a certain degree of quiet (e.g., ability to sleep), it too may be considered as being sensitive in nature. The project site is located along the north side of the Pomona (SR-60) Freeway. Single-family residential units are located to the north, beyond the flood control channel, and to the west across Brea Canyon Road (Figure AQ-1).

regulations, adopted by ordinance and issued as amendments to the CBC. The publication date of the CBC is established by the California Building Standards Commission (CBSC). On July 1, 2016, the CBSC published the 2016 CBC. All applications for a building permit that occur on or after January 1, 2017 are subject to compliance with the 2016 CBC. The prior 2013 CBC, however, remains in effect and is applicable to all plans and specifications, for, and to the construction performed where the application for a building permit was received on or before December 31, 2016. Pending subsequent amendments, the 2016 CBC is the established minimum standard for the design and construction of buildings and structures in California.

The CBC, as codified in Title 24 of the CCR, is composed of 13 parts and is published by the International Code Council (ICC), the International Association of Plumbing and Mechanical Officials (IAPMO), and the National Fire Protection Association (NFPA).

Table AQ-4
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measures	Guidance
Backfilling	Stabilize backfill material when not actively handling; and Stabilize backfill material during handling; and Stabilize soil at completion of activity	Mix backfill soil with water prior to moving; Dedicate water truck or high capacity hose to backfilling equipment; Empty loader bucket slowly so that no dust plumes are generated; and Minimize drop height from loader bucket.
Clearing and Grubbing	Maintain stability of soil through prewatering of site prior to clearing and grubbing; and Stabilize soil during clearing and grubbing activities; and Stabilize soil immediately after clearing and grubbing activities.	Maintain live perennial vegetation where possible; Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing Forms	Use water spray to clear forms or use sweeping and water spray to clear forms; or Use vacuum system to clear forms.	Use of high pressure air to clear forms may cause exceedance of rule requirements.
Crushing	Stabilize surface soils prior to operation of support equipment; and Stabilize material after crushing.	Follow permit conditions for crushing equipment; Pre-water material prior to loading into crusher; Monitor crusher emissions opacity; and Apply water to crushed material to prevent dust plumes.
Cut and Fill	Pre-water soils prior to cut and fill activities; Stabilize soil during and after cut and fill activities.	For large sites, pre-water with sprinklers or water trucks and allow time for penetration; Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts.
Demolition Mechanical/Manual	Stabilize wind erodible surfaces to reduce dust; and Stabilize surface soil where support equipment and vehicles will operate; and Stabilize loose soil and demolition debris; and Comply with Rule 1403.	Apply water in sufficient quantities to prevent the generation of visible dust plumes.
Disturbed Soil	Stabilize disturbed soil throughout the construction site; and Stabilize disturbed soil between structures	Limit vehicular traffic and disturbances on soils where possible; and If interior block walls are planned, install as early as possible; and Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-Moving Activities	Pre-apply water to depth of proposed cuts; and Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and Stabilize soils once earth-moving activities are complete.	Grade each project phase separately, timed to coincide with construction phase; and Upwind fencing can prevent material movement on site; and Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/Exporting of Bulk Materials	Stabilize material while loading to reduce fugitive dust emissions; and Maintain at least six inches of freeboard on haul vehicles; Stabilize material while transporting to reduce fugitive dust emissions; Stabilize material while unloading to reduce fugitive dust emissions; and Comply with California Vehicle Code (CVC) Section 23114.	Use tarps or other suitable enclosures on haul trucks; Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage; Comply with track-out prevention/mitigation requirements; Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	Stabilize soils, materials, slopes	Apply water to materials to stabilize; Maintain materials in a crusted condition; Maintain effective cover over materials; Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes; Hydroseed prior to rain season.
Road Shoulder Maintenance	Apply water to unpaved shoulders prior to clearing; Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs; Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
Screening	Pre-water material prior to screening; Limit fugitive dust emissions to opacity and plume length standards; Stabilize material immediately after screening.	Dedicate water truck or high capacity hose to screening operation; Drop material through the screen slowly and minimize drop height; Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging Areas	Stabilize staging areas during use; Stabilize staging area soils at project completion.	Limit size of staging area; Limit vehicle speeds to 15 miles per hour; Limit number and size of staging area entrances/exits.
Stockpiles/Bulk Material Handling	Stabilize stockpiled materials, and stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	Add or remove material from the downwind portion of the storage pile; and Maintain storage piles to avoid steep sides or faces.

Table AQ-4 (Continued)
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measures	Guidance
Traffic Areas for Construction Activities	Stabilize all off-road traffic and parking areas; Stabilize all haul routes; Direct construction traffic over established haul routes.	Apply gravel/paving to all haul routes as soon as possible to all future roadway areas; Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	Stabilize surface soils where trencher or excavator and support equipment will operate; Stabilize soils at the completion of trenching activities.	Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching; Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck Loading	Pre-water material prior to loading; Ensure that freeboard exceeds six inches (CVC 23114)	Empty loader bucket such that no visible dust plumes are created; and Ensure that the loader bucket is close to the truck to minimize drop height while loading.
Turf Overseeding	Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; Cover haul vehicles prior to exiting the site.	Haul waste material immediately off-site.
Unpaved Roads/Parking Lots	Stabilize soils to meet the applicable performance standards; Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant Land	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Source: South Coast Air Quality Management District

3.0 Threshold of Significance Criteria

Based on Appendix G (Environmental Checklist Form) of the State CEQA Guidelines, presented below are the threshold of significance criteria which have been previously utilized by the Department on other recent projects relative to this topical issue. In accordance therewith, a proposed project would normally be deemed to produce a potentially significant air quality impact if the project or if project-related activities were to:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standards.
- Expose sensitive receptors to substantial air pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

On December 28, 2018, the California Natural Resources Agency (CNRA) certified and adopted amendments to the State CEQA Guidelines.[11] Included among those actions were revisions to Appendix G (Environmental Checklist Form) of the State CEQA Guidelines. With regards to Section III (Air Quality), the following revisions were made therein:

> Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:
>
> (a) Conflict with or obstruct implementation of the applicable air quality plan?
> (b) ~~Violate any air quality standard or contribute substantially to an existing or projected air quality violation?~~
> ~~(c)~~ Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standards ~~(including releasing emissions which exceed quantitative thresholds for ozone precurors)~~?
> (c) Expose sensitive receptors to substantial air pollutant concentrations?
> (d) ~~Create objectionable~~ Result in other emissions (such as those leading to odors ~~or dust~~ adversely affecting a substantial number of people?

With the adoption of the new guidelines, other than renumbering to accommodate a new proceeding section, no changes were made to Section VIII (Greenhouse Gas Emissions) in Appendix G of the State CEQA Guidelines. The threshold criteria contained in the most recent State CEQA Guidelines have been utilized herein for the purpose of assessing potential significance, under CEQA, relative to the proposed project's potential air quality impacts.

As indicated in Section 15064(i)(1) of the State CEQA Guidelines, "cumulatively considerable" is defined to mean "that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

In order to determine whether or not the proposed project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of emissions generated, and its impacts on factors affecting air quality. To accomplish that determination, in order to assist lead agencies in determining whether or not the proposed project is significant from an air quality perspective, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated. If the SCAQMD's thresholds are exceeded, the resulting exceedance may be considered significant.

While the final determination of whether or not a project is significant is within the Lead Agency's purview, the SCAQMD recommends that the following air pollution thresholds be used in determining whether the construction and/or operational phases of a proposed project are significant. As recommended by the SCAQMD, if the Lead Agency finds that the proposed project has the potential to exceed any of the following air pollution thresholds, the project may be considered significant.

[11]/ Adding Sections 15064.3 and 15234 and amending Sections 15004, 15051, 15061, 15062, 15064, 15064.4, 15064.7, 15072, 15075, 15082, 15086, 15087, 15088, 15094, 15107, 15124, 15125, 15126.2, 15126.4, 15152, 15155, 15168, 15182, 15222, 15269, 15301, 15357, 15370, and Appendix G, Appendix M, and Appendix N of the State CEQA Guidelines.

3.1 Construction Phase

The following significance thresholds for air quality have been established by the SCAQMD on a daily basis for construction emissions:

- 75 pounds per day for ROG
- 100 pounds per day for NOx
- 550 pounds per day for CO
- 150 pounds per day of SOx
- 150 pounds per day for PM_{10}
- 55 pounds per day for $PM_{2.5}$

During construction, if any of the identified daily air pollutant thresholds are exceeded by the proposed project, then the project's air quality impacts may be considered significant.

3.2 Operational Phase

3.2.1 Criteria Pollutants

Specific criteria air pollutants have been identified by the SCAQMD as pollutants of special regional concern. Based upon this categorization, the following significance thresholds have been established by the SCAQMD for project operations:

- 55 pounds per day of ROG
- 55 pounds per day of NOx
- 550 pounds per day of CO
- 150 pounds per day of SOx
- 150 pounds per day of PM_{10}
- 55 pounds per day for $PM_{2.5}$

Projects within the SCAB with daily operational-related emissions that exceed any of the above emission thresholds may be considered significant. The SCAQMD indicates that they consider a project to be mitigated to a level of insignificance if its primary effects are mitigated below the thresholds provided above.

3.2.2 Greenhouse Gases

On September 28, 2010, the SCAQMD presented their proposed significance thresholds for greenhouse gases. At that time they determined a Tier 3 screening significance threshold level of 10,000 metric tons of carbon dioxide equivalent per year (MTons CO_2e/year) for industrial projects to be adopted where the SCAQMD is the lead agency. Staff also proposed to extend the industrial GHG significance threshold for use by all lead agencies.

Similarly, with regard to a numerical residential and commercial GHG significance thresholds, SCAQMD staff presented the following two options that lead agencies could choose between:

- **Option No. 1**. This option presents separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed use projects (3,000 MTons CO_2e/year).

- **Option No. 2**. This option presents a single numerical threshold for all nonindustrial projects of 3,000 MTons CO_2e/year.

If a lead agency chooses one option, that agency must consistently use that same option for all projects where it is lead agency. The SCAQMD proposal is to recommend the use of "Option No. 2" but allow lead agencies to choose "Option No. 1" if they prefer that approach.

3.3 Local Emission Standards

In addition to those mass daily threshold values presented above, projects that have the ability to exceed or add measurably to an existing excess of those ambient concentrations presented in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) may be deemed to be significant. The following localized significance thresholds have been established by the SCAQMD for individual projects:

- California 1-hour CO standard of 20.0 ppm
- California 8-hour CO standard of 9.0 ppm
- California 1-hour NO_2 standard of 0.18 ppm
- SCAQMD 24-hour construction PM_{10} and $PM_{2.5}$ standards of 10.4 µg/m^3
- SCAQMD 24-hour operational PM_{10} and $PM_{2.5}$ standards of 2.5 µg/m^3

If ambient levels already exceed a State or federal standard, then project emissions may be considered significant if they increase ambient concentrations by a "measurable amount." In the case of CO, the SCAQMD defines a measurable amount as 1.0 ppm or more for the 1-hour CO concentration or 0.45 ppm or more for the 8-hour CO concentrations; however, since the SCAB has come into "attainment" of all CO standards, elevated CO concentrations are no longer a concern. The SCAQMD indicates that they consider a project to be mitigated to a level of insignificance if its secondary effects are mitigated below these threshold values.

4.0 Environmental Impacts and Mitigation Measures

Prior to June 2019, the BCBP project site had been used as a recreational vehicle and boat storage facility with two on-site structures totaling approximately 3,600 square feet. The recreational vehicles, boats, and on-site structures were subsequently removed from the project site in anticipation of subsequent development thereupon. As proposed, the site's subsequent use includes the construction and operation of a mixed-use center with a total floor area of approximately 118,471 square feet, including a 61,743 square foot, 109-room hotel; a 47,828 square foot structure with 31,998 square feet of office space and 15,830 square feet of medical office space; and an 8,900 square foot medical office building. The proposed project include approximately 289 parking spaces. Construction activities would occur under a single phase.

Projected air emissions have been calculated using the California Emissions Estimator Model (CalEEMod Version 2013.2.2), as distributed by the SCAQMD. The CalEEMod model uses EMFAC2011 emissions factors for vehicle traffic and the OFFROAD2011 emissions factors for construction equipment. Vehicle trips projected by the model were updated to represent the latest ITE values provided by LLG.

For the purposes of this analysis, construction is estimated to begin on October 1, 2019 following the CalEEMod default construction schedule. Based on the CalEEMod's "default" construction schedule of 320 actual construction days (excluding weekends), construction activities would be completed on December 21, 2020, potentially allowing for the site's

occupancy in that year. Daily construction emissions are based on the higher of the summer or winter emissions, regardless of when they actually would occur.

The subsequent occupation of the site in 2020 is also based on the CalEEMod model using the traffic-projections provided by LLG. The LLG study is based on the most current version of ITE's "Trip Generation Manual, 10th Edition," whereas the CalEEMod model was released prior to the most recent manual update and uses ITE's "Trip Generation Manual, 9th Edition" for its projections. As such, the trip generation rates provided by LLG were used in the CalEEMod model runs to substitute for the "default" values presented. Section 1.0 (Methodology) herein described the number of vehicle trips associated with the various land uses for the various days of the week.

The following analysis follows the format included in Section III (Air Quality) and Section VIII (Greenhouse Gas Emissions) in the most recent version of Appendix G (Environmental Checklist Form) of the State CEQA Guidelines.

4.1 Consistency with the Applicable Air Quality Management Plan

Preliminary CEQA Finding: *Less-than-Significant Impact.*

CEQA requires that projects be consistent with the most recent AQMP. A consistency determination plays an essential role in local agency project reviews by linking local planning and unique individual projects to the AQMP in the following ways: (1) it fulfills the CEQA goal of fully informing local agency decisionmakers of the environmental costs of the project then under consideration at a stage early enough to ensure that air quality concerns are fully addressed; and (2) it provides the local agency with ongoing information assuring local decisionmakers that they are making real contributions to the clean air goals contained in the AQMP.

Because the AQMP strategy is based on projections from local general plans, only new or amended general plan elements, specific plans, and regionally significant projects need to undergo a consistency review. Projects that are consistent with the local general plan are, therefore, considered consistent with the AQMP.

As indicated in Table AQ-5 (Comparison of Projections of Projected Construction Emissions and Daily Criteria Values) and Table AQ-6 (Comparison of Projected Daily Operational Emissions and Daily Criteria Values), based on the analysis presented herein, neither the construction nor the operation of the project is projected to exceed the daily threshold values presented in the most recent update to Appendix G of the State CEQA Guidelines. Additionally, with the requisite mitigation, the project would not result in significant localized air quality impacts. As such, the project is consistent with the goals of the AQMP and, in that respect, does not present a significant air quality impact.

As distinct actions, the potential air quality impacts associated with and attributable to the construction and operation of the proposed project are individually addressed below.

4.1.1 Construction Impacts

Air quality impacts may occur during site preparation and construction activities required to implement the proposed project. Major sources of emissions during construction include exhaust emissions, fugitive dust generated as a result of soil disturbance during site preparation and grading activities, and the emission of ROGs during the painting of the structures.

Table AQ-5
COMPARISON OF PROJECTED CONSTRUCTION EMISSIONS AND DAILY CRITERIA VALUES[1]
(pounds/day)

Source	ROG	NOx	CO	SO_2	PM_{10} Dust	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total
Demolition										
Off Road Diesel	3.51	35.78	22.06	0.04	1.93	1.79	3.72	0.29	1.67	1.96
On Road Diesel	0.37	12.98	2.65	0.03	0.77	0.05	0.82	0.21	0.05	0.26
Worker Trips	0.08	0.06	0.67	0.00	0.17	0.00	0.17	0.04	0.00	0.05
Totals	3.96	48.82	25.38	0.07	2.87	1.84	4.71	0.54	1.72	2.27
Site Preparation										
Off Road Diesel	4.34	45.57	22.06	0.04	3.66	2.39	6.05	2.01	2.20	4.21
Worker Trips	0.10	0.07	0.81	0.00	0.20	0.00	0.20	0.05	0.00	0.05
Totals	4.44	45.64	22.87	0.04	3.86	2.39	6.25	2.06	2.20	4.26
Grading										
Off Road Diesel	2.58	28.35	16.29	0.03	1.33	1.40	2.72	0.68	1.29	1.97
Worker Trips	0.08	0.06	0.81	0.00	0.17	0.00	0.17	0.04	0.00	0.05
Totals	2.66	28.41	17.1	0.03	1.50	1.40	2.89	0.72	1.29	2.02
Building Construction										
Off Road Diesel	2.36	21.08	17.16	0.03	0.00	1.29	1.29	0.00	1.21	1.21
Vendor Trips	0.21	5.95	1.60	0.01	0.33	0.04	0.37	0.10	0.04	0.13
Worker Trips	0.68	0.47	5.71	0.01	1.42	0.01	1.43	0.38	0.01	0.39
Totals	3.25	27.50	24.47	0.05	1.75	1.34	3.09	0.48	1.26	1.73
Asphalt Paving										
Off-Gas	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	1.36	14.07	14.65	0.02	0.00	0.75	0.75	0.00	0.69	0.69
Worker Trips	0.07	0.05	0.61	0.00	0.17	0.00	0.17	0.04	0.00	0.05
Asphalt Totals	2.03	14.12	15.26	0.02	0.17	0.75	0.92	0.04	0.69	0.74
Coating										
Off-Gas	57.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	0.24	1.68	1.83	0.00	0.00	0.11	0.11	0.00	0.11	0.11
Worker Trips	0.12	0.08	1.02	0.00	0.28	0.00	0.28	0.07	0.00	0.08
Coating Totals	58.03	1.76	2.85	0.00	0.28	0.11	0.39	0.07	0.11	0.19
Daily Threshold	75	100	550	150	→		150	→		55
Exceeds Threshold?	No	No	No	No	→		No	→		No

Notes:
1. The CalEEMod model projects summer and winter emissions and the higher of the two values is included in the table.

Source: City of Diamond Bar Community Development Department

As noted, the project site had been previously used as a recreational vehicle and boat storage area containing two on-site structures totaling approximately 3,600 square feet. Although that former land use and those improvements have been removed and the 5.73-acre site made ready for new construction, so as to present a reasonable worst-case analysis, the potential air quality impacts attributable to demolition have been considered herein.

The proposed use includes the construction and operation of a mixed-use center with a total floor area of about 118,471 square feet, including a 61,743 square-foot hotel (109 rooms); a 47,828 square-foot office building containing 31,998 square feet of general office and 15,830 square feet of medical office uses; and an 8,900 square-foot medical office building. A total of approximately 289 parking spaces will be provided on the project site.

Table AQ-6
COMPARISON OF PROJECTED DAILY OPERATIONAL EMISSIONS AND DAILY CRITERIA VALUES[1]
(pounds/day)

Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	3.79	18.60	45.24	0.15	11.66	3.22
Natural Gas	0.06	0.56	0.47	0.00	0.04	0.04
Structural Maintenance	0.32	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.42	0.00	0.00	0.00	0.00	0.00
Landscape Maintenance	0.00	0.00	0.02	0.00	0.00	0.00
Total Daily Emissions	6.59	19.16	45.73	0.15	11.70	3.26
Threshold of Significance	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
1. The CalEEMod model projects summer and winter emissions. These can differ for mobile sources and the higher of the two values were included in the table.

Source: City of Diamond Bar Community Development Department

For the purposes of this analysis, the approximate footprint for each of the three structures was measured from site plans and the area allocated accordingly. This totals approximately 20,370 square feet for the medical office use, 10,860 square feet for the general office use, and 20,100 square feet for the hotel use (including an outdoor pool area). Although portions of the remaining non-footprint area will be landscaped, the remainder of the project site, assumed to total approximately 198,198 square feet (4.55 acres), is assumed to be used as a parking lot for the various uses. Based on the proposed land use, by "default," the CalEEMod model allocates the proposed project's construction as occurring over a period of 320 working days and that construction schedule was retained for the analysis. Based on the model's default values and not necessarily indicative of the actual date of the construction's initiation, construction is assumed to begin on October 1, 2019 and end on December 21, 2020 allowing for occupancy in 2020.

Separately addressed below are the potential air quality impacts that may occur during demolition, site preparation, and construction activities required to implement the proposed land uses. Major sources of emissions during construction include exhaust emissions, fugitive dust generated as a result of demolition activities and soil and material disturbance during site preparation and grading activities, and the emission of ROGs during the painting of the structures.

- **Demolition**. Although demolition and site clearance activities have already been completed and the project site made ready for development, from an air quality perspective, the associated air quality impacts associated with those activities have nonetheless been considered herein in order to provide a more comprehensive analysis of the proposed project.

  With respect to demolition, the site contains two structures totalling about 3,600 square feet. Vehicles and existing asphalt would also be removed. While portions of the site are unpaved, for the purposes of this reasonable worst-case analysis, it is assumed that the entirety of the 5.73-acre site included asphalt surface. This would overestimate the quantity of asphalt to be removed, but could compensate for the removal of the vehicles that might need to be towed away.

With respect to the demolition of the existing structures, the CalEEMod model estimates that each square foot of floor area generates 0.046 ton of waste material.

3,600 square feet x 0.046 ton/square foot =166 tons

Typical paving has a depth of 6 inches. Based on 5.73 acres and a depth of 0.5 foot:

5.73 acres x 43,560 square feet/acre = 249,600 square feet
249,600 square feet x 0.5 foot / 27 cubic feet/cubic yard = 4,622 cubic yards of asphaltic concrete to be removed

Asphaltic concrete has a weight of about 3,780 pounds per cubic yard.

4,622 cubic yards x 3,780 pounds per cubic yard = 17,471,160 pounds
17,471,160 pounds / 2,000 pounds/ton = 8,736 tons

The total amount of material to be removed is then calculated below:

166 tons + 8,736 tons = 8,902 tons

The CalEEMod model "default" puts site demolition at 20 days. The CalEEMod model assumes that the removal of materials would generate 880 truck hauls over the 20 day period or about 44 hauls per day.

SCAQMD's Rule 403 governs fugitive dust emissions from construction projects. This rule sets forth a list of control measures that must be undertaken for all construction projects to ensure that no dust emissions from the project are visible beyond the property boundaries. Adherence to Rule 403 is mandatory and as such, does not denote mitigation under CEQA.

The following analysis assumes the use of the minimal measures specified in Rule 403 that overlap between the rule and the CalEEMod model. These include: (1) soil stabilizers shall be applied to unpaved roads; (2) ground cover shall be quickly applied in all disturbed areas; and (3) the active construction site shall be watered twice daily. The model assigns a control efficiency of 55 percent for twice daily watering and a similar efficiency was assumed for other controlled dust-producing, heavy equipment activities. In actuality, Rule 403 specifies several measures that the CalEEMod model does not consider (Table AQ-4). The modeled PM_{10} and $PM_{2.5}$ emissions associated with fugitive dust are, therefore, considered to be conservative.

- **Site Preparation and Construction**. The separate activities identified in Table AQ-5 (Comparison of Projections of Projected Construction Emissions and Daily Criteria Values) includes the daily emissions projected for site construction. Each listed activity is assumed to occur independently, such that emission totals are neither assumed to overlap or be additive.

  As noted therein, since all modeled emissions are within their respective threshold values, the resulting construction impact is less than significant. All values are so low such that even if phases were to overlap, the impact would remain less than significant.

4.1.2 Operational Impacts

The major source of long-term air quality impacts is that associated with the emissions produced from project-generated vehicle trips. Stationary sources add only minimally to these values. As noted, this analysis assumes that the project is to replace a former recreational vehicle and boat storage lot that would also generate both mobile and stationary source emissions. Although any associated emissions would be eliminated with the proposed project's implementation, no off-setting emissions credit have been assumed herein.

As discussed in Section 1.0 (Methodology) above, the occupation of the project site for the proposed use in 2020 is based on the CalEEMod model using the traffic-projections provided by LLG. While the model uses the weekday value for the estimation of daily emissions, the Saturday and Sunday values are used in the calculation of the annual GHG emissions.

As a worst-case scenario, emissions associated with project-related trips assume full occupancy in 2020. Since emissions per vehicle are reduced each year due to tightening emissions restrictions and the steady replacement of older vehicles with newer vehicles from the roadway, the use of 2020 emission factors presents a reasonable worst-case analysis with regards to operational air quality impacts. Both summer and winter scenarios were modeled and the higher of the two values included in Table AQ-6 (Comparison of Projected Daily Operational Emissions and Daily Criteria Values). Since all modeled emissions are within their criteria values, the resulting operational impact is less than significant.

4.2 Result in a Cumulatively Considerable Net Increase in Criteria Pollutants

Preliminary CEQA Finding: *Less-than-Significant Impact*

In accordance with SCAQMD methodology, those projects that do not exceed or can be mitigated to less than the daily threshold values do not add significantly to the creation of a cumulatively considerable impact. Because neither the construction nor the operation of the proposed project would exceed recommended SCAQMD threshold levels, the proposed project would not be anticipated to result in a cumulatively considerable net increase in criteria pollutants.

4.3 Expose Sensitive Receptors to Substantial Pollutant Concentrations

4.3.1 Short-Term Localized Impacts

Preliminary CEQA Finding*:* ***Less-than-Significant Impact with Mitigation***

In addition to the mass daily threshold standards discussed above, project construction has the potential to raise localized ambient pollutant concentrations. This could present a significant impact if these concentrations were to exceed the ambient air quality standards included in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) at receptor locations.

The SCAQMD has developed screening tables for the construction and operation of projects up to five acres in size. These tables are included in the SCAQMD's "Final Localized Significance

Threshold Methodology" (June 2003) and are periodically updated on the SCAQMD Internet website. The most current update was in 2008 and are used in the analysis.

The emission values included in the screening tables are based on the emissions produced from on-site sources and do not include off-site mobile source emissions (i.e., trucks and worker vehicles) that are spread over a much larger area. Rather than using the entirety of the site, the CalEEMod emissions model bases the area of disturbance on equipment use. Dozers, graders, and crawler tractors are estimated to disturb an area of 0.5 acre while scrapers are estimated to disturb 1.0 acre over an 8-hour work day.

The CalEEMod model estimates that site preparation results in the highest levels of daily particulate emissions while disturbing less area when grading. By "default," site preparation is modeled with three dozers (24 hours per day combined) each disturbing 0.5 acre per day for a total of 1.5 acres per day. Contrast this with the grading phase that generates fewer emissions but uses just a grader and a dozer (16 hours a day combined). Site preparation uses 50 percent more equipment than grading. Table AQ-5 (Comparison of Projections of Projected Construction Emissions and Daily Criteria Values), however, shows that it also produces over 50 percent more emissions than grading and, therefore, produces more emissions on a per area basis, thereby serving as the worse of the two cases.

The screening tables include sites of 1, 2, and 5 acres with receptors at 25, 50, 100, 200, and 500 meters away. The provided methodology notes that site sizes and receptor distances that lie between those values included in the screening manual may be determined by linear interpolation. The methodology also denotes that the 25 meter distance is the minimum distance to be used, even if receptors are located closer than this distance.

The project site is located along the north side of the Pomona (SR-60) Freeway and the east side of Brea Canyon Road. The project includes medical offices and a commercial hotel. Although intended as a "business hotel," to the extent it is assumed that guests could stay for extended periods, the hotel may be considered as sensitive in nature. Existing single-family residential units are located to the north, beyond the flood control channel, and to the west across Brea Canyon Road (Figure AQ-1). Based on these locations, the 25 meter minimal distance was used in this analysis.

Allowable emissions are based on the source receptor area (SRA) in which they are produced. In this case, the project site lies within SRA 10 (Pomona/Walnut Valley) and screening levels for 1 and 2-acre sites for CO with receptors at 25 meters are 612 and 885 pounds per day, respectively. A 1.5-acre site would be allowed to generate up to 748.5 pounds of CO per day ([612+885] / 2). Similarly, screening levels for 1 and 2-acre sites for NO_2 with receptors at 25 meters are 103 and 149 pounds per day, respectively. A 1.5-acre site would be allowed to generate up to 126.0 pounds of CO per day ([103+149] / 2). At peak values of 22.06 and 45.57 pounds per day for CO and NOx, respectively (Table AQ-5), during site preparation, these construction emissions would, therefore, not create localized impacts.

Because the SCAB is a "non-attainment" area for particulate matter, the thresholds for both PM_{10} and $PM_{2.5}$ are much more stringent than those for CO and NOx. In this case, screening levels for 1 and 2-acre sites for PM_{10} with receptors at 25 meters are 4 and 6 pounds per day, respectively. A 1.5-acre site would be allowed to generate up to 5 pounds of PM_{10} per day ([4+6] / 2). At 6.05 pounds per day, PM_{10} could exceed the value presented in the screening table (i.e., 5 pounds/day of PM_{10}), presenting a potentially significant localized air quality impact.

Similarly, screening levels for 1 and 2-acre sites for $PM_{2.5}$ with receptors at 25 meters are 3 and 4 pounds per day, respectively. A 1.5-acre site would be allowed to generate up to 3.5 pounds of $PM_{2.5}$ per day ([3+4] / 2). At 4.21 pounds per day, $PM_{2.5}$ could also exceed the value presented in the screening table (i.e., 3.5 pounds/day of $PM_{2.5}$), presenting a potentially significant localized air quality impact.

Recommended Mitigation:

- **Mitigation Measure AQ-1**. All site preparation and earthmoving activities shall be subject to three times, rather than twice, daily watering.

- **Mitigation Measure AQ-2**. All heavy earthmoving equipment (e.g., graders, scrapers, heavy dozers) in excess of 240 horsepower shall be equipped with a Level 1 diesel particulate filter.

The CalEEMod model was used to project the efficiency of the proposed mitigation measures. The model notes that, with three times daily watering, the control efficiency for dust is raised from 55 to 61 percent. Site preparation PM_{10} from dust would be reduced from 3.66 to 2.75 pounds per day. The particulate filters would reduce the PM_{10} associated with the heavy earthmoving equipment's exhaust from 2.39 to 1.95 pounds per day. The resultant value of 4.70 pounds per day (2.75+1.95=4.70) is less than the 5 pounds per day screening value. The resulting post-mitigated air quality impact is thereby reduced to a less-than-significant level.

In the case of $PM_{2.5}$, the model notes that with three times daily watering, site preparation dust would be reduced from 2.01 to 1.51 pounds per day. The particulate filters would reduce the $PM_{2.5}$ associated with the heavy earthmoving equipment's exhaust from 2.20 to 1.79 pounds per day. The resultant value of 3.30 pounds per day (1.51+1.79=3.30) is less than the 3.5 pounds per day screening value. The resulting post-mitigated air quality impact is thereby reduced to a less-than-significant level.

With these requirements, diesel particulate emissions (diesel PM) would be reduced in all phases of construction that involve heavy earthmoving equipment in excess of 240 horsepower.

4.3.2 Long-Term Localized Impacts

Preliminary CEQA Finding: Less-than-Significant with Mitigation

Long-term effects of the proposed project could be deemed significant if they expose receptors to air quality emissions that exceed the CAAQS or substantial levels of toxic air pollutants.

In April 2005, the California Air Resources Board (CARB) published the "Air Quality and Land Use Handbook: A Community Health Perspective." The document reported that air pollution studies indicate that living close to high traffic and the associated emissions may lead to adverse health effects beyond those associated with regional air pollution in urban areas. Many of these epidemiological studies focused on children. A number of studies identify an association between adverse non-cancer health effects and living or attending school near heavily traveled roadways. These studies have reported associations between residential development in proximity to high traffic roadways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Measurements of traffic-related pollutants showed concentrations within 300 meters (approximately 1,000 feet) downwind of freeways were higher than regional values.

Most other studies have assessed exposure based on proximity factors such as distance to freeways or traffic density. These studies linking traffic emissions with health impacts build on a wealth of data on the adverse health effects of ambient air pollution. The data on the effects of proximity to traffic-related emissions provides additional information that can be used in land-use siting and regulatory actions by air agencies. The key observation in these studies is that proximity increases both exposure and the potential for adverse health effects. Other effects associated with traffic emissions include premature death in elderly individuals with heart disease. The key health findings of the CARB were that:

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet.
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume.
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet.
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality.
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic.

In these and other proximity studies, the distance from the roadway and truck traffic densities were key factors affecting the strength of the association with adverse health effects. In the above health studies, the association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was strongest within 300 feet. These findings demonstrate that the adverse effects diminished with distance.

In addition to the respiratory health effects in children, proximity to freeways increases potential cancer risk and contributes to total particulate matter (PM) exposure. On a typical urban freeway (truck traffic of 10,000-20,000/day), diesel PM represents about 70 percent of the potential cancer risk from the vehicle traffic. Diesel PM emissions are also of special concern because health studies show an association between PM and premature mortality in those with existing cardiovascular disease.

In all these analyses the relative exposure and health risk dropped substantially within the first 300 feet. State law restricts the siting of new schools within 500 feet of a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles with some exceptions. No such requirements, however, apply to the siting of residences, day care centers, playgrounds, or medical facilities.

In other traffic-related studies the additional health risks attributable to the proximity effect was strongest within 1,000 feet. The combination of the children's health studies and the distance-related findings suggests that it is important to avoid exposing children, over an extended time period, to elevated air pollution levels immediately downwind of freeways and high traffic roadways.

The impact of traffic emissions is on a gradient that at some point becomes indistinguishable from the regional air pollution problem. As air agencies work to reduce the underlying regional health risk from diesel PM and other pollutants, the impact of proximity will also be reduced; however, in 2005, CARB's recommendation was to avoid siting new sensitive land uses within 500 feet of a freeway with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.

In April 2017, the CARB published a technical advisory entitled "Strategies to Reduce Air Pollution Exposure near High-Volume Roadways." This advisory is a technical supplement to CARB's "Air Quality and Land Use Handbook: A Community Health Perspective" (April 2005). Since its publication, research has demonstrated the public health, climate, financial, and other benefits of compact, infill development along transportation corridors. Moreover, new research has demonstrated promising strategies to help decrease pollution exposure near their sources. Those strategies were the focus of that technical advisory.

CARB intended the technical advisory to provide planners and other stakeholders involved in land-use planning and decisionmaking with information on scientifically based strategies to reduce exposure to traffic emissions near high-volume roadways in order to protect public health and promote equity and environmental justice.

Many communities in California exist near high-volume roadways. This is both because freeways and other busy traffic corridors have been built adjacent to and through existing neighborhoods and because new developments have been built near existing transportation corridors. Near-roadway development is a result of a variety of factors, including economic growth, demand for built environment uses, and the scarcity of developable land in some areas.

The technical advisory demonstrated that planners, developers, and local governments can pursue infill development while simultaneously reducing exposure to traffic-related pollution by implementing the identified strategies and other Statewide guidance and policies that promote sustainable communities. The State's planning priorities emphasize infill development, since this pattern of development can help attain goals to promote equity, strengthen the economy, protect the environment, and promote public health and safety.

Strategies to reduce exposure include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution, and/or remove pollution from the air. Recent research documents the effectiveness of a variety of strategies. Based on a review of this body of research, CARB compiled a list of recommended strategies. That list did not, however, include all potential pollution reduction measures but rather the options that are well supported by scientific findings meeting all of the following criteria: (1) consistent findings from multiple studies support the strategy as a means for reducing pollution concentrations or emissions rates or improving air flow to disperse pollutants; (2) the scientific literature documents evidence of significantly effective exposure reduction; and (3) diversity in the study methods supports consistent findings (such that strategy efficacy does not exclusively rely on one method of investigation).

The project site is located to the north of and adjacent to the Pomona (SR-60) Freeway. Caltrans reports that this freeway carries 429,000 ADT west of Brea Canyon Road and 418,000 ADT east of Brea Canyon Road. Of this value, trucks make up about 7.3 percent of that total or about 31,300 ADT. At its closest, the near boundary of the project site is at a distance of about 56 feet from the edge of the pavement area associated with the Brea Canyon Road westbound off-ramp and fly-over.

Both the hotel and the medical office building located to the east of the hotel are proposed to have an approximate 20-foot setback from the property line. The medical office building located to the north of the hotel is on the order of about 350 feet from the freeway. All structures are within the minimum 500-foot siting distance recommended by CARB for freeways that include over 100,000 ADT. The resulting impact is, therefore, potentially significant.

Minimum Efficiency Reporting Value (MERV) is a measurement scale designed in 1987 by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) to rate the effectiveness of particulate air filters. A particulate air filter is a device composed of fibrous or porous materials which removes solid particulates, such as dust, pollen, mold, bacteria, and other pollutants from the outside (intake) air. Filters containing an adsorbent or catalyst, such as charcoal (carbon) may also remove odors and gaseous pollutants such as volatile organic compounds and ozone. Air filters are used in applications where air quality is important, notably in building ventilation systems and engines.

As described in CARB's "Air Cleaning Devices for the Home" (Updated July 2014):

> Several standardized methods have been developed by trade groups or organizations to allow comparison of filters. These standards are designed to rate a filter's particle removal efficiency. No recognized standard has been developed to rate a filter's gaseous or chemical vapor removal rate. Currently, most filters are rated using the Minimum Efficiency Reporting Value (MERV) rating system that has been developed by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). The MERV rating system ranges from a low of 1 to a high of 20, with each rating indicating the percentage of particles removed within a specific particle size range (measured in microns, where a micron is one millionth of a meter). For illustration purposes, the diameter of a human hair is about 40-50 microns wide. Particles smaller than 10 microns, especially those smaller than one micron, are of greatest concern to health because they penetrate farthest into the lungs. Generally, as the MERV rating increases, so does the filter's removal efficiency for smaller-sized particles.

Presented in Table AQ-7 (Minimum Efficiency Reporting Value [MERV] Rating System) is a summary of each MERV rating's particle removal efficiency based on specific size ranges.

Recommended Mitigation:

To reduce potential on-site pollutant levels to a less-than-significant, the following mitigation measures are recommended. These mitigation measures were developed in accordance with the CARB's "Strategies to Reduce Air Pollution Exposure near High-Volume Roadways" (April 2017).

- **Mitigation Measure AQ-3**. The Applicant shall equip all structures with ventilation units with particulate filters with a rating of not less than Minimum Efficiency Reporting Value (MERV) 9 as recommended by the United States Environmental Protection Agency for automobile emission particles used in the protection of superior residential and better commercial structures, including hospital laboratories.

- **Mitigation Measure AQ-4**. The hotel (Lot 3, Tentative Parcel Map No. 82066) and the general and medical office building (Lot 1, Tentative Parcel Map No. 82066) shall have their ventilation intakes located along their north sides of those buildings.

The CARB details three strategies to reduce air pollution exposure near high-volume roadways. These include: (1) strategies that reduce traffic emissions; (2) strategies that increase dispersion of traffic pollution, and (3) strategies that remove pollution from the air. Strategies that reduce traffic emissions would include such things as reductions in local speed limits, synchronization of traffic signals, and the purchase of clean fleet vehicles. None of these strategies are, however, within the Applicant's purview and are not further addressed herein.

Table AQ-7
MINIMUM EFFICIENCY REPORTING VALUE (MERV) RATING CHART

ASHRAE Standard 52.2				ASHRAE Standard 52.1	Application Guidelines		
MERV Rating	Particle Size Removal Efficiency			Dust-Spot Efficiency Percent	Particle Size and Typical Contaminant	Typical Applications	Typical Air Filter Type
	0.3 to 1	1 to 3	3 to 10				
20	≥ 99.99997	>99		-	**< 0.3 µm** Virus (unattached) Carbon dust Sea salt All combustion smoke	Electronics manufacturing Pharmaceutical manufacturing Carcinogenic materials	HEPA/ULPA filters
19	≥ 99.9997	>99		-			
18	≥ 99.997	>99		-			
17	≥ 99.97	>99		-			
16	> 95	> 95	> 95	-	**0.3-1 µm** All bacteria Droplet nuclei (sneeze) Cooking oil Most smoke Insecticide dust Most face powder Most paint pigments	Superior commercial buildings Hospital inpatient care General surgery	Bag filters - Non supported (flexible) microfine fiberglass or synthetic media 12-36 in. deep. Box filters - Rigid style cartridge, 6-12 in. deep.
15	85-95	> 90	> 90	> 95			
14	75-85	> 90	> 90	90-95			
13	< 75	> 90	> 90	80-90			
12	-	> 80	> 90	70-75	**1-3 µm** Legionella Humidifier dust Lead dust Milled flour Auto emission particles Nebulizer drops	Superior residential Better commercial buildings Hospital laboratories	Pleated filters - Extended surface with cotton or polyester media or both, 1- 6 in. thick. Box filters - Rigid style cartridge, 6-12 in. deep.
11	-	65-80	> 85	60-65			
10	-	50-65	> 85	50-55			
9	-	< 50	> 85	40-45			
8	-	-	> 70	30-35	**3-10 µm** Mold Spores Dust mite body parts and droppings Cat and dog dander Hair spray Fabric protector Dusting aids Pudding mix	Better residential Commercial buildings Industrial workspaces	Pleated filters - Extended surface with cotton or polyester media or both, 1-6 in. thick Cartridge filters - Viscous cube or pocket filters. Throwaway - Synthetic media panel filters.
7	-	-	50-70	25-30			
6	-	-	35-50	< 20			
5	-	-	20-35	< 20			
4	-	-	< 20	< 20	**> 10 µm** Pollen Dust mites Cockroach body parts and droppings Spanish moss Sanding dust Spray paint dust Textile fibers Carpet fibers	Minimum filtration Residential window air conditioners	Throwaway - Fiberglass or synthetic media panel, 1 in. thick. Washable - Aluminum mesh, foam rubber panel. Electrostatic - Self-charging (passive) woven polycarbonate panel.

Source: ANSI/ASHRAE Standard 52.1

Strategies that increase dispersion from traffic pollution include such things as placement of open space elements, large structures, and urban “streetscapes” that are conducive to air flow. The CARB reports that dispersion can also be enhanced through such things as the placement of solid barriers and vegetation. Research shows that solid barriers can be effective at reducing near-roadway pollution concentrations. Barriers are typically discouraged except when placed directly adjacent to the freeway as they can disrupt community connectivity, and counteract planners’ efforts to encourage walking, biking, and complete streets designs. They may also elevate pollutant concentrations along the adjacent roadway. In the case of the proposed project, although the Applicant’s proposed site plan includes a 6-foot tall screen wall along the

project site's southern perimeter, because the freeway is elevated, that wall would not be effective at blocking most of the freeway's air pollution.

Building interior levels could still exceed acceptable levels and these pollutants would need to be removed. In this case, particulate filters, equivalent to MERV 9 or higher, as recommended for automotive emissions, would be appropriate for the intended land uses.

With respect to the air intake placement, the CARB indicates that: "It is likely that moving the air intake would be somewhat beneficial if the outdoor source is very near the intake and the intake is moved fairly far away." Based on the proximity of the hotel (Lot 3, TPM 82066) and Lot 1 general and medical office building (Lot 3, TPM 82066) to the Pomona (SR-60) Freeway, moving the air intakes away from the freeway frontage could be beneficial in reducing interior pollutants.

Implementation of the recommended mitigation measures would reduce the potentially significant air quality impact to a less-than-significant level.

4.4 Potential to Create Objectionable Odors

Preliminary CEQA Findings: *Less-than-Significant Impact.*

Project construction would involve the use of heavy equipment creating exhaust pollutants from on-site earth movement and from equipment bringing asphalt and other building materials to the project site. With regards to nuisance odors, any air quality impacts will be generally confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites located away from the project site, they would be diluted to well below any level of air quality concern.

An occasional "whiff" of diesel exhaust from passing equipment and trucks accessing the site from public roadways will, however, likely result and be perceptible to near-site receptors. Such brief exhaust odors are an adverse but less-than-significant, air quality impact. Additionally, odors will be produced from the application of asphalt, paints, and architectural coatings. Any exposure to these common odors would be of short-term duration and, while potentially adverse, constitute a less-than-significant impact.

Although no restaurant-related uses are included in the proposed project and none of the hotel's guest rooms will be equipped with kitchen facilities, limited food preparation activities are common in business hotels. Operational odors could be produced from those on-site food preparation activities. Located adjacent to the project site is an existing restaurant (Farmer Boys). Because food preparation odors are presently common in the general project environment, any such project-related odors would not constitute a significant impact.

4.5 Potential to Generate Greenhouse Gas Emissions

Preliminary CEQA Finding: *Less-than-Significant Impact*

The SCAQMD is in the process of establishing a threshold for GHG emissions to determine a project's regional contribution toward global climate change impacts for California. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD convened a "GHG CEQA Significance Threshold Working Group."

On December 5, 2008, SCAQMD recommended actions for determining project-level GHG significance. As outlined below, those recommendations were tiered to determine what projects would be subject to analysis and mitigation.

- Tier 1 consists of determining if the project would quality for an exemption under CEQA.

- Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in [State] CEQA Guidelines §§15064(h)(3), 15125(d), or 15152(a). The GHG reduction plan must, at a minimum, comply with AB 32 GHG reduction goals; include emissions estimates agreed upon by either CARB or the AQMD, have been analyzed under CEQA, and have a certified final CEQA document. Further, the GHG reduction plan must include a GHG emissions inventory tracking mechanism, process to monitor progress in achieving GHG emission reduction targets, and a commitment to remedy the excess emissions if GHG reduction goals are not met (enforcement). If the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the components described above, the project would move to Tier 3.

- Tier 3 establishes a screening significance threshold level of 10,000 MTons per year for industrial facilities. This is based on a 90 percent emission capture rate. If a project exceeds the GHG screening significance threshold level and GHG emissions cannot be mitigated to less than the screening level, the project would move to Tier 4.

- Tier 4 consists of a "decision tree" that would allow lead agencies one of three compliance options based on performance standards. Tier 4 was not recommended for approval by the SCAQMD.

- Tier 5 would allow a project proponent to implement off-site mitigation to reduce applicant emissions to less than screening levels.

As noted, the tiered approach above was intended for industrial facilities. With respect to residential and commercial development, to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential and commercial sectors and implement a "fair share" approach to reducing emission increases from each sector, SCAQMD staff discussed with the "GHG CEQA Significance Threshold Working Group" a proposal combining performance standards and screening thresholds. The performance standard's primarily focus on energy efficiency measures beyond Title 24 and a screening level of 3,000 Mtons CO_2e/year based on the relative GHG emissions contribution between residential and commercial sectors and stationary source (industrial) sectors. With respect to construction, the SCAQMD recommended that the construction emissions be totaled and amortized over a period of 30 years, then added to the emissions generated by the project's operation.

On September 28, 2010, the SCAQMD presented their proposed significance thresholds for greenhouse gases. At that time SCAQMD determined a Tier 3 screening significance threshold level of 10,000 MTons CO_2e/year for industrial projects to be adopted where the SCAQMD is the lead agency. SCAQMD staff also proposed to extend the industrial GHG significance threshold for use by all lead agencies.

Similarly, with regard to numerical residential and commercial GHG significance thresholds, SCAQMD staff presented the following two options that lead agencies could choose from.

- "Option No. 1" presented separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed-use projects (3,000 MTons CO_2e/year).
- "Option No. 2" presented a single numerical threshold for all nonindustrial projects of 3,000 MTons CO_2e/year.

If a CEQA lead agency choose one option, that agency must consistently use that same option for all projects where it serves in that role. While the SCAQMD recommended the use of "Option No. 2," lead agencies were allowed to choose "Option No. 1" if they were to prefer that approach.

For the purposes of this analysis, the resulting GHG emissions impact would be considered significant if the proposed project were to generate greenhouse gases in excess of the recommendation by the SCAQMD for "Option No. 2" (i.e., 3,000 MTons CO_2e/year). Both construction-related and operational impacts are separately examined below.

- **Construction**. The CalEEMod "default" estimates that construction would take 320 working days to complete. For the purposes of this analysis, construction is estimated to begin on October 1, 2019 and follow the CalEEMod "default" construction schedule with completion expected on December 21, 2020. Construction activities would consume fuel and result in the generation of greenhouse gases. Construction CO_2e emissions are as projected using the CalEEMod computer model and, as estimated Mtons/year, included in Table AQ-8 (Projected Construction-Related Greenhouse Gas Emissions).

Table AQ-8
PROJECTED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS
(Mtons/year)

Year	CO_2	CH_4	N_2O	Total CO_2e[1]
2019	155.34	0.03	0.00	156.12
2020	545.42	0.08	0.00	547.42
Total	700.76	0.11	0.00	703.54
Total per Year[2]	23.36	0.00	0.00	23.45

Notes:
1. Because different gases have different conversion factors, totals may not equal.
2. Averaged over a period of 30 years.

Source: City of Diamond Bar Community Development Department

- **Site Operations**. In the case of site operations, the majority of GHG emissions, specifically CO_2, is due to vehicle travel and energy consumption. When it was operational, the former recreational vehicle and boat storage use also produced minimal emissions that would were subsequently eliminated with the cessation of that use. No off-setting credits have been taken for the elimination of that former use.

  As shown in Table AQ-9 (Projected Yearly Operational Greenhouse Gas Emissions), the CalEEMod model projects that combined, mobile, area source, energy, waste, and water conveyance associated with the proposed project would generate an estimated 2,809.65 Mtons of CO_2e on an annual basis. When the construction emissions are amortized over 30 years (23.45 Mtons of CO_2e) and added thereto, the total is increased to an estimated 2,833.10 Mtons of CO_2e per year. Because this value remains below the SCAQMD's

suggested threshold value of 3,000 Mtons per year, the resulting GHG impact is less than significant.

Table AQ-9
PROJECTED YEARLY OPERATIONAL GREENHOUSE GAS EMISSIONS
(Mtons/year)

Source	CO_2	CH_4	N_2O	Total CO_2e[1]
Mobile Sources	2,029.60	0.11	0.00	2,032.30
Electricity	406.01	0.02	0.00	407.46
Natural Gas	110.52	0.00	0.00	111.18
Landscape Maintenance	0.00	0.00	0.00	0.00
Water Use	67.13	0.38	0.01	79.42
Waste Disposal	72.37	4.28	0.00	179.29
Proposed Land Use Sub-Total	2,685.63	4.79	0.01	2,809.65
Construction Amortization	23.36	0.00	0.00	23.45
Total Yearly Emissions	2,708.99	4.79	0.01	2,833.10
Threshold of Significance	-	-	-	3,000.00
Exceeds Threshold?				No
Notes: 1. Because different gases have different conversion factors, totals may not equal.				

Source: City of Diamond Bar Community Development Department

4.6 Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Greenhouse Gas Emissions

Preliminary CEQA Finding: *Less than Significant Impact.*

From a greenhouse gas emissions perspective, an impact can also be potentially significant if the proposed project does not comply with the applicable plans, policies, or regulations adopted for the purpose of reducing the emission of greenhouse gases.

The SCAQMD has noted that it may be likely that projects can achieve the 2035 efficiency threshold because the target GHG reductions specified in Senate Bill 375 (California Sustainable Communities Strategy and Climate Protection Act) (Chapter 728, Statutes of 2008)[12] are expected to be met primarily through cleaner vehicles as a result of fleet turnover and the reduction in vehicle miles traveled (VMT). Consequently, fleet turnover plus a small increment of GHG reductions from land-use projects could potentially achieve the 2035 efficiency threshold.

As proposed, subject to the timing of its implementation, the proposed project could potentially be made subject to the "City of Diamond Bar Climate Action Plan" (as included as a component of the General Plan Update) and made subject to any additional actions and measures identified therein. Because that CAP has not yet been adopted and because the proposed project's development application was accepted by the Department for processing prior to its adoption, any of the actions and/or measures specified therein have not been considered herein.

[12]/ Regional GHG emission reduction targets were approved by the CARB on September 23, 2010 and March 22, 2018. For the Southern California Association of Governments (SCAG) region, separate "targets thru September 30, 2018" and "targets beginning October 1, 2018" were identified. Relative to that latter category, expressed as a percent change in per capita passenger vehicle GHG emissions relative to 2005, a goal of an 8 percent reduction was established by 2020 and 19 percent by 2035.

Like air quality impacts, projects that generate de minimus levels (i.e., less than 3,000 Mtons of CO_2e per year) and do not result in a significant impact or can be mitigated to less than significant would be deemed to be in compliance of the local policies with respect to GHG emissions. As such, GHG emission impacts are less than significant and no additional mitigation measures are required under CEQA.

5.0 References

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6.0 List of Appendices

- Appendix AQ-A: CalEEMod Model Results Winter Emissions
- Appendix AQ-B: CalEEMod Model Results Summer Emissions
- Appendix AQ-C: CalEEMod Model Results Annual Emissions
- Appendix AQ-D: CalEEMod Model Results Mitigated Construction Emissions

Appendix AQ-A

CalEEMod Model Results
Winter Emissions

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Brea Canyon Business Center

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	24.73	1000sqft	0.47	24,730.00	0
General Office Building	32.00	1000sqft	0.25	31,998.00	0
Hotel	109.00	Room	0.46	61,743.00	0
Parking Lot	4.55	Acre	4.55	198,198.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages based on Applicant Plans for structures and footprints. The remainer of the 5.73 acres is modeled as a parking lot.

Demolition -

Vehicle Trips - Vehicle trips based on 10th Edition of the ITE as provided by LLG.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	32,000.00	31,998.00
tblLandUse	LandUseSquareFeet	158,268.00	61,743.00
tblLandUse	LotAcreage	0.57	0.47
tblLandUse	LotAcreage	0.73	0.25
tblLandUse	LotAcreage	3.63	0.46
tblVehicleTrips	ST_TR	2.46	2.22
tblVehicleTrips	ST_TR	8.96	8.57
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	1.55	1.42
tblVehicleTrips	WD_TR	11.03	9.75
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	36.13	34.82

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4310	48.8208	25.3208	0.0743	18.2675	2.3919	20.6594	9.9840	2.2006	12.1846	0.0000	7,640.9776	7,640.9776	1.3327	0.0000	7,674.2949
2020	58.0331	25.0599	22.9719	0.0536	1.7524	1.1553	2.9076	0.4723	1.0865	1.5588	0.0000	5,298.2931	5,298.2931	0.7581	0.0000	5,317.2450
Maximum	**58.0331**	**48.8208**	**25.3208**	**0.0743**	**18.2675**	**2.3919**	**20.6594**	**9.9840**	**2.2006**	**12.1846**	**0.0000**	**7,640.9776**	**7,640.9776**	**1.3327**	**0.0000**	**7,674.2949**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4310	48.8208	25.3208	0.0743	3.8596	2.3919	6.2515	2.0643	2.2006	4.2649	0.0000	7,640.9776	7,640.9776	1.3327	0.0000	7,674.2949
2020	58.0331	25.0599	22.9719	0.0536	1.7524	1.1553	2.9076	0.4723	1.0865	1.5588	0.0000	5,298.2931	5,298.2931	0.7581	0.0000	5,317.2450
Maximum	**58.0331**	**48.8208**	**25.3208**	**0.0743**	**3.8596**	**2.3919**	**6.2515**	**2.0643**	**2.2006**	**4.2649**	**0.0000**	**7,640.9776**	**7,640.9776**	**1.3327**	**0.0000**	**7,674.2949**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**71.97**	**0.00**	**61.14**	**75.74**	**0.00**	**57.63**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Total	**6.4009**	**19.1601**	**43.3776**	**0.1456**	**11.5098**	**0.1908**	**11.7006**	**3.0798**	**0.1817**	**3.2615**		**15,137.0166**	**15,137.0166**	**0.8014**	**0.0122**	**15,160.6988**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Total	**6.4009**	**19.1601**	**43.3776**	**0.1456**	**11.5098**	**0.1908**	**11.7006**	**3.0798**	**0.1817**	**3.2615**		**15,137.0166**	**15,137.0166**	**0.8014**	**0.0122**	**15,160.6988**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2019	10/28/2019	5	20	
2	Site Preparation	Site Preparation	10/29/2019	11/11/2019	5	10	
3	Grading	Grading	11/12/2019	12/9/2019	5	20	
4	Building Construction	Building Construction	12/10/2019	10/26/2020	5	230	
5	Paving	Paving	10/27/2020	11/23/2020	5	20	
6	Architectural Coating	Architectural Coating	11/24/2020	12/21/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 4.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 177,707; Non-Residential Outdoor: 59,236; Striped Parking Area: 11,892 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	880.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	127.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5247	0.0000	9.5247	1.4421	0.0000	1.4421			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**9.5247**	**1.7949**	**11.3196**	**1.4421**	**1.6697**	**3.1118**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3722	12.9819	2.6526	0.0339	0.7689	0.0484	0.8173	0.2107	0.0463	0.2570		3,658.3798	3,658.3798	0.2657		3,665.0221
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.4522**	**13.0378**	**3.2607**	**0.0355**	**0.9365**	**0.0497**	**0.9863**	**0.2552**	**0.0475**	**0.3027**		**3,824.0782**	**3,824.0782**	**0.2709**		**3,830.8498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9288	0.0000	1.9288	0.2920	0.0000	0.2920			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**1.9288**	**1.7949**	**3.7237**	**0.2920**	**1.6697**	**1.9617**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3722	12.9819	2.6526	0.0339	0.7689	0.0484	0.8173	0.2107	0.0463	0.2570		3,658.3798	3,658.3798	0.2657		3,665.0221
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.4522**	**13.0378**	**3.2607**	**0.0355**	**0.9365**	**0.0497**	**0.9863**	**0.2552**	**0.0475**	**0.3027**		**3,824.0782**	**3,824.0782**	**0.2709**		**3,830.8498**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7297	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		198.8380	198.8380	6.2100e-003		198.9933
Total	**0.0960**	**0.0672**	**0.7297**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**198.8380**	**198.8380**	**6.2100e-003**		**198.9933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6584	0.0000	3.6584	2.0110	0.0000	2.0110			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**3.6584**	**2.3904**	**6.0488**	**2.0110**	**2.1991**	**4.2101**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7297	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		198.8380	198.8380	6.2100e-003		198.9933
Total	**0.0960**	**0.0672**	**0.7297**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**198.8380**	**198.8380**	**6.2100e-003**		**198.9933**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.0800**	**0.0560**	**0.6081**	**1.6600e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**165.6984**	**165.6984**	**5.1800e-003**		**165.8278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3269	0.0000	1.3269	0.6819	0.0000	0.6819			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**1.3269**	**1.3974**	**2.7242**	**0.6819**	**1.2856**	**1.9675**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.0800**	**0.0560**	**0.6081**	**1.6600e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**165.6984**	**165.6984**	**5.1800e-003**		**165.8278**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2094	5.9542	1.6019	0.0131	0.3328	0.0400	0.3729	0.0958	0.0383	0.1341		1,395.2446	1,395.2446	0.1021		1,397.7977
Worker	0.6772	0.4741	5.1484	0.0141	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,402.9128	1,402.9128	0.0438		1,404.0086
Total	**0.8866**	**6.4283**	**6.7503**	**0.0272**	**1.7524**	**0.0511**	**1.8035**	**0.4723**	**0.0485**	**0.5208**		**2,798.1574**	**2,798.1574**	**0.1460**		**2,801.8063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2094	5.9542	1.6019	0.0131	0.3328	0.0400	0.3729	0.0958	0.0383	0.1341		1,395.2446	1,395.2446	0.1021		1,397.7977
Worker	0.6772	0.4741	5.1484	0.0141	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,402.9128	1,402.9128	0.0438		1,404.0086
Total	**0.8866**	**6.4283**	**6.7503**	**0.0272**	**1.7524**	**0.0511**	**1.8035**	**0.4723**	**0.0485**	**0.5208**		**2,798.1574**	**2,798.1574**	**0.1460**		**2,801.8063**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1789	5.4510	1.4487	0.0130	0.3328	0.0274	0.3603	0.0958	0.0263	0.1221		1,385.8666	1,385.8666	0.0962		1,388.2724
Worker	0.6267	0.4229	4.6747	0.0136	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,359.3635	1,359.3635	0.0390		1,360.3381
Total	**0.8056**	**5.8739**	**6.1234**	**0.0266**	**1.7524**	**0.0382**	**1.7906**	**0.4723**	**0.0362**	**0.5085**		**2,745.2301**	**2,745.2301**	**0.1352**		**2,748.6105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1789	5.4510	1.4487	0.0130	0.3328	0.0274	0.3603	0.0958	0.0263	0.1221		1,385.8666	1,385.8666	0.0962		1,388.2724
Worker	0.6267	0.4229	4.6747	0.0136	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,359.3635	1,359.3635	0.0390		1,360.3381
Total	**0.8056**	**5.8739**	**6.1234**	**0.0266**	**1.7524**	**0.0382**	**1.7906**	**0.4723**	**0.0362**	**0.5085**		**2,745.2301**	**2,745.2301**	**0.1352**		**2,748.6105**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	**0.0740**	**0.0500**	**0.5521**	**1.6100e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**160.5547**	**160.5547**	**4.6000e-003**		**160.6699**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	**0.0740**	**0.0500**	**0.5521**	**1.6100e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**160.5547**	**160.5547**	**4.6000e-003**		**160.6699**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
Total	**0.1234**	**0.0833**	**0.9202**	**2.6900e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**267.5912**	**267.5912**	**7.6700e-003**		**267.7831**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
Total	**0.1234**	**0.0833**	**0.9202**	**2.6900e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**267.5912**	**267.5912**	**7.6700e-003**		**267.7831**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Unmitigated	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	312.00	71.04	22.08	760,780	760,780
Hotel	911.24	892.71	648.55	2,078,512	2,078,512
Medical Office Building	861.10	211.94	35.12	1,686,951	1,686,951
Parking Lot	0.00	0.00	0.00		
Total	2,084.34	1,175.69	705.75	4,526,243	4,526,243

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Hotel	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Medical Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
NaturalGas Unmitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	912.6	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4056.43	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	705.313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.9126	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4.05643	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	0.705313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Unmitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix AQ-B

CalEEMod Model Results
Summer Emissions

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Brea Canyon Business Center

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	24.73	1000sqft	0.47	24,730.00	0
General Office Building	32.00	1000sqft	0.25	31,998.00	0
Hotel	109.00	Room	0.46	61,743.00	0
Parking Lot	4.55	Acre	4.55	198,198.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages based on Applicant Plans for structures and footprints. The remainer of the 5.73 acres is modeled as a parking lot.

Demolition -

Vehicle Trips - Vehicle trips based on 10th Edition of the ITE as provided by LLG.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	32,000.00	31,998.00
tblLandUse	LandUseSquareFeet	158,268.00	61,743.00
tblLandUse	LotAcreage	0.57	0.47
tblLandUse	LotAcreage	0.73	0.25
tblLandUse	LotAcreage	3.63	0.46
tblVehicleTrips	ST_TR	2.46	2.22
tblVehicleTrips	ST_TR	8.96	8.57
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	1.55	1.42
tblVehicleTrips	WD_TR	11.03	9.75
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	36.13	34.82

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4232	48.6436	25.1858	0.0751	18.2675	2.3919	20.6594	9.9840	2.2006	12.1846	0.0000	7,720.0434	7,720.0434	1.3216	0.0000	7,753.0820
2020	58.0228	25.0289	23.3398	0.0549	1.7524	1.1549	2.9072	0.4723	1.0861	1.5584	0.0000	5,433.6052	5,433.6052	0.7543	0.0000	5,452.4613
Maximum	**58.0228**	**48.6436**	**25.1858**	**0.0751**	**18.2675**	**2.3919**	**20.6594**	**9.9840**	**2.2006**	**12.1846**	**0.0000**	**7,720.0434**	**7,720.0434**	**1.3216**	**0.0000**	**7,753.0820**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4232	48.6436	25.1858	0.0751	3.8596	2.3919	6.2515	2.0643	2.2006	4.2649	0.0000	7,720.0434	7,720.0434	1.3216	0.0000	7,753.0820
2020	58.0228	25.0289	23.3398	0.0549	1.7524	1.1549	2.9072	0.4723	1.0861	1.5584	0.0000	5,433.6052	5,433.6052	0.7543	0.0000	5,452.4613
Maximum	**58.0228**	**48.6436**	**25.1858**	**0.0751**	**3.8596**	**2.3919**	**6.2515**	**2.0643**	**2.2006**	**4.2649**	**0.0000**	**7,720.0434**	**7,720.0434**	**1.3216**	**0.0000**	**7,753.0820**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**71.97**	**0.00**	**61.14**	**75.74**	**0.00**	**57.63**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.7909	18.2760	45.2422	0.1505	11.5098	0.1475	11.6573	3.0798	0.1384	3.2182		15,295.9244	15,295.9244	0.7855		15,315.5617
Total	**6.5856**	**18.8325**	**45.7270**	**0.1538**	**11.5098**	**0.1898**	**11.6996**	**3.0798**	**0.1808**	**3.2606**		**15,963.5316**	**15,963.5316**	**0.7984**	**0.0122**	**15,987.1384**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.7909	18.2760	45.2422	0.1505	11.5098	0.1475	11.6573	3.0798	0.1384	3.2182		15,295.9244	15,295.9244	0.7855		15,315.5617
Total	**6.5856**	**18.8325**	**45.7270**	**0.1538**	**11.5098**	**0.1898**	**11.6996**	**3.0798**	**0.1808**	**3.2606**		**15,963.5316**	**15,963.5316**	**0.7984**	**0.0122**	**15,987.1384**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2019	10/28/2019	5	20	
2	Site Preparation	Site Preparation	10/29/2019	11/11/2019	5	10	
3	Grading	Grading	11/12/2019	12/9/2019	5	20	
4	Building Construction	Building Construction	12/10/2019	10/26/2020	5	230	
5	Paving	Paving	10/27/2020	11/23/2020	5	20	
6	Architectural Coating	Architectural Coating	11/24/2020	12/21/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 4.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 177,707; Non-Residential Outdoor: 59,236; Striped Parking Area: 11,892 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	880.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	127.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5247	0.0000	9.5247	1.4421	0.0000	1.4421			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**9.5247**	**1.7949**	**11.3196**	**1.4421**	**1.6697**	**3.1118**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3616	12.8095	2.4517	0.0345	0.7689	0.0475	0.8164	0.2107	0.0455	0.2562		3,725.9956	3,725.9956	0.2542		3,732.3501
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0511	0.6740	1.7800e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		177.1484	177.1484	5.5400e-003		177.2869
Total	**0.4350**	**12.8606**	**3.1257**	**0.0363**	**0.9365**	**0.0488**	**0.9854**	**0.2552**	**0.0467**	**0.3019**		**3,903.1440**	**3,903.1440**	**0.2597**		**3,909.6369**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9288	0.0000	1.9288	0.2920	0.0000	0.2920			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**1.9288**	**1.7949**	**3.7237**	**0.2920**	**1.6697**	**1.9617**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3616	12.8095	2.4517	0.0345	0.7689	0.0475	0.8164	0.2107	0.0455	0.2562		3,725.9956	3,725.9956	0.2542		3,732.3501
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0511	0.6740	1.7800e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		177.1484	177.1484	5.5400e-003		177.2869
Total	**0.4350**	**12.8606**	**3.1257**	**0.0363**	**0.9365**	**0.0488**	**0.9854**	**0.2552**	**0.0467**	**0.3019**		**3,903.1440**	**3,903.1440**	**0.2597**		**3,909.6369**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0882	0.0613	0.8088	2.1400e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		212.5780	212.5780	6.6500e-003		212.7442
Total	**0.0882**	**0.0613**	**0.8088**	**2.1400e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**212.5780**	**212.5780**	**6.6500e-003**		**212.7442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6584	0.0000	3.6584	2.0110	0.0000	2.0110			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**3.6584**	**2.3904**	**6.0488**	**2.0110**	**2.1991**	**4.2101**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0882	0.0613	0.8088	2.1400e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		212.5780	212.5780	6.6500e-003		212.7442
Total	**0.0882**	**0.0613**	**0.8088**	**2.1400e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**212.5780**	**212.5780**	**6.6500e-003**		**212.7442**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0511	0.6740	1.7800e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		177.1484	177.1484	5.5400e-003		177.2869
Total	**0.0735**	**0.0511**	**0.6740**	**1.7800e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**177.1484**	**177.1484**	**5.5400e-003**		**177.2869**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3269	0.0000	1.3269	0.6819	0.0000	0.6819			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**1.3269**	**1.3974**	**2.7242**	**0.6819**	**1.2856**	**1.9675**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0511	0.6740	1.7800e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		177.1484	177.1484	5.5400e-003		177.2869
Total	**0.0735**	**0.0511**	**0.6740**	**1.7800e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**177.1484**	**177.1484**	**5.5400e-003**		**177.2869**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2005	5.9500	1.4384	0.0135	0.3328	0.0394	0.3722	0.0958	0.0377	0.1335		1,436.3425	1,436.3425	0.0950		1,438.7184
Worker	0.6220	0.4328	5.7066	0.0151	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,499.8561	1,499.8561	0.0469		1,501.0288
Total	**0.8224**	**6.3829**	**7.1450**	**0.0285**	**1.7524**	**0.0505**	**1.8028**	**0.4723**	**0.0479**	**0.5202**		**2,936.1985**	**2,936.1985**	**0.1420**		**2,939.7472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2005	5.9500	1.4384	0.0135	0.3328	0.0394	0.3722	0.0958	0.0377	0.1335		1,436.3425	1,436.3425	0.0950		1,438.7184
Worker	0.6220	0.4328	5.7066	0.0151	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,499.8561	1,499.8561	0.0469		1,501.0288
Total	**0.8224**	**6.3829**	**7.1450**	**0.0285**	**1.7524**	**0.0505**	**1.8028**	**0.4723**	**0.0479**	**0.5202**		**2,936.1985**	**2,936.1985**	**0.1420**		**2,939.7472**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1708	5.4566	1.2993	0.0134	0.3328	0.0270	0.3598	0.0958	0.0259	0.1217		1,427.1320	1,427.1320	0.0896		1,429.3720
Worker	0.5746	0.3863	5.1920	0.0146	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,453.4102	1,453.4102	0.0418		1,454.4548
Total	**0.7454**	**5.8429**	**6.4913**	**0.0280**	**1.7524**	**0.0378**	**1.7902**	**0.4723**	**0.0358**	**0.5081**		**2,880.5421**	**2,880.5421**	**0.1314**		**2,883.8269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1708	5.4566	1.2993	0.0134	0.3328	0.0270	0.3598	0.0958	0.0259	0.1217		1,427.1320	1,427.1320	0.0896		1,429.3720
Worker	0.5746	0.3863	5.1920	0.0146	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,453.4102	1,453.4102	0.0418		1,454.4548
Total	**0.7454**	**5.8429**	**6.4913**	**0.0280**	**1.7524**	**0.0378**	**1.7902**	**0.4723**	**0.0358**	**0.5081**		**2,880.5421**	**2,880.5421**	**0.1314**		**2,883.8269**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1131	0.0760	1.0221	2.8700e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		286.1044	286.1044	8.2300e-003		286.3100
Total	**0.1131**	**0.0760**	**1.0221**	**2.8700e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**286.1044**	**286.1044**	**8.2300e-003**		**286.3100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1131	0.0760	1.0221	2.8700e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		286.1044	286.1044	8.2300e-003		286.3100
Total	**0.1131**	**0.0760**	**1.0221**	**2.8700e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**286.1044**	**286.1044**	**8.2300e-003**		**286.3100**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7909	18.2760	45.2422	0.1505	11.5098	0.1475	11.6573	3.0798	0.1384	3.2182		15,295.9244	15,295.9244	0.7855		15,315.5617
Unmitigated	3.7909	18.2760	45.2422	0.1505	11.5098	0.1475	11.6573	3.0798	0.1384	3.2182		15,295.9244	15,295.9244	0.7855		15,315.5617

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	312.00	71.04	22.08	760,780	760,780
Hotel	911.24	892.71	648.55	2,078,512	2,078,512
Medical Office Building	861.10	211.94	35.12	1,686,951	1,686,951
Parking Lot	0.00	0.00	0.00		
Total	2,084.34	1,175.69	705.75	4,526,243	4,526,243

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Hotel	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Medical Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
NaturalGas Unmitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	912.6	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4056.43	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	705.313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.9126	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4.05643	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	0.705313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Unmitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix AQ-C

CalEEMod Model Results
Annual Emissions

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Brea Canyon Business Center

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	24.73	1000sqft	0.47	24,730.00	0
General Office Building	32.00	1000sqft	0.25	31,998.00	0
Hotel	109.00	Room	0.46	61,743.00	0
Parking Lot	4.55	Acre	4.55	198,198.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages based on Applicant Plans for structures and footprints. The remainer of the 5.73 acres is modeled as a parking lot.

Demolition -

Vehicle Trips - Vehicle trips based on 10th Edition of the ITE as provided by LLG.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	32,000.00	31,998.00
tblLandUse	LandUseSquareFeet	158,268.00	61,743.00
tblLandUse	LotAcreage	0.57	0.47
tblLandUse	LotAcreage	0.73	0.25
tblLandUse	LotAcreage	3.63	0.46
tblVehicleTrips	ST_TR	2.46	2.22
tblVehicleTrips	ST_TR	8.96	8.57
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	1.55	1.42
tblVehicleTrips	WD_TR	11.03	9.75
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	36.13	34.82

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1136	1.2239	0.7273	1.7000e-003	0.2767	0.0551	0.3318	0.1047	0.0511	0.1558	0.0000	155.3355	155.3355	0.0316	0.0000	156.1245
2020	0.9065	2.8521	2.6445	6.0800e-003	0.1886	0.1323	0.3208	0.0509	0.1243	0.1752	0.0000	545.4164	545.4164	0.0801	0.0000	547.4185
Maximum	**0.9065**	**2.8521**	**2.6445**	**6.0800e-003**	**0.2767**	**0.1323**	**0.3318**	**0.1047**	**0.1243**	**0.1752**	**0.0000**	**545.4164**	**545.4164**	**0.0801**	**0.0000**	**547.4185**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1136	1.2239	0.7273	1.7000e-003	0.0765	0.0551	0.1316	0.0267	0.0511	0.0779	0.0000	155.3354	155.3354	0.0316	0.0000	156.1244
2020	0.9065	2.8521	2.6445	6.0800e-003	0.1886	0.1323	0.3208	0.0509	0.1243	0.1752	0.0000	545.4161	545.4161	0.0801	0.0000	547.4182
Maximum	**0.9065**	**2.8521**	**2.6445**	**6.0800e-003**	**0.1886**	**0.1323**	**0.3208**	**0.0509**	**0.1243**	**0.1752**	**0.0000**	**545.4161**	**545.4161**	**0.0801**	**0.0000**	**547.4182**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.04**	**0.00**	**30.68**	**50.12**	**0.00**	**23.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	1.3305	1.3305
2	1-1-2020	3-31-2020	0.9095	0.9095
3	4-1-2020	6-30-2020	0.9066	0.9066
4	7-1-2020	9-30-2020	0.9165	0.9165
		Highest	1.3305	1.3305

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4988	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0112	0.1015	0.0853	6.1000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	516.5359	516.5359	0.0189	5.4900e-003	518.6453
Mobile	0.5383	2.8933	6.6246	0.0220	1.7198	0.0225	1.7423	0.4609	0.0211	0.4820	0.0000	2,029.5981	2,029.5981	0.1082	0.0000	2,032.3023
Waste						0.0000	0.0000		0.0000	0.0000	72.3703	0.0000	72.3703	4.2770	0.0000	179.2945
Water						0.0000	0.0000		0.0000	0.0000	3.6661	63.4609	67.1270	0.3792	9.4300e-003	79.4170
Total	**1.0482**	**2.9948**	**6.7121**	**0.0226**	**1.7198**	**0.0302**	**1.7501**	**0.4609**	**0.0289**	**0.4898**	**76.0364**	**2,609.5992**	**2,685.6356**	**4.7832**	**0.0149**	**2,809.6635**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4988	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0112	0.1015	0.0853	6.1000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	516.5359	516.5359	0.0189	5.4900e-003	518.6453
Mobile	0.5383	2.8933	6.6246	0.0220	1.7198	0.0225	1.7423	0.4609	0.0211	0.4820	0.0000	2,029.5981	2,029.5981	0.1082	0.0000	2,032.3023
Waste						0.0000	0.0000		0.0000	0.0000	72.3703	0.0000	72.3703	4.2770	0.0000	179.2945
Water						0.0000	0.0000		0.0000	0.0000	3.6661	63.4609	67.1270	0.3792	9.4300e-003	79.4170
Total	**1.0482**	**2.9948**	**6.7121**	**0.0226**	**1.7198**	**0.0302**	**1.7501**	**0.4609**	**0.0289**	**0.4898**	**76.0364**	**2,609.5992**	**2,685.6356**	**4.7832**	**0.0149**	**2,809.6635**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2019	10/28/2019	5	20	
2	Site Preparation	Site Preparation	10/29/2019	11/11/2019	5	10	
3	Grading	Grading	11/12/2019	12/9/2019	5	20	
4	Building Construction	Building Construction	12/10/2019	10/26/2020	5	230	
5	Paving	Paving	10/27/2020	11/23/2020	5	20	
6	Architectural Coating	Architectural Coating	11/24/2020	12/21/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 4.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 177,707; Non-Residential Outdoor: 59,236; Striped Parking Area: 11,892 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	880.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	127.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0953	0.0000	0.0953	0.0144	0.0000	0.0144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**	**0.0953**	**0.0180**	**0.1132**	**0.0144**	**0.0167**	**0.0311**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6600e-003	0.1322	0.0254	3.4000e-004	7.5700e-003	4.8000e-004	8.0400e-003	2.0800e-003	4.6000e-004	2.5400e-003	0.0000	33.5440	33.5440	2.3500e-003	0.0000	33.6028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5289	1.5289	5.0000e-005	0.0000	1.5301
Total	**4.3800e-003**	**0.1328**	**0.0316**	**3.6000e-004**	**9.2200e-003**	**4.9000e-004**	**9.7000e-003**	**2.5200e-003**	**4.7000e-004**	**2.9900e-003**	**0.0000**	**35.0730**	**35.0730**	**2.4000e-003**	**0.0000**	**35.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0193	0.0000	0.0193	2.9200e-003	0.0000	2.9200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**	**0.0193**	**0.0180**	**0.0372**	**2.9200e-003**	**0.0167**	**0.0196**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6600e-003	0.1322	0.0254	3.4000e-004	7.5700e-003	4.8000e-004	8.0400e-003	2.0800e-003	4.6000e-004	2.5400e-003	0.0000	33.5440	33.5440	2.3500e-003	0.0000	33.6028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5289	1.5289	5.0000e-005	0.0000	1.5301
Total	**4.3800e-003**	**0.1328**	**0.0316**	**3.6000e-004**	**9.2200e-003**	**4.9000e-004**	**9.7000e-003**	**2.5200e-003**	**4.7000e-004**	**2.9900e-003**	**0.0000**	**35.0730**	**35.0730**	**2.4000e-003**	**0.0000**	**35.1330**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.5000e-004	3.7500e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9174	0.9174	3.0000e-005	0.0000	0.9181
Total	**4.3000e-004**	**3.5000e-004**	**3.7500e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9174**	**0.9174**	**3.0000e-005**	**0.0000**	**0.9181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0183	0.0000	0.0183	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0183**	**0.0120**	**0.0302**	**0.0101**	**0.0110**	**0.0211**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.5000e-004	3.7500e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9174	0.9174	3.0000e-005	0.0000	0.9181
Total	**4.3000e-004**	**3.5000e-004**	**3.7500e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9174**	**0.9174**	**3.0000e-005**	**0.0000**	**0.9181**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6423	26.6423	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0655**	**0.0140**	**0.0795**	**0.0337**	**0.0129**	**0.0465**	**0.0000**	**26.6423**	**26.6423**	**8.4300e-003**	**0.0000**	**26.8530**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5289	1.5289	5.0000e-005	0.0000	1.5301
Total	**7.2000e-004**	**5.8000e-004**	**6.2500e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5289**	**1.5289**	**5.0000e-005**	**0.0000**	**1.5301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0133	0.0000	0.0133	6.8200e-003	0.0000	6.8200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6422	26.6422	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0133**	**0.0140**	**0.0272**	**6.8200e-003**	**0.0129**	**0.0197**	**0.0000**	**26.6422**	**26.6422**	**8.4300e-003**	**0.0000**	**26.8530**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2500e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5289	1.5289	5.0000e-005	0.0000	1.5301
Total	**7.2000e-004**	**5.8000e-004**	**6.2500e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5289**	**1.5289**	**5.0000e-005**	**0.0000**	**1.5301**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0189	0.1686	0.1373	2.2000e-004		0.0103	0.0103		9.7000e-003	9.7000e-003	0.0000	18.8083	18.8083	4.5800e-003	0.0000	18.9229
Total	**0.0189**	**0.1686**	**0.1373**	**2.2000e-004**		**0.0103**	**0.0103**		**9.7000e-003**	**9.7000e-003**	**0.0000**	**18.8083**	**18.8083**	**4.5800e-003**	**0.0000**	**18.9229**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6300e-003	0.0485	0.0122	1.1000e-004	2.6200e-003	3.2000e-004	2.9400e-003	7.6000e-004	3.0000e-004	1.0600e-003	0.0000	10.2990	10.2990	7.1000e-004	0.0000	10.3168
Worker	4.9100e-003	3.9000e-003	0.0424	1.1000e-004	0.0112	9.0000e-005	0.0112	2.9600e-003	8.0000e-005	3.0400e-003	0.0000	10.3560	10.3560	3.2000e-004	0.0000	10.3641
Total	**6.5400e-003**	**0.0524**	**0.0545**	**2.2000e-004**	**0.0138**	**4.1000e-004**	**0.0142**	**3.7200e-003**	**3.8000e-004**	**4.1000e-003**	**0.0000**	**20.6550**	**20.6550**	**1.0300e-003**	**0.0000**	**20.6809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0189	0.1686	0.1373	2.2000e-004		0.0103	0.0103		9.7000e-003	9.7000e-003	0.0000	18.8083	18.8083	4.5800e-003	0.0000	18.9229
Total	**0.0189**	**0.1686**	**0.1373**	**2.2000e-004**		**0.0103**	**0.0103**		**9.7000e-003**	**9.7000e-003**	**0.0000**	**18.8083**	**18.8083**	**4.5800e-003**	**0.0000**	**18.9229**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6300e-003	0.0485	0.0122	1.1000e-004	2.6200e-003	3.2000e-004	2.9400e-003	7.6000e-004	3.0000e-004	1.0600e-003	0.0000	10.2990	10.2990	7.1000e-004	0.0000	10.3168
Worker	4.9100e-003	3.9000e-003	0.0424	1.1000e-004	0.0112	9.0000e-005	0.0112	2.9600e-003	8.0000e-005	3.0400e-003	0.0000	10.3560	10.3560	3.2000e-004	0.0000	10.3641
Total	**6.5400e-003**	**0.0524**	**0.0545**	**2.2000e-004**	**0.0138**	**4.1000e-004**	**0.0142**	**3.7200e-003**	**3.8000e-004**	**4.1000e-003**	**0.0000**	**20.6550**	**20.6550**	**1.0300e-003**	**0.0000**	**20.6809**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2268	2.0529	1.8028	2.8800e-003		0.1195	0.1195		0.1124	0.1124	0.0000	247.8227	247.8227	0.0605	0.0000	249.3342
Total	**0.2268**	**2.0529**	**1.8028**	**2.8800e-003**		**0.1195**	**0.1195**		**0.1124**	**0.1124**	**0.0000**	**247.8227**	**247.8227**	**0.0605**	**0.0000**	**249.3342**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0186	0.5938	0.1471	1.4100e-003	0.0351	2.9100e-003	0.0380	0.0101	2.7800e-003	0.0129	0.0000	136.8476	136.8476	8.9800e-003	0.0000	137.0722
Worker	0.0607	0.0465	0.5147	1.4900e-003	0.1491	1.1500e-003	0.1502	0.0396	1.0600e-003	0.0407	0.0000	134.2139	134.2139	3.8500e-003	0.0000	134.3102
Total	**0.0793**	**0.6403**	**0.6617**	**2.9000e-003**	**0.1842**	**4.0600e-003**	**0.1882**	**0.0497**	**3.8400e-003**	**0.0536**	**0.0000**	**271.0616**	**271.0616**	**0.0128**	**0.0000**	**271.3824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2268	2.0529	1.8028	2.8800e-003		0.1195	0.1195		0.1124	0.1124	0.0000	247.8224	247.8224	0.0605	0.0000	249.3339
Total	**0.2268**	**2.0529**	**1.8028**	**2.8800e-003**		**0.1195**	**0.1195**		**0.1124**	**0.1124**	**0.0000**	**247.8224**	**247.8224**	**0.0605**	**0.0000**	**249.3339**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0186	0.5938	0.1471	1.4100e-003	0.0351	2.9100e-003	0.0380	0.0101	2.7800e-003	0.0129	0.0000	136.8476	136.8476	8.9800e-003	0.0000	137.0722
Worker	0.0607	0.0465	0.5147	1.4900e-003	0.1491	1.1500e-003	0.1502	0.0396	1.0600e-003	0.0407	0.0000	134.2139	134.2139	3.8500e-003	0.0000	134.3102
Total	**0.0793**	**0.6403**	**0.6617**	**2.9000e-003**	**0.1842**	**4.0600e-003**	**0.1882**	**0.0497**	**3.8400e-003**	**0.0536**	**0.0000**	**271.0616**	**271.0616**	**0.0128**	**0.0000**	**271.3824**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	5.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0195**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	5.1000e-004	5.6800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4815	1.4815	4.0000e-005	0.0000	1.4826
Total	**6.7000e-004**	**5.1000e-004**	**5.6800e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4815**	**1.4815**	**4.0000e-005**	**0.0000**	**1.4826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	5.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0195**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	5.1000e-004	5.6800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4815	1.4815	4.0000e-005	0.0000	1.4826
Total	**6.7000e-004**	**5.1000e-004**	**5.6800e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4815**	**1.4815**	**4.0000e-005**	**0.0000**	**1.4826**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5767					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.5791**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	8.6000e-004	9.4700e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.4692	2.4692	7.0000e-005	0.0000	2.4709
Total	**1.1200e-003**	**8.6000e-004**	**9.4700e-003**	**3.0000e-005**	**2.7400e-003**	**2.0000e-005**	**2.7600e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4692**	**2.4692**	**7.0000e-005**	**0.0000**	**2.4709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5767					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.5791**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	8.6000e-004	9.4700e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.4692	2.4692	7.0000e-005	0.0000	2.4709
Total	**1.1200e-003**	**8.6000e-004**	**9.4700e-003**	**3.0000e-005**	**2.7400e-003**	**2.0000e-005**	**2.7600e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4692**	**2.4692**	**7.0000e-005**	**0.0000**	**2.4709**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5383	2.8933	6.6246	0.0220	1.7198	0.0225	1.7423	0.4609	0.0211	0.4820	0.0000	2,029.5981	2,029.5981	0.1082	0.0000	2,032.3023
Unmitigated	0.5383	2.8933	6.6246	0.0220	1.7198	0.0225	1.7423	0.4609	0.0211	0.4820	0.0000	2,029.5981	2,029.5981	0.1082	0.0000	2,032.3023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	312.00	71.04	22.08	760,780	760,780
Hotel	911.24	892.71	648.55	2,078,512	2,078,512
Medical Office Building	861.10	211.94	35.12	1,686,951	1,686,951
Parking Lot	0.00	0.00	0.00		
Total	2,084.34	1,175.69	705.75	4,526,243	4,526,243

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Hotel	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Medical Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	406.0123	406.0123	0.0168	3.4700e-003	407.4648
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	406.0123	406.0123	0.0168	3.4700e-003	407.4648
NaturalGas Mitigated	0.0112	0.1015	0.0853	6.1000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	110.5237	110.5237	2.1200e-003	2.0300e-003	111.1805
NaturalGas Unmitigated	0.0112	0.1015	0.0853	6.1000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	110.5237	110.5237	2.1200e-003	2.0300e-003	111.1805

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	333099	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7754	17.7754	3.4000e-004	3.3000e-004	17.8811
Hotel	1.4806e+006	7.9800e-003	0.0726	0.0610	4.4000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	79.0103	79.0103	1.5100e-003	1.4500e-003	79.4798
Medical Office Building	257439	1.3900e-003	0.0126	0.0106	8.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	13.7379	13.7379	2.6000e-004	2.5000e-004	13.8196
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0112**	**0.1015**	**0.0853**	**6.2000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.5237**	**110.5237**	**2.1100e-003**	**2.0300e-003**	**111.1805**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	333099	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7754	17.7754	3.4000e-004	3.3000e-004	17.8811
Hotel	1.4806e+006	7.9800e-003	0.0726	0.0610	4.4000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	79.0103	79.0103	1.5100e-003	1.4500e-003	79.4798
Medical Office Building	257439	1.3900e-003	0.0126	0.0106	8.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	13.7379	13.7379	2.6000e-004	2.5000e-004	13.8196
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0112**	**0.1015**	**0.0853**	**6.2000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.5237**	**110.5237**	**2.1100e-003**	**2.0300e-003**	**111.1805**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	415654	132.4363	5.4700e-003	1.1300e-003	132.9101
Hotel	468012	149.1186	6.1600e-003	1.2700e-003	149.6521
Medical Office Building	321243	102.3548	4.2300e-003	8.7000e-004	102.7210
Parking Lot	69369.3	22.1026	9.1000e-004	1.9000e-004	22.1816
Total		**406.0123**	**0.0168**	**3.4600e-003**	**407.4648**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	415654	132.4363	5.4700e-003	1.1300e-003	132.9101
Hotel	468012	149.1186	6.1600e-003	1.2700e-003	149.6521
Medical Office Building	321243	102.3548	4.2300e-003	8.7000e-004	102.7210
Parking Lot	69369.3	22.1026	9.1000e-004	1.9000e-004	22.1816
Total		**406.0123**	**0.0168**	**3.4600e-003**	**407.4648**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4988	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Unmitigated	0.4988	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4409					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	**0.4988**	**2.0000e-005**	**2.1900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.2300e-003**	**4.2300e-003**	**1.0000e-005**	**0.0000**	**4.5100e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4409					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	**0.4988**	**2.0000e-005**	**2.1900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.2300e-003**	**4.2300e-003**	**1.0000e-005**	**0.0000**	**4.5100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	67.1270	0.3792	9.4300e-003	79.4170
Unmitigated	67.1270	0.3792	9.4300e-003	79.4170

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	5.68748 / 3.48587	37.7400	0.1868	4.6800e-003	43.8058
Hotel	2.76498 / 0.30722	13.4360	0.0906	2.2300e-003	16.3673
Medical Office Building	3.10313 / 0.591073	15.9510	0.1017	2.5200e-003	19.2439
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.1270**	**0.3792**	**9.4300e-003**	**79.4170**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	5.68748 / 3.48587	37.7400	0.1868	4.6800e-003	43.8058
Hotel	2.76498 / 0.30722	13.4360	0.0906	2.2300e-003	16.3673
Medical Office Building	3.10313 / 0.591073	15.9510	0.1017	2.5200e-003	19.2439
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.1270**	**0.3792**	**9.4300e-003**	**79.4170**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	72.3703	4.2770	0.0000	179.2945
Unmitigated	72.3703	4.2770	0.0000	179.2945

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	29.76	6.0410	0.3570	0.0000	14.9664
Hotel	59.68	12.1145	0.7160	0.0000	30.0132
Medical Office Building	267.08	54.2148	3.2040	0.0000	134.3149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**72.3703**	**4.2770**	**0.0000**	**179.2945**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	29.76	6.0410	0.3570	0.0000	14.9664
Hotel	59.68	12.1145	0.7160	0.0000	30.0132
Medical Office Building	267.08	54.2148	3.2040	0.0000	134.3149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**72.3703**	**4.2770**	**0.0000**	**179.2945**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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Appendix AQ-D

CalEEMod Model Results
Mitigated Construction Emissions

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Brea Canyon Business Center, Mitigated

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	32.00	1000sqft	0.25	31,998.00	0
Medical Office Building	24.73	1000sqft	0.47	24,730.00	0
Parking Lot	4.55	Acre	4.55	198,198.00	0
Hotel	109.00	Room	0.46	61,743.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages based on Applicant Plans for structures and footprints. The remainer of the 5.73 acres is modeled as a parking lot.

Demolition -

Vehicle Trips - Vehicle trips based on 10th Edition of the ITE as provided by LLG.

Construction Off-road Equipment Mitigation - Includes the use of diesel particulate filters for Rubber Tired Dozers.

Includes three times daily watering.

Brea Canyon Business Center, Mitigated - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblLandUse	LandUseSquareFeet	32,000.00	31,998.00
tblLandUse	LandUseSquareFeet	158,268.00	61,743.00
tblLandUse	LotAcreage	0.73	0.25
tblLandUse	LotAcreage	0.57	0.47
tblLandUse	LotAcreage	3.63	0.46
tblVehicleTrips	ST_TR	2.46	2.22
tblVehicleTrips	ST_TR	8.96	8.57
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	1.55	1.42
tblVehicleTrips	WD_TR	11.03	9.75
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	36.13	34.82

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4310	48.8208	25.3208	0.0743	18.2675	2.3919	20.6594	9.9840	2.2006	12.1846	0.0000	7,640.9776	7,640.9776	1.3327	0.0000	7,674.2949
2020	58.0331	25.0599	22.9719	0.0536	1.7524	1.1553	2.9076	0.4723	1.0865	1.5588	0.0000	5,298.2931	5,298.2931	0.7581	0.0000	5,317.2450
Maximum	**58.0331**	**48.8208**	**25.3208**	**0.0743**	**18.2675**	**2.3919**	**20.6594**	**9.9840**	**2.2006**	**12.1846**	**0.0000**	**7,640.9776**	**7,640.9776**	**1.3327**	**0.0000**	**7,674.2949**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4310	48.8208	25.3208	0.0743	2.9491	1.9504	4.8995	1.5638	1.7944	3.3582	0.0000	7,640.9776	7,640.9776	1.3327	0.0000	7,674.2949
2020	58.0331	25.0599	22.9719	0.0536	1.7524	1.1553	2.9076	0.4723	1.0865	1.5588	0.0000	5,298.2931	5,298.2931	0.7581	0.0000	5,317.2450
Maximum	**58.0331**	**48.8208**	**25.3208**	**0.0743**	**2.9491**	**1.9504**	**4.8995**	**1.5638**	**1.7944**	**3.3582**	**0.0000**	**7,640.9776**	**7,640.9776**	**1.3327**	**0.0000**	**7,674.2949**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**76.52**	**12.45**	**66.87**	**80.53**	**12.36**	**64.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Total	**6.4009**	**19.1601**	**43.3776**	**0.1456**	**11.5098**	**0.1908**	**11.7006**	**3.0798**	**0.1817**	**3.2615**		**15,137.0166**	**15,137.0166**	**0.8014**	**0.0122**	**15,160.6988**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Energy	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
Mobile	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Total	**6.4009**	**19.1601**	**43.3776**	**0.1456**	**11.5098**	**0.1908**	**11.7006**	**3.0798**	**0.1817**	**3.2615**		**15,137.0166**	**15,137.0166**	**0.8014**	**0.0122**	**15,160.6988**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2019	10/28/2019	5	20	
2	Site Preparation	Site Preparation	10/29/2019	11/11/2019	5	10	
3	Grading	Grading	11/12/2019	12/9/2019	5	20	
4	Building Construction	Building Construction	12/10/2019	10/26/2020	5	230	
5	Paving	Paving	10/27/2020	11/23/2020	5	20	
6	Architectural Coating	Architectural Coating	11/24/2020	12/21/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 4.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 177,707; Non-Residential Outdoor: 59,236; Striped Parking Area: 11,892 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	880.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	127.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5247	0.0000	9.5247	1.4421	0.0000	1.4421			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**9.5247**	**1.7949**	**11.3196**	**1.4421**	**1.6697**	**3.1118**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3722	12.9819	2.6526	0.0339	0.7689	0.0484	0.8173	0.2107	0.0463	0.2570		3,658.3798	3,658.3798	0.2657		3,665.0221
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.4522**	**13.0378**	**3.2607**	**0.0355**	**0.9365**	**0.0497**	**0.9863**	**0.2552**	**0.0475**	**0.3027**		**3,824.0782**	**3,824.0782**	**0.2709**		**3,830.8498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4487	0.0000	1.4487	0.2194	0.0000	0.2194			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.5005	1.5005		1.3989	1.3989	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**1.4487**	**1.5005**	**2.9493**	**0.2194**	**1.3989**	**1.6182**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3722	12.9819	2.6526	0.0339	0.7689	0.0484	0.8173	0.2107	0.0463	0.2570		3,658.3798	3,658.3798	0.2657		3,665.0221
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.4522**	**13.0378**	**3.2607**	**0.0355**	**0.9365**	**0.0497**	**0.9863**	**0.2552**	**0.0475**	**0.3027**		**3,824.0782**	**3,824.0782**	**0.2709**		**3,830.8498**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7297	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		198.8380	198.8380	6.2100e-003		198.9933
Total	**0.0960**	**0.0672**	**0.7297**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**198.8380**	**198.8380**	**6.2100e-003**		**198.9933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7479	0.0000	2.7479	1.5105	0.0000	1.5105			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		1.9488	1.9488		1.7929	1.7929	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**2.7479**	**1.9488**	**4.6967**	**1.5105**	**1.7929**	**3.3034**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0672	0.7297	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4400e-003	0.0548		198.8380	198.8380	6.2100e-003		198.9933
Total	**0.0960**	**0.0672**	**0.7297**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4400e-003**	**0.0548**		**198.8380**	**198.8380**	**6.2100e-003**		**198.9933**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.0800**	**0.0560**	**0.6081**	**1.6600e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**165.6984**	**165.6984**	**5.1800e-003**		**165.8278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9966	0.0000	0.9966	0.5122	0.0000	0.5122			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.2502	1.2502		1.1502	1.1502	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**0.9966**	**1.2502**	**2.2468**	**0.5122**	**1.1502**	**1.6624**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0800	0.0560	0.6081	1.6600e-003	0.1677	1.3000e-003	0.1690	0.0445	1.2000e-003	0.0457		165.6984	165.6984	5.1800e-003		165.8278
Total	**0.0800**	**0.0560**	**0.6081**	**1.6600e-003**	**0.1677**	**1.3000e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**165.6984**	**165.6984**	**5.1800e-003**		**165.8278**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2094	5.9542	1.6019	0.0131	0.3328	0.0400	0.3729	0.0958	0.0383	0.1341		1,395.2446	1,395.2446	0.1021		1,397.7977
Worker	0.6772	0.4741	5.1484	0.0141	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,402.9128	1,402.9128	0.0438		1,404.0086
Total	**0.8866**	**6.4283**	**6.7503**	**0.0272**	**1.7524**	**0.0511**	**1.8035**	**0.4723**	**0.0485**	**0.5208**		**2,798.1574**	**2,798.1574**	**0.1460**		**2,801.8063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2094	5.9542	1.6019	0.0131	0.3328	0.0400	0.3729	0.0958	0.0383	0.1341		1,395.2446	1,395.2446	0.1021		1,397.7977
Worker	0.6772	0.4741	5.1484	0.0141	1.4196	0.0111	1.4306	0.3765	0.0102	0.3867		1,402.9128	1,402.9128	0.0438		1,404.0086
Total	**0.8866**	**6.4283**	**6.7503**	**0.0272**	**1.7524**	**0.0511**	**1.8035**	**0.4723**	**0.0485**	**0.5208**		**2,798.1574**	**2,798.1574**	**0.1460**		**2,801.8063**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1789	5.4510	1.4487	0.0130	0.3328	0.0274	0.3603	0.0958	0.0263	0.1221		1,385.8666	1,385.8666	0.0962		1,388.2724
Worker	0.6267	0.4229	4.6747	0.0136	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,359.3635	1,359.3635	0.0390		1,360.3381
Total	**0.8056**	**5.8739**	**6.1234**	**0.0266**	**1.7524**	**0.0382**	**1.7906**	**0.4723**	**0.0362**	**0.5085**		**2,745.2301**	**2,745.2301**	**0.1352**		**2,748.6105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1789	5.4510	1.4487	0.0130	0.3328	0.0274	0.3603	0.0958	0.0263	0.1221		1,385.8666	1,385.8666	0.0962		1,388.2724
Worker	0.6267	0.4229	4.6747	0.0136	1.4196	0.0108	1.4303	0.3765	9.9200e-003	0.3864		1,359.3635	1,359.3635	0.0390		1,360.3381
Total	**0.8056**	**5.8739**	**6.1234**	**0.0266**	**1.7524**	**0.0382**	**1.7906**	**0.4723**	**0.0362**	**0.5085**		**2,745.2301**	**2,745.2301**	**0.1352**		**2,748.6105**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	**0.0740**	**0.0500**	**0.5521**	**1.6100e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**160.5547**	**160.5547**	**4.6000e-003**		**160.6699**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.5961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9526**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	**0.0740**	**0.0500**	**0.5521**	**1.6100e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**160.5547**	**160.5547**	**4.6000e-003**		**160.6699**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
Total	**0.1234**	**0.0833**	**0.9202**	**2.6900e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**267.5912**	**267.5912**	**7.6700e-003**		**267.7831**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.6675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**57.9097**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
Total	**0.1234**	**0.0833**	**0.9202**	**2.6900e-003**	**0.2794**	**2.1200e-003**	**0.2816**	**0.0741**	**1.9500e-003**	**0.0761**		**267.5912**	**267.5912**	**7.6700e-003**		**267.7831**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221
Unmitigated	3.6062	18.6037	42.8928	0.1423	11.5098	0.1485	11.6583	3.0798	0.1394	3.2192		14,469.4094	14,469.4094	0.7885		14,489.1221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	312.00	71.04	22.08	760,780	760,780
Hotel	911.24	892.71	648.55	2,078,512	2,078,512
Medical Office Building	861.10	211.94	35.12	1,686,951	1,686,951
Parking Lot	0.00	0.00	0.00		
Total	2,084.34	1,175.69	705.75	4,526,243	4,526,243

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Hotel	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Medical Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369
NaturalGas Unmitigated	0.0612	0.5563	0.4673	3.3400e-003		0.0423	0.0423		0.0423	0.0423		667.5699	667.5699	0.0128	0.0122	671.5369

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	912.6	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4056.43	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	705.313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.9126	9.8400e-003	0.0895	0.0752	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003		107.3648	107.3648	2.0600e-003	1.9700e-003	108.0028
Hotel	4.05643	0.0438	0.3977	0.3341	2.3900e-003		0.0302	0.0302		0.0302	0.0302		477.2271	477.2271	9.1500e-003	8.7500e-003	480.0630
Medical Office Building	0.705313	7.6100e-003	0.0692	0.0581	4.1000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003		82.9780	82.9780	1.5900e-003	1.5200e-003	83.4711
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0612**	**0.5563**	**0.4673**	**3.3400e-003**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**667.5699**	**667.5699**	**0.0128**	**0.0122**	**671.5369**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Unmitigated	2.7336	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6500e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0373	0.0373	1.0000e-004		0.0398
Total	**2.7336**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0373**	**0.0373**	**1.0000e-004**		**0.0398**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix E
Handbook of Native American Indians
Gabrieliño

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Handbook of North American Indians

WILLIAM C. STURTEVANT
General Editor

VOLUME 8

California

ROBERT F. HEIZER
Volume Editor



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Gabrielino

LOWELL JOHN BEAN AND CHARLES R. SMITH

The Gabrielino (gäbrēəl'ēnō) are, in many ways, one of the most interesting—yet least known—of native California peoples. At the time of Spanish contact in 1769 they occupied the "most richly endowed coastal section in southern California" (Blackburn 1962-1963:6), which is most of present-day Los Angeles and Orange counties, plus several offshore islands (San Clemente, Santa Catalina, San Nicolas). With the possible exception of the Chumash, the Gabrielino were the wealthiest, most populous, and most powerful ethnic nationality in aboriginal southern California, their influence spreading as far north as the San Joaquin valley Yokuts, as far east as the Colorado River, and south into Baja California. Unfortunately, most if not all Gabrielinos were dead long before systematic ethnographic studies were instituted; and, as a result, knowledge of them and their lifeways is meager.

Language, Territory, and Environment

Gabrielino was one of the Cupan languages in the Takic family, which is part of the Uto-Aztecan linguistic stock (Bright 1975).* Internal linguistic differences existed, Harrington (1962:viii) suggesting four dialects and Kroeber (1925), six. Harrington's four-part division includes: Gabrielino proper, spoken mainly in the Los Angeles basin area; Fernandeño, spoken by people north of the Los Angeles basin, mainly in the San Fernando valley region; Santa Catalina Island dialect; and San Nicolas Island dialect—although according to Bright (1975) insufficient data exist to be sure of the Cupan affiliation of the San Nicolas speech. There were probably dialectical differences also between many mainland villages, a result not only of geographical separation but also of social, cultural, and linguistic mixing with neighboring non-Gabrielino speakers.

The names Gabrielino and Fernandeño (fernän'dā-ˌnyō) refer to the two major Spanish missions established in Gabrielino territory—San Gabriel and San Fernando. It was to these two missions that the majority of the Indians living on the coastal plains and valleys of southern California were removed.

Although the major outlines of Gabrielino territorial occupation are known, the fixing of definitive boundaries is difficult. Generally, Gabrielino territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, several smaller intermittent streams in the Santa Monica and Santa Ana mountains, all of the Los Angeles basin, the coast from Aliso Creek in the south to Topanga Creek in the north, and the islands of San Clemente, San Nicolas, and Santa Catalina (fig. 1). The area thus bounded encompassed several biotic zones (such as Coast-Marsh, Coastal Strand, Prairie, Chaparral, Oak Woodland, Pine) and, following Hudson's (1971) studies, can be divided into four macro-environmental zones (excluding the islands): Interior Mountains/Adjacent Foothills, Prairie, Exposed Coast, and Sheltered Coast. Each area is characterized by a particular floral-faunal-geographical relationship that allows delineation of subsistence-settlement patterns "according to the macro-environmental setting." The interior mountains and foothills, according to Hudson, comprise an area of numerous resources including "many small animals, deer, acorns, sage, piñon nuts, and a variety of other plants and animal foods." Settlement-pattern studies

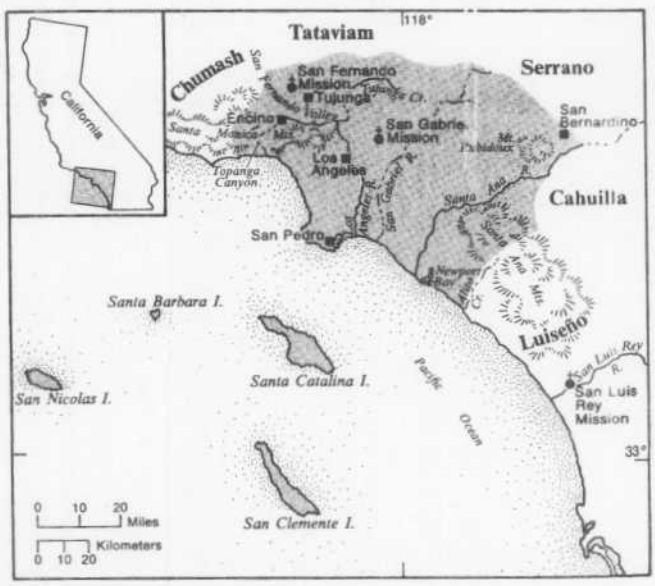


Fig. 1. Tribal territory.

* Italicized Gabrielino words have been written in a phonemic alphabet by Kenneth C. Hill, on the basis of John Peabody Harrington's unpublished field notes. The consonants are: (stops and affricate) *p, t, ç, k, kʷ, ʔ;* (fricatives) *s, ṣ, x, h;* (nasals) *m, n, ŋ;* (approximants) *v, ð, r, y, w.* Stressed vowels are *i, e* [ɛ], *a, o* [ɔ], *u,* which may occur long or short; in unstressed syllables the vowels are only *i* [ɐ], *a,* and *u* [o].

(Hudson 1969) indicate the existence of both primary subsistence villages occupied continuously (perhaps by multiple clan groupings) and smaller secondary gathering camps (small family unit occupation) occupied at various times during the year, depending upon season and resource. All settlements in this zone, as well as in the other zones, were situated near water courses.

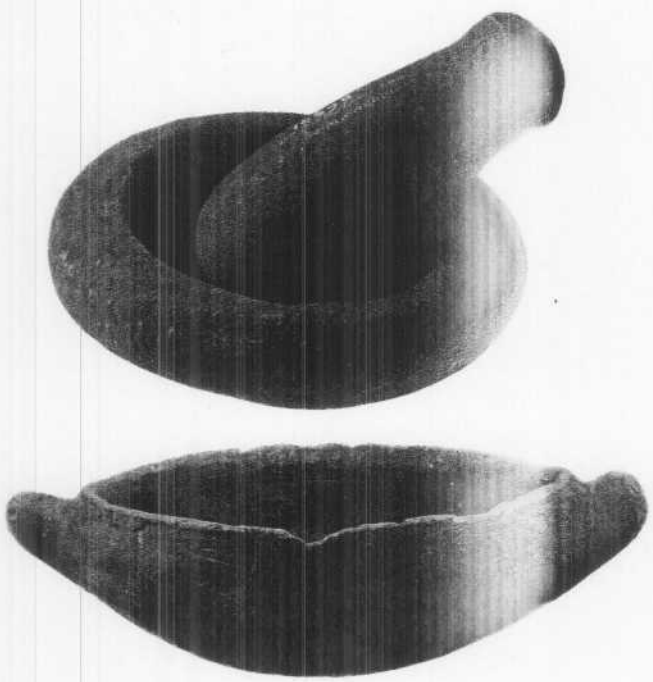
The Prairie, the area flanking the interior mountains on the north, east, and south, had as its predominant food resources acorns, sage, yucca, deer, numerous small rodents, cacti, plus a wide variety of plants, animals, and birds associated with marshes (Hudson 1971). Sites (both primary and secondary) were distributed throughout, but always near water courses or springs. The exposed coast from San Pedro south to Newport Bay was an area of concentrated secondary subsistence gathering camps with no primary subsistence villages immediately adjacent to the coast, but rather located inland. Various shellfish, some rays, sharks, and fish were the important food resources, while the offshore kelp beds (prime fishing areas for tuna and swordfish) were used year-round, especially in late summer and early fall. The sheltered coastal area stretching from San Pedro north to Topanga Canyon was characterized by primary subsistence villages located on the coast and secondary subsistence sites concentrated inland near areas of plant-food abundance (like sage stands and acorn or pine nut groves). The resources of this area were primarily marine (fish, shellfish, rays, sharks, sea mammals, and waterfowl), and "it is likely that some ecological elements of this region were also present in Area III (Exposed Coast), depending upon geographical features and weather" (Hudson 1971:56).

Climate varied according to locality, but average July temperatures along the coast ranged from approximately 68° F. to 76° F., with average January temperatures for the Gabrielino area as a whole ranging between 40° F. and 52° F. In the mountains, especially above 7,000 feet, temperatures often dipped as low as 30° F. in the winter (accompanied by snow), while summer temperatures on the prairies occasionally rose as high as 100° F.

While average annual precipitation in the twentieth century is generally less than 15 inches, as much as 40 inches is known in the higher mountains; and it is assumed that a similar pattern existed in precontact periods. The predominant climatic type is Hot Steppe, but near the coast and inland in the foothills and mountains the climatic type is warm Mediterranean. The predominant vegetation associations throughout most of the mainland area are grass and coastal sagebrush, especially in valley bottoms, and chaparral at higher elevations. Over 89 percent of Gabrielino territory was within the Sonoran life-zone, an extremely rich zone, while the balance was Forest Transition along the higher slopes and peaks of the San Gabriel and Santa Ana mountains.

The islands presented a different environmental picture. On San Nicolas Island, called *ṣo·yŋa* in Gabrielino, 75 miles southwest of Los Angeles, there were virtually no land mammals and a scarcity of exploitable floral resources. However, the little (32.2 sq. mi.), semidesert, windswept island was "particularly favored by the occurrence of abundant sea mammals" in the surrounding sea (Meighan and Eberhart 1953:113), including California and Steller sea lions, harbor seals, sea otters, and northern elephant seals. Additionally, the island was rich in sea fowl, while several different species of fish abounded in the surrounding sea. But the most important meat source was shellfish (rock scallops, mussels, several kinds of limpets, sea urchins), obtainable in large amounts along the island's rocky shoreline. From the hundreds of mortars and pestles (fig. 2) found on the island it is assumed that some plant material was prepared (some parts of the island supported trees, brush, mosses, grasses), but early Spanish references indicate mortars were also used in processing dried abalone meat.

The settlement pattern on San Nicolas is remarkably consistent through time. Villages were located either on sand dunes within 200 yards of shoreline or at considerable elevation above sea level inland on the island's central plateau. The determining factors in settlement pattern were access to the beaches or sea, fresh water (limited to a few springs in the inland's northwestern corner), and elevation affording an unobstructed view. From archeological research it appears that the densest



Dept. of Anthr., Smithsonian: top, 18670, 18698; bottom, 21887.

Fig. 2. Utensils for food preparation. top, Sandstone mortar and pestle collected at San Nicolas Island, diameter of mortar 23.5 cm; bottom, soapstone pot collected at Santa Barbara Island, same scale.

occupation of the island occurred in the few centuries preceding Spanish conquest, with a population of 600-1,200 at any one time (Meighan and Eberhart 1953).

Santa Catalina Island, called *pimu·ʔa* by the Gabrielino, is predominantly mountainous, with very limited plant resources (sparse, thin grasses, small shrubs, a few species of cacti) and few land animals (mainly deer, ground squirrels, foxes). There appears to have been limited use of migratory waterfowl, and quail, abundant today, may have also been used. However, as with San Nicolas Island, the major food resources were marine animals: fish, shellfish, and sea mammals. According to Meighan (1959:401) there was not just a "heavy dependency on sea mammals, but a specialized maritime economy which exploited dolphins and porpoises to a great extent." Permanent habitation sites were located mainly along the coast with interior sites not much more than trail-side camps occupied for very short periods. Although very little is known about the aboriginal inhabitants of the island, on the basis of archeological research at one of the coastal headland sites, Little Harbor, it has been established that the island was occupied as early as 2000 B.C. by a sizable number of people, because the Little Harbor site is areally large and the layers of cultural material are deep.

Very little information is available concerning habitation patterns on San Clemente Island, but the environmental situation is essentially identical with that of San Nicolas and Santa Catalina. As Kroeber (1925:620) noted, "the local culture on San Clemente . . . was clearly connected with that of Santa Catalina, perhaps dependent upon it; and Catalina was pure Gabrielino in speech." Therefore, cultural patterns were probably fairly similar to the mainland, or at least to those of Santa Catalina.

History

Population estimates for the Gabrielino are next to impossible to make. Possibly more than 50 or 100 mainland villages were inhabited simultaneously with an average population in each village of 50-100 at the time of contact with Europeans. Early Spanish reports indicate a range of village population between 50 and 200 people. At Tujunga in 1797 there were 90 full-time residents, Crespí (1927) counted over 200 at Yangna (*ya·ŋa*), and Forbes (1966:139) states that the village at Encino had a population of at least 60 permanent residents but over 200 people were present to greet the Spanish explorers. Later reports that give very low population figures, such as those of Hugo Reid and those from the Spanish mission baptismal records, probably reflect the results of inroads made by introduced disease prior to the actual arrival of Spaniards. Pablo Tac, a neophyte from San Luis Rey Mission, reported that the Indians in that area had suffered severe population loss from disease several years prior to Spanish entry into the area (Tac 1930).

According to the archeological record, the Gabrielino were not the first inhabitants of the Los Angeles basin but arrived around 500 B.C. (as part of what Kroeber has called the Shoshonean [Takic-speaking] wedge), slowly displacing the indigenous Hokan speakers. By A.D. 500 dialectical diversification had begun among the Gabrielino. Permanent villages were established in the fertile lowlands along rivers and streams and in sheltered areas along the coast; and population expanded with many of the larger, permanent villages having satellite communities lying at varying distances from them and connected through economic, religious, and social ties. Kroeber (1925) believed that the Gabrielino cultural pattern encountered by the Spanish in the eighteenth century had crystallized as early as A.D. 1200 and shortly before the Spanish arrived in force about 1770 the population had grown in excess of 5,000.

As early as 1542 the Gabrielino were in contact with the Spanish, for in that year Juan Rodríguez Cabrillo became the first Spaniard to set foot on Gabrielino soil. This first contact, at which the Indian women and children fled and men armed themselves with bows, was peaceful; and when the Spaniards returned in 1602, under Sebastián Vizcaíno, the Gabrielino received them with hospitality. However, it was not until 1769 that the Spaniards took steps to colonize within Gabrielino territory. Several land expeditions were dispatched to locate suitable mission sites, and by 1771 four had been built. But relations with the Indians disintegrated; their population dwindled (due to introduced diseases, dietary deficiencies, forceful reduction); and by 1900 they had ceased to exist as a culturally identifiable group (see table 1).

Culture

Clothing and Adornment

The Gabrielino, described as being "a race which . . . was genetically stable, physically hardy, and attuned to the conditions of its environments" (B.E. Johnston 1962:28), were for a short period considered by the Spanish as a special race of "White Indians" because of their light skin color. Older women used liberal amounts of red ocher paint on their faces to retard the browning and wrinkling process caused by sun and wind. Younger women also used the red paint as a rouge to make themselves more attractive. Tattooing, using thorns of flint slivers as the agent and vegetable charcoal as the dye, was common practice. Before puberty, girls were tattooed on their foreheads and chins, while adult women had tattoos covering an area from their eyes down to their breasts. Men tattooed their foreheads with vertical and/or horizontal lines.

Table 1. History

1973	Some residents of San Gabriel claim Gabrielino heritage.
1925	Some remnants of Gabrielino songs and culture recorded by J.P. Harrington at Pala Indian Reservation.
1903	C. Hart Merriam, A.L. Kroeber, and others work with the few remaining Gabrielinos. A few years later J.P. Harrington begins Gabrielino research as does Constance Goddard DuBois.
1860–1900	Smallpox epidemic further reduces Gabrielino population except for isolated families and Gabrielinos living in remote areas. Gabrielino culture is now only in the minds of a few people.
1852	Hugo Reid publishes *Indians of Los Angeles County*. His wife, Victoria (d. 1868), is a Gabrielino and a prominent person in the Los Angeles area. B.D. Wilson publishes report on Indians of southern California and recommends better treatment for Indians. This report is ignored.
1840–1850	Most Indians in Los Angeles area are other Mission groups, but a few Gabrielino still in the area. Some Gabrielino language, some rituals and games, traditional crafts and economic modes still maintained, but in very attenuated forms. Gabrielino is until this period the lingua franca for Whites and Indians. Clamshell beads still used as money; baskets and steatite artifacts still being used by Europeans and Indians. Smallpox epidemics decimate all tribes in the area.
1833	Missions secularized, become refuges for aged, infirm. Most Gabrielinos are laborers for gentry class or landowners themselves (very rarely). Gabrielinos are scattered as far north as Monterey and south to below San Diego, while many are living with groups in the remote interior.
1800–1833	Missions grow, ranches expand, most Indians firmly in peasant class or fugitives. Diseases (among Indians) still killing many; armed raids conducted by Spanish against escaped neophytes and those Indians still not converted.
1800	Most Gabrielinos missionized, dead, or fled to other areas with scattered numbers in area. More non-Gabrielinos brought into Gabrielino missions (e.g., Serrano, Luiseño, Cahuilla, Ipai-Tipai).
1797	San Luis Rey active, growing, expanding.
1796	Because of poor economic conditions in missions and Spanish communities, neophytes arranged to use traditional Gabrielino subsistence methods to help feed the general populace. Gabrielinos also are major labor force in Pueblo of Los Angeles and outlying ranches and farms.
1786	Revolts in areas outside Gabrielino area. Spanish control firm only within a 20-mile radius of Los Angeles.
1785	Indian protests, revolts are frequent, culminating in a major revolt led by Toypurina, a chief's daughter. Increased segregation of Indians from *gente de razón* attempted by government. Most Gabrielinos become a peasant class working for missions or a landed gentry. Apartheidlike policy dominates Spanish-Indian relationships.
1779	Social organizations of missions crystallized as the positions of councilmen and alcaldes are established—elected by neophytes. Conflicts between military and church become acute as each vies for authority over Indian labor.
1778	Mass conversions of villages begins, as certain chiefs become converted, drawing many of their followers with them.
1771	Mission San Gabriel established, slowly integrates a few Gabrielinos into the mission. Many nonconverted Gabrielinos integrate into economic and social life of Spanish, but not religious life.
1769	Gaspar de Portolá expedition crosses Gabrielino territory and interacts with Gabrielinos. European disease probably deciminating populations already. Conflicts among Gabrielino begin almost immediately. Conversions slow.
1602	Spanish explorers visit Santa Catalina.
1520	Spanish explorers visit Santa Catalina.

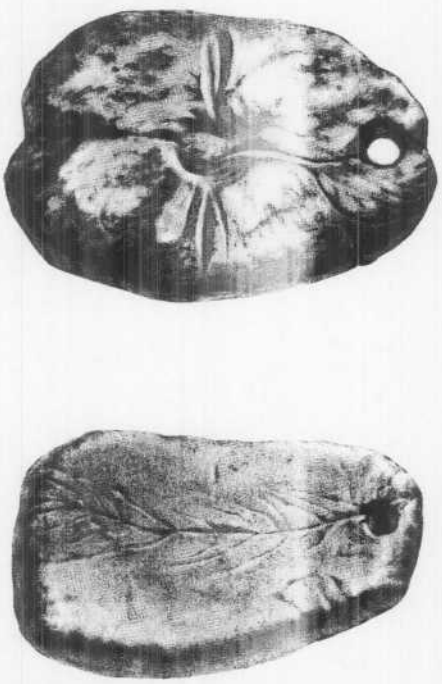
Men wore their hair long, parted in the middle, and either falling straight or braided in the back and doubled upward, fastening onto the head with a cane or bone pin. The women's hair was also long and free, with bangs, and frequently adorned with flower garlands. When in mourning women either singed or cut their hair as a sacrifice and as a demonstration of their feeling of loss. To keep their hair glossy and free of parasites, clay was applied to the head, left to dry, and then broken off. In those instances where baldness was a problem, various plants were reduced to charcoal, ground into paste, and rubbed into the scalp once in the morning and again in the evening for as long as necessary to restore the lost hair. Daily bathing for everyone was rigorously adhered to, and usually done before sunrise, with everyone drying out by the fire as breakfast was prepared (B.E. Johnston 1962).

Men and children usually went naked, while women wore aprons of either deerskin or the inner bark of willow or cottonwood trees. Occasionally capes of deerskin, rabbit fur, or bird skins (with feathers intact) were worn, especially in cold or wet weather. Except in areas of rough terrain when yucca fiber sandals were donned, everyone went barefooted. At night robes of deerskins or twisted strips of rabbit fur woven together with milkweed or yucca fiber were used as blankets. On the islands and along the coast, otter skins were used for the same

purposes. Ritual costumes (worn during dances by warriors, chiefs, shamans) were colorful (with plummage from different birds, fur, shells, and beads used as decoration) and elaborate and included feather headdresses, feathered capes and skirts. Uncovered skin was brightly decorated with paint.

Technology

The majority of Gabrielino material culture, although perishable and rarely lasting more than a few years, reflected an elaborately developed artisanship, with many everyday use items decorated with shell inlaid in asphaltum, rare minerals, carvings, and painting, and comparable in quality and excellence to that of their northwestern neighbors, the Chumash. Perhaps the best-known items of Gabrielino material culture are the objects made of steatite, obtained in finished or raw form by most mainland groups from the Indians of Santa Catalina Islands, where a veritable steatite industry flourished. The steatite was used in making animal carvings, pipes, "ritual" objects, ornaments, and cooking utensils (figs. 2-3). The last were considered of such value (because of their being made of steatite) that when a cooking pot broke, it was either mended with asphalt or a handle was attached to the largest piece, which was then used as a frying pan. Other food preparation items included bedrock and portable mortars, metates, mullers, mealing brushes, wooden stirrers, paddles, shell spoons, bark platters, wooden bowls (often inlaid with haliotis shell), and pottery vessels, made by coiling technique and paddle and anvil (Blackburn 1962-1963).



Dept. of Anthr., Smithsonian: top, 382666; bottom, 18349.

Fig. 3. Soapstone artifacts with carved grooves, possibly comals. Used to heat water in baskets, the hot stone was manipulated by a stick through the hole. top, Length 15 cm, collected at San Clemente Island; bottom, same scale, collected at Santa Barbara Island.

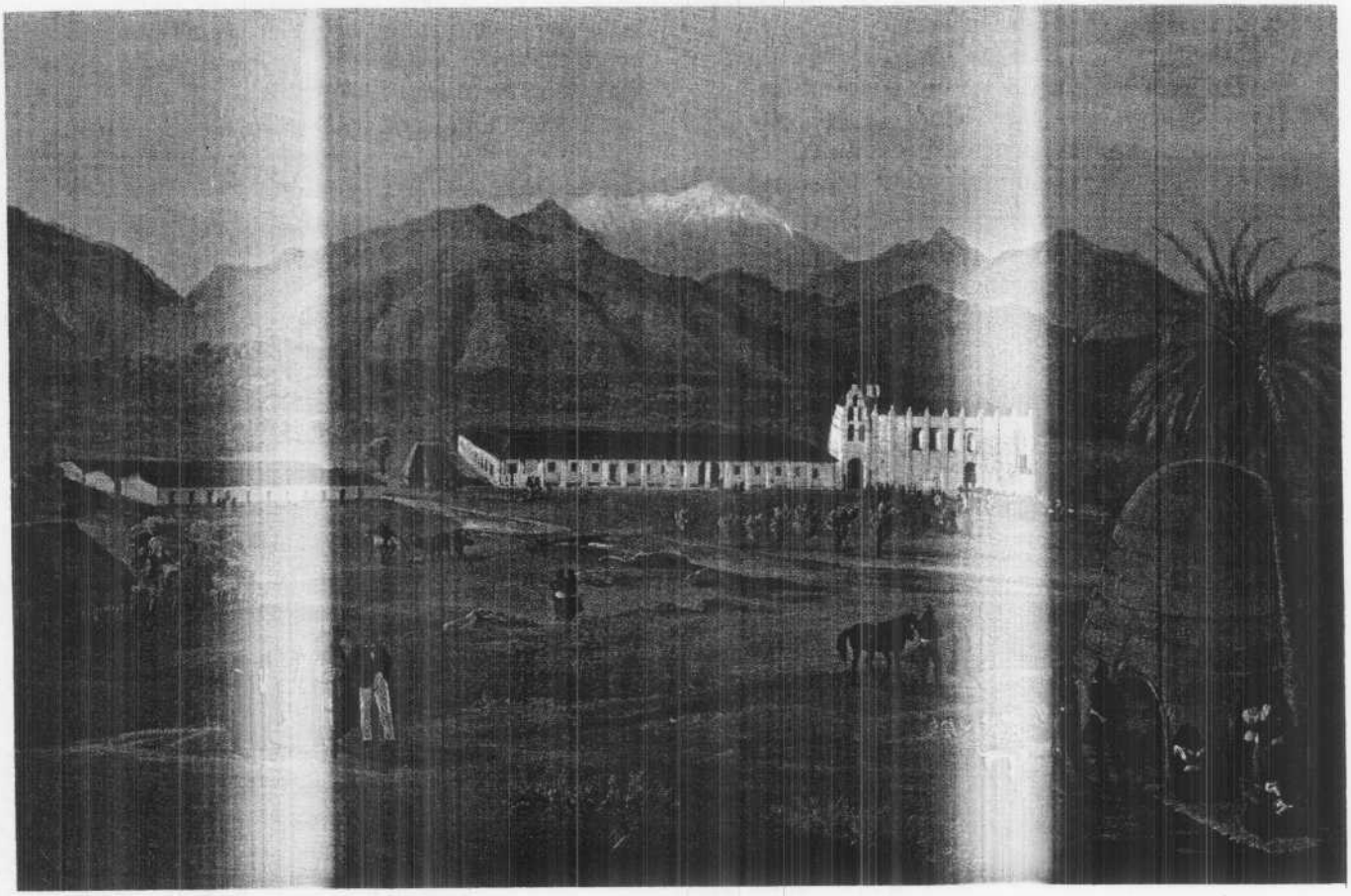
A variety of tools was made, including saws made from deer scapulae, bone or shell needles, fishhooks and awls, scrapers, flakers (of bone or shell), wedges, hafted or unhafted flint or cane knives, and flint drills.

Baskets were made by the women from the stems of rushes (*Juncus* sp.), grass (*Muhlenbergia rigens*), and squawbush (*Rhus trilobata*) with a three-color patterned decoration (Harrington 1942:20-23). Coiled wares included mortar hoppers; flat baskets used as plates, trays, winnowers, shallow carrying or serving baskets; storage baskets; and small globular baskets used to keep trinkets in. Closework and openwork twining was used to make deep or globular-shaped baskets, or for baskets used in leaching, straining, or gathering. Ceremonial baskets, urn-shaped and choke-mouthed, were used for grave offerings (Merriam 1955:84; Blackburn 1962-1963).

Weapons included three forms of wooden war clubs, self- and sinew-backed bows, tipped (stone or bone) and untipped cane arrows (simple or compound), wooden sabers, throwing clubs, and slings used for hunting birds and small game (Blackburn 1962-1963).

Structures

Houses were domed, circular structures thatched with tule, fern, or carrizo (fig. 4). For groups located near the sea, the doorways opened seaward, to avoid the north wind (Harrington 1942:10). B.E. Johnston (1962) noted that the Indians' houses were, in some cases, "so spacious that each will hold fifty people." On Santa Catalina, Costansó (1911) described houses of more than 60 feet in diameter, with three or four families living in each one. Other structures commonly found in villages included sweathouses (small, semicircular, earth-covered buildings used for pleasure and as a clubhouse or meeting place for adult males), menstrual huts, and a ceremonial enclosure, the *yuva·r*. A *yuva·r* was built near the chief's house and was essentially an open-air enclosure, oval in plan, made with willows inserted wicker fashion among willow stakes, decorated with eagle and raven feathers, skins, and flowers, and containing inside the enclosure painted and decorated poles. Consecrated anew before every ceremony, these ceremonial enclosures were the centers for activities relating to the Chingichngish cult. An image representing the god Chingichngish occupied a special "sacred" area within the *yuva·r,* and on the ground near the image was a sand painting representing the cosmos, with figures of the Sun and Moon predominating. Only very old men or very powerful ones (chiefs, priest-shamans) were allowed in this inner sanctuary. Another building, similar in structure and design to the *yuva·r* but never consecrated, was sometimes built and used for instruction and practice for upcoming ceremonies (Blackburn 1962-1963; Heizer 1968).

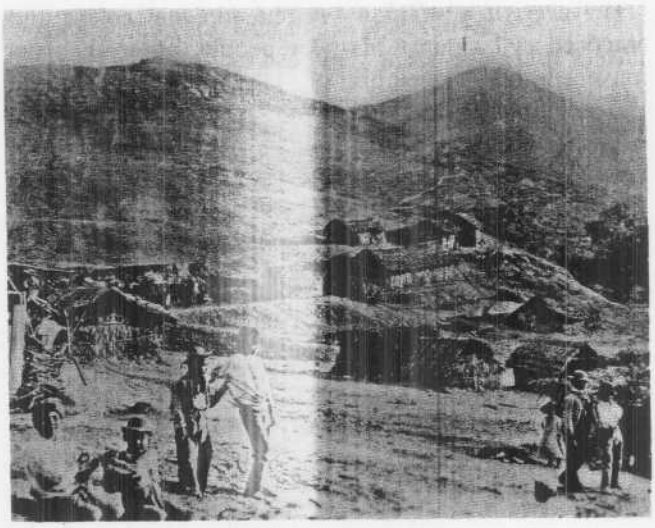


Santa Barbara Mission, Calif.

Fig. 4. Mission San Gabriel Arcangel with thatched Indian house in foreground. Painted by Ferdinand Deppe, 1832, after his sketch made June 1828 during a Corpus Christi procession.

Social and Political Organization

The intricacies of Gabrielino social organization are unknown, and only a rudimentary outline of basic organizational features can be presented. It appears that a moiety system similar to that of other southern California Takic speakers existed, but it seems not to have functioned viably in controlling socioeconomic interrelationships.



Title Insurance and Trust Company, Los Angeles.

Fig. 5. Village at Jurupa Rancho, base of Mt. Rubidoux, near San Bernardino inhabited by Cahuilla, Serrano, and probably some Gabrielino refugees. Photograph by C.C. Pierce, 1890.

Almost nothing is known of the nature and texture of adult life among the Gabrielino. There seem to have existed at least three hierarchically ordered social classes: an elite (having a specialized language) including chiefs and their immediate family and the very rich; a middle class, or those from fairly well-to-do and long-established lineages; and a third class comprising everyone else, with those individuals engaged in ordinary socioeconomic pursuits. Some individuals owned real estate, and property boundaries were marked by painting a copy of the owner's personalized tattoo on trees, posts, and rocks. These marks were almost equivalent to the owner's name and known not only to other Gabrielino but also in many cases to members of non-Gabrielino groups. Engelhardt's (1927a:100) comment that pictures of animals were drawn on tree trunks may refer to this boundary-marking process.

Villages (that is, tribelets) were politically autonomous, composed of nonlocalized lineages, often segmentary in

nature. Each lineage had its own leader and at various times during the year fragmented into smaller subsistence-exploitation units that went out seasonally to collect resource items and then return to the villages.

The dominant lineage's leader was usually the village "chief" (*tumia·r*) whose authority was legitimatized by the possession of the sacred bundle, the link between the sacred past and the present and the material, temporal representation of the Gabrielinos' raison d'être and the primary embodiment and focus of "power." Often several villages were allied under the leadership of a single chief. For example, at San Pedro the largest village, *ṣua·ŋa* 'place of the skies', was the political center for a cluster of other villages located nearby and its chief was the political leader for these associated villages. Succession to chiefly office was usually through the male line, a chief's eldest son assuming the office subject to community approval. If a direct line-of-descent male replacement was unavailable or unacceptable, a new chief was selected by the community elders from the same kin group as the previous chief. If there were no satisfactory male candidates, a woman, usually a sister or daughter of the previous chief, was appointed. According to Hugo Reid, regardless of who became the new chief, his or her name was changed to correspond to that of his or her village, with the addition of a special suffix (Heizer 1968).

New chiefs occasionally had more than one wife, were about 30–35 when they became chief, and often were the political heads of multiple village confederations. A chief's most important duties were to administer community solidarity and welfare and to act as the guardian of the sacred bundle. In the former sphere of action the chief arbitrated disputes, supervised tax collections ("gifts" from the people used principally for consumption by guests at ceremonies), led war parties, concluded peace treaties, and acted as the "model" Gabrielino. To help in these activities, the chief had several assistants: an announcer, treasurer, general assistant (who often delivered moral lectures to the people), and messengers (usually two, with excellent memories, especially trained and kept until they "wore out").

In addition to the chief, others who held authority positions within the community were shamans and the *ta·xkʷa?*. The latter was responsible for the management of the elaborate mourning ceremonies among other things and oversaw the distribution of food following communal hunts. But it was with the shamans that perhaps the greatest power existed, sometimes even greater than the chief's. For, as Reid pointed out, even chiefs had no jurisdiction over shamans because they "conversed with the Great Spirit" and could be punished only by other shamans.

Shamanism

A shaman obtained his power directly from the supernatural through dreams or visions, often caused by the ingestion of datura. During these trancelike states an animal or object with energizing power would appear to the person and henceforth be his power aid. Following this stage, the prospective shaman entered a period of apprenticeship under proved shamans and was taught various aspects of the profession.

A shaman served mainly his own village and possessed the ability to cause as well as cure illness. Curing was accomplished by various techniques (herbal therapeutics, body manipulation, bloodletting, sucking, blowing smoke, hypnosis) and a wide variety of magical, power-invested paraphernalia. The basic instrument was a board with rattlesnake rattles attached to it (Blackburn 1962–1963) worn by the shaman, plus dried animal skins, curiously shaped rocks, plant roots, sparkling stones, rare minerals, as well as surgical implements such as obsidian blades. These objects not only were considered as having power in and of themselves but also were felt to be particularly efficacious in concentrating power in a particular area.

In addition to their function as curers, shamans also served as diviners, guardians (supernatural) of the sacred bundle, locators of lost items, collectors of poisons used on hunting and war arrows, and rain makers. Most possessed second sight, several had the ability to transform themselves into bears (in order to travel rapidly) and to handle fire with impunity, and some were able to witch people living at great distances. For example, among the Fernandeño, a shaman wishing to witch or kill a person prepared a four-sided ground painting, roped it off, and then stood in the center holding 12 radiating strings, the ends of which were held by 12 assistants. When the shaman shook the strings, the ground quaked and the person he had in mind fell ill and could eventually die (Kroeber 1925:626).

However, if a shaman became too malevolent and practiced evil against his own people, other shamans convened and stripped him of his power. Women could also acquire considerable power and at least in one instance exert this power politically as in the case of Toypurina, who led a significant revolt during the eighteenth century against the Spanish at Mission San Gabriel (Temple 1958).

Life Cycle

• MARRIAGE Information about aboriginal Gabrielino marriage and residence patterns is practically nonexistent, and what data are available are sketchy and confusing. It appears that marriages were usually between individuals of nearly equal social rank, especially in the case of leading families, with the marriage partners coming from different lineages (lineage exogamy). Occasionally parents, while their children were quite young,

would promise them in marriage (child betrothal), but usually "when a person wished to marry, and had selected a suitable partner, he advertised the same to all his relations, even to the *nineteenth cousin.* On a day appointed . . . they [the males] proceeded in a body to the residence of the bride," where she and all her female relations were assembled, and presented shell beads to the bride's relatives (Heizer 1968:25). A few days later the bride's female relatives visited the groom-to-be's home, presented his male relatives with food stuffs, and set the date for the wedding ceremony. On the appointed day the bride, adorned with beads, paints, feathers, and skins, was carried by her relatives to her future husband's home. Friends and neighbors accompanied the bridal party singing, dancing, and strewing the ground with gifts. Halfway to the groom's house the procession was met by his relatives who took on the role of carrying the bride the rest of the way. Upon arrival, the bride was placed beside her new husband, and baskets of seeds were liberally poured over both bride and groom to signify a rich and bountiful future life. A festive dance was held at which warriors and hunters performed in full costume; then everyone departed leaving the couple "to enjoy their 'Honey Moon' according to usage." From this date forward the wife was forbidden to visit her relatives, but they could call on her at any time (Heizer 1968:26).

Except in the case of chiefs who practiced polygyny, a man usually took only one wife at a time. If, during the course of married life, a husband ill used his wife, she could complain to her family, who would return to the husband his family's "bridal gifts," and the woman was then free to return to her own home. If a wife was barren or unruly, her husband could send her home and his family's "gifts" would be returned. In the case of a wife's infidelity the husband could beat or kill his wife or, if possible, claim the wife of his wife's lover.

The Gabrielino traced their most important kinship ties through males (patrilineal descent) with an individual's social rank, value, and status in part dependent upon wealth possession (family and self) and heredity. Sharp distinctions were made between families in different classes both within and beyond the lineage. In the kinship terminology, what little data are available suggest a Dakota system with Iroquois cousin terminology.

• BIRTH Every time a woman gave birth both she and the child were ritually purified by sweatbathing for three consecutive days. During this period certain dietary restrictions were observed by the mother, and not until her child could run was she free to share her husband's bed (Heizer 1968).

The birth of a child to a chief was an occasion of special ritual and included dancing by old women who lauded the newborn's future renown and a ceremonial washing of the baby. Children were treated with such love, devotion, and fondness by their parents that the Spanish missionaries were astounded and commented that the children were treated like "little idols" (B.E. Johnston 1962).

• PUBERTY As a child grew she or he was expected to show deference to those older—never to pass between adults or to interrupt their conversation. When a girl reached puberty—an occasion for joy and happiness—she underwent a purification ceremony similar to that of women at childbirth. During the ceremony she was the center of dancing and singing in her honor and was formally presented to society as an eligible, marriageable woman. She was not allowed to eat meat during the ceremony; was lectured on proper female conduct (in order to insure her popularity); and was instructed to be industrious, bathe daily, be hospitable, and be without deceit at all times. During the ceremony a sand painting was made depicting certain cosmological-supernatural beings, the significance of whom was explained to the young woman so she could better understand her place, role, and function (as well as that of her society in general) in the overall scheme of creation.

It is not known with certainty if all young males underwent a puberty ceremony. Blackburn (1962–1963:34) notes that some adolescent boys were involved in a complex ceremony, one resembling the toloache cult of their neighbors. While there is little specific documentation concerning the Gabrielino cult, all indications point to Santa Catalina Island as the traditional home of the Luiseño, Cahuilla, and Cupeño toloache ceremonies (Kroeber 1925:620); and it is assumed that their toloache rituals are survivals of a much more elaborate Gabrielino ceremony.

• DEATH When an important person died a piece of flesh from his or her shoulder was eaten, the person so doing gaining some of the deceased's power while the deceased was assured of a quick passage to the heavens to become a star (B.E. Johnston 1962; Harrington 1920–1930). This was in contrast to ordinary people who, when they died, went underground and danced and feasted forever. On the mainland the corpse was wrapped in a blanket (one used by the deceased during life); relatives assembled for ritual wailing and dancing; and after three days the corpse, along with most of the deceased's personal possessions, was burned. This disposal practice was in contrast to that practiced by at least one of the island groups, those of Santa Catalina. Here the dead were buried with artifacts used during life; the recurrence of certain tools in certain assemblages may indicate that there were vocational guilds on the island. Often dogs would be buried over the body.

Those possessions of the deceased not destroyed or buried were kept for use in the annual mourning ceremony, the biggest event celebrated in the year. Held in

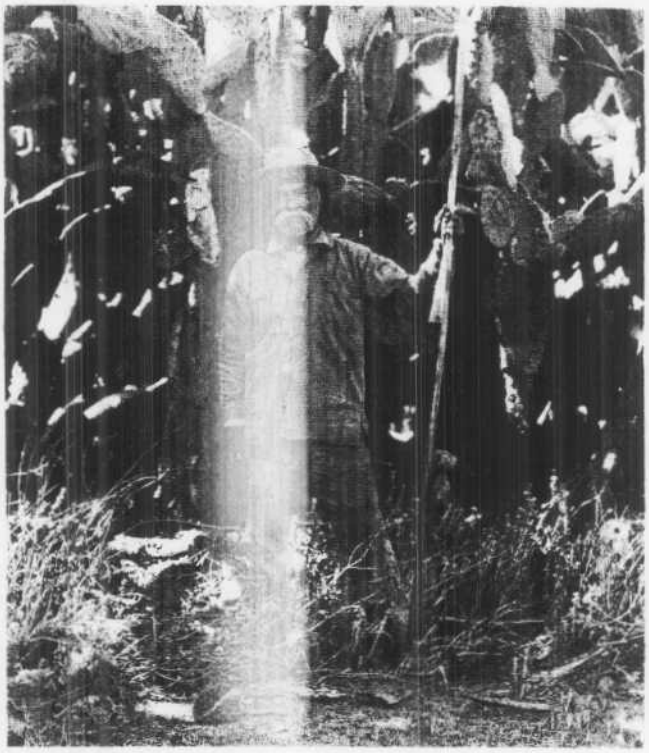
the fall following the acorn harvest, eight days were spent instructing the inexperienced in correct ceremonial procedure, songs, and dances (Harrington 1920–1930). The beginning of the ceremony was signaled by the construction or consecration of the *yuva'r,* the special ceremonial enclosure, followed by ceremonial feasting. Over the next seven days there was a great deal of visiting, dancing, singing, and feasting. Dancers, adorned with hawk and eagle feathers and with their faces, necks, and thorax painted, reenacted various sacred time events, their movements governed by shaman-priests, who watched from the sidelines. On the fourth day a ritualist brought forth all the children born during the year and the chief gave them names selected from their fathers' lineages. On the fifth day life-size images of the deceased were made, the men's images usually decorated with bows and arrows, the women's with baskets. Either on the evening of the fifth day or during the sixth day, an eagle-killing ceremony was held accompanied by special dances and songs.

In the predawn light of the eighth day the images were brought into the *yuva'r* , carried by the dancers while they performed, then thrown onto a fire along with personal items saved at the time of death. The annual mourning ceremony is one of the typical elements of California culture and possibly developed from the Gabrielino and spread to most, if not all, other southern California groups.

Subsistence

Men carried out most of the heavy but short-term labor; they hunted, fished, assisted in some gathering activities (fig. 6), conducted most trading ventures, and had as their central concerns the ceremonial and political well-being of their families and homes. Large land mammals were hunted with bow and arrow, while smaller game were taken with deadfalls, snares, and traps. Burrowing animals were smoked from their holes and clubbed to death, while rabbits were taken in communal hunts with nets, bow and arrows, and throwing clubs (Blackburn 1962–1963:24). For hunting sea mammals harpoons, spearthrowers, and clubs were used. Deep-sea fishing or trading expeditions between island and mainland were undertaken from boats made of wooden planks lashed and asphalted together. However, most fishing was carried out from shore or along rivers, streams, and creeks and involved the use of line and hook, nets, basketry traps, spears, bow and arrow, and vegetal poisons.

Women were involved mainly in collecting and preparing most floral and some animal food resources and production of baskets, pots, and clothing. When old, they shared with old men the task of teaching, supervising, and caring for the young (Blackburn 1962–1963; B.E. Johnston 1962).



Title Insurance and Trust Company, Los Angeles.

Fig. 6. Rojerio, chorister at Mission San Fernando, gathering cactus fruit. Photograph by C.C. Pierce, July 1898.

External Relations

War

Although nineteenth-century writers often characterized the Gabrielino as timid and peaceful, the earlier chroniclers paint a different picture. A state of constant enmity existed between some coastal and prairie-mountain groups. Engelhardt (1927a:20) noted that intervillage conflicts among the Gabrielino were so frequent and of such intensity that inland Gabrielino were effectively prevented by coastal Gabrielino from reaching the sea for fishing and trading purposes. This concern with war as more than a defensive or rare occurrence is further supported by the occurrence of reed armor, war clubs, swords, and large and heavy bows used for warfare, as well as the hunting of big game. While these "wars" were not lengthy, they were deadly and often involved several villages. Those villages allied through marriage ties (and hence economic and religious bonds) usually actively supported one another in armed conflicts. Furthermore, it was not uncommon for a village planning a "war" to send ceremonial gifts to villages with whom it did not have close ties in hopes either of entering into an alliance of mutual help or at least of ensuring the villages' neutrality.

Armed conflict could arise for a number of reasons: failure of a chief to return a gift during a ceremony (that is, breaking the economic reciprocity system), abduction

of women, trespassing, or sorcery (it was generally assumed that neighboring groups were using supernatural powers for harm). In the event of potential conflict, a war council was called by an official crier (smoke signals were also used to call people from distant villages) with all potentially involved villages attending, and the pros and cons of going to war discussed. A decision to go to war was not lightly made, since warfare involved not only the warriors, but also old men, women, and even children. The chief led the war party and, while on maneuvers, was followed in order by able-bodied warriors, old men, women, and then the children, the last two groups carrying the food and supplies (Heizer 1968).

Every attempt was made to surprise the enemy, descending upon his villages and killing, or occasionally capturing, as many people as possible. Bows and arrows and war clubs were the primary instruments of warfare. The clubs were of hard, heavy wood, often with bulbous heads and sharp conical projections, with a length up to three feet. During battle the women gathered up arrows shot in their direction and gave them to the men to shoot back. Wounded, if left on the battlefield, were killed by the opposition. If prisoners were taken, their fate varied: males were tortured in front of the entire village population, beheaded, and scalped, the scalps later dried, cured, and placed on display in the *yuva'r*. Women and children, if not also killed, were enslaved, their only chance of freedom being escape or recapture by their own people. Occasionally it was possible to buy back captives, but this seems to have been rare (Heizer 1968).

Feuds

More common than warfare, and involving considerably less people, were the feuds that passed from father to son, often for many generations. Hostilities were vented through ritualized "song fights," some lasting as long as eight days. Songs, obscene and insulting in nature and sung in the vilest language possible, were accompanied by stomping and trampling the ground, symbolizing the subjugation of the opponent (Heizer 1968).

Interpersonal disputes were adjudicated by the village chief. If the dispute involved members of the same village, the chief heard testimony, examined evidence, then passed a binding judgment. If the quarrel involved parties from two different villages, each party's chief conducted a separate hearing among his own people, then met with each other to pass sentence. If they were unable to issue an acceptable joint statement, a third chief was summoned to hear the two chiefs' arguments, then make a final, unappealable judgment—unappealable, that is, short of open armed conflict or sorcery (Heizer 1968).

Intermarriage

Yet by and large, interpersonal, intra- and intervillage relationships were amicable. Gabrielino villages were often located immediately adjacent to non-Gabrielino ones, and intermarriage was common. For example, at Corona, the Gabrielino village of Paxauxa lay directly across Temescal Creek from a large Luiseño village, and intermarriage between the two was common. Forbes (1966) reports that the people of the Gabrielino village of Tongva intermarried with the people of at least 13 other villages, including Yokuts, Chumash, and Serrano. This arrangement is not unusual, since the Gabrielinos were part of a widespread ritual congregation union "which existed between all Cahuilla, Serrano, Luiseño, and Gabrielino clans" (Bean 1972; Strong 1929). Since this was the case, relationships were usually friendly among members of these different groups.

Trade

Intra- and intergroup exchange was brisk and common, with people, goods, and ideas flowing in many directions and in some cases, for long distances. From the inland Serranos the coastal Gabrielinos obtained acorns, seeds, obsidian, and deerskins in exchange for shell beads, dried fish, sea otter pelts, shells, possibly salt, and steatite (obtained by coastal Gabrielinos from those living on the islands). Through middlemen located in interior southern California—such as Cahuilla, Chemehuevi, Mohave—shells from coastal sections controlled by Gabrielinos were traded as far east as central Arizona. Ruby has noted that Cibola White ware (A.D. 1000) from the Southwest has been found in Gabrielino territory, while shells and steatite have been found in Pueblo sites. It is likely that southern California and the Southwest "were engaged in a series of reciprocal exchanges, regularized by the establishment of trading partnerships . . ." (Ruby 1970:96, 266–267), perhaps as early as A.D. 600–800. Most trading was usually of the barter type, but when this was not feasible or desirable, strung olivella beads, considered legal tender throughout most of southern California, were used to transact business (Ruby 1970).

The principal trade item, both among the Gabrielino and for export to other groups, was steatite. Available in great quantities on Santa Catalina Island, steatite was traded, in rough or finished form, to many groups (Chumash, Yokuts, Ipai-Tipai, Luiseño, Serrano, and via the Chumash to the distant Tubatulabal). Most of the steatite was used to make palettes, arrow straighteners, ornaments, and carvings of animal or animallike beings. From archeological and ethnographic accounts it would appear that the Gabrielino received traders, possibly at trading centers, from other groups rather than journeying out to distant peoples (Harrington 1920–1930). In some business transactions knotted cords were used as mnemonic devices for recalling figures and quantities and intricacies of past or pending transactions.

Perhaps the most important "item" originating in the Gabrielino territory that found its way to non-Gabrielino groups and significantly influenced them was the set of

associated religious beliefs and rituals called the Chingichngish cult (see "Cults and their Transformations," this vol.).

Religion

Less is known concerning the Gabrielino religious system and beliefs than those of their neighbors. Several different creation stories exist. One relates to the god Qua-o-ar—compare the Luiseño-Juaneño *kʷá?uwar,* one of their names for Chingichngish (Harrington 1933b:139, phonemicized). He created the world out of chaos, fixing it upon the shoulders of seven giants created for this purpose (Heizer 1968:19). Following this, Qua-o-ar created animals and then humans from earth, and then ascended to the afterworld. B.E. Johnston (1962:41) recorded a different creation story whose prime characters were Heaven and Earth. The two were respectively brother and sister who, through six different creations, made all of the world; then Earth gave birth to Wiyot (*wuyo·t*), "an animate being, but different from the rational kind, and irrational" (B.E. Johnston 1962:41). Wiyot ruled the people for a long time but eventually was killed by his sons because of his cruelty. Following his death, the people met to discuss what things in the world could be used as food. As they enumerated the wild food "a new leader appeared to them, at first seeming like a phantom or an evanescent vision . . . announced himself as a greater chief [than Wiyot]. . . . He called himself Chungichnish [Chingichngish†] and gave a great speech in which he set the future course of tribal law and religion. [He] delegated powers and responsibilities to certain persons [shaman-priests]. . . . The god also created out of mud . . . a new race" of people and instructed them in new life-ways. Following this, Chingichgnish began to dance and slowly ascended into heaven (B.E. Johnston 1962:42–44).

By the time the Spanish arrived in Gabrielino territory the belief in Chingichngish had apparently spread to neighboring non-Gabrielino groups (Luiseño, Ipai-Tipai, Cupeño, Juaneño), becoming intimately involved with the toloache cult. The belief in Chingichngish had become highly formalized and ritualized involving the erection of "temples" (sacred enclosures where elaborately decorated poles and banners were erected and an image of Chingichngish was placed) into which only old men possessing great "power" could enter, lengthy and elaborate ceremonies, and offerings of food and goods not only to Chingichngish but also to Sun and Moon (B.E. Johnston 1962).

The exact nature of Sun and Moon are not known, but they have enjoyed almost as much attention and devotion as Chingichngish. Whenever sand paintings ("maps" of the Gabrielino cosmology) were made, representations of Sun and Moon figured predominantly in them (Harrington 1920–1930). In addition to these cosmological beings, the Gabrielino also recognized the sacred beings characterized as Crow, Raven, Owl, and Eagle. The Eagle emerges as a central figure in the remote past, a great and wise chief who, when dying, told the people he would become an eagle whose feathers were to be used in all rituals (Harrington 1920–1930; Kroeber 1925).

Little else is known about Gabrielino mythology. In the few stories, often of fragmentary nature or imbued with non-Gabrielino (European) elements that survive, predominant themes include revenge, transformations to escape bad events, severe punishments for selfishness or disrespect, and "deliberate or artistic incoherence, both as regards personages and plot" (Kroeber 1925:625).

Prime life values included respect for age, maleness, and above all, secrecy: "Whenever they tell the truth they think some slight damage may result to them or they might loose something good. They conceal it [truth] every way. In this matter, they have no other motive than their own convenience" (Engelhardt 1927a:104).

The four cardinal directions (North, East, South, West) were named, while the year was divided into two parts (according to the solstices) with 10 moons. Several stars were named (usually animal names), the Pleiades were considered to be sacred time maidens, rainbows conferred good luck while ball lightning conferred bad luck, whirlwinds were evil spirits, and springs and lakes the dwelling places of potentially malevolent spirits (B.E. Johnston 1962; Heizer 1968).

Synonymy

The Gabrielino of the Los Angeles area called themselves *kumi·vit* (cf. *kumi·* 'east') and were so referred to by the Fernandeños, who were known to the Gabrielino as *paṣe·kʷarum* (cf. *paṣe·kŋa* 'San Fernando').

The Spanish group name Gabrielino first appears, spelled Gabrileños, in a report by Loew (1876) and has been intermittently applied to the aboriginal inhabitants of the Los Angeles area since that time. Another spelling is Gabrieleño (Hodge 1907–1910, 1:480). Other names, for which Hodge gives some early attestations, are Kij (B.E. Johnston 1962); Kizh (Heizer 1968); Tobikhars (B.E. Johnston 1962); and *tumámqamalum,* a Luiseño word related to *tumá·mik* 'north' (though 'northerners' in general is *tumámkawčum*) (William Bright, personal communication 1974; Kroeber in Hodge).

Sources

The major published sources on Gabrielino are B.E. Johnston (1962), the published forms of the Hugo Reid letters that contain valuable footnotes (Heizer 1968; W.J.

† Chingichngish and Chungichnish are spellings of the Luiseño name *čiŋíčŋiš* (dialect variant *čaŋíčŋiš*); no corresponding Gabrielino name has been recorded.

Hoffman 1885), Engelhardt (1908–1915, 1927, 1927a), Harrington's culture element distribution list (1942) and work on Chingichngish (1933b), Kroeber (1925), and Blackburn (1962–1963). Various articles in *Masterkey* and the UCLA Archaeological Survey Reports should be consulted.

The principal archival collections containing ethnographic, linguistic, and historical data are at the University of California, Berkeley (A.L. Kroeber Papers, C.H. Merriam Collection); Huntington Library, San Marino, California (H.N. Rust Collection); Los Angeles County Museum of Natural History (especially the Thomas W. Temple Collection); the National Anthropological Archives, Smithsonian Institution, Washington, D.C. (J.P. Harrington Collection contains the largest amount of ethnographic and linguistic data on the Gabrielino); and the Southwest Museum, Los Angeles (especially Bernice E. Johnston Collection). Artifacts are described in detail by Blackburn (1962–1963) and are housed at various institutions throughout the United States—Los Angeles County Museum of Natural History; Santa Barbara Museum of Natural History, California; Lowie Museum of Anthropology, University of California, Berkeley; San Diego Museum of Man, California; Peabody Museum of Archaeology and Ethnology, Cambridge, Massachusetts; Field Museum of Natural History, Chicago; Museum of the American Indian, Heye Foundation, New York; and Smithsonian Institution. In Europe there are artifacts in the Musée de l'Homme, Paris. Photographs of Gabrielino peoples are rare and most are in local or private collections. The Southwest Museum and the C. Hart Merriam Collection have a few photographs of Gabrielinos taken around 1900 plus a few sketches from the late Mexican period.

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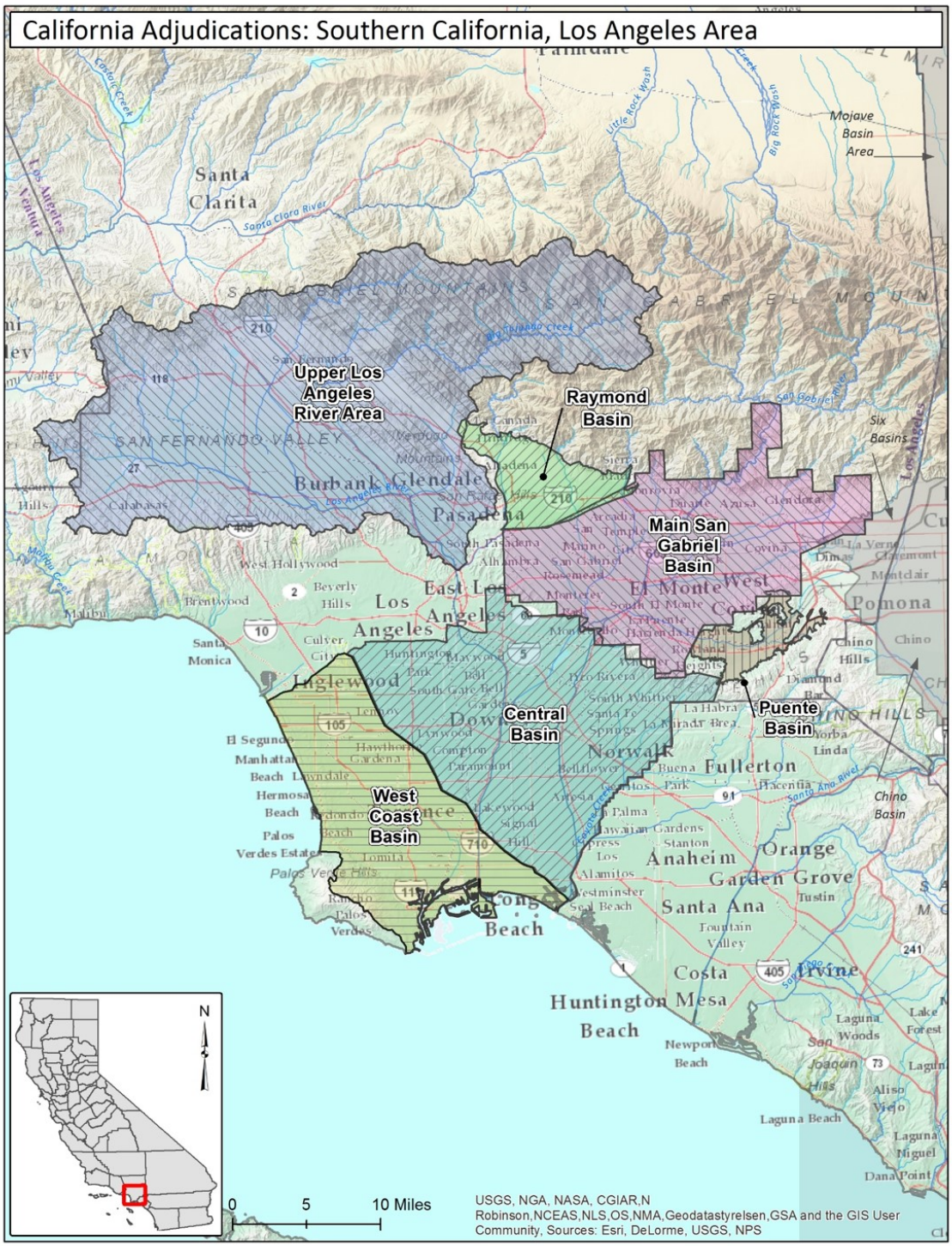
Appendix F
Main San Gabriel and Puente Groundwater Basins

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An Evaluation of California's Adjudicated Groundwater Basins

Los Angeles Basins



MAIN SAN GABRIEL BASIN

The Main San Gabriel Basin is one of the largest groundwater basins in southern California, providing residents of the greater San Gabriel Valley with about 240,000 AF per year. It is geographically situated in the southeasterly portion of Los Angeles County and bounded on the north by the San Gabriel Mountains, on the northwest by Raymond Basin, on the southeast by Puente Basin, and on the south by the Central Basin. The adjudication of the basin was deemed necessary by water producers to streamline administration, reduce overdraft, and adhere to the Long Beach Judgment and Puente Narrows Agreements, and the adjudication was relatively amenable. One of the most significant concerns in the basin is water quality, with four areas of the valley containing Superfund sites. The 1973 Judgment included water quality as one of the Watermaster's responsibilities, and since the mid-1980s the Watermaster has coordinated with regulatory agencies to have groundwater remediation facilities constructed, permitted and operated to protect and enhance the groundwater supplies. The 1992 Judgment amendment explicitly required coordination with EPA for a federal cleanup of the Superfund sites.

Overview

County	Eastern Los Angeles
Area	127, 278 acres / 198.9 square miles[300]
Population	1,275,187 (2010 Census)
CASGEM	High
Watermaster	Main San Gabriel Watermaster
Members	Nine-person board appointed by the Los Angeles County Superior Court; six members elected by water producers and three by water districts.
Court Cases	*Upper San Gabriel Valley Municipal Water District, Plaintiff, v. City of Alhambra et al., Defendants,* 1968, Superior Court of the State of California (Case #924128)

CASGEM = California Statewide Groundwater Elevation Monitoring

The Main San Gabriel Basin occupies most of San Gabriel Valley. It encompasses more than 127,000 acres, and storage is 8.6 million AF when the groundwater elevation at the Baldwin Park Key Well is 316 feet. The Main San Gabriel Basin is one of the largest groundwater basins in southern California, providing residents of the greater San Gabriel Valley with about 240,000 AF per year.[301] The physical San Gabriel groundwater basin is divided between three sub-basins: Main San Gabriel Basin, Puente Basin, and Six Basins. The Puente Basin is in the southeast and is tributary to the Main San Gabriel Basin. The Six Basins area is located in the northeast and a portion is tributary to the Main San Gabriel Basin. There are some barriers to groundwater movement between these three sub-basins, but they are adjudicated and managed separately. The aquifers are located inland (saltwater intrusion is not a risk) and are unconfined. The Main San Gabriel Basin, Puente Basin, and Six Basins are bounded on the north by the San Gabriel Mountains, on the east by the San Jose Hills, on the south by the Puente Hills, and on the west by the Raymond Fault. The San Gabriel River and Rio Hondo, a tributary of the San Gabriel River, drain the watershed. Average precipitation over the past 20 years is approximately 18.5 inches.[302] The major sources of natural recharge to the Basin are infiltration of rainfall on the valley floor and runoff from the nearby

mountains.[303] The Main San Gabriel Basin is the first of a series of basins (including the Puente, Central Coast, and West Coast basins) to receive the benefit of mountain runoff, and the basin interacts hydrologically and institutionally with adjoining basins, including the Puente, Central Coast, and West Coast Basins.

In the mid 1800s, agriculture and ranching were the dominant economies in the basin. The basin's current land use is primarily urban. Municipal water purveyors are the primary pumpers, although there is a lesser amount of production by rock and gravel companies. Most communities depend almost entirely on the groundwater basin for their water supply, with indirect access to untreated imported water.[304]

Reason for Adjudication

Beginning in the 1940s, the San Gabriel Valley experienced a period of rapid urbanization, as well as a decrease in recharged wastewater (due to an increase in sewage exports). This led to an increased demand for water drawn from the Main San Gabriel Basin.[305] By the 1950s, the basin was in a state of overdraft, and parties downstream from the basin, including agricultural and urban water purveyors in the Puente, Central Coast, and West Coast basins, became concerned. These downstream users (primarily the municipal providers for Compton, Long Beach, and the Central Basin) relied on the San Gabriel River system for their natural water supply as it flowed through the Whittier Narrows, and they initiated a legal action (the Long Beach Judgment of 1965). This resulted in a court decision requiring the Main San Gabriel Basin water users to guarantee a defined annual amount water to downstream basins. For several years, the Upper San Gabriel Valley Municipal Water District administered and took responsibility for the Main San Gabriel Basin's obligations to these lower basin water users. In 1968, the Main San Gabriel Basin municipal water producers requested that the Upper San Gabriel Valley Municipal Water District file a complaint that would adjudicate water rights in the basin and bring basin producers under control of one governing body. This complaint, initiated by municipal users and filed by the water district, became the basis for the 1973 Main San Gabriel Basin Judgment.[306] Rather than adjudicate based on mutual prescription with DWR as Watermaster, as was done in Central and West Coast basins, municipal users in the San Gabriel Valley chose to negotiate in a "friendly" adjudication. The water association commissioned a consultant and legal counsel to develop the negotiated settlement and management plan. This became the stipulated judgment, which was accepted by the court in 1973.[307]

Decree and Amendments

Adjudication initiated: 1968
Adjudication finalized: 1973
Revisions or amendments: 1979, 1980, 1987, 1988, 1991, 1992, 2000, and 2012
Other significant dates: 1965 Long Beach Judgment and 1972 Puente Narrows Agreement
Costs: $$4,000,000 to $5,000,000 per year[6]

Decree Summary

The Main San Gabriel Judgment defined water rights for about 190 original parties, created the Main San Gabriel Watermaster as the governing body, and described a physical solution for water management. The physical solution provides for Watermaster control of basin management, and flexibility in initiating cooperative agreements, regulating and controlling pumping, purchasing replacement water, and determining the natural and operating safe yields (see below). The judgment allowed for overproduction of rights, but overproduction

incurred a replacement water assessment. Subsequent amendments clarified and extended the Watermaster's role.

Both groundwater and surface water rights in the basin were adjudicated under five classes of water rights: (1) *groundwater rights,* based on mutual prescription (see Raymond Basin) that comprised about 95 percent of annual water rights for direct use, with each pumper's share calculated as a percentage of the total adjudicated rights, (2) *base annual diversion rights,* surface rights held by parties not having groundwater prescriptive pumping rights, (3) *integrated production rights,* producers with combined surface and groundwater rights, allowing for greater diversions of surface water in wet years while using less groundwater, and then carrying over unused prescriptive rights to the following year; (4) *special rights,* allocated to MWD for its dam and reservoir and to Los Angeles County Flood Control District for its reservoir, and (5) *non-consumptive user rights,* for parties operating spreading facilities. Pumpers whose production exceeded their water rights paid an assessment to finance the purchase of replenishment water. The judgment placed injunctions against unauthorized production, non-consumptive uses (not including spreading facilities), unauthorized recharge, and exporting of native water from the basin.

Amendment Summaries

In 1991 the Watermaster was given authority to allow recharge of up to 30,000 AFY of recycled water as supplemental water, and was also given authority to control pumping for water improvement purposes and enter into agreements with the EPA to facilitate groundwater cleanup.

Two other judgments were acknowledged in the Main San Gabriel Basin adjudication: the Long Beach Judgment and The Puente Narrows Agreement. **The Long Beach Judgment** rendered by the Superior Court in 1965 guarantees Central and West Coast Basins an average annual water supply of about 98,000 AFY through the Whittier Narrows. **The Puente Narrows Agreement** of 1972 between Puente Basin Water Agency and Upper San Gabriel Valley Municipal Water District calculates and governs subsurface outflow from Puente Basin to the Main San Gabriel Basin. This agreement calls for an average base underflow of 580 AFY from Puente Basin to the Main San Gabriel Basin. The Main San Gabriel Watermaster adheres to both rulings.[308]

Water Users

Stipulated Users

Stipulated users originally included about 190 parties, of which about 40 were municipal purveyors. Designated parties to the judgment included the Upper San Gabriel Municipal Water District, the Three Valleys Municipal Water District, the San Gabriel Valley Municipal Water District, about 40 other public and investor-owned water supply agencies, 15 industrial customers, 4 governmental agencies, and 8 agricultural and golf course pumpers.

Current Users

About 45 private parties or companies pump directly. A number of parties have rights to divert surface flows. According to the Main San Gabriel Watermaster office, there are very few agricultural uses left in the area.[309]

Management Structure

The Main San Gabriel Watermaster is a nine-person board, appointed by Los Angeles County Superior Court. It manages and controls the withdrawal of groundwater and surface water and coordinates water deliveries and recharge. The board is comprised of six individuals elected by water producers and three by water districts (two by Upper San Gabriel Valley Municipal Water District and one by the San Gabriel Valley Municipal Water District). Each member serves a one-year term. Several advisory committees were established to assist the Watermaster Board, and their membership includes Watermaster Board members and may also include advisory committee members who are not Watermaster Board members. The Watermaster has a staff and engages consultants for special projects. Current 2015 board members are primarily water company representatives.[310]

The Watermaster is responsible for all aspects of basin management. Specific responsibilities include managing and controlling the withdrawal and replenishment of water supplies in the basin; determining the operating safe yield annually; raising replenishment revenue by means of assessments and acquiring and spreading replacement water; coordinating local involvement in efforts to preserve and restore the quality of the basin's groundwater; assisting and encouraging regulatory agencies to enforce water quality regulations in the basin; collecting production, water quality, and other relevant data from producers; and preparing an annual report. Over the ensuing 40 years, the Watermaster has been responsible for the delivery of over 1,500,000 AF of untreated imported water for groundwater replenishment purposes.[311]

The Watermaster also works closely with other adjacent basins, and the three overlying municipal water districts. The Upper San Gabriel Valley Municipal Water District, Three Valleys Municipal Water District, and San Gabriel Valley Municipal Water District deliver supplemental SWP water to the basin. The County of Los Angeles Department of Public Works (LACDPW) plays a role in ensuring that recharge from local stormwater runoff is coordinated with recharge of supplemental SWP water. San Gabriel Basin Water Quality Authority obtains some funding for the basin's cleanup activities. The San Gabriel River Watermaster calculates credits and debits between the Main San Gabriel Basin and Central Basin.[312] Since the mid-1980s the Watermaster has coordinated with regulatory agencies to have groundwater remediation facilities constructed, permitted, and operated to protect and enhance the groundwater supplies.

Management Strategies

Imported and Recycled Water: Management of the Main San Gabriel Basin depends largely on local precipitation in the San Gabriel Mountains. Working closely with the Main San Gabriel Basin Watermaster (Watermaster), the Upper District, Three Valleys Municipal Water District, and San Gabriel Valley Municipal Water District are responsible for providing additional supplies as groundwater replenishment through Metropolitan Water District's imported water system and facilities owned and operated by the San Gabriel Valley Municipal Water District. The source of the groundwater replenishment is the State Water Project.[313] The basin demand consists of about 10 percent from treated imported water, 85 percent from local groundwater, and 5 percent from other local supplies (recycled water and local surface water diversions). In addition, an average of about 40,000 APY of untreated imported water is delivered for Basin replenishment.

Spreading: There are 17 spreading basins in the Main San Gabriel Basin, covering more than

1,100 acres. They are operated by LACDPW or other agencies capable of capturing stormwater runoff from adjacent canyons and/or imported water. Imported water can be spread when key well groundwater levels are above 250 feet. The typical basin operating range for water levels is between 200 and 250 feet MSL. The spreading capacity of existing facilities is more than 600,000 AFY. In 1983, the agencies in the San Gabriel River Watershed formed the Groundwater Replenishment Committee. They agreed to coordinate deliveries of local and imported water and identify future needs and potential recharge facilities.

Storage: The Watermaster, Upper San Gabriel Valley Municipal Water District, and MWD (who receives water from the SWP and the Colorado River) operate under a Cyclic Storage Agreement, where untreated imported water is stored in the basin and extracted when imported water supplies are short.[314] Imported water is credited to these cyclic storage accounts. Metropolitan also delivers replenishment water to the basin, and sells to the Three Valleys Municipal Water District and Upper San Gabriel Valley Municipal Water District.[315]

Monitoring and Reporting

There are 250 wells in the basin, 200 of which are active. There are about 20 non-municipal wells, and the Watermaster monitors most of these for water quality parameters. The recently established Basinwide Groundwater Elevation Monitoring Program (BGWEMP) is a network of wells in the basin that are regularly measured by the Watermaster on a permanent basis. The project is designed to facilitate coordination of existing water-level monitoring done by agencies.[316] In addition, each adjudicated party is obligated to file with the Watermaster a quarterly report showing the total pumping and diversion amounts.[317]

Safe Yield

The Main San Gabriel Basin Judgment determined the natural safe yield of Main San Gabriel Basin to be 152,700 AFY on the basis of 1967 conditions. The Watermaster annually determines the operating safe yield (OSY) as that amount of groundwater that can be pumped in a fiscal year without replacement water assessments. The main factors in making this determination are rainfall, runoff levels, and groundwater levels.[318] In 2005–2006 the OSY was 240,000 AFY, and in 2014–2015 the number was 150,000 AFY.[319] Producers may pump in excess of annual pumping right but must pay for supplemental imported water to recharge the basin. Any entity that wishes to spread or store supplemental water within the basin for later recovery must have a cyclic storage agreement with the Watermaster. These agreements have five-year terms.[320]

Groundwater Pumping and Overdraft

Groundwater production averaged about 230,000 AF between 2004–2005 and 2013–2014. The Watermaster established the OSY for 2015–2016 of 150,000 AF, but the annual pumping production in 2014–2015 was approximately 195,000 AF. Consequently, the replacement water obligation would be about 45,000 AF.

In 1944, water stored in the basin was approximately 8,600,000 AF and had decreased to 7,900,000 AF by 1960. Groundwater storage capacity was determined by DWR in 1975 to be 10,438,000 AF. Since then, there were subtractions and additions to suggest that the capacity is actually 10,740,000 AF.[321]

The basin was regarded as being overdraft since 1953, which prompted the adjudication. As part of the judgment, the Watermaster recharges replacement water to maintain the water level at the Baldwin Park Key Well above elevation 200 ft. Since the judgment in 1983, the highest operational groundwater elevation at the Key Well was 294 feet. In 2015, as a result of record low rainfall, the groundwater elevation at the well was 175 feet, which represents a historic low.

Water Quality Issues

Four areas of the San Gabriel Valley Groundwater Basin are Superfund sites. Trichloroethylene, perchloroethylene, and carbon tetrachloride contaminate the Whittier Narrows, Puente Basin, Baldwin Park, and El Monte areas.[322] A current project of the Watermaster (along with six other water entities) is to clean up the Baldwin Park Operable Unit. As a result of the negotiated agreement, parties have agreed to pay millions toward research, cost recovery, and treatment plant construction.[323] Those facilities have operated for over 10 years and continue to operate.

Drought

During the current drought, water levels in the Main San Gabriel Basin were currently over 160,000 AF below the low operating range established in the Main San Gabriel Basin Judgment.[324] According to the Upper San Gabriel Municipal Water District, in the current drought, the Main San Gabriel Basin groundwater levels "are at a current low and falling rapidly…municipal wells in the Main San Gabriel Basin are threatened and some have gone dry, and the Upper San Gabriel Valley Municipal Water District declared a water supply emergency in October of 2014."[325] The Watermaster has taken a number of initiatives to address water shortages. These include establishing a reliable storage program with a target reserve of 100,000 AF, implementing a new assessment to pay for this program, looking into imported Colorado River water for additional supply, and expanding conservation outreach efforts.[326]

Discussion

To manage the basin within the operating safe yield, pumpers whose production exceeds their water rights pay an assessment to finance the purchase of replenishment water.

The groundwater level in the Baldwin Park Key Well is also used by the Watermaster to monitor changes in groundwater supply for the basin. The water level in this well fluctuated over 100 feet in elevation over the last 20 years, from a high in 1983 to a low in 2015.[327] In 2015, the groundwater elevation at the well was 175 feet, representing a historic low, and during the 2014–2015 drought, some municipal wells went dry. While lowered groundwater levels trigger a requirement to purchase imported water, future long-term droughts and reduced imported water supplies could hinder this management strategy.

Overall, the management structure has been effective in its ability to work collaboratively with overlapping agencies and basins through the Long Beach Judgment and through joining regional and statewide drought and water supply programs.[328]

Water quality remains a serious problem, and the basin continues groundwater remediation at Superfund sites; but the Watermaster indicates that this has not affected water supply.

MAIN SAN GABRIEL BASIN

Overview	Decree: Water Rights and Conditions	Governance	Trends
County: Eastern Los Angeles Area: 198.9 sq. mi. Physical Characteristics: First of a series of basins (including Puente, Central Coast, and West Coast Basins) to receive the benefit of mountain runoff; an unconfined aquifer with ~8.6 million AF storage capacity Precipitation: 18.5" per year CASGEM: High Land Use: Initially agricultural. Currently increasing municipal. Reason for Adjudication: Rapid urbanization led to an increased water demand and basin overdraft. The adjudication was to reduce overdraft, streamline administration, and adhere to the Long Beach Judgment and Puente Narrows Agreements regarding water flows.	Adjudication Initiated: 1968 Adjudication Finalized: 1973 Amended: 1979, 1980, 1987, 1988, 1991, 1992, 2000, and 2012 Decree Summary: The judgment defined water rights for the 190 original parties, created the Main San Gabriel Watermaster, and described a physical solution for water management. It placed injunctions against unauthorized production, non-consumptive uses (not including spreading facilities), unauthorized recharge, and exporting of native water from the basin. Both groundwater and surface water rights in the basin were adjudicated under five classes of water rights: (1) groundwater rights: based on mutual prescription comprised about 95 percent of annual water rights for direct use; (2) base annual diversion rights: surface rights held by parties not having groundwater prescriptive rights; (3) integrated production rights: producers with surface and groundwater rights; (4) special rights: to MWD for its dam and reservoir and to LA County Flood Control District for its reservoir and; (5) non-consumptive user rights: for parties operating spreading facilities. Pumpers whose production exceeds their water right have to pay an assessment to finance the purchase of replacement water.	Watermaster: Main San Gabriel Watermaster Members: A nine-person board appointed by the LA County Superior Court; six elected by water producers and three public representatives Strategies: About 400,000 AFY of imported water for basin replenishment, with 17 spreading basins with an existing capacity of 600,000 AF, covering more than 1,100 acres. Imported water can be spread when key well groundwater levels are above 250 feet. In 1983, the Groundwater Replenishment Committee was formed to coordinate deliveries of artificial water and provide additional supplies through MWD's imported water system.	Adjudicated Safe Yield: 152,700 AFY (natural safe yield - 1967 conditions Operating Safe Yield: Defined as the amount of groundwater that can be pumped in a fiscal year without replacement water assessments. 2005/06: OSY = 240,000 AFY2016: OSY (estimated) = 130,000 AF Summary: Current OSY is less than adjudicated safe yield and continues to drop. Current Extractions: 233, 298 (2013) AF Extraction Summary: Note that extractions are significantly higher than the OSY due to supplemental water. Groundwater Levels: In 1944 stored water was approximately 8,600,000 AF. By 1960, it had decreased to 7,900,000 AF. Groundwater recharge in the valley averaged 169,000 AFY between 1985–2004 and increased 2% between those years due to imported supplemental water. As per the judgment, the Watermaster recharges replacement water to maintain the water level at the Baldwin Park Key Well above a particular elevation (200 ft). The highest operational groundwater elevation at this well since the judgment occurred on 1983 was 294 feet. In 2015, as a result of record low rainfalls, the groundwater elevation at the well was 168 feet, which represents a historic low and is below the minimum operating criteria of 200 feet. Overdraft: The basin has been regarded as being in overdraft since 1953. Water Quality: There are four Superfund sites within the basin. A project of the Watermaster and six other water entities is to clean up the Baldwin Park Operable Unit. Discussion: **- The Watermaster works within a series of interdependent but separately adjudicated basins. 2012 amendments requested more agency partnerships.** **- The primarily urban basin has a large storage area, and is well suited to artificial replenishment.** **- The basin has accumulated overdraft and continues to experience significant problems with declining groundwater levels.** **- There are four Superfund sites within the basin.**

PUENTE BASIN

The Puente Basin is a very small basin. Groundwater produced from the basin is used primarily by municipalities and for the irrigation of green space and a golf course. There are no barriers to groundwater movement between the Puente Basin and the much larger Main San Gabriel Basin, but they are adjudicated and managed separately. Puente Basin groundwater is non-potable due to naturally high levels of total dissolved solids in excess of the State of California Water Quality Standards. Municipalities use imported water for consumption. The basin is not considered to be in overdraft.

Overview

County	Eastern Los Angeles
Area	8,870 acres / 138 square miles
Population	~40,000
CASGEM	High
Watermaster	Puente Basin Watermaster
Members	Three Watermasters; one is nominated jointly by Walnut Valley Water District and Rowland Water District, one is nominated jointly by City of Industry and Title Successor Agency to Industry Urban-Development Agency, and the third is nominated by those two appointees.[329] The Superior Court of Los Angeles appoints all Watermasters.[330]
Court Case	*Puente Basin Water Agency et al. v. The City of Industry et al.,* Superior Court of California, Case No. C 369 220.

CASGEM = California Statewide Groundwater Elevation Monitoring

The Puente Basin is a shallow basin that underlies the Puente Valley and is tributary to the Main San Gabriel Basin. It is bounded on the north by the San Gabriel Mountains, on the east by the San Jose Hills, and on the south by the Puente Hills. The San Jose Creek drains the watershed. The major sources of natural recharge to the basin are infiltration of rainfall on the valley floor and runoff from the nearby mountains. In addition, water is imported into the basin from the County Sanitation District of Los Angeles County (recycled water) and from The Metropolitan Water District of Southern California (MWD) to the Rowland Water District and Walnut Valley Water District. Average precipitation over the past 20 years is approximately 18.5 inches.[331]

There are no barriers to groundwater movement between the Puente Basin and Main San Gabriel Basin, but they are adjudicated and managed separately. Puente Basin occupies the western end of San Jose Valley and contains nearly 8,870 acres. The basin is primarily shallow, and bedrock is found in several locations at the surface. The shallow aquifer is unconfined.[332]

In the mid 1800s, agriculture and ranching became the primary economy in Puente Basin. Development increased following the Los Angeles Aqueduct, which began service in 1913. Industry, including electronics and aerospace factories, also moved into the area. Land use in the basin is primarily urban. The MWD member agency overlying the Puente Basin is Three Valleys, and the overlying communities are the City of Industry, Walnut, Rowland Heights,

and a small portion of Diamond Bar. The mouth of the Puente Basin is located in the San Gabriel Valley Area. There are four Superfund sites, primarily located in the Main San Gabriel Basin, with a small part of one in the Puente Basin, consisting of an area of contaminated groundwater that runs along San Jose Creek in La Puente.[333]

Reason for Adjudication

Puente is a very small basin, and could have been adjudicated with the Main San Gabriel Basin, initiated in 1968. However, producers desired to have their own management and established the Puente Narrows Agreement in 1972. It governs subsurface outflow from the Puente Basin into the Main San Gabriel Basin.[334] On June 1, 1981, Puente Basin Water Agency (Rowland Water District and Walnut Valley Water District) filed a complaint to determine the right to groundwater pumping from the Puente Basin in accordance with the Puente Narrow Agreement. Principal defendants were City of Industry, Title Successor Agency to Industry Urban Development Agency (formerly Industry Urban Development Agency) and Royal Vista Golf Course (formerly Los Angeles Royal Vista Golf Course). The plaintiffs were concerned with potential overdraft conditions and wanted to ensure adequate management of the groundwater over the long term.[335]

Decree and Amendments

Adjudication initiated: 1981
Adjudication finalized: 1986
Other dates: Puente Narrows Agreement of 1972

Decree Summary

The judgment determined that principal parties have the following rights to extract groundwater from the basin: Royal Vista Golf Course or its successor, an overlying landowner who has the right to pump groundwater from Puente, but may not exceed 306 AFY. This right is appurtenant to the land and is not transferrable except in connection with the property. It is not subject to increase or decrease in the operating safe yield (OSY)—defined as the quantity of water that the Puente Basin Watermaster determines may be pumped from the basin during a fiscal year. The plaintiffs, Rowland Water District and Walnut Valley Water District and defendants City of Industry and Title Successor Agency to Industry Urban Development Agency, were each awarded appropriative rights to extract 1,023.5 AFY "plus or minus 25 percent of the quantity by which the operating safe yield is greater than or less than the declared safe yield." The total of all these rights equals the declared safe yield. Minimum water users, who are also overlying users, were authorized to pump up to 3 AFY, and their pumping right was also appurtenant to the overlying land but was not transferrable.[336]

All principal parties are entitled to produce unpumped water rights, deemed carryover water rights, from the previous year. In addition, public agency principal parties are entitled to pump return flow credits up to 750 AFY. Water may be pumped by the public agency principal parties from anywhere in the Puente Basin, and may be delivered for use outside of the boundaries of the Puente watershed, so long as it is in the party's service area. Water rights may also be transferred by lease or sale to other principal parties. The judgment did not provide for storage of surplus supplies within the groundwater basin due to the lack of suitable areas for percolation. Typically percolation occurs along the reaches of river or creek beds. In Puente Basin the San Jose Creek is lined with concrete.[337]

The Puente Basin Judgment outlined the makeup of the Watermaster and charged the Watermaster with management of the groundwater basin, including determination of the annual OSY and biennial testing of water meters. The judgment defined the natural safe yield of the basin to be 4,400 AFY, with the OSY to be determined annually by the Watermaster. The court retained continuing jurisdiction.[338]

Puente Narrows Agreement of 1972

Subsurface outflow from the Puente Basin into the Main San Gabriel Basin is governed and calculated pursuant to the provisions of the Puente Narrows Agreement between the Puente Basin Water Agency (comprised of Walnut Valley Water District and Rowland Water District) and Upper San Gabriel Valley Municipal Water District. The agreement calls for an average base underflow of 580 AFY from Puente Basin to the Main San Gabriel Basin, with credits and debits accumulating. Credit is also given to the Puente Basin Water Agency for pumping associated with some water quality cleanup operations pursuant to the cleanup production agreement that discharges treated water to the concrete-lined San Jose Creek. Cleanup water is no longer discharged to the creek but is taken by Rowland Water District for distribution to customers of its recycled water system. The Puente Narrows Watermaster monitors these operations.[339]

Other

The Puente Basin interacts with adjoining basins, including the Main San Gabriel, West Coast, and Central basins. The Long Beach Judgment of 1965 guarantees Central and West Coast basins an average annual water supply of about 98,000 AFY through Whittier Narrows, and that includes underflow as per the Puente Narrows Agreement.[340]

Water Users

Stipulated users

Royal Vista Golf Course, City of Industry, Title Successor Agency to Industry Urban Development Agency, Rowland Water District, and Walnut Valley Water Districts.

Current users

The above users as well as minimum water users and one cleanup pumper (Carrier/BDP Corporation).

Management Structure

The Puente Basin Watermaster is a three-person board, appointed by the court that oversees the management of the groundwater basin as set forth in the Puente Basin Judgment. One Watermaster is nominated by the plaintiffs (Rowland Water District and Walnut Valley Water District) and another is nominated by the defendants (City of Industry and Title Successor Agency to Industry Urban Development Agency [IUDA]). The third is nominated by the first appointees.[341]

Management Strategies

Imported Water: Currently, Rowland Water District and Walnut Valley Water District import potable MWD water into the Puente Basin from Three Valleys Municipal Water District. In 2014, 14,311 AF of water were imported into the basin, and 1,959 AF of water was returned to the basin. Industry and Title Successor Agency to IUDA have not begun to import water

into the basin.[342]

Recycled Water: Rowland Water District and Walnut Valley Water District receive recycled water from the County Sanitation Districts of Los Angeles County. There are no spreading basins in Puente Basin, nor are there existing storage programs in Puente Basin.[343]

Monitoring and Reporting

The adjudication required the installation and maintenance of water meters by the principle parties. Minimum water user defendants are exempted from metering protocols. The Watermaster collects and maintains pumping data in order to determine the provisions of the judgment. In addition to ongoing Puente Basin Watermaster monitoring, Los Angeles County Department of Public Works (LACDPW) semiannually measures groundwater elevations at four wells in the basin and Puente Narrows Watermaster measures groundwater elevations at one well in Puente and one in the Main San Gabriel Basin. The Puente Narrows Agreement mandates that Puente Narrows Watermaster monitors subsurface outflow to the Main San Gabriel Basin on a long-term basis.[344]

Safe Yield

The court defined the safe yield as the quantity of water that can be extracted annually from the Puente Basin based on long-term supply, under present cultural conditions and extraction patterns without causing a continuing reduction of water in storage. This number includes return flows from imported water, and was found to be 4,400 AFY. The OSY is the quantity of water the Watermaster determines may be produced by or on behalf of the principal parties from the Puente Basin in a particular fiscal year and is determined annually by the Watermaster. The Watermaster determines the OSY by considering five factors specified in the judgment: water levels, the Puente Narrows Agreement, subsurface flows, the cost of availability of alternate sources of water, and groundwater pumping. In 1987 the OSY was 3,400 AFY, and in 2014 it had decreased to 1,530 AF.[345]

Groundwater Pumping

The Puente Basin is not considered to be in an overdraft condition, and groundwater levels in Puente have been relatively stable since 1985 (fluctuations less than 25 feet). There are no storage programs in the basin (unlike Main San Gabriel) because the San Jose Creek is concrete lined. The five main pumpers (City of Industry, Title Successor Agency to Industry Urban Development Agency, Royal Vista Golf Course, Rowland Water District, and Walnut Valley Water District) pumped a total of 1,589.7 AF in Fiscal Year 2013–2014. This number included carryover credits and return flow credits. Royal Vista Golf Course exceeded its annual pumping rights by 101 AF.[346] Rowland Water District and Walnut Valley Water District import potable MWD water into Puente Basin from Three Valleys Municipal Water District and recycled water from County Sanitation Districts of Los Angeles County. Rowland Water District imported 6,585 AF of MWD water and 1,046 AF of recycled water. Walnut Valley Water District imported 7,726 AF of MWD water and 913 AF of recycled water. Industry and IUDA have not begun to import water into Puente Basin.[347]

Water Quality

The western end of the groundwater basin is contaminated with volatile organic compounds and is located in the Puente Valley Operable Unit of the San Gabriel Valley Superfund Site. The Los Angeles Regional Water Quality Control Board oversees cleanup of groundwater

contamination, and EPA oversees the remediation of the Puente Valley Operable Unit component of the San Gabriel Valley Superfund Site. Rowland Water District and Walnut Valley Water District import potable water from Three Valleys Municipal Water District and recycled water from County Sanitation District of Los Angeles County into the basin. Water quality was monitored by LACDPW between 1986 and 1992, but monitoring has since been conducted by the Walnut Valley and Rowland Water districts. These data are reported in the Puente Basin Watermaster annual report. The quality of the native groundwater in the basin is not suitable for potable use due to high total dissolved solids and selenium without treatment. Groundwater is blended with recycled water to be allowed to be used for irrigation.[348]

Discussion

The judgment appears to have helped in providing a framework to reassess the basin's operating safe yield.

The mouth of the Puente Basin, along with portions of the Main San Gabriel Basin, is located in the Puente Valley Operable Unit of the San Gabriel Valley Superfund Site, one of the largest Superfund sites in the country. Without treatment, groundwater in the Puente Basin is unsuitable for direct potable use due to high levels of total dissolved solids and selenium.

The Watermaster has a long history of monitoring groundwater levels and quality in the basin.

PUENTE BASIN

Overview	Decree: Water Rights and Conditions	Governance	Trends
County: Eastern Los Angeles Area: 138 sq. mi. Physical Characteristics: The Basin is bounded on the north by the San Gabriel Mountains, on the east by the San Jose Hills, and on the south by the Puente Hills. The San Jose Creek drains the watershed. The shallow basin underlies the Puente Valley. Precipitation: 18.5" per year CASGEM: High Land Use: Urban and agricultural Reason for Adjudication: Rowland Water and Walnut Valley Water Districts, concerned with potential overdraft conditions, filed a complaint to determine rights to groundwater and ensure adequate management over the long term.	Stipulation: 1981 Adjudication Initiated: 1981 Adjudication Finalized: 1986 Other Agreements: 1972 Puente Narrows Decree Summary: The court found the safe yield of the basin to be 4,400 AFY, with the operating safe yield (OSY) to be determined annually by the Watermaster. Rowland Water District and Walnut Valley Water District, City of Industry, and Industry Urban Development Agency, were awarded appropriative rights to extract 1,023.5 AFY "plus or minus 25 percent of the quantity by which the operating safe yield is greater than or less than the declared safe yield." The total of these rights equaled the declared safe yield. The Golf Course, as an overlying landowner, had the right to pump groundwater from Puente not exceeding 306 AFY. Overlying minimum water users could pump up to 3 AFY, and their right was appurtenant to the overlying land and not transferrable. All principal parties were entitled to carryover water rights from the previous year. Public agency principal parties were entitled to pump return flow credits up to 750 AFY. Water rights could be transferred by lease or sale to other principal parties. The judgment did not provide for storage of surplus supplies within the basin due to the lack of suitable areas for percolation. Amendment Summary: 1972 Puente Narrows Agreement called for an average Base Underflow of 580 AFY from Puente Basin to Main San Gabriel Basin, but credits and debits could accumulate.	Watermaster: Puente Basin Watermaster Members: Three individuals nominated by principal parties and appointed by the court Strategies: Rowland and Walnut import MWD water into Puente Basin from Three Valleys Municipal Water District and recycled water from County Sanitation District of Los Angeles County. They also receive recycled water from the County Sanitation Districts of Los Angeles County. Industry and Title Successor Agency to IUDA do not import water into the basin. There are no spreading basins nor are there storage programs. The basin appears to be developing more systematic monitoring with overlapping jurisdictions.	Adjudicated Safe Yield: 4,400 AFY (includes import return flows) Operating Safe Yield: The quantity of water the Watermaster determines annually that may be produced by or on behalf of the principal parties from the Puente Basin in a particular fiscal year. 3,400 AFY (1987) Current Operating Safe Yield: 1,530 AFY (2014) Summary: The operating safe yield has varied and is currently less than the adjudicated safe yield. Current Extractions: The five main pumpers (City of Industry, Title Successor Agency to Industry Urban Development Agency, Royal Vista Golf Course, Rowland Water District, and Walnut Valley Water District) pumped a total of 1,589.7 AF in Fiscal Year 2013–2014. This number included carryover credits and return flow credits. Royal Vista Golf Course exceeded its annual pumping rights by 101 AF. Extraction Summary: Current extractions are less than initial extractions and groundwater levels have been stable over the long term despite routinely exceeding the basin's NSY and OSY. Groundwater Levels: Groundwater levels in Puente have been relatively stable since 1985, with fluctuations less than 25 feet. Overdraft: The basin is currently not considered to be in an overdraft condition. Water Quality: The western end of the basin in the Puente Valley Operable Unit of the San Gabriel Valley Superfund Site is contaminated with volatile organic compounds. Water quality was initially monitored by LACDPW. It is now monitored by Walnut Valley and Rowland Water Districts. The quality of the native groundwater in the basin is not suitable for potable use due to high total dissolved solids and selenium without treatment. Groundwater is blended with recycled water to be allowed to be used for irrigation Discussion: **- Groundwater in the basin is unfit for potable use.** **- In 2015, the basin is not considered to be in overdraft.** **- The judgment provides for carryover water for one year but not storage of surplus supplies.** **- The judgment required metering, and the basin appears to be developing more systematic monitoring with overlapping jurisdictions.**

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Appendix G
Brea Canyon Business Park
Acoustic Analysis

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ACOUSTICAL ANALYSIS

BREA CANYON BUSINESS PARK

850 Brea Canyon Road
Diamond Bar, California 91789



PL 2017-169

General Plan Amendment
Zone Change
Tentative Parcel Map
Development Review
Comprehensive Sign Program
Shared Parking Permit

Lead Agency:
City of Diamond Bar
Community Development Department
21810 Copley Drive
Diamond Bar, California 91765

Applicant:
Lycoming, LLC
17777 Center Court Drive, Suite 725
Cerritos, California 90703
(626) 384-5000

September 2019

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ACOUSTICAL ANALYSIS

BREA CANYON BUSINESS PARK

850 Brea Canyon Road
Diamond Bar, California 91789

PL 2017-169
General Plan Amendment
Zone Change
Tentative Parcel Map
Development Review
Comprehensive Sign Program
Shared Parking Permit

Lead Agency:
City of Diamond Bar
Community Development Department
21810 Copley Drive
Diamond Bar, California 91765
(909) 839-7032

CEQA Consultant:
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691
(9949) 837-1195

Applicant:
Lycoming, LLC
17777 Center Court Drive, Suite 725
Cerritos, California 90703
(626) 384-5000

September 2019

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ACOUSTICAL ANALYSIS

1.0 Methodology

This acoustical analysis was prepared by or for the City of Diamond Bar Community Development Department (Department) in accordance with the requirements of the California Environmental Quality Act (CEQA) and the Guidelines for the Implementation of the California Environmental Quality Act (State CEQA Guidelines) to determine if significant noise impacts are likely to occur in conjunction with the type and scale of development associated with the proposed "Brea Canyon Business Park" (BCBP) project proposed by Lycoming, LLC (Applicant). The project is to be located along the east side of Brea Canyon Road, north of the Pomona (SR-60) Freeway and south of Lycoming Street in the City of Diamond Bar (City of Lead Agency).

The approximately 5.73-acre project site (Figure N-1) was formerly used as a recreational vehicle and boat storage lot containing two on-site structures totaling approximately 3,600 square feet. As proposed, the subsequent land use shall include the construction and operation of a non-residential, mixed-use business park containing a total gross floor area of 118,471 square feet within the following stand-alone structures: (1) a 47,828 square-foot general and medical office building (Lot 1, Tentative Parcel Map No. [TPM] 82412); (2) an 8,900 square-foot medical office building (Lot 2, TPM 82412); and (3) a 61,743 square-foot, 109-room hotel (Lot 3, TPM 82412). As proposed, the completed project will include about 289 parking spaces.

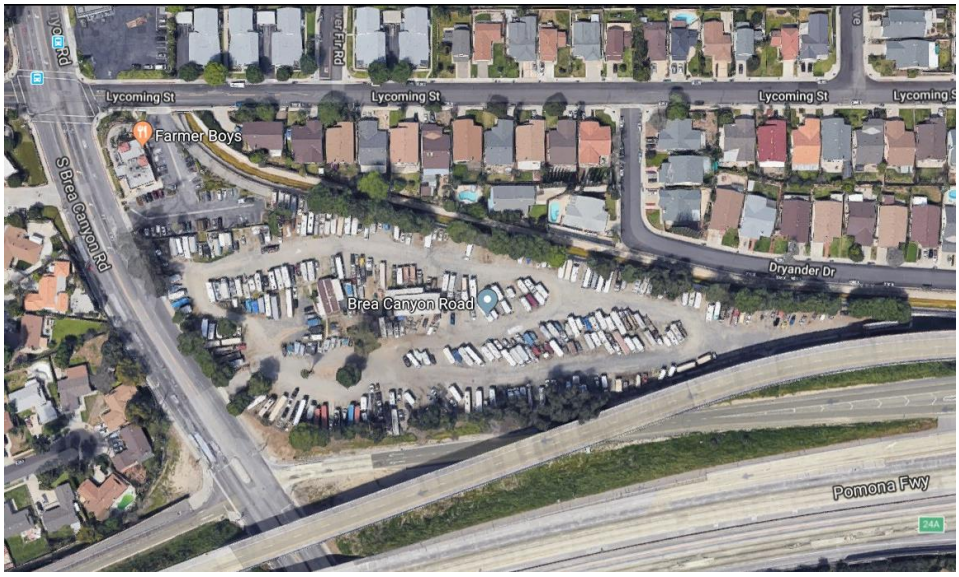


Figure N-1
PROPOSED "BREA CANYON BUSINESS PARK" SITE
(850 Brea Canyon Road, Diamond Bar, California 91789)
Source: Google Earth

Site visits were performed on July 23-24, 2019 to determine on-site noise levels as well as the existing off-site noise environment affecting adjacent residential areas. Noise measurements were conducted at five locations, including a 24-hour measurement, to document the existing on-site Community Noise Equivalent Level (CNEL) noise level.

This acoustical analysis examines the impacts both from the construction and operation of the proposed BCBP project. Traffic volumes, both existing and associated with the proposed project's operation, are as provided by Linscott, Law & Greenspan (LLG). Traffic noise was modeled using the Federal Highway Administration's (FHWA) Highway Noise Model (TNM2.5).

2.0 Existing Setting

2.1 Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Typical human hearing can detect changes in sound levels of approximately 3 dB under normal conditions. Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dB are usually indiscernible. A change of 5 dB is typically noticeable to most people in an exterior environment whereas a change of 10 dB is perceived as a doubling (or halving) of the noise.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source. This is known as "spreading loss." The typical spreading loss for point source noise is 6 dBA per doubling of the distance from the noise source.

A line source of noise, such as vehicles proceeding down a roadway, will also be reduced with distance, but the rate of reduction is a function of both distance and the type of terrain over which the noise passes. Hard sites, such as developed areas with paving, reduce noise at a rate of 3 dBA per doubling of the distance while soft sites, such as undeveloped areas, open space, and vegetated areas reduce noise at a rate of 4.5 dBA per doubling of the distance. These represent the extremes and most areas will actually contain a combination of hard and soft elements with the noise reduction placed somewhere in between these two factors. The only way to actually determine the absolute amount of attenuation that an area provides is through field measurement, conducted under operating conditions, with subsequent noise level measurements conducted at varying distances from a constant noise source.

Objects that block the line-of-sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the

wall, but has a view of the source, the wall will do little to reduce the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level, as the wall may reflect noise back to the receptor compounding the noise.

Several rating scales (or noise "metrics") exist to analyze adverse effects of noise, including traffic-generated noise, on a community. These scales include the equivalent noise level (Leq), the community noise equivalent level (CNEL), and the day/night noise level (Ldn or DNL). Leq is a measurement of the sound energy level averaged over a specified time period (usually 1-hour). Leq represents the amount of variable sound energy received by a receptor over a time interval in a single numerical value. For example, a 1-hour Leq noise level measurement represents the average amount of acoustic energy that occurred in that hour.

Time variation in noise exposure may also be expressed in terms of a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_{02}, L_{08}, and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. These "L" values are typically used to demonstrate compliance for stationary noise sources with the applicable noise ordinance. Other values typically noted during a noise survey are the Lmin and Lmax. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Unlike the Leq metric, the CNEL noise metric is based on 24 hours of measurement. CNEL also differs from Leq in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when quiet time and sleep disturbance is of particular concern). Noise occurring during the daytime period (7:00 AM to 7:00 PM) receives no penalty. Noise produced during the evening time period (7:00 PM to 10:00 PM) is penalized by 5 dBA, while nighttime noise (10:00 PM to 7:00 AM) is penalized by 10 dBA. The Ldn (or DNL) noise metric is similar to the CNEL metric except that the period from 7:00 PM to 10:00 PM receives no penalty. Both the CNEL and Ldn metrics yield about the same 24-hour value (within 1 dBA) with the CNEL being the more restrictive (higher).

2.2 Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

2.3 Vibration Fundamentals

Vibration is a trembling, quivering, or oscillating motion of the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, etc., or man-made as from explosions, the action of heavy machinery, or heavy vehicles such as trucks or trains. Both natural and man-made vibration may be continuous such as from operating machinery, or transient as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways including displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second per second or millimeters per second per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table N-1 (Human Reaction to Typical Vibration Levels) presents the human reaction and effect on buildings to various levels of continuous vibration.

Table N-1
HUMAN REACTION TO TYPICAL VIBRATION LEVELS

Vibration Level Peak Particle Velocity (inches/second)	**Human Reaction**	**Effect on Buildings**
0.006 - 0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4 – 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking by bridges	Vibrations at a greater level than normally expected from traffic but would cause "architectural" damage and possibly minor structural damage

Source: California Department of Transportation (2002)

Vibrations also vary in frequency and this affects perception. Typical construction vibration falls in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, municipal buses often generate frequencies around 3 Hz at high speeds. Although uncommon, traffic frequencies can be measured above 30 Hz.

The way in which vibration is transmitted through the earth is called "propagation." Propagation of earth borne vibrations is complicated and difficult to predict because of the endless variations in the soil through which waves travel. There are three main types of vibration propagation; surface, compression, and shear waves. Surface or Rayleigh waves travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves or compression waves are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves or shear waves are also body waves that carry energy along an expanding spherical wave front; however, unlike P-waves, the particle motion is S-waves are transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy

source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provides by material damping varies with soil type and condition as well as the frequency of the wave.

2.4 Relevant Planning

To limit population exposure to physically and/or psychologically damaging and intrusive noise levels, the various federal, state, and local governmental agencies have established standards and ordinances to control noise.

- **Federal Noise Standards**. The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the United States Environmental Protection Agency (USEPA). Noise exposure of this type is dependent on work conditions and is addressed through a facility's health and safety plan.

  The United States Department of Housing and Urban Development (HUD) has set a goal of 65 dBA Ldn as a desirable maximum exterior standard for residential units developed under HUD funding. While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provides 20 dBA of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dBA.

- **California Noise Standards**. As indicated in Table N-2 (State Land-Use Compatibility Guidelines for Noise), as adopted from the California Department of Health Services (DHS), Office of Noise Control's published recommended guidelines for noise and land-use compatibility.[1] The DHS does not mandate the application of this compatibility matrix with regard to individual development projects; however, each jurisdiction is required to consider these guidelines when developing a noise element to a local general plan and when determining acceptable noise levels within its community.[2]

  This compatibility chart identifies "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land uses. A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements.

  As illustrated therein, single-family residences are "normally acceptable" in exterior noise environments up to 60 dBA CNEL and "conditionally acceptable" in areas up to 70 dBA CNEL. Transient lodging (motels and hotels) and multi-family residential uses are "normally acceptable" in exterior environments up to 65 dBA CNEL and "conditionally acceptable" in those areas up to 70 dBA CNEL. Business, commercial, and professional office buildings are "normally acceptable" in exterior noise environments up to 70 dBA CNEL and "conditionally acceptable" in areas in excess of 75 dBA CNEL.

[1]/ These guidelines are also published in Appendix C (Guidelines for the Preparation of Noise Elements of the General Plan) of the Governor's Office of Planning and Research's (OPR) "State of California General Plan Guidelines" (October 2003).

[2]/ As specified, in part, in Section 65302(f)(1) of the CGC: "A noise element that shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control."

Table N-2
STATE LAND-USE COMPATIBILITY GUIDELINES FOR NOISE

Land Use Category	Community Noise Exposure[1] (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50-60	55-70	70-75	75-85
Residential – Multiple Family	50-65	60-70	70-75	70-85
Transient Lodging – Motel, Hotels	50-65	60-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	80-85
Auditoriums, Concert Halls, Amphitheaters	NA[2]	50-70	NA[2]	65-85
Sports Arenas, Outdoor Spectator Sports	NA[2]	50-75	NA[2]	70-85
Playground, Neighborhood Parks	50-70	NA[2]	67.5-75	72.5-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	NA[2]	70-80	80-85
Office Buildings, Business Commercial and Professional	50-70	67.5-77.5	75-85	NA[2]
Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	75-85	NA[2]

Notes:
1. Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
   Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
   Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
   Clearly Unacceptable – New construction or development should generally not be undertaken.
2. NA = Not Applicable

Source: Office of Planning and Research, California, General Plan Guidelines, October 2003

In California, allowable interior noise standards are specified in Section 1207.4 (Allowable Interior Noise Levels) in Chapter 12 (Interior Environment), 2016 "California Building Standards Code" (Title 24, California Code of Regulations [CCR]) (2016 CBC). As specified therein: "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan." The CNEL is a 24-hour time-weighted noise exposure level metric used exclusively in California. The CNEL metric is calculated by adding a 5 dBA weighting for noises occurring during the evening hours (7:00 PM to 10:00 PM) and by adding a 10 dBA weighting for noises occurring during the nighttime hours (10:00 PM to 7:00 AM). These time periods and weightings were selected to reflect a person's increased sensitivity to noises during late night and early morning hours.

As specified in Section 120.1(a) of the 2016 CBC: "All enclosed spaces in a building shall be ventilated in accordance with the requirements of this section and the California Building Code. (2) The outdoor air-ventilation rate and air-distribution assumptions made in the design of the ventilating system shall be clearly identified on the plans required by Section 10-103 of Title 24, Part 1." Pursuant to Section 120.1(b)(2) therein: "Each space that is not naturally ventilated under Item 1 above shall be ventilated with a mechanical system capable of providing an outdoor air rate no less than the larger of: (A) The conditioned floor area of the space times the applicable ventilation rate from Table 120.1-A; or (B) 15 cfm [cubic feet per minute] per person times the expected number of occupants." Table 120.1-A (Minimum Ventilation Rate) specified, in part:

Type of Use	CFM per Square Foot of Conditioned Floor Area
Hotel Guest Room (less than 500 square feet)	30 cfm/guest room
Hotel Guest Room (500 square feet or greater)	0/15

- **Local Noise Standards**. The project site is located within the City of Diamond Bar and is subject to the provisions of the "City of Diamond Bar General Plan," as initially adopted on July 25, 1995 and subsequently amended on September 3, 2013 and January 21, 2014 (1995/2013/2014 General Plan) and the "City of Diamond Bar Municipal Code." For the purpose of reducing identifiable risks, the 1995/2013/2014 General Plan's "Public Health and Safety Element" includes provisions for the incorporation of noise controls in the planning and decision-making processes and serves as a tool for achieving and maintaining land-uses compatible with environmental noise levels. As indicated therein, the City's adopted noise guidelines are included in Table N-3 (City of Diamond Bar Land-Use Noise Standard).[3]

Table N-3
CITY OF DIAMOND BAR
LAND-USE NOISE STANDARDS

Land Use Category	Energy Average (CNEL)							
	Maximum Interior CNEL	<55	55	60	65	70	75	80	>85
Rural, Single-Family, Multiple-Family Residential	40	A	B	B	C	C	D	D
School Classrooms	40	A	B	B	C	C	D	D
School Playgrounds	-	A	A	C	C	C	D	D
Libraries	40	A	A	B	B	C	C	D
Hospitals, Convalescent Facilities Living Areas	45	A	A	B	C	C	D	D
Hospitals, Convalescent Facilities Sleeping Areas	35	A	A	B	C	C	D	D
Recreation: Quiet, Passive Areas	40	A	C	C	D	D	D	D
Recreation: Noisy, Active Areas	-	A	A	A	C	C	D	D
Commercial and Industrial	-	A	A	A	B	C	C	D
Office Areas	45	A	A	A	B	C	C	D

Zones:
A Normally Acceptable. Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements. Outdoor areas are suitable for normal outdoor activities for this land use.
B Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
C Normally Unacceptable. New construction or development is should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features must be included in design.
D Clearly Unacceptable. New construction or development should generally not be undertaken.

Source: City of Diamond Bar (1995/2013/2014 General Plan)

Relative to the City's noise standards, the 1995/2013/2014 General Plan's goals are implemented through Chapter 22.28 (Noise Control) of the Municipal Code. Section 22.28.080 (Exterior Noise Standards) includes the exterior standards shown in Table N-4 (City of Diamond Bar Exterior Noise Standards). These criteria are given in terms of allowable noise levels for a given period of time at the receptor property boundary.

The levels included in Table N-4 (City of Diamond Bar Exterior Noise Standards) are not to be exceeded: (1) for a cumulative period of more than 30 minutes in any hour; (2) the noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; (3) the noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; (4) the noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour; or (5) The noise standard plus 20 dBA for any period of time. If the measured ambient noise levels exceed any of the noise limit categories, the ambient level shall become the standard.

[3]/ Adopted from Table IV-1 (Noise Standards), City of Diamond Bar General Plan, July 25, 1995, Public Health and Safety Element, p. IV-15.

Table N-4
CITY OF DIAMOND BAR
EXTERIOR NOISE STANDARDS

Land Use	Time Interval	Exterior Noise Level
Noise Sensitive Areas	Anytime	45 dBA
Residential Properties	10:00 PM to 7:00 AM (nighttime) 7:00 AM to 10:00 PM (daytime)	45 dBA 50 dBA
Commercial Properties	10:00 PM to 7:00 AM (nighttime) 7:00 AM to 10:00 PM (daytime)	55 dBA 60 dBA
Industrial Properties	Anytime	70 dBA

Source: City of Diamond Bar

The City has also sets interior noise standards for residential land uses. That standard, which is set at 40 dBA, shall not to be exceeded: (1) for a cumulative period of more than 5 minutes in any hour; or (2) the noise standard plus 5 dBA for a cumulative period of more than 1 minute in any hour; or (3) the noise standard plus 10 dBA for any period of time.

If the measured ambient exterior noise levels reflected by the L_{50} exceeds that permissible within any of the noise standards, the allowable interior noise level shall be increased in five dBA increments in each standard as appropriate to reflect the ambient noise level (L_{50}). Recognizing that some types of noise are necessary and are difficult to control, the City provides exemption for certain types of disturbance. Specifically, Section 22.28.050 of the Municipal Code exempts: (1) emergency and warning devices; (2) federal or state pre-empted activities; (3) public health and safety activities; (4) motor vehicles on public right-of-way and private property; and (5) minor maintenance to residential real property between the hours of 7:00 AM and 8:00 PM on any day except Sunday or between the hours of 9:00 AM and 8:00 PM on Sunday.

The Municipal Code recognizes that the control of construction noise is difficult to control and provides days and hours when these activities are permissible. Specifically, the Municipal Code notes: “Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 PM and 7:00 AM, or at any time on Sundays or holidays, so that the sound creates a noise disturbance across a residential or commercial property line, except for emergency work of public service utilities is prohibited.”

The Municipal Code also notes that construction activities shall be conducted in a manner that the maximum noise levels at affected structures will not exceed those listed in Table N-5 (Allowable Days, Hours, and Noise Levels for Construction). The code also requires all mobile or stationary internal combustion engines be equipped with suitable exhaust and air-intake silencers in proper working order.

2.5 Existing Noise Environment

2.5.1 Field Survey

The primary sources of noise in the general project area are those associated with existing transportation facilities. Road noise from traffic traveling eastbound and wesbound along the Pomona (SR-60) Freeway, including that associated with the westbound off-ramp at Brea Canyon Road, are the dominant noise sources at the project site. To determine on-site and near-site noise, four on-site noise measurements were obtained on July 23, 2019 (Tuesday),

with a fifth 24-hour noise reading extending until July 24, 2019 (Wednesday).[4] All readings were obtained within the boundaries of the project site. The approximate noise reading locations are shown in Figure N-3 (Noise Monitoring Locations [850 Brea Canyon Road, Diamond Bar, California 91789]).

Table N-5
ALLOWABLE DAYS, HOURS, AND NOISE LEVELS FOR CONSTRUCTION

	Single-Family	Multi-Family	Semi-Residential/Commercial
Mobile Equipment for Construction of Structures[1]			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75 dBA	80 dBA	85 dBA
Daily, 8:00 PM to 7:00 AM and all day Sundays and legal holidays	60 dBA	64 dBA	70 dBA
Stationary Equipment for Construction of Structures[2]			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60 dBA	65 dBA	70 dBA
Daily, 8:00 PM to 7:00 AM and all day Sundays and legal holidays	50 dBA	55 dBA	60 dBA
Mobile Equipment for Non-Structure Construction[3]			
Daily, including Sundays and legal holidays, all hours	85 dBA	85 dBA	85 dBA

Notes:
1. Maximum noise level for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment.
2. Maximum noise level for repetitively scheduled and relatively long-term operation (more than 10 days) of stationary equipment.
3. Maximum noise level for nonscheduled, intermittent, short-term operation of mobile equipment (e.g., grading).

Source: City of Diamond Bar



Figure N-3
NOISE READING LOCATIONS
(850 Brea Canyon Road, CA 91789)
Source: Google Earth

[4]/ Noise monitoring was performed using a Quest Technologies Model 2900 Type 2 Integrating/ Logging Sound Level Meter. The unit meets the American National Standards Institute (ANSI) Standard S1.4-1983 for Type 2, International Electrotechnical Commission (IEC) Standard 651 - 1979 for Type 2, and IEC Standard 651 - 1979 for Type 2 sound level meters. The unit was first field calibrated at 10:48 AM on July 23, 2019 using a Quest Technologies QC-10 calibrator immediately prior to conducting the readings. The calibration was then rechecked at 12:25 PM on July 23, 2019 after the first four 15-minute readings and prior to the 24-hour reading, No meter "drift" was noted. The meter was rechecked after the fifth, 24-hour measurement at 1:57 PM on July 24, 2019. No meter drift was again observed. The accuracy of the calibrator and meter are maintained through a program established through the manufacturer and are traceable to the National Bureau of Standards. The calibration unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment.

The Leq, Lmin, Lmax, L_{02}, L_{08}, L_{25}, and L_{50} values were recorded to document the ambient noise. As discussed above, the Leq value is representative of the equivalent noise level or logarithmic average noise level obtained over the measurement period. The Lmin and Lmax represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second. The L_{02}, L_{08}, L_{25}, and L_{50} represent the values that are exceeded 2, 8, 25, and 50 percent of the time or 1, 5, 15, and 30 minutes per hour, respectively, if the readings were extrapolated out to an hour's duration. The readings are summarized below and the results are included in Table N-6 (Brea Canon Business Park – On-Site Noise Level Measurements).

Table N-6
BREA CANYON BUSINESS PARK
ON-SITE NOISE LEVEL MEASUREMENTS[1]

Monitoring Location	Leq (dBA)	L_{02} (dBA)	L_{08} (dBA)	L_{25} (dBA)	L_{50} (dBA)	Lmin (dBA)	Lmax (dBA)
NR-1	65.2	72.3	68.6	65.7	63.6	55.7	75.6
NR-2	63.3	66.1	64.9	64.0	63.2	58.4	75.4
NR-3	64.2	69.0	66.5	64.6	63.4	58.2	76.3
NR-4	60.8	63.7	61.9	61.1	60.5	56.8	70.3
NR-5[2]	65.2	68.9	67.6	66.2	64.9	53.0	85.2

Notes:
1. The Leq represents the equivalent sound level and is the numeric value of a constant level that over the given period of time transmits the same amount of acoustic energy as the actual time-varying sound level. The L_{02}, L_{08}, L_{25}, and L_{50} are the levels that are exceeded 2, 8, 25, and 50 percent of the time, respectively. Alternatively, these values represent the noise level that would be exceeded for 1, 5, 15, and 30 minutes during a 1-hour period. The Lmin and Lmax represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second.
2. This was a 24-hour reading. All other readings were 15 minutes.

Source: Environmental Impact Sciences

- **Noise Monitoring Location NR-1**. In order to characterize ambient noise levels on the project site and at the adjoining residential area to the west, this noise reading was obtained along Brea Canyon Road between the Pomona (SR-60) Freeway westbound off ramp and Lycoming Street. Specifically, the noise meter was placed 50 feet east of the centerline of travel (as estimated based on the grease stain along the pavement) of Brea Canyon Road's nearest northbound lane, and approximately 129 feet south of the site's northern property line. The 15-minute reading, with simultaneous traffic counts, began at 11:00 AM. The most prevalent source of noise was from traffic traveling along Brea Canyon Road, though off-ramp and freeway noise added to the overall ambient conditions. Northbound traffic along Brea Canyon Road included 147 automobiles, two medium trucks, and 15 heavy trucks. Southbound traffic included 146 automobiles, four medium trucks, and eight heavy trucks. Brea Canyon Road Avenue is posted for 45 miles per hour (mph) in this location, though much of the time, vehicles were stopped, queued up at the signal at the bottom of the off-ramp or at Lycoming Street. The residences located on the west side of Brea Canyon Road (generally across from the project site) are set below the site's existing grade and that of Brea Canyon Road and are protected by a cinder block wall with a height of approximately five feet.

- **Noise Monitoring Location NR-2**. This noise reading was obtained on the project site, along the Pomona (SR-60) Freeway off ramp. The noise meter was placed 20 feet north of the existing fence line and is representative of noise levels that would be observed toward the west end of the proposed hotel (Lot 3, TPM 82412), near the proposed outdoor pool area. The 15-minute reading began at 11:25 AM. The most prevalent source of noise was from traffic traveling along off ramp; traffic along Brea Canyon Road was also readily audible. Simultaneous vehicle counts taken along the freeway off ramp showed 106 automobiles, two medium trucks, and nine heavy trucks.

- **Noise Monitoring Location NR-3**. This noise reading was obtained on the project site toward the east side of the proposed medical office structure (Lot 1, TPM 82412). The noise meter was placed in line with the approximate center of Dryander Drive, about 92 feet south of the existing chain link fence that separates the County flood control channel and approximately 75 feet north of the existing south fence line. In this location, the tops of trucks traveling on the westbound freeway flyover were visible. Noise levels more proximate to the freeway would be slightly lower due to the physical presence of the freeway which shields the line of site to those vehicles. The noise reading is representative of the noise levels that would be observed at the east end of the proposed medical offices. The 15-minute reading began at 11:45 AM. In this location the most prevalent source of noise was from traffic traveling along the freeway off ramp, with the freeway also notable. Simultaneous vehicle counts taken along the off ramp showed 12 automobiles, seven medium trucks, and 14 heavy trucks.

- **Noise Monitoring Location NR-4**. This noise reading was obtained toward the north end of the project site and most distant from the local traffic. The selected location was partially shielded from noise generated along Brea Canyon Road by the presence of the "Farmer Boys" restaurant located to the west. The reading would be representative of the noise experienced at the residential units located across the County flood control channel. The noise meter was placed 5 feet south of the chain link fence line to the County flood control channel and 90 feet southeast of the northernmost property line. A 15-minute reading was obtained from 12:10 PM. In this location, the noise from Brea Canyon Road, the off ramp, and freeway were all audible and no vehicle counts were obtained during this noise reading.

- **Noise Monitoring Location NR-5**. This noise reading was obtained toward the north end of the project site and most distant from the local traffic. The noise reading would be representative of the noise experienced at the residential units located across the County flood control channel away from the freeway. The noise meter was placed about 3 feet south of the chain link fence line to the County flood control channel and 208 feet southeast of the northernmost property line. A 24-hour reading was obtained from 1:00 PM on July 23, 2019 until 1:00 PM on July 24, 2019. Similar to NR-4, the noise from Brea Canyon Road, the off ramp, and the freeway were all audible and no vehicle counts were obtained during this noise reading.

  In addition to the overall 24-hour parameters, this noise reading was set to take a Leq value for a 10-minute period, six times an hour, for the 24-hour duration. This equates to 144 separate noise readings that were used to display the noise profile throughout a 24-hour period. These values placed into a spreadsheet and are plotted in Figure N-3 (NR-5 Noise Readings over Time [850 Brea Canyon Road, Diamond Bar, California 91789]).

The noise meter shows this to produce a CNEL of 71.2 dBA by adding 5 dBA for the evening (7:00 - 10:00 PM and 10 dBA to the night period (10:00 PM – 7:00 AM). The noise meter print-out is included in the appendices.

In accordance with the City's land-use compatibility standards, for the proposed land use (commercial and medical), this value would fall under "Zone C" (Normally Unacceptable) and new construction therein should generally be discouraged; however, if new construction were to proceed, a detailed analysis of noise reduction requirements must be made and noise insulation features included in the proposed project's design and development.



Figure N-3
NR-5 NOISE READINGS OVER TIME (dBA Leq)
(850 Brea Canyon Road, Diamond Bar, California 91789)
Source: Environmental Impact Sciences

Single-family residential units are located immediately across (to the north of) the County flood control channel. Noise at those residences would be similar to those associated with NR-4 and NR-5. While not directly germane to the proposed project, based on a CNEL of 71.2 dBA, single-family and multi-family residential uses also fall under "Zone C" (Normally Unacceptable) unless those residences were to include noise insulation beyond Title 24 standards.

2.5.2 Mobile Source Noise Level Modeling

Computer modeling for both the observed field data and for existing traffic volumes are separately addressed below.

- **Modeling of Observed Field Data**. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Reducing the average motor vehicle speed reduces the noise exposure at receptors adjacent to the road. Each 5 mph reduction lowers noise by about one dBA.

  Noise from a line source, such as vehicles proceeding down a roadway, are reduced with distance. The rate of reduction is a function of both the distance and the type of terrain over which the noise passes. "Hard sites" (such as developed areas with paving) reduce noise at a rate of 3 dBA per doubling of distance. "Soft sites" (such as undeveloped areas, open space, and vegetated areas) reduce noise at a rate of 4.5 dBA per doubling of distance. These categorizations represent the extremes and most areas will actually

contain a combination of hard and soft elements with the noise reduction placed somewhere in between these two factors.

Most noise in the project area is generated by vehicles using local freeway/roadways. In order to gauge the potential for project-generated impacts due to the addition of traffic, it is necessary to quantify the existing traffic-generated noise. The Federal Highway Administration's (FHWA) Traffic Noise Model (TNM Version 2.5) was used to evaluate traffic-related noise conditions in the project vicinity. The model predicts 1-hour Leq noise levels and factors are applied to ascertain the CNEL noise levels. These latter values are used in assessing the potential for mobile-source impacts.

The TNM model uses various parameters including the traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent (Leq) noise levels. The model is typically accurate to within about 2 dBA where traffic provides the dominant noise source. To validate/calibrate the results of the model, TNM modeling was prepared for the number of vehicles and logistics observed during readings NR-1 in the field study.

Model results are included in Table N-7 (Noise Level Measurements Versus Predicted Model Results for Noise Reading NR-1). For NR-1, the model projects an Leq noise level of 67.3 dBA whereas the measured Leq was 65.2 dBA, representing a difference of 2.1 dBA. This is primarily due to the fact that while Brea Canyon Road is posted for 45 mph, the observed speed of the vehicles traveling along Brea Canyon Road was much lower due to slowing and queueing of vehicles at the signals immediately north of the site at Lycoming Street and south of the site at the westbound freeway off ramp. When traffic is modeled at a speed of 35 mph, much closer to the observed speed, the model results show a Leq of 65.0 dBA, which is much closer to the 65.2 dBA reading. In addition to the reduction in noise associated with the reduced speed, traffic counts included a large percentage of heavy trucks. Increased truck traffic can produce less than expected noise levels because near-lane trucks can shield the noise from the vehicles in the further lanes.

Table N-7
NOISE LEVEL MEASUREMENTS VERSUS PREDICTED MODEL RESULTS FOR NOISE READING NR-1

Vehicle Speed	Measured Leq (dBA)	Modeled Leq (dBA)	Difference (dBA)
45 mph	65.2	67.3	2.1
35 mph	65.2	65.0	0.2

Notes:
1. Road has a posted speed limit of 45 MPH.

Source: Environmental Impact Sciences

- **Modeling of Existing Traffic Noise Levels**. Existing traffic volumes are modeled to determine if the project would add enough vehicles to significantly raise the noise level along the local roadways. In this case the impact is based solely on the addition of vehicles and the additional noise they create, regardless of the surrounding terrain.

  The average daily traffic (ADT) volumes for Brea Canyon Road are as prepared by LLG. LLG counts show the existing volume between the Pomona (SR-60) Freeway and Lycoming Street at 31,531 ADT with 24,285 ADT during the daytime (77.02 percent), 3,018 ADT during the evening (9.57 percent), and 4,228 ADT at night (13.41 percent).

  To determine the CNEL noise level produced by this traffic, the percentage contribution from each hour of traffic was determined from LLG's 24-hour vehicle counts obtained on

May 29, 2019. The ratio of each hour of traffic to the total daily traffic volume was then calculated. Traffic between the hours of 7:00 PM and 10:00 PM was assigned a 5-dBA penalty whereas the traffic predicted between 10:00 PM and 7:00 AM was assigned a 10-dBA penalty. The resultant noise associated with each hour was then logarithmically summed and averaged so that a CNEL associated with the total volume could be determined.

The FHWA Noise Model considers four main parameters in its calculations. These include the speed of the vehicles, the ratio of the vehicles (i.e., automobiles, medium trucks, heavy trucks, buses, and motorcycles), the roadway logistics (e.g., distance that traffic is observed as it approaches/leaves, and curvature of the road, elevation), and the volume of vehicles. The ratio of the vehicles is an important parameter because a medium truck produces about the same noise level as 10 cars, whereas a heavy truck is equivalent to about 35 cars. Furthermore, medium and heavy trucks produce their noise at higher elevations than automobiles.

Noise reading NR-1 was obtained along Brea Canyon Road at the project site during the 11:00 AM hour. Noise readings NR-2 and NR-3, which included vehicle counts for the freeway off ramp, was also obtained during the 11:00 AM hour.

In total, noise reading NR-1 noted 293 automobiles (90.99 percent), six medium trucks (1.86 percent), and 23 heavy trucks (7.14 percent) over a 15-minute period. Noise reading NR-2 included 106 automobiles (90.59 percent), two medium trucks (1.71 percent), and nine heavy trucks (7.69 percent). Noise reading NR-3 included 122 automobiles (85.31 percent), seven medium trucks (4.90 percent), and 14 heavy trucks (9.79 percent). Taken in total, the counts included 521 automobiles (89.52 percent), 15 medium trucks (2.58 percent), and 46 heavy trucks (7.90 percent). This ratio was used in the subsequent calculation of vehicle noise generated along Brea Canyon Road.

Based on the field study, much queueing occurs between the freeway off ramp and Lycoming Street representing a distance of about ⅛ mile. For the purposes of this analysis vehicles were modeled for a distance of 350 feet on either side of the receptor to represent the ¼-mile distance in the modeling effort.

The results of the analysis are included in Table N-8 (Existing Noise Levels along Brea Canyon Road). The analysis considers only traffic noise on the noted roadway and omits other regional sources (e.g., freeway) that add to the ambient levels.

Table N-8
EXISTING NOISE LEVELS ALONG BREA CANYON ROAD

Location	Speed (mph)	Existing ADT	Existing CNEL (dBA @ 50 feet)	Distance to 70 CNEL (feet)	Distance to 65 CNEL (feet)	Distance to 60 CNEL (feet)
Pomona (SR-60) Freeway Lycoming Street	45	31,531	74.0	93	200	430

Source: Environmental Impact Sciences

3.0 Thresholds of Significance

The generation of noise associated with the proposed project would occur over the short-term for site construction activities. In addition, noise would result from the long-term operation of the proposed land uses. Both short-term and long-term noise impacts associated with the project are examined herein.

Noise impacts can be broken down into three categories. The first is "audible" impacts, which refers to increases in noise level that are perceptible to humans. Audible increases in noise levels generally refer to a change of 3 dBA or more since this level has been found to be barely perceptible in exterior environments. The second category, "potentially audible," refers to a change in noise level between 1 and 3 dBA. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of less than 1 dBA that are typically "inaudible" to the human ear except under quiet conditions in controlled environments. Only "audible" changes in noise levels at sensitive receptor locations are considered potentially significant under CEQA.

For stationary sources, the applicable noise standards include criteria established by those local and State regulations applicable to the proposed project. As noted, the City sets an exterior standard of 60 dBA Leq for daytime noise and 55 dBA Leq for nighttime noise intrusion on commercial land uses from stationary sources under City control.[5] Here an impact is considered potentially significant if the proposed project was to expose the general and medical office buildings to exterior noise levels in excess of 65 dBA CNEL or 70 dBA CNEL for the proposed hotel in habitable exterior areas and such that interior levels in occupied areas not exceed an hourly Leq of 45 dBA with windows closed.

With respect to off-site receptors, noise would represent a potentially significant impact if existing noise levels exceed the objectives of the City's 1995/2013/2014 General Plan and the proposed project were to increase noise level by 3 dBA (barely noticeable in an exterior environment) or if the proposed project were to add 5 dBA (noticeable to most people) and the resultant noise level remains under the objectives of the 1995/2013/2014 General Plan.

4.0 Environmental Impacts and Mitigation Measures

The project involves the construction and subsequent use of new commercial structures. Projected on-site noise levels are based on data obtained in the field study. Ambient noise levels along Brea Canyon Road are calculated using the FHWA Noise Model. Noise associated with site construction is based on construction noise values provided by the USEPA for use in noise assessments.

Noise associated with site occupancy is primarily from mobile sources and most notably traffic traveling along the Pomona (SR-60) Freeway and Brea Canyon Road. Average daily traffic (ADT) volumes are as provided by LLG. In accordance with the transportation analysis, the project would result in a net increase of 2,084 ADT to areawide roadways.

The calculated noise associated with project-generated traffic is then compared to the thresholds of significance outlined in Section 3.0 (Thresholds of Significance). For ease of the reader, the included analysis follows the outline in Appendix G (Environmental Checklist Form) of the State CEQA Guidelines.

Based on Appendix G (Environmental Checklist Form) of the State CEQA Guidelines, presented below are the threshold of significance criteria which have been previously utilized by the Department on other recent projects relative to this topical issue. In accordance therewith, a proposed project would normally be deemed to produce a potentially significant noise impact if the project or if project-related activities were to:

[5]/ Mobile-source noise (vehicle noise) is preempted from local regulation.

(a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies;
(b) Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels;
(c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
(d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; and/or
(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

On December 28, 2018, the California Natural Resources Agency (CNRA) certified and adopted amendments to the State CEQA Guidelines.[6] Included among those actions were revisions to Appendix G (Environmental Checklist Form) of the State CEQA Guidelines. With regards to Section XIII (Noise), the following revisions were made therein:

Would the project result in:
(a) ~~Expose persons to or~~ Generate of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?
(b) ~~Expose persons to or~~ Generate excessive ground-borne vibration or ground-borne noise levels?
(c) ~~A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?~~
~~(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?~~
~~(e)~~ For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
~~(e) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?~~

In addition, under Paragraph XI (Land Use and Planning) of Appendix G of the State CEQA Guidelines, the revised environmental review checklist posits whether the project would "[c]ause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?" While not solely specific to noise impacts, that readily adaptable threshold has also been included herein.

The threshold criteria contained in the most recent State CEQA Guidelines have been utilized herein for the purpose of assessing potential significance, under CEQA, relative to the proposed project's potential noise impacts.

[6]/ Adding Sections 15064.3 and 15234 and amending Sections 15004, 15051, 15061, 15062, 15064, 15064.4, 15064.7, 15072, 15075, 15082, 15086, 15087, 15088, 15094, 15107, 15124, 15125, 15126.2, 15126.4, 15152, 15155, 15168, 15182, 15222, 15269, 15301, 15357, 15370, and Appendix G, Appendix M, and Appendix N of the State CEQA Guidelines.

4.1 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?

Temporary Increase in Ambient Noise Levels

Preliminary CEQA Finding**: **Less-than-Significant with Mitigation

Noise levels associated with construction activities would be higher than the ambient noise levels in the project area but would subside once construction of the project is completed. Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there could be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 86 dBA at 50 feet), the increase in noise would be less than 1 dBA when averaged over a 24-hour period, and would, therefore, have a less than significant impact on noise receptors along the truck routes.

The second type of impact is related to noise generated by on-site construction operations. Local residents would be subject to elevated noise levels due to the operation of this equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase. Table N-9 (Noise Levels Generated by Typical Construction Equipment) lists typical construction equipment noise levels recommended for noise impact assessment at a distance of 50 feet.

Table N-9
NOISE LEVELS GENERATED BY TYPICAL CONSTRUCTION EQUIPMENT

Type of Equipment	Range of Sound Levels Measured (dBA at 50 feet)	Suggested Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000 to 18,000 ft-lb/blow	81 to 96	93
Rock Drills	83 to 99	96
Jack Hammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Dozers	85 to 90	88
Tractor	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 86	86
Trucks	81 to 87	86

Source: Bolt, Beranek, and Newman, Noise Control for Buildings and Manufacturing Plants, 1987

Noise ranges have been found to be similar during all phases of construction, although the actual construction of the structures is typically reduced from the grading efforts. The grading and site preparation phase tends to create the highest noise levels because the noisiest construction equipment is found in the earthmoving equipment category. This category includes

excavating machinery (e.g., backfillers, bulldozers, draglines, front loaders) and earthmoving and compacting equipment (e.g., compactors, scrapers, graders). Typical operating cycles may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA while Leq noise levels range up to about 88 dBA and 89 dBA for residential and commercial development, respectively. The later construction of structure is somewhat reduced from this value and the physical presence of the structure may break up line-of-sight noise propagation.

The most proximate residential structures include both the existing single-family homes located to the north beyond the County flood control channel and to the west of Brea Canyon Road. The nearest of these homes to the north could be on the order of 50 feet from on-site construction activities with Leq noise levels projected to be as high as 89 dBA. Interior levels within those off-site residents would be reduced by about 20 dBA (with windows closed) from these values.

During the vast majority of the construction period, however, both exterior and interior noise levels would be expected to be on the order of 20 to 30 dBA lower due to lower power settings and sound attenuation provided by longer separation distances and partial blocking both from the structures under construction and off-site structures. Ambient noise levels in the project vicinity would increase during construction phase but would drop after construction of the proposed uses is completed.

All construction would be subject to the requirements set forth in the Municipal Code. The City recognizes that control of construction noise is limited and, therefore, places special provisions on that noise. Section 22.28.120 (Acts Deemed Violation of Chapter), in Chapter 22.28 (Noise Control), exempts noise sources associated with construction provided that mobile source activities associated with the construction of the physical structures does not exceed 75 dBA, as measured at any single-family residential units, between the hours of 7:00 AM and 8:00 PM or 60 dBA between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday. Stationary source activities associated with the construction of the physical structures shall not exceed 60 dBA, as measured at any single-family residential units, between the hours of 7:00 AM and 8:00 PM or 45 dBA between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday. Mobile source noise associated with site clearing, grading, and other construction activities shall not exceed 85 dBA at any receptor locations.

Implementation of the following recommended mitigation measures would ensure that these construction-term noise levels are not exceeded and/or reduced to a less-than-significant level:

- **Mitigation Measure N-1 (Construction)**. In accordance with the provisions of the “City of Diamond Bar Municipal Code,” construction shall be restricted to between the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays. No construction shall occur at any time on Sundays or on federal holidays. These days and hours shall also apply to the servicing of equipment and to the delivery or removal of equipment and materials to or from the site.

- **Mitigation Measure N-2 (Construction)**. All construction equipment shall be properly maintained and tuned to minimize noise emissions.

- **Mitigation Measure N-3 (Construction)**. All equipment shall be fitted with properly operating mufflers, air intake silencers, and engine shrouds no less effective than originally equipped.

- **Mitigation Measure N-4 (Construction)**. During site preparation and paving operations, the construction contractor shall place temporary noise barriers, in the form of continuous ¾-inch plywood or hay bales, or similar dense material acceptable to the Department, along the site perimeter when performing construction operations within 100 feet of the rear yard areas of any existing residential units located to the north of the County flood control channel. Such barriers shall be tall enough to block the line of sight between any proximal residences and the top of the exhaust stack associated with the on-site use of heavy construction equipment.

  This mitigation measure is intended to apply specifically to those single-family residences located at 807-814 Drylander Drive and 21110-21054 Lycoming Street, Diamond Bar.

- **Mitigation Measure N-5 (Construction)**. The construction contractor shall specify the use of electric stationary equipment (e.g., compressors) that can operate off of the power grid, where feasible. Where infeasible, stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as feasible.

- **Mitigation Measure N-6 (Construction)**. The construction contractor shall post details of the project's construction schedule and the names and telephone numbers of both an on-site project representative and the City of Diamond Bar Community Development Department (Department) that can be contacted by local residents seeking to register a noise complaint.

- **Mitigation Measure N-7 (Construction)**. The proposed project shall be designed and constructed in accordance with any and all additional conditions as may be set forth by the Department for noise mitigation.

Permanent Increase in Ambient Noise Levels

Preliminary CEQA Finding*: Less-than-Significant Impact*

The primary project-related contribution to ambient noise levels would be due to the addition of vehicles to the local roadways. The traffic study indicated that the project would add 2,084 ADT to the local roadways.

For the purposes of this analysis, the vehicle mix, day/evening/night split, and average speeds are as indicated in the analysis of the existing noise levels. In actuality, the project would generate a far smaller percentage of medium and heavy trucks than noted in the field study. Because trucks add disproportionately to the roadway noise, use of the existing ratio then represents a reasonable worst-case scenario. Results of the modeling effort are included in Table N-10 (Existing Versus with Project Noise Levels along Brea Canyon Road). As noted, the modeling indicates that the noise increase along Brea Canyon Road would not exceed 0.3 dBA CNEL and is, therefore, less than significant.

Table N-10
EXISTING VERSUS WITH PROJECT NOISE LEVELS ALONG BREA CANYON ROAD

Location	Speed (mph)	Existing ADT	Existing CNEL (dBA @ 50 feet)	Existing with Project ADT	With Project CNEL (dBA @ 50 feet)	Difference *(dBA CNEL)*
Pomona (SR-60) Freeway Lycoming Street	45	31,531	74.0	33,611	74.3	0.3

Source: Environmental Impact Sciences

Based on a "right-in/right-out" driveway configuration, many of the vehicles departing the project site would then turn left onto Lycoming Street. Intersection turning movements obtained on January 11, 2018 and presented by LLG show the AM and PM peak-hour turning movements for Brea Canyon Road and Lycoming Street. The counts put 809 vehicles on Lycoming Street during the AM peak and 510 vehicles on Lycoming Street during the PM peak. Based on common engineering practices, assuming that the peak hour represents about 10 percent of the ADT, along Lycoming Street, these turning counts put the ADT at approximately 8,090 using the AM counts and approximately 5,100 ADT using the PM counts.

If the entirety of the project's projected 2,084 ADT were placed along Lycoming Street, west of Brea Canyon Road, the noise for the combined volume of 7,184 ADT (5,100 + 2,084 = 7,184) would raise the existing noise level along Lycoming Street by about 1.5 dBA. This projected 1.5 dBA increase is under the 3 dBA threshold and the resulting impact is, therefore, less than significant.

As noted in the field study, the dominant sources of noise through the general project area is related to freeway traffic and traffic along Brea Canyon Road. Noise levels at the existing residents to the north of the County flood control channel already exceeds the City exterior standards for residential land uses. The structures associated with the proposed development would serve as a partial sound wall reducing this noise at the existing residential locations.

The California Department of Transportation (Caltrans) estimates that any structure that presents a solid surface and blocks the line-of-sight between the noise source and the noise receptors could attenuate noise by 5 dBA or more. Once constructed, the presence of the proposed on-site structures would, at a minimum, partially block the line-of-sight transmission of noise associated with the freeway and with Brea Canyon Road at the residents to the northeast and would provide some benefit to some of those adjacent residents.

4.2 Exceed Standards Established in the Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies?

Cause a Significant Environmental Impact due to a Conflict with any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect?

Preliminary CEQA Finding**: **Less-than-Significant with Mitigation

The City's Municipal Code sets an exterior noise standard of 55 dBA (between 10:00 PM and 7:00 AM) and 60 dBA (between 7:00 AM and 10:00 PM) for "commercial properties" (Section 22.38.080, MC). The City's 1995/2013/2014 General Plan allows for a "conditionally acceptable" exterior noise level of up to 70 dBA CNEL for "hospitals," and "office buildings, business, commercial, and professional" when fitted with HVAC systems and 65 dBA CNEL for "transient lodging – motels, hotels."

The field study demonstrated that the project site is located in an area that exceeds the City's land use goals for "conditionally acceptable" noise 70 CNEL for "office buildings" and "transient lodging." On-site noise levels would range from about 70 to 75 dBA CNEL, based upon the exact location and time of day and are, therefore, considered to be potentially significant. Because of the adjacent elevated freeway, sound walls would not be effective.

Implementation of the following recommended mitigation measures would ensure that these operational noise levels are not exceeded and/or reduced to a less-than-significant level:

- **Mitigation Measure N-8. Operational Noise**. No accessible exterior balconies shall be included in the design of the hotel structure for those guest rooms located along the hotel's southern (freeway-oriented) wall.

- **Mitigation Measure N-9. Operational Noise**. The Applicant shall provide habitable on-site structures with forced air ventilation designed and installed in accordance with the 2016 "California Building Standards Code" (Title 24, California Code of Regulations), including the 2016 "California Green Building Standards Code" (Title 24, Part 11, California Code of Regulations).[7]

- **Mitigation Measure N-10. Operational Noise**. All exterior fittings that enter the structures (e.g., electrical conduits; heating, ventilation and air conditioning [HVAC] ducts) are to be sealed with caulk such that the fittings are rendered as air-tight. Any metal duct-work that is exposed to the exterior environment shall be enclosed and insulated to avoid noise transference through the ducting.

HUD's "Noise Guidebook" (1985) presents Sound Transmission Class (STC) ratings for various types of construction materials and techniques. The STC rating is the official rating endorsed by the American Society of Testing and Measurement (ASTM) and can be used as a guide in determining what type of construction is needed to reduce noise. Conversely, these same principles can be used to determine interior noise for a given type of construction.

An STC is a measure of a material's ability to reduce sound and is equal to the number of decibels a sound is reduced as it passes through the material. A high STC rating indicates a good insulting material. For example, if the external noise is 75 dBA and the desired interior level is 45 dBA, a partition achieving an of 30 STC is required. Because of minor differences in ratings, as well as construction flaws, gaps, seams, openings, and ducting, field studies indicate that laboratory-derived STC ratings may be overstated by as much as 5 dBA. As such, using 75 dBA as the exterior level, the mitigation would need to achieve a composite laboratory STC rating of approximately 35 (30 + 5) to ensure that interior levels were adequately mitigated to 45 dBA or less.

According to HUD, a common stud wall has an STC of approximately 35 dBA. While a typical ¼-inch thick pane of glass may have an STC rating of about 20 dBA, a 3/16-inch pane of glass increases this rating to about 25 dBA, and a ½-inch thick pane of glass would have an STC of about 35 dBA. There comes a point of diminishing returns, such that beyond a pane size of ½-inch, additional thickness produces minimal gains (e.g., a ¾-inch piece of glass has an STC of about 37 dBA). Double-glazed windows can, however achieve considerably higher STC levels. An acoustical window consisting of two 3/16-inch thick panes will have an STC of 51 while being considerably cheaper than a ½-inch or ¾-inch pane. The STC for a typical wood, double hung closed window is listed at 22.

Noise within the interior of the structure comes through the walls, windows, doors, and duct work. HUD provides a nomograph that can be used to determine the composite STC for walls

[7]/ January 1, 2020 is the Statewide effective date established by the California Building Standards Commission for the 2019 "California Building Standards Code" (2019 CBC). In accordance with Section 18938.5 of the California Health and Safety Code, all applications for a building permit submitted on or after January 1, 2020 are subject to compliance with the 2019 CBC. The 2016 CBC remains in effect and is applicable to all plans and specifications for and to construction performed where the application for a building permit is received on or before December 31, 2019 (California Building Standards Commission, Information Bulletin 19-04, June 24, 2019).

that include windows and doors. Assuming a common stud wall has an STC of 35, the windows/doors have an STC of 22, and the windows/doors encompasses 30 percent of the wall, the composite STC is 27. The incorporation of batten insulation would increase the STC of the walls by at least 4 dBA to no less than STC 39. The HUD nomagraph indicates that the windows and door would reduce the STC of the wall by less than 2 dB. Using an exterior noise level of 75 dBA CNEL and a composite STC of 37 results in an interior noise level of about 38 dBA.

STC ratings of building components are based on laboratory tests and construction techniques with quality that can seldom be duplicated in the field. As a result, STC ratings may be overrated by as much as 5 dBA, reducing the STC of 37 to only 32. Based on a projected exterior CNEL of 75 dBA at the project site, a composite STC of 32 would result in an interior noise level of about 43 dBA CNEL.

Section 1207 (Allowable Interior Noise Levels) in Chapter 2, Title 24 of the CCR, which was revised in 2013, applies to all new multi-family dwellings, including condominiums, apartments, hotels, motels, and dormitories. Prior to 2013, Section 1207.11.2 (Allowable Interior Noise Levels) specified that "interior noise levels attributable to exterior sources shall not exceed 45 db in any habitable rooms. The noise metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL) consistent with the noise element of the local general plan." The Title 24 standard also established minimum sound insulation requirements for interior partitions separating different dwelling units from each other and dwelling units from common spaces. The regulated common interior walls and floor/ceiling assemblies must achieve a minimum STC rating of 50 for airborne noise.

That standards was subsequently replaced by Section 5.507.4 (Acoustic Control) in Chapter 56 (Nonresidential Mandatory Measures) of the 2013 "California Green Building Standards Code" (effective January 1, 2014), as codified in Title 24, Part 11 of the CCR, as updated by the 2016 "California Green Building Standards Code" (effective January 1, 2017) (2016 CalGreen). As required therein, buildings "within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source, or fixed guideway source as determined by the noise element of the general plan" (Section 5.5007.4.2[2], CCR) are required to evaluate the building shell to provide an acceptable interior sound levels.[8]

The 2016 CalGreen presents two methods for meeting the interior sound level standard. As stipulated in Section 5.507.4 (Acoustical Controls) therein, all newly constructed non-residential buildings shall "[e]mploy building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2." As further specified in Section 5.507.4.3 therein, with regards to interior sound transmission, wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

The prescriptive method (Section 5.507.4.1, CCR) stipulates that a minimum building envelope composite STC rating of 50 (OITC 40) with exterior windows meeting a minimum STC rating of 40 (OITC 30). The performance method (Section 5.507.4.2, CCR) stipulates that the interior

[8]/ The Ldn noise descriptor averages measured or predicted sound levels over 24-hours after applying a 10-dB penalty to nighttime (10:00 PM to 7:00 AM) sounds. Similar to Ldn, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10:00 PM and 7:00 AM, and a 5-dB penalty applied to the A-weighted sound levels occurring during evening hours between 7:00 PM and 10:00 PM The penalty is applied because people trying to sleep during these hours are more sensitive to external sounds.

environment must meet an hourly Leq of 45 dBA in occupied areas during any hour of operation based on acoustical analysis.

The "Public Health and Safety Element" of the 1995/2013/2014 General Plan constitutes the City's "noise element." Although no freeway contour maps are presented therein, this analysis constitutes evidence that the project site is located within a transportation noise contour of 65 dBA (or higher) CNEL or Ldn. Because the Pomona (SR-60) Freeway, either alone or in combination with Brea Canyon Road, represents a transportation noise contours of 65 dBA (or higher) CNEL or Ldn, the provisions of Section 5.507.4 (Acoustical Controls) of 2016 CalGreen apply to the proposed project.

Assuming that the following minimum construction standards are met, interior sound levels are predicted to satisfy 2016 CalGreen requirements without mitigation:

- All joints in exterior walls shall be sealed airtight around windows and doors, at the wall perimeter and at major seams.
- All above ground penetrations of exterior walls by electrical and plumbing components, windows, and the like shall be sealed airtight on both sides of the wall with a resilient, non-hardening caulking or mastic.
- Basic exterior wall construction shall comprise the following material of equal surface weight and Sound Transmission Class (STC) rating; (1) 2" x 4" wood or metal studs at 16 to 24 inches on center; (2) minimum R-13 insulation in the stud cavities; (3) 5/8" thick gypsum wallboard fastened to the interior face of the wood studs; the wall shall be fully taped and finished, and sealed around the perimeter with a combination of backer rod and resilient, non-hardening caulking; (4) the exterior surface shall be finished with a 3-coat (minimum ¾" thick) stucco system or with another product with equal or greater surface weight.
- Ceilings shall be finished with a minimum 5/8" gypsum board with minimum R-19 insulation in the ceiling.

Ventilation or air-conditioning systems shall consist of an individual vertical terminal air conditioning (VTAC) unit for each guest room. The VTAC system is a through-the-wall installation which is hidden inside an enclosure which looks like a closet. The unit is controlled with a wall thermostat and some units are capable of being controlled by a central location. A VTAC system located in a closet was assumed to perform at an equivalent STC 28 (OITC 20) or better.

4.3 Generation of Excessive Groundborne Vibration or Groundborne Noise Levels?

***Preliminary CEQA Finding**: Less-than-Significant Impact*

The proposed project would involve the construction and subsequent occupancy of general and medical office and hotel uses on the project site. Based on surface and subsurface soil conditions, conventional construction operations and no pile driving and/or blasting activities are assumed to be required.

Caltrans has noted that the generation of groundborne vibration is typically associated with blasting operations, the use of pile drivers, and large-scale demolition activities, none of which are anticipated for the construction or operation of the proposed project. As such, no excessive groundborne vibrations would be created by the proposed project. Potential groundborne noise and vibration-related impacts are, therefore, less than significant.

4.3 For a Project Located within the Vicinity of a Private Airstrip or an Airport Land Use Plan or, where such a Plan has not been Adopted, within Two Miles of a Public Airport or Public Use Airport, would the Project Expose People Residing or Working in the Project Area to Excessive Noise Levels?

***Preliminary CEQA Finding**: Less-than-Significant Impact*

Ontario International Airport (ONT) is located approximately 12.9 miles northeast of the project site. ONT's runway has an east-west orientation directing air traffic north of the project site. ONT noise contours maps were reviewed and the project site was determined not to be locted within a "noise impact zone" (<60 dBA CNEL).[9]

Los Angeles International Airport (LAX) is approximately 31.65 miles to the west and John Wayne Airport (SNA) is approximately 22.1 miles south of the project site. Any approaching and departing aircraft associated therewith would be a substantial elevation about the project area as not to meaningfully contribute to ambient noise levels.

The Bracket Field Airport (1615 McKinley Avenue, La Verne 91750 is located in the City of La Verne, approximately 7.05 miles to the northeast of the project site. The airport's runway is aligned in roughly an east/west orientation and the project site is not in that airport's prevailing flight path. The project site is well beyond the airport's 65-dBA CNEL noise contour and the resultant aircraft noise levels are well below any regulatory standards.

Fullerton Municipal Airport (4011 W. Commonwealth Avenue, Fullerton 92833) is located approximately 12.05 miles southwest of the project site. The runway has a northeast/southwest orientation and its associated flight path does not direct aircraft near the project site.

With regards to potential noise-related impacts from airport operations, no significant noise impacts would result from the implementation of the proposed project.

5.0 References

- Bolt, Beranek, and Newman, Noise Control for Buildings and Manufacturing Plants, 1987.
- California Building Standards Commission, 2016 California Green Building Standards Code, Title 24, Part 11, California Code of Regulations, Chapter 5 (Nonresidential Mandatory Measures, Section 5.507.4 (Acoustic Control), effective January 1, 2017.
- California Building Standards Commission, Information Bulletin 19-04, June 24, 2019.
- California Department of Transportation, Technical Analysis Notes, March 13, 1991.
- California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, October 1998.

[9]/ City of Ontario (Mead & Hunt), LA/Ontario International Airport Land Use Compatibility Plan, Chapter 2 (Procedural and Compatibility Policies), Policy Map 2-3 (Compatibility Policy Map: Noise Impact Zones), adopted April 19, 2011.

- California Department of Transportation, Transportation Related Earthborne Vibrations, February 20, 2002.City of Diamond Bar, Development Code, November 3, 1998
- City of Diamond Bar, City of Diamond Bar General Plan, Public Health and Safety Element, July 25, 1995.
- City of Ontario (Mead & Hunt), LA/Ontario International Airport Land Use Compatibility Plan, adopted April 19, 2011.
- Linscott, Law & Greenspan, Revised Traffic Impact Analysis Report Brea Canyon Business Center, April 24, 2019.
- Federal Highway Administration, Traffic Noise Model, Version 2.5, February 2004.
- United States Department of Housing and Urban Development, A Guide to HUD Environmental Criteria and Standards Contained in 24 CFR Part 51, August 1984.
- United States Department of Housing and Urban Development, 1985, The Noise Guidebook, March 1985.

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Appendix N-A

TNM Noise Modeling Observed Field Measurements @ 45 Miles per Hour

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<Organizat 25-Jul-19
<Analysis B TNM 2.5
Calculated

RESULTS: S
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center
BARRIER DI INPUT HEIGHTS

ATMOSPHE 98 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc
			dBA	dBA	dBA	dB	dB
Receiver1	1	1	0	67.3	66	67.3	10

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	1	0	0	0
All that meet NR Goal	0	0	0	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: RO
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z
	ft			ft	ft	ft
Northbour	12	point2	2	-56	350	0
		point1	1	-56	-350	0
Southbour	12	point4	4	-98	-350	0
		point3	3	-98	350	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: TRA
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph
Northbour	point2	2	588	45	8	45
	point1	1				
Southbour	point4	4	584	45	16	45
	point3	3				

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: REC
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Soun Existing LAeq1h
			ft	ft	ft	ft	dBA
Receiver1	1	1	0	0	0	4.92	0

with TNM 2.5

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with approval of FHWA.

Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
	dBA	dB	dB	dB
Snd Lvl	67.3	0	8	-8

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Flow Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	mph	%		
			Average	
			Average	

HTrucks		Buses		Motorcycles	
V	S	V	S	V	S
veh/hr	mph	veh/hr	mph	veh/hr	mph
60	45	0	0	0	0
32	45	0	0	0	0

d Levels and Criteria			Active
Impact Criteria		NR	in
LAeq1h	Sub'l	Goal	Calc.
dBA	dB	dB	
66	10	8	Y

Appendix N-B

TNM Noise Modeling Observed Field Measurements @ 35 Miles per Hour

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RESULTS: S
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center
BARRIER DI INPUT HEIGHTS

ATMOSPHE 98 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h Calculated	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc
			dBA	dBA	dBA	dB	dB
Receiver1	1	1	0	65	66	65	10

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

INPUT: RO
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z
	ft			ft	ft	ft
Northbour	12	point2	2	-56	350	0
		point1	1	-56	-350	0
Southbour	12	point4	4	-98	-350	0

point3	3	-98	350	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: TRA
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph
Northbour	point2	2	588	35	8	35
	point1	1				
Southbour	point4	4	584	35	16	35
	point3	3				

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: REC
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Soun Existing LAeq1h
			ft	ft	ft	ft	dBA
Receiver1	1	1	0	0	0	4.92	0

with TNM 2.5

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with approval of FHWA.

Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
	dBA	dB	dB	dB
----	65	0	8	-8

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Flow Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	mph	%		
			Average	
			Average	

HTrucks		Buses		Motorcycles	
V	S	V	S	V	S
veh/hr	mph	veh/hr	mph	veh/hr	mph
60	35	0	0	0	0
32	35	0	0	0	0

d Levels and Criteria			Active
Impact Criteria		NR	in
LAeq1h	Sub'l	Goal	Calc.
dBA	dB	dB	
66	10	8	Y

Appendix N-C

TNM Noise Modeling
Exiting E. Brea Canyon Road
Day Traffic @ 50 Feet

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<Organizat 25-Jul-19
<Analysis B TNM 2.5
Calculated

RESULTS: S
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center
BARRIER DI INPUT HEIGHTS

ATMOSPHE 98 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing	
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc
			dBA	dBA	dBA	dB	dB
Receiver1	1	1	0	72.1	66	72.1	10

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0	0	0
All Impacted	1	0	0	0
All that meet NR Goal	0	0	0	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: RO
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Width	Points Name	No.	Coordinates (pavement)		
				X	Y	Z
	ft			ft	ft	ft
Northbour	12	point2	2	-50	350	0
		point1	1	-50	-350	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: TRA
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	
Northbour	point2	2	1812	45	52	45	
	point1	1					

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: REC
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Soun Existing LAeq1h	
			ft	ft	ft	ft	dBA	
Receiver1	1	1	0	0	0	4.92	0	

with TNM 2.5

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with approval of FHWA.

Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
	dBA	dB	dB	dB
Snd Lvl	72.1	0	8	-8

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Flow Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	mph	%		
			Average	

HTrucks		Buses		Motorcycles	
V	S	V	S	V	S
veh/hr	mph	veh/hr	mph	veh/hr	mph
160	45	0	0	0	0

d Levels and Criteria			Active
Impact Criteria		NR	in
LAeq1h	Sub'l	Goal	Calc.
dBA	dB	dB	
66	10	8	Y

Appendix N-D

TNM Noise Modeling
Exiting E. Brea Canyon Road
Evening Traffic @ 50 Feet

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<Organizat 25-Jul-19
<Analysis B TNM 2.5
Calculated

RESULTS: S
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center
BARRIER DI INPUT HEIGHTS

ATMOSPHE 98 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing	
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc
			dBA	dBA	dBA	dB	dB
Receiver1	1	1	0	69	66	69	10

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0	0	0
All Impacted	1	0	0	0
All that meet NR Goal	0	0	0	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: RO
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Width	Points Name	No.	Coordinates (pavement)		
				X	Y	Z
	ft			ft	ft	ft
Northbour	12	point2	2	-50	350	0
		point1	1	-50	-350	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: TRA
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph
Northbour	point2	2	901	45	26	45
	point1	1				

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: REC
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Soun Existing LAeq1h
			ft	ft	ft	ft	dBA
Receiver1	1	1	0	0	0	4.92	0

with TNM 2.5

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with approval of FHWA.

Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
	dBA	dB	dB	dB
Snd Lvl	69	0	8	-8

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Flow Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	mph	%		
			Average	

HTrucks		Buses		Motorcycles	
V	S	V	S	V	S
veh/hr	mph	veh/hr	mph	veh/hr	mph
79	45	0	0	0	0

d Levels and Criteria			Active
Impact Criteria		NR	in
LAeq1h	Sub'l	Goal	Calc.
dBA	dB	dB	
66	10	8	Y

Appendix N-E

TNM Noise Modeling
Exiting E. Brea Canyon Road
Night Traffic @ 50 Feet

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<Organizat 25-Jul-19
<Analysis B TNM 2.5
Calculated

RESULTS: S
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center
BARRIER DI INPUT HEIGHTS

ATMOSPHE 98 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing	
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc
			dBA	dBA	dBA	dB	dB
Receiver1	1	1	0	65.7	66	65.7	10

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: RO
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Width	Points Name	No.	Coordinates (pavement)		
				X	Y	Z
	ft			ft	ft	ft
Northbour	12	point2	2	-50	350	0
		point1	1	-50	-350	0

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: TRA
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph
Northbour	point2	2	421	45	12	45
	point1	1				

<Organizat 25-Jul-19
<Analysis B TNM 2.5

INPUT: REC
PROJECT/C <Project Name?>
RUN: Brea Canyon Business Center

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Soun Existing LAeq1h
			ft	ft	ft	ft	dBA
Receiver1	1	1	0	0	0	4.92	0

with TNM 2.5

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with approval of FHWA.

Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
	dBA	dB	dB	dB
----	65.7	0	8	-8

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Flow Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	mph	%		
			Average	

HTrucks		Buses		Motorcycles	
V	S	V	S	V	S
veh/hr	mph	veh/hr	mph	veh/hr	mph
37	45	0	0	0	0

d Levels and Criteria			Active
Impact Criteria		NR	in
LAeq1h	Sub'l	Goal	Calc.
dBA	dB	dB	
66	10	8	Y

Appendix N-E

NR-5 24-Hour Noise Reading Meter Printout

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QUEST TECHNOLOGIES
2900 INTEGRATING/LOGGING SOUND LEVEL METER

Unit Version Number: 02.4 Serial Number:

Name _____

Work Area _____

Comments _____

_____

_____

Meter Calibration: 114.0dB 23-JUL-19 @ 12:31:38

Calibrator:
Serial Number _____ Calibration Date _____

STUDY 1
Notes _____

_____

_____

Measuring Parameters:

Range	30- 90dB	Weighting	A	Time Constant	SLOW
Threshold	OFF	Exchange Rate	3dB	Peak Weighting	A

Session Started	Session Stopped	Run Time
23-JUL-19 @ 13:00:10	24-JUL-19 @ 13:00:10	24:00:00
Peak Level 98.7dB	23-JUL-19 @ 16:56:31	
Max Level 85.2dB	23-JUL-19 @ 17:26:39	
Min Level 53.0dB	24-JUL-19 @ 01:10:52	
Overload 0.45%		

LEQ	65.2dB	SEL(3)	114.5dB	TWA	70.0dB	TAKM3	65.7dB
LDN	70.8dB	CNEL	71.2dB	Pa2Sec	114.1		
L2	68.9dB	L8	67.6dB	L25	66.2dB	L50	64.9dB

LOGGING (10 MIN)	LEQ	LMAX	L10	L90	
Study 1					
13:10:10	64.8dB	71.2dB	65.9dB	63.4dB	OL
13:20:10	64.7dB	70.5dB	66.2dB	63.0dB	OL
13:30:10	65.0dB	71.0dB	66.5dB	63.1dB	OL
13:40:10	66.3dB	70.7dB	67.8dB	64.7dB	OL
13:50:10	66.2dB	70.4dB	68.2dB	64.2dB	OL
14:00:10	66.1dB	69.7dB	67.3dB	64.6dB	OL
14:10:10	65.4dB	69.4dB	67.0dB	63.5dB	OL
14:20:10	65.4dB	70.6dB	67.0dB	63.2dB	OL
14:30:10	64.7dB	69.1dB	66.0dB	62.9dB	OL
14:40:10	66.2dB	71.4dB	67.8dB	64.3dB	OL
14:50:10	66.0dB	68.9dB	67.3dB	64.6dB	OL
15:00:10	66.0dB	74.9dB	68.5dB	62.5dB	OL
15:10:10	64.5dB	68.3dB	66.1dB	62.7dB	OL

LOGGING (10 MIN)	LEQ	LMAX	L10	L90	
Study 1					
15:20:10	66.1dB	70.2dB	67.8dB	63.9dB	OL
15:30:10	66.8dB	72.8dB	68.5dB	64.3dB	OL
15:40:10	66.1dB	71.0dB	67.8dB	64.1dB	OL
15:50:10	66.8dB	70.9dB	68.5dB	64.7dB	OL
16:00:10	66.5dB	71.5dB	67.8dB	65.0dB	OL
16:10:10	67.0dB	70.4dB	68.4dB	65.2dB	OL
16:20:10	67.2dB	72.7dB	68.9dB	65.2dB	OL
16:30:10	66.3dB	71.0dB	68.1dB	64.2dB	OL
16:40:10	67.6dB	70.9dB	69.4dB	65.4dB	OL
16:50:10	67.2dB	70.7dB	68.6dB	65.1dB	OL
17:00:10	66.9dB	77.4dB	67.8dB	65.3dB	OL
17:10:10	67.8dB	71.1dB	69.2dB	66.1dB	OL
17:20:10	67.9dB	71.8dB	69.1dB	66.3dB	OL
17:30:10	69.0dB	85.2dB	69.3dB	65.1dB	OL
17:40:10	67.7dB	71.8dB	69.5dB	65.8dB	OL
17:50:10	67.2dB	73.9dB	68.6dB	65.8dB	OL
18:00:10	66.3dB	74.0dB	67.8dB	64.4dB	OL
18:10:10	67.2dB	72.0dB	68.7dB	65.4dB	OL
18:20:10	67.0dB	74.8dB	68.6dB	64.8dB	OL
18:30:10	66.3dB	69.1dB	67.8dB	64.2dB	OL
18:40:10	65.4dB	68.4dB	66.8dB	63.7dB	OL
18:50:10	66.3dB	73.2dB	67.7dB	64.6dB	OL
19:00:10	65.9dB	70.6dB	67.3dB	64.4dB	OL
19:10:10	66.5dB	74.8dB	68.4dB	63.8dB	OL
19:20:10	66.3dB	73.4dB	68.3dB	64.1dB	OL
19:30:10	66.8dB	70.4dB	68.2dB	64.7dB	OL
19:40:10	66.2dB	70.2dB	67.5dB	64.0dB	OL
19:50:10	65.6dB	69.2dB	67.1dB	63.6dB	OL
20:00:10	66.5dB	69.8dB	68.0dB	64.9dB	OL
20:10:10	67.2dB	70.2dB	68.6dB	65.6dB	OL
20:20:10	66.5dB	72.4dB	68.1dB	64.8dB	
20:30:10	66.1dB	69.5dB	67.7dB	64.4dB	OL
20:40:10	67.5dB	74.8dB	69.1dB	65.8dB	OL
20:50:10	66.1dB	73.5dB	67.7dB	64.4dB	
21:00:10	66.3dB	69.1dB	67.5dB	64.8dB	
21:10:10	66.0dB	69.9dB	67.3dB	64.4dB	
21:20:10	65.5dB	69.4dB	66.9dB	63.9dB	
21:30:10	66.3dB	73.2dB	67.6dB	64.8dB	
21:40:10	64.4dB	67.4dB	65.7dB	62.8dB	
21:50:10	64.2dB	69.8dB	65.6dB	62.4dB	
22:00:10	63.7dB	66.4dB	65.1dB	62.2dB	
22:10:10	65.4dB	72.0dB	67.0dB	63.7dB	OL
22:20:10	65.7dB	71.9dB	66.8dB	63.8dB	
22:30:10	64.7dB	69.2dB	66.1dB	63.1dB	
22:40:10	65.0dB	67.9dB	66.6dB	63.1dB	
22:50:10	64.4dB	67.3dB	65.8dB	63.0dB	
23:00:10	65.9dB	71.5dB	67.5dB	63.9dB	
23:10:10	65.3dB	69.1dB	66.6dB	63.1dB	
23:20:10	64.6dB	68.4dB	66.1dB	62.6dB	
23:30:10	63.7dB	66.7dB	65.4dB	61.6dB	
23:40:10	62.9dB	67.2dB	64.4dB	60.4dB	
23:50:10	63.7dB	74.9dB	64.9dB	60.4dB	
00:00:10	62.5dB	68.0dB	63.9dB	60.9dB	
00:10:10	62.8dB	67.1dB	64.6dB	60.9dB	
00:20:10	62.4dB	67.5dB	64.4dB	59.5dB	

LOGGING (10 MIN)	LEQ	LMAX	L10	L90	
Study 1					
00:30:10	61.4dB	65.8dB	63.2dB	59.0dB	
00:40:10	61.7dB	65.6dB	63.6dB	59.3dB	
00:50:10	59.8dB	66.5dB	61.9dB	56.6dB	
01:00:10	60.3dB	64.3dB	62.3dB	57.9dB	
01:10:10	60.6dB	64.3dB	62.6dB	57.6dB	
01:20:10	59.6dB	64.2dB	61.6dB	56.8dB	
01:30:10	61.2dB	74.0dB	62.8dB	57.0dB	OL
01:40:10	60.7dB	64.7dB	62.7dB	57.8dB	
01:50:10	61.6dB	66.2dB	63.4dB	59.1dB	
02:00:10	60.6dB	64.6dB	62.8dB	56.6dB	
02:10:10	60.7dB	65.5dB	62.7dB	58.0dB	
02:20:10	60.3dB	64.6dB	62.4dB	57.3dB	
02:30:10	60.3dB	64.3dB	62.2dB	57.4dB	
02:40:10	61.2dB	65.1dB	62.8dB	58.8dB	
02:50:10	60.8dB	65.3dB	63.0dB	57.5dB	
03:00:10	62.3dB	68.7dB	64.8dB	58.5dB	
03:10:10	62.0dB	65.4dB	64.0dB	59.5dB	
03:20:10	61.9dB	65.9dB	63.4dB	59.6dB	
03:30:10	62.3dB	65.9dB	64.0dB	60.2dB	
03:40:10	62.7dB	68.2dB	64.0dB	60.8dB	
03:50:10	63.4dB	67.5dB	65.1dB	61.1dB	
04:00:10	64.4dB	67.0dB	65.9dB	62.6dB	
04:10:10	64.8dB	68.2dB	66.4dB	62.4dB	
04:20:10	65.7dB	70.3dB	67.0dB	64.2dB	
04:30:10	66.4dB	69.4dB	67.7dB	65.0dB	
04:40:10	67.2dB	71.5dB	68.6dB	65.6dB	
04:50:10	67.7dB	69.9dB	68.7dB	66.7dB	
05:00:10	68.0dB	71.5dB	69.1dB	66.9dB	
05:10:10	66.1dB	69.2dB	67.2dB	64.7dB	
05:20:10	65.7dB	68.0dB	66.6dB	64.6dB	
05:30:10	65.4dB	73.4dB	66.4dB	63.6dB	OL
05:40:10	65.1dB	68.8dB	66.4dB	63.6dB	
05:50:10	65.5dB	69.1dB	66.6dB	64.0dB	
06:00:10	65.7dB	70.8dB	66.7dB	64.5dB	
06:10:10	66.1dB	71.1dB	67.1dB	64.9dB	
06:20:10	66.1dB	70.0dB	67.0dB	65.0dB	
06:30:10	65.6dB	69.1dB	66.6dB	64.3dB	
06:40:10	65.2dB	69.8dB	66.2dB	64.1dB	
06:50:10	63.9dB	70.6dB	65.4dB	61.8dB	
07:00:10	64.2dB	69.1dB	65.7dB	62.8dB	
07:10:10	64.8dB	77.8dB	65.4dB	63.5dB	
07:20:10	65.5dB	72.6dB	66.6dB	64.3dB	
07:30:10	65.4dB	70.6dB	66.5dB	64.2dB	
07:40:10	65.0dB	68.7dB	66.0dB	64.0dB	
07:50:10	65.0dB	69.0dB	66.0dB	63.8dB	
08:00:10	65.1dB	70.8dB	66.4dB	63.5dB	
08:10:10	64.4dB	67.1dB	65.5dB	63.0dB	
08:20:10	64.0dB	71.0dB	65.5dB	61.7dB	
08:30:10	62.4dB	71.6dB	64.1dB	60.0dB	
08:40:10	62.9dB	67.6dB	64.2dB	61.2dB	
08:50:10	62.2dB	70.0dB	63.9dB	59.8dB	
09:00:10	61.9dB	68.0dB	63.4dB	60.3dB	
09:10:10	61.1dB	71.2dB	62.2dB	59.2dB	
09:20:10	62.1dB	65.8dB	63.7dB	60.3dB	
09:30:10	63.6dB	68.7dB	65.1dB	61.3dB	

LOGGING (10 MIN)	LEQ	LMAX	L10	L90	
Study 1					
09:40:10	61.5dB	66.9dB	63.1dB	59.6dB	
09:50:10	63.0dB	71.1dB	64.4dB	61.0dB	
10:00:10	64.1dB	67.5dB	65.2dB	62.8dB	
10:10:10	64.0dB	68.1dB	65.1dB	62.7dB	
10:20:10	63.6dB	65.7dB	64.7dB	62.4dB	
10:30:10	64.0dB	68.0dB	65.3dB	62.4dB	
10:40:10	64.8dB	70.4dB	66.4dB	62.6dB	
10:50:10	63.9dB	68.5dB	65.6dB	61.8dB	
11:00:10	64.2dB	70.2dB	65.7dB	62.6dB	
11:10:10	64.1dB	69.0dB	65.3dB	62.5dB	OL
11:20:10	64.5dB	70.7dB	66.1dB	62.7dB	OL
11:30:10	65.0dB	70.3dB	66.2dB	62.9dB	OL
11:40:10	66.3dB	74.6dB	67.7dB	64.2dB	
11:50:10	66.0dB	70.4dB	67.4dB	64.4dB	
12:00:10	66.5dB	71.6dB	68.2dB	64.8dB	OL
12:10:10	65.5dB	71.9dB	66.7dB	64.1dB	OL
12:20:10	64.6dB	67.7dB	66.1dB	63.0dB	OL
12:30:10	65.7dB	71.4dB	67.1dB	64.3dB	OL
12:40:10	64.9dB	68.7dB	66.4dB	63.1dB	OL
12:50:10	65.7dB	71.0dB	67.0dB	64.2dB	OL
13:00:10	65.2dB	67.6dB	66.5dB	63.4dB	OL

Appendix H
Tribal Consultation

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CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
PO Box 221838
Newhall, CA 91322

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chairperson Yocum,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

Senate Bill 18 and Assembly Bill 52 requires that the City consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of mitigating any potential project-related impacts to tribal cultural resources. The NAHC has identified you as the designated contact of or tribal representative for a traditionally and culturally affiliated California Native American tribe within the geographic area in which the proposed project is located.

By means of this letter, the City is hereby providing formal notice as part of the CEQA process. The purpose of this letter is, in part, to facilitate the identification and subsequent consideration of potential impacts to "tribal cultural resources" (TCRs), as defined in Section 21074(a) of the Public Resources Code, and to take into account tribal cultural values, in addition to scientific and archaeological values, when determining potential impacts and mitigation. Under CEQA, an impact to TCR may result in a significant impact which could then require avoidance and/or mitigation.

Carol Herrera *Mayor* | **Steve Tye** *Mayor Pro Tem* | **Andrew Chou** *Council Member* | **Ruth M. Low** *Council Member* | **Nancy A. Lyons** *Council Member*

City of Diamond Bar I 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov I 909.839.7000 Fax 909.861.3117

Pursuant to PRC Section 21080.3.1(b), please contact me no later than Friday, August 23, 2019, to request consultation under SB18 and AB52. Should no response be received within that time period, the City is not required to enter into consultation with you or your tribe on this matter.

Should you have any questions or comments, please feel free to contact me at (909) 839-7032 between 7:30 a.m. and 5:30 p.m. Monday through Thursday, and 7:30 a.m. and 4:30 p.m. on Friday or via email at glee@diamondbarca.gov.

Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairman
PO Box 393
Covina, CA 91723

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chairman Salas,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

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Carol Herrera	Steve Tye	Andrew Chou	Ruth M. Low	Nancy A. Lyons
Mayor	*Mayor Pro Tem*	*Council Member*	*Council Member*	*Council Member*

City of Diamond Bar | 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov | 909.839.7000 Fax 909.861.3117

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Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chief
PO Box 693
San Gabriel, CA 91778

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chief Morales,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

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Carol Herrera	Steve Tye	Andrew Chou	Ruth M. Low	Nancy A. Lyons
Mayor	*Mayor Pro Tem*	*Council Member*	*Council Member*	*Council Member*

City of Diamond Bar | 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov | 909.839.7000 Fax 909.861.3117

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Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Gabrielino/Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, CA 90012

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chairperson Goad,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

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Carol Herrera	Steve Tye	Andrew Chou	Ruth M. Low	Nancy A. Lyons
Mayor	*Mayor Pro Tem*	*Council Member*	*Council Member*	*Council Member*

City of Diamond Bar I 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov I 909.839.7000 Fax 909.861.3117

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Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
PO Box 490
Bellflower, CA 90707

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chairperson Dorame,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

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Carol Herrera *Mayor* | **Steve Tye** *Mayor Pro Tem* | **Andrew Chou** *Council Member* | **Ruth M. Low** *Council Member* | **Nancy A. Lyons** *Council Member*

City of Diamond Bar I 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov I 909.839.7000 Fax 909.861.3117

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Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF DIAMOND BAR CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Gabrielino-Tongva Tribe
Charles Alvarez, Mr.
23454 Vanowen St.
West Hills, CA 91307

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Mr. Alvarez,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

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Carol Herrera	Steve Tye	Andrew Chou	Ruth M. Low	Nancy A. Lyons
Mayor	*Mayor Pro Tem*	*Council Member*	*Council Member*	*Council Member*

City of Diamond Bar I 21810 Copley Drive Diamond Bar CA 91765-4178
www.DiamondBarCA.gov I 909.839.7000 Fax 909.861.3117

Pursuant to PRC Section 21080.3.1(b), please contact me no later than Friday, August 23, 2019, to request consultation under SB18 and AB52. Should no response be received within that time period, the City is not required to enter into consultation with you or your tribe on this matter.

Should you have any questions or comments, please feel free to contact me at (909) 839-7032 between 7:30 a.m. and 5:30 p.m. Monday through Thursday, and 7:30 a.m. and 4:30 p.m. on Friday or via email at glee@diamondbarca.gov.

Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

CITY OF
DIAMOND BAR
CALIFORNIA

July 24, 2019 **VIA CERTIFIED MAIL**

Pauma Band of Luiseno Indians - Pauma & Yuima Reservation
Temet Aguilar, Chairperson
PO Box 369
Pauma Valley, CA 92061

SUBJECT: SB18 and AB52 Tribal Consultation Request for "Brea Canyon Business Park Project" Located at 850 Brea Canyon Road, Diamond Bar, CA 91765

Dear Chairperson Aguilar,

The City of Diamond Bar has received a development application for a 109-room four-story hotel, 47,642 square foot three-story office building, and 8,900 square foot medical office building on approximately 5.7 acres of land. Prior to June 2019, the property operated as "Brea Canyon Boat and RV Storage," a recreational vehicle and boat storage use and was primarily covered with impervious surfaces. A map depicting the location of the project site is enclosed.

Senate Bill 18 and Assembly Bill 52 requires that the City consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of mitigating any potential project-related impacts to tribal cultural resources. The NAHC has identified you as the designated contact of or tribal representative for a traditionally and culturally affiliated California Native American tribe within the geographic area in which the proposed project is located.

By means of this letter, the City is hereby providing formal notice as part of the CEQA process. The purpose of this letter is, in part, to facilitate the identification and subsequent consideration of potential impacts to "tribal cultural resources" (TCRs), as defined in Section 21074(a) of the Public Resources Code, and to take into account tribal cultural values, in addition to scientific and archaeological values, when determining potential impacts and mitigation. Under CEQA, an impact to TCR may result in a significant impact which could then require avoidance and/or mitigation.

Carol Herrera	Steve Tye	Andrew Chou	Ruth M. Low	Nancy A. Lyons
Mayor	*Mayor Pro Tem*	*Council Member*	*Council Member*	*Council Member*

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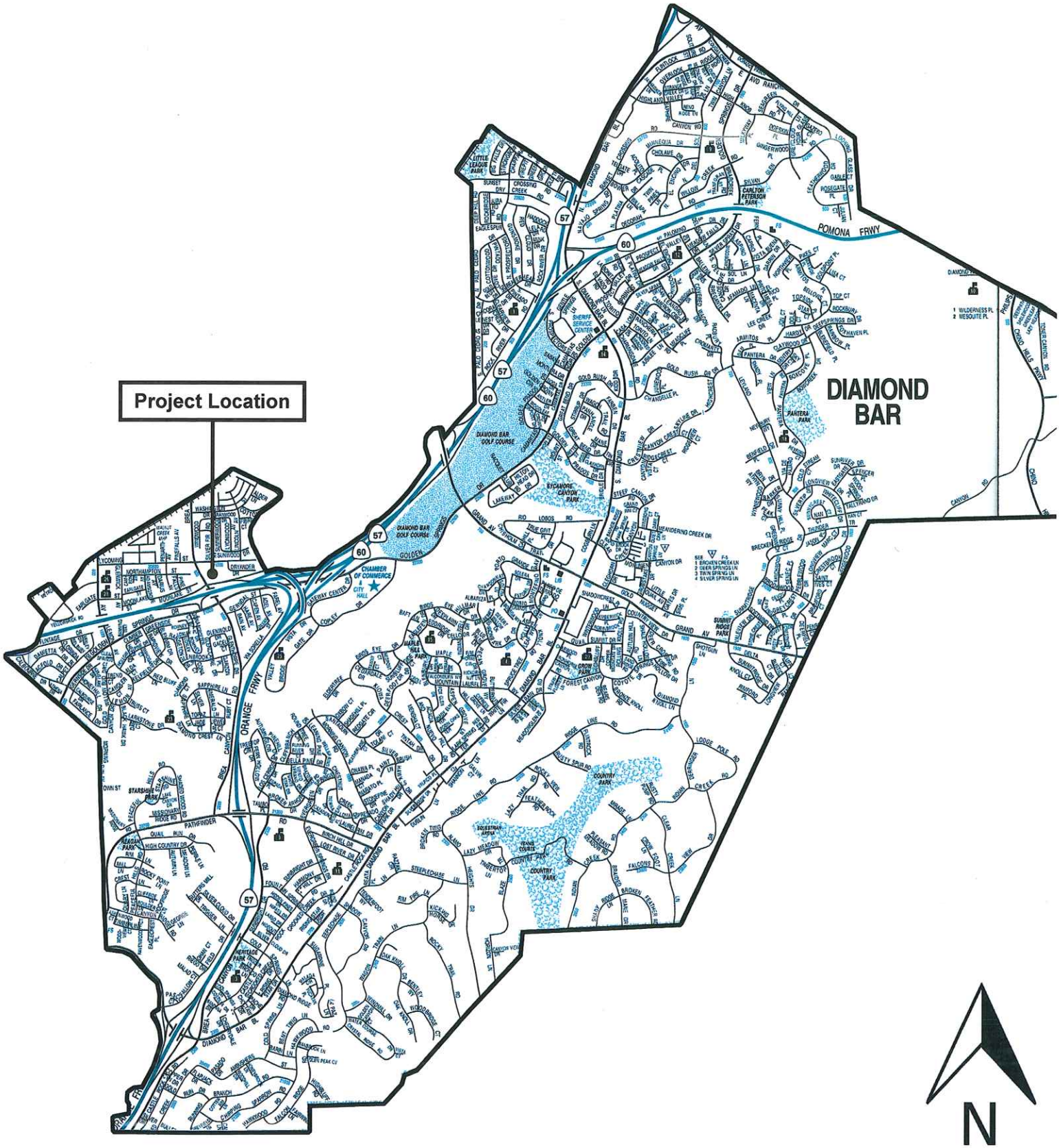
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Sincerely,

Grace S. Lee
Senior Planner

Enclosure: Location Map, Aerial Map, Site Aerial

Attachment 1
Location Map
"Brea Canyon Road RV Storage Lot"



Attachment 1
Aerial Map
"Brea Canyon Road RV Storage Lot"



N

Attachment 1
Site Aerial
"Brea Canyon Road RV Storage Lot"



N

GABRIELENO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Project Name: Brea Canyon Business Park Project Located at 850 Brea Canyon Rd Diamond Bar CA

Dear Grace S. Lee,

Thank you for your letter dated July 24,2019 regarding AB52 consultation. The above proposed project location is within our Ancestral Tribal Territory; therefore, our Tribal Government requests to schedule a consultation with you as the lead agency, to discuss the project and the surrounding location in further detail .

Please contact us at your earliest convenience. ***Please Note :AB 52, "consultation" shall have the same meaning as provided in SB 18 (Govt. Code Section 65352.4).***

Thank you for your time,

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
1(844)390-0787

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Dr. Christina Swindall Martinez, secretary
Albert Perez, treasurer I | Martha Gonzalez Lemos, treasurer II | Richard Gradias, Chairman of the council of Elders

Appendix I
Service Commitments

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COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

November 17, 2017

Ref. Doc. No.: 4352826

Mr. Jason Kimura, Project Manager
Plotnik & Associates
18626 South Wilmington Avenue
Suite 100
Rancho Dominguez, CA 90220

Dear Mr. Kimura:

Will Serve Letter for Brea Canyon Business Park

The Sanitation Districts of Los Angeles County (Districts) received your will serve letter request for the subject project on November 2, 2017. The proposed project is located within the jurisdictional boundaries of District No. 21. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge directly to the Districts' Diamond Bar Trunk Sewer, located in Brea Canyon Road north of State Route 60. The Districts' 27–inch diameter trunk sewer has a capacity of 24.7 million gallons per day (mgd) and conveyed a peak flow of 4 mgd when last measured in 2014. A 6-inch diameter or smaller direct connection to a Districts' trunk sewer requires a Trunk Sewer Connection Permit, issued by the Districts. An 8-inch diameter or larger direct connection to a Districts' trunk sewer requires submittal of Sewer Plans for review and approval by the Districts. For additional information, please contact the Districts' Engineering Counter at (562) 908-4288, extension 1205.

2. The wastewater generated by the proposed project will be treated at the San Jose Creek Water Reclamation Plant (WRP) located adjacent to the City of Industry, which has a capacity of 100 mgd and currently processes an average flow of 64.6 mgd. All biosolids and wastewater flows that exceed the capacity of the San Jose Creek WRP are diverted to and treated at the Joint Water Pollution Control Plant in the City of Carson.

3. The expected increase in average wastewater flow from the project, described in the application as a 60,000-square-foot office building, a 9,500-square-foot retail building, and a 109 room hotel, is 28,493 gallons per day, after all structures on the project site are demolished. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

4. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee

is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link. In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at (562) 908-4288, extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

for :

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: M. Sullivan
M. Tatalovich

DOC: #4352873.D21

WALNUT VALLEY WATER DISTRICT

271 South Brea Canyon Road
Walnut, California 91789-3002 · (909) 595-1268 · (626) 964-6551
Website: www.wvwd.com · Fax: (909) 444-5521

BOARD OF DIRECTORS

Allen L. Wu
President
Election Division I

Edwin M. Hilden
First Vice President
Election Division II

Theodore L. Ebenkamp
Second Vice President
Election Division IV

Theresa Lee
Assistant Treasurer
Election Division III

Scarlett P. Kwong
Director
Election Division V

STAFF

Michael K. Holmes
General Manager
Secretary

Erik Hitchman
Assistant General Manager
Chief Engineer

Brian Teuber
Director of Finance
Treasurer

Sandra Olson
Director of
Administrative Services

Donna DiLaura
Executive Secretary

LEGAL COUNSEL

James D. Ciampa

November 28, 2017

City of Diamond Bar
21810 E Copley Dr.
Diamond Bar, CA 91765

RE: Water Service Availability – 850 S. Brea Canyon Road, Diamond Bar

To Whom It May Concern:

The referenced project lies within the service area of the Walnut Valley Water District. The District is prepared to continue to provide water service to the location and hereby certifies that the current water facilities are adequate to meet any increased demands for this specific project.

All service pursuant to this letter shall be in accordance with District Rules and Regulations as they may be amended from time to time. By issuing this letter, the District does not guarantee any specific quantities, pressures or flows with respect to service provided by the District.

If you have any questions, please contact Ginger Han at Ext. 274.

Very truly yours,

WALNUT VALLEY WATER DISTRICT

for Erik Hitchman
Assistant General Manager/Chief Engineer

EH:GH:gb

WALNUT VALLEY WATER DISTRICT

271 South Brea Canyon Road
Walnut, California 91789-3002 - (909) 595-1268 - (626) 964-6551
Website: www.wvwd.com - Fax: (909) 444-5521

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Chief Engineer

Brian Teuber
Director of Finance
Treasurer

Sandra Olson
Director of
Administrative Services

Donna DiLaura
Executive Secretary

LEGAL COUNSEL

James D. Ciampa

December 18, 2017

Grace S. Lee
City of Diamond Bar
21810 Copley Dr.
Diamond Bar, CA 91765

RE: Proposal for Hotel/Medical Office/Retail Development at 850 S. Brea Canyon Road, Diamond Bar, CA (Assessor's Parcel Number 8719-01-3017)

Dear Ms. Lee:

The District appreciates the opportunity to review the proposed development and finds no objection to the subject project. We have redlined District facilities within the site plan provided and enclosed a map showing District facilities within the project area for your reference. The location is currently receiving water for its domestic use, however, may be required to convert its irrigation system to recycled water. Please continue to update us as the project progresses. It is important to note it is the developer's responsibility to contact the District regarding any upgrade or modification of the water system for this development.

If you have any questions, please contact the undersigned at Ext. 234.

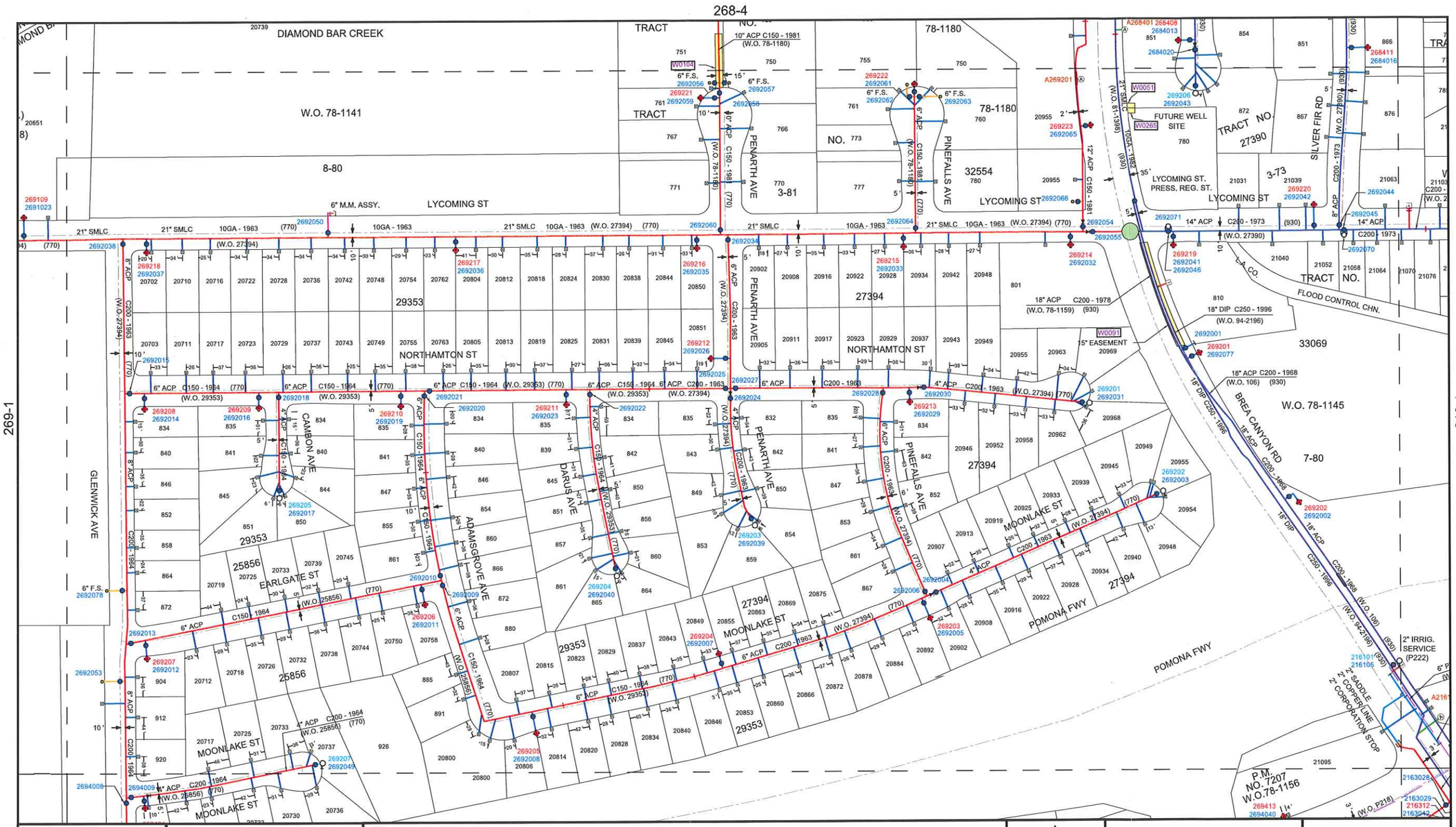
Very truly yours,

WALNUT VALLEY WATER DISTRICT

Sheryl L. Shaw, P.E.
Engineering Manager & Production Superintendent

SS:gh

Enclosures



269-2	Scale: 1" = 200' NOT FOR CONSTRUCTION	WALNUT VALLEY WATER DISTRICT	N	AUGUST-2010	269-2

	F.H.	Valves	A.V.	B.O.	Meters	Distribution	Transmission
Domestic	23	78	1	7	225	9444.19	5339.28
Recycled	-	1	-	1	-	-	-
BGTM	-	-	-	-	-	-	-
PWR	-	-	-	-	-	-	-
NSL-Recycled	-	-	-	-	-	-	-

269-4

NOTICE TO USERS OF THIS ATLAS

The locations of District underground facilities, as provided, are believed to be accurate. If more detailed information is required, the District's Engineering Department should be contacted. Any excavator shall take all the steps necessary to avoid contact with underground facilities, which may result in injury to personnel or damage to facilities. The final determination of exact location, and the cost of repair to damaged facilities, is the responsibility of the excavator.

SITE INFORMATION

A.P.N.:
REFER TO CIVIL DRAWINGS

LAND USE / ZONING:
EXISTING/PROPOSED ZONING & GENERAL PLAN:
"LI"-LIGHT INDUSTRY, PROPOSED TO "C-3" COMMERCIAL

ZONING ANALYSIS:

SETBACKS "C-3":

FRONT:	10' LANDSCAPE SETBACK, OR EQUAL TO THE FRONT SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE
SIDES:	10' WHERE THE SITE ABUTS RESIDENTIAL DISTRICT, NONE OTHERWISE
REAR:	10' WHERE THE SITE ABUTS RESIDENTIAL DISTRICT, NONE OTHERWISE
STREET SIDE:	10', OR EQUAL TO THE STREET SIDE SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE
FRONT:	10' OR EQUAL TO THE STREET SIDE SETBACK REQUIRED FOR A RESIDENTIAL ZONE ABUTTING THE SITE
MAX. COVERAGE/FAR:	.25 TO 1 FAR
MIN. LANDSCAPING COVERAGE:	15%

PARKING/LOADING

STANDARD STALL:	9'x19'
COMPACT STALL:	8'x16'
MIN. AISLE:	26'

SITE PLAN & CITY NOTES

NOTES:
1. THIS AREA IS NOT SUBJECT TO LIQUEFACTION OR OTHER GEOLOGIC HAZARDS WITHIN A SPECIAL STUDIES ZONE.
2. THIS PROPERTY IS NOT SUBJECT TO OVERFLOW, INUNDATION, OR FLOOD HAZARD.
3. SUBSURFACE SEPTIC SEWAGE IS NOT INTENDED FOR THIS SITE.
4. THE PROPERTY DOES NOT CONTAIN ANY FLAMMABLE/COMBUSTIBLE MATERIALS OR WASTE.
5. THE PROPERTY'S WATER QUALITY FEATURES ARE SHOWN AS PART OF THE CIVIL PACKAGE.
6. SERVICE GATES WILL BE MANUALLY OPERATED W/ KNOX PAD LOCK.
7. SIGN PROGRAM WILL BE UNDER SEPARATED PERMIT.
8. NO ABOVE/UNDERGROUND TANKS ARE PROVIDED.

FIRE DEPARTMENT NOTES:
1. FIRE DEPARTMENT ACCESS SHALL COMPLY WITH COUNTY OF LOS ANGELES FIRE DEPARTMENT STANDARDS.

CALGREEN NOTES:
1. PROJECT SITE IS LARGER THAN ONE ACRE – A STORM WATER POLLUTION PLAN IS REQUIRED (CG 5.106.1).
2. VISITOR BICYCLE PARKING RACKS SHALL BE PROVIDED WITHIN 200 FEET OF BUILDING ENTRANCES, FOR A MINIMUM OF 5% NEW VISITOR VEHICULAR PARKING (CG 5.106.4.1).
3. IN BUILDINGS WITH OVER 10 TENANT-OCCUPANTS, SECURE, LONG-TERM BICYCLE ENCLOSURES OR LOCKERS SHALL BE PROVIDED ON-SITE, FOR A MINIMUM OF 5% NEW TENANT VEHICULAR PARKING (CG 5.106.5.1). COMPLIANCE WITH THIS SECTION WILL BE PROVIDED IN EACH PERMIT FOR TENANT IMPROVEMENT INDOORS IN AMOUNTS PROPORTIONAL TO THE PARKING REQUIRED FOR EACH TENANT IMPROVEMENT.
4. 'CLEAN AIR' PARKING SPACES SHALL BE PROVIDED ON SITE FOR CARPOOLS & FUEL-EFFICIENT VEHICLES, FOR A MINIMUM NUMBER OF SPACES PROPORTIONAL TO REQUIRED VEHICLE PARKING PER CALGREEN TABLE (CG 5.106.5.2).
5. LIGHTING DESIGN SHALL LIMIT GLARE AND UPLIGHT AND COMPLY WITH LOCAL CODES AND CALGREEN (CG 5.106.8).
6. THIS PROJECT'S PLUMBING FIXTURES SHALL BE 20% WATER-CONSERVING (CG 5.303.2). BEING A SHELL BUILDING, COMPLIANCE WITH THIS SECTION WILL BE PROVIDED IN EACH PERMIT FOR TENANT IMPROVEMENT.
7. FOR PROJECTS WITH OVER 1,000 S.F. OF LANDSCAPING, SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR OUTDOOR POTABLE WATER USE, AND IRRIGATION SYSTEM SHALL HAVE WEATHER- OR SOIL MOISTURE-BASED AUTOMATIC CONTROLLERS (CG 5.304.2&3).
8. A CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE DEVELOPED, DEMONSTRATING A MINIMUM OF 50% RECYCLING AND/OR SALVAGING OF NON-HAZARDOUS CONSTRUCTION WASTE AND COMPLYING WITH CALGREEN REQUIREMENTS (CG 5.408.1).
9. 100% OF LAND-CLEARED SOILS AND VEGETATION SHALL BE REUSED OR RECYCLED (CG 5.408.3).
10. PER SECTION 5.410.2, EXCEPTIONS 1 & 2, COMMISSIONING IS NOT REQUIRED FOR DRY STORAGE WAREHOUSES OR AREAS USED FOR OFFICES LESS THAN 10,000 SF IN DRY STORAGE WAREHOUSES. (CG 5.410.2).
11. ALL CONSTRUCTION MATERIALS TO COMPLY WITH THE VOC AND TOXIN LIMITS LISTED (CG 5.504).
12. SMOKING SHALL BE PROHIBITED WITHIN 25 FEET OF BUILDING ENTRIES, AIR INTAKES, AND OPERABLE WINDOWS (CG 5.504.7).

KEYNOTES - SITE PLAN

1. PROPERTY LINE / R.O.W. – REFER TO CIVIL DRAWINGS, TYP.
2. SITE ENTRANCE COMBINED FIRE AND ACCESSIBILITY.
3. MONUMENT SIGN INCLUDING APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR BUILDING IDENTIFICATION COMPLYING WITH LOS ANGELES COUNTY FIRE CODE SECTION 505.1.
4. 15' LA FLOOD CONTROL EASEMENT AREA, TO BE CLEAR OF ANY LANDSCAPE, TYP.
5. OUTDOOR SEATING AREA, TYP.
6. EMPLOYEE OUTDOOR SEATING AREA, TYP.
7. POOL AND EXTERIOR SEATING AREA, TYP.
8. (E) STORM DRAIN TO BE REMOVED.
9. RELOCATED STORM DRAIN – REFER TO CIVIL DRAWINGS.

LEGEND - SITE PLAN

- NEW FIRE HYDRANT 6" X 4" X 2 1/2" BRASS OR BRONZE
- LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS
- PATH OF TRAVEL
- FIRE LANE – PER FIRE DEPARTMENT REQUIREMENTS
- STUDIUM – BLDGS FOR ENTITLEMENTS
- C COMPACT PARKING SPACE

GENERAL NOTES - SITE PLAN

A. PARKING STALL DIMENSIONS: STANDARD (9'X19') AND COMPACTS (8'X16'). 2' OVERHANG IS ALLOWED FOR PARKING.
B. REFER TO CIVIL TENTATIVE PARCEL MAP FOR DIMENSIONS AND NATURE OF ALL EASEMENT INFO.

SITE AREA				SF	ACRES
GROSS SITE AREA				249,435	5.73
STREET DEDICATION				0	0.00
NET SITE AREA				249,435	5.73

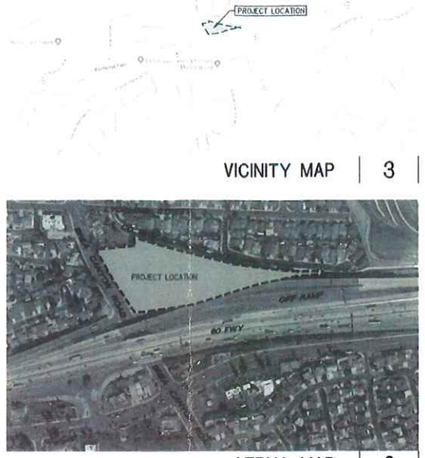
BUILDING AREA		HOTEL	RETAIL	OFFICE	TOTAL
	LEVEL 1	15,000	9,500	16,000	40,500
	LEVEL 2	15,000		16,000	31,000
	LEVEL 3	15,000		16,000	31,000
	LEVEL 4	15,000			15,000
TOTAL BUILDING AREA		60,000	9,500	48,000	117,500

PARKING REQUIRED		RATIO				
HOTEL						
	109 ROOMS	1/Room	109			109
	Employees (22)	1/2 Employees	11			11
FAST FOOD (3,000 sf)		10/1000		30		30
OUTDOOR EATING AREA (500 SF)		1/100		5		5
RETAIL (6,500 sf)		4/1000		26		26
MEDICAL		4/1000			64	64
OFFICE		1/400			80	80
SUBTOTAL - REQUIRED PARKING			120	61	64	325
RECIPROCAL PARKING WITH HOTEL		85.0%				-93
TOTAL REQUIRED PARKING						232

PARKING PROVIDED				
	ACCESSIBLE STALLS	9'X18'		12
	COMPACT STALLS	8'X16'	20%	56
	STANDARD STALLS	9'X19'		213
TOTAL PARKING PROVIDED				281
COVERAGE				16.2%
FAR				47.1%

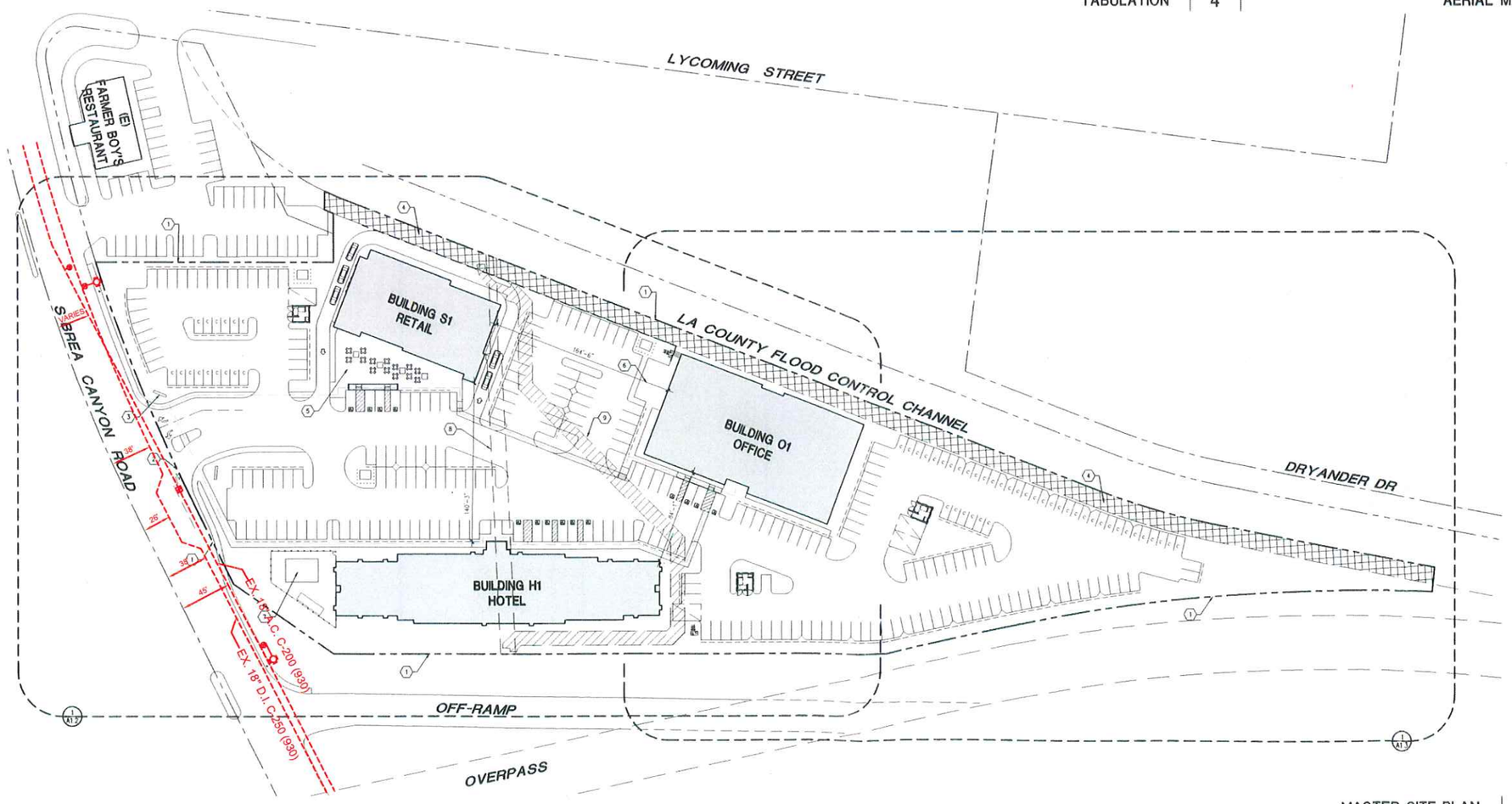
LANDSCAPE	Area (S.F.)	%
Required (15%)	37,415	15.0%
Provided	75,000	30.1%

TABULATION | 4



AERIAL MAP | 2

VICINITY MAP | 3



MASTER SITE PLAN | 1:40 | 1

NORTH

GAA ARCHITECTS
8811 Research Drive,
Suite 200,
Irvine, CA 92618
T: 949 474 1775
F: 949 553 9133

RECEIVED
DEC 06 2017
CITY OF DIAMOND BAR

BREA CANYON BUSINESS PARK

850 S. BREA CANYON ROAD
DIAMOND BAR, CA 91789

DEVELOPED FOR:
LYCOMING, LLC

NO.	DESCRIPTION	DATE
1	DESIGN REVIEW SUBMITTAL	12/04/17

OVERALL MASTER SITE PLAN

ALL DRAWINGS AND WRITTEN MATERIAL APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE ARCHITECT AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ARCHITECT.
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JOB NO:	SC0002.01	SHEET NO: A1.1
DATE:	12/04/17	
DRAWN:	GAA	
FILE NAME:	SC0002_1.1	

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

December 19, 2017

Ref. Doc. No.: 4377123

Ms. Grace S. Lee, Senior Planner
City of Diamond Bar
21810 Copley Drive
Diamond Bar, CA 91765-4178

Dear Ms. Lee:

Comment Letter for the Brea Canyon Business Park

The Sanitation Districts of Los Angeles County (Districts) received the letter and plans for the subject project forwarded by your office on December 8, 2017. The proposed project is located within the jurisdictional boundaries of District No. 21. We offer the following comments regarding sewerage service:

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3. The expected increase in average wastewater flow from the project, described in the plan as 48,000 square feet of office space, 109 room hotel, and 9,500 square feet of retail space, is 26,093 gallons per day, after all structures on the project site are demolished. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

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If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: M. Sullivan
M. Tatalovich

DOC: #4377123.D21

Office Use Only
☐ Sent Initials: CL
☐ Fax ☒ Email ☐ Other:
Date: 11/1/17 Time:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION – HYDRAULIC ANALYSIS UNIT

INFORMATION REQUEST SUMMARY

INFORMATION REQUESTED BY

*Requester's Name: Jason Kimura
Company: Plotnik & Associates
*Phone Number: 310-605-6657x207 Fax Number: 310-605-6658
*Email: jkimura@plotnik.com

Method of Contact: ☐ Walk-in ☐ Phone ☐ Fax ☒ Email ☐ Prelim. Mtg. Date: 10/18/17

Intended Use: Site development

Proposed Project Type: Commerical / Office use Acreage Involvec: 5.72

*Will information be used in any litigation? ☐ YES ☒ NO
Case Info. Name: No: Location:

INFORMATION REQUESTED (Attach Assessor Map)

LACFCD Facility: Name: Diamond Bar Creek
Unit: PD 1445 Line: A Station: 4+00, 9+00
City: Diamond Bar
*Street/Cross-street: Brea Canyon Road
*Thomas Guide: Page: 679 Grid: H-3 ☒ Site Map/Plans Submitted
Info. Requested: Allowable Q that can be discharged into the channel.

***Required Information. See Page 2 of 2 for Instructions.**

BELOW SECTION TO BE COMPLETED BY THE HYDRAULIC ANALYSIS UNIT

INFORMATION PROVIDED:
Allowable q per acre.

REFERENCES SEARCHED:
San Jose Creek hydrology

COMMENTS, ETC:
Allowable q per acre = 1.78 cfs.

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION
Hydraulic Analysis Unit
OFFICIAL
RECORD DOCUMENT
Issued By:
Date: 11/1/17
PUBLIC SERVICE THAT WORKS

INFORMATION PROVIDED BY: Carlos Lopez Date: 11/1/17
INFORMATION REVIEWED BY: Ambrose C Ajaelo PE Date: 11/02/2017

Print Save a Copy

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Appendix J
Medical Waste Report to the Legislature
(February 2016)

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MEDICAL WASTE

REPORT TO THE LEGISLATURE

As required by Assembly Bill 333

(Wieckowski, Chapter 564, Statutes of 2014)

California Department of Public Health

Center for Environmental Health

Environmental Management Branch

February 2016

To obtain a copy of the Report to the Legislature titled, “Medical Waste” contact:

California Department of Public Health
Environmental Management Branch
P.O. Box 997377, MS 7418
Sacramento, CA 95899-7377
Phone number: (916) 449-5661

Email: MedWasteInfo@cdph.ca.gov
Internet Address: http://www.cdph.ca.gov/certlic/medicalwaste/Pages/default.aspx

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EXECUTIVE SUMMARY

REPORT TO THE LEGISLATURE

Assembly Bill (AB) 333 (Wieckowski, Chapter 564, Statutes of 2014) requires the California Department of Public Health (CDPH) to submit a report to the Legislature describing the interaction of state and federal law for the transport of regulated medical waste. CDPH is also required to convene a stakeholder group that includes small quantity generators, large quantity generators, transporters, transfer station operators, treatment facility operators, local enforcement agencies, retailers, and other affected parties for purposes of gathering information for this report.

The oversight and management of medical waste is shared through multiple layers of government. The United States Department of Transportation (USDOT) oversees the vehicular, commercial transport of medical waste on public roads and highways. CDPH (as the lead state agency in California) and the local governments that have been delegated as the local enforcement agency for medical waste regulate the management and final disposal of medical waste based on a “cradle-to-grave” management system.

The CDPH Environmental Management Branch (EMB) regulates medical waste generators, shellfish production and harvesting operations, and recreational health (swimming pools); provides sanitary surveillance of state institutions; oversees the Registered Environmental Health Specialist Program; oversees radiological surveillance around federal facilities, the state's Radon Program, and the Medical Waste Management Program (MWMP); and houses CDPH's Nuclear Emergency Response Program.

This report describes the activities EMB has taken to assess the interaction of federal and state law on the transportation of medical waste. With the assistance of stakeholder groups, CDPH has found that state and federal law work in concert to protect public and environmental health from exposure to untreated medical waste, with limited areas of overlap in which both CDPH and USDOT have applicable requirements. Specifically, both agencies have controlling requirements over administrative documentation and packaging requirements, although no evidence has been found to suggest that the two sets of laws are incompatible.

In addition, this report includes other areas of concern identified by stakeholders regarding the Medical Waste Management Act and the management of medical waste that may not be specifically related to transportation or the overlap of state and federal law.

I. INTRODUCTION

Assembly Bill (AB) 333 (Wieckowski, Chapter 564, Statutes of 2014) requires the California Department of Public Health (CDPH) to submit a report to the Legislature describing the interaction of state and federal law for the transport of regulated medical waste. CDPH is also required to convene a stakeholder group that includes small quantity generators, large quantity generators, transporters, transfer station operators, treatment facility operators, local enforcement agencies, retailers, and other affected parties for purposes of gathering information for this report.

The CDPH Environmental Management Branch (EMB) regulates medical waste generators, shellfish production and harvesting operations, and recreational health (swimming pools); provides sanitary surveillance of state institutions; oversees the Registered Environmental Health Specialist Program; oversees radiological surveillance around federal facilities, the state's Radon Program, and the Medical Waste Management Program (MWMP); and houses CDPH's Nuclear Emergency Response Program.

In order to reach the largest potential number of stakeholders, CDPH held numerous meetings throughout the state over the course of several months (see Appendix A). CDPH held two series of meetings. First, meetings were held with targeted groups of stakeholders (i.e., local enforcement agencies and medical waste transporters) - (Technical Advisory meetings). The next round of meetings included representatives from all facets of the medical waste management industry (Regional Stakeholder meetings).

This report provides an overview of the information CDPH gathered during these meetings and the program’s review of the federal requirements of medical waste transport.

II. THE MEDICAL WASTE MANAGEMENT ACT

During the late 1980s, medical waste, specifically syringes, began to wash up on northeastern beaches. As a result, in 1988, Congress passed the Medical Waste Tracking Act, which established a basic framework for regulating the management of medical waste. Subsequently, numerous states, including California, followed suit in implementing their own version of this framework for the safe management of medical waste over the next few years. California’s Medical Waste Management Act (MWMA) became effective in 1991, following the passage of AB 109 (Chapter 1613, Statutes of 1990). CDPH has been the oversight agency for medical waste management since its inception. Prior to the creation of CDPH in 2007, the MWMA was enforced by the Department of Health Services. Although the statute has been altered over the years, AB 333 represents the first, comprehensive changes to the MWMA since its enactment. AB 333 restructured the definition of medical waste, mandated the use of separate and distinct tracking and shipping documents, modified large and small generator

requirements, and amended the rules for the self-transport of small amounts of medical waste (see Appendix B for a summary of changes made by AB 333 and a brief legislative history of the MWMA).

The backbone of the medical waste management system in California is the "cradle-to-grave" tracking system. Medical waste is generated in hospitals, clinics, veterinary or dental offices, and any other facility involved in patient care or laboratory research related to health care. Generators of medical waste are required to register with their respective Local Enforcement Agencies (LEAs – either CDPH or a local health department) and are legally responsible to ensure that the medical waste generated by their facility is treated appropriately and managed in a manner that protects the public and the environment by minimizing or eliminating the risk of exposure to agents that cause disease. To that end, the use of a "tracking document" is mandated by the MWMA and accompanies the medical waste from the point of generation through its transport to a treatment facility and point of destruction.

The MWMA also governs the proper storage of medical waste; the appropriate treatment for different types of medical waste; the requirements that generators of medical waste must adhere to; the operating conditions for medical waste treatment facilities; and the jurisdictional oversight by state or local authorities.

III. GOVERNMENTAL OVERSIGHT – MEDICAL WASTE MANAGEMENT

The oversight and management of medical waste is shared through multiple layers of government. The United States Department of Transportation (USDOT) oversees the vehicular, commercial transport of medical waste on public roads and highways. CDPH (as the lead state agency in California) and the local governments that have been delegated as the LEA for medical waste regulate the management and final disposal of medical waste based on a "cradle-to-grave" management system.

A. Local Government Level Oversight

The MWMA allows for local jurisdictions to serve as the LEA, if the jurisdiction so chooses. At this time, 33 counties and 2 cities have oversight authority in their respective jurisdictions (see Appendix C for a listing). LEAs have oversight responsibility for all generators, both large quantity and small quantity.

B. State Level Oversight

In addition to the LEA responsibilities for the remaining 25 counties and one city (see Appendix D for a listing) that chose not to implement their own medical waste management program, CDPH has oversight authority for all off-site medical waste transfer stations and treatment facilities (i.e., facilities that consolidate or treat medical waste generated by other facilities) throughout California.

Through compliance inspections, CDPH MWMP oversees the following areas:

- Administrative records related to:
    - Required permits and registrations;
    - Treatment disposal records, including shipping and tracking documents;
    - On-site treatment, if applicable; and,
    - The facility's Medical Waste Management Plan (for generators) or the Operations Plan (for transfer stations and treatment facilities).

- Facility locations in which medical waste is generated, managed, and stored to ensure compliance with all aspects of the MWMA, especially handling, containment, storage, and labeling requirements.

C. Federal Level Oversight

At the federal level, the management of the medical waste stream is shared between several different agencies. The federal Occupational Safety and Health Administration (OSHA) establishes and enforces standards to ensure that working conditions for employees are safe and healthful. With respect to the management of medical waste, OSHA enforces the Blood Borne Pathogen standard to ensure the safety of workers who may be exposed to biological fluids potentially containing etiologic agents that cause disease during waste management activities. The United States Environmental Protection Agency (EPA) oversees air emissions from the incineration of waste. The United States Postal Service (USPS) has authority over waste sent through the mail (i.e., mail-back programs), and the USDOT regulates the commercial transport of medical waste over public roads. For this report, CDPH focused on the oversight and authority of the USDOT as this is the federal agency that focuses on the transport of medical waste.

USDOT regulatory oversight includes both the transport of the medical waste and the "pre-transportation" activities. Pre-transportation activities are the activities to prepare the waste for commercial transport, and include:

- Identifying the material;
- Selecting, filling, closing, marking, and labeling the proper packaging;
- Certifying that all of the above has been completed according to USDOT regulations;
- Preparing and reviewing a shipping paper;
- Providing and maintaining emergency response information;
- Loading and bracing the package in a vehicle;
- Segregating from incompatible cargo within the vehicle; and
- Affixing placarding to the vehicle.

USDOT's regulatory oversight of the transportation of medical waste is initiated when a medical waste hauler takes physical possession of the waste for the purpose

of transporting it in commerce, and ends when the waste is delivered to the indicated destination. The loading and unloading of the transported material and any incidental storage (e.g., a transported load at a transfer station en route to a final destination) is also included within USDOT's regulatory oversight.

Private (non-commercial) transport of medical waste in small quantities incidental to a person's primary business is exempt from USDOT transport requirements under the Materials of Trade (MOT) exceptions. Under MOT, transport of medical waste in limited quantities is not subject to the packaging and pre-transportation functions of a commercial transporter. As it relates to medical waste, the MOT would be utilized by home health care workers to transport small amounts of medical waste generated during care to a larger facility, or by small or rural clinics that do not generate enough waste to necessitate commercial pickup.

D. Federal Preemption Process

Federal law states that USDOT regulations preempt state regulations in the matter of hazardous materials transport and establishes a formal administrative procedure or petition by which any affected party can seek either a preemption determination (an over-ruling of state law) or waiver of preemption (an allowance to maintain state law) by the USDOT. Since 1991, 34 petitions for preemption determination have been filed nationwide, 4 of which were directly related to medical waste laws. The vast majority of the 34 petitions have been filed by private corporations or industry association groups; only three petitions to date have been submitted by governmental entities.

When an affected party submits a formal petition for a preemption determination, USDOT will determine if a state statute or regulation is preempted using the following conditions:

- The "dual compliance" test – it is not possible to comply with both state and federal law;
- The "obstacle" test – as enforced, the state requirement is an obstacle to complying with federal law;
- The "substantively the same as" test – the state requirement concerns any of the following and is not "substantively the same as" federal law:
    - The designation, description, and classification of the hazardous material;
    - The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
    - The preparation and use of shipping documents;
    - Reporting the release of hazardous materials; or
    - The design, manufacturing, maintenance, or testing of a container or packaging for use in transporting materials.

E. CDPH's Medical Waste Management Program

The Medical Waste Management Program within CDPH is comprised of a total of 13 full-time staff: 8 Environmental Scientists; 2 Senior Environmental Scientist Specialists; 1 Senior Environmental Scientist Supervisor; and 2 administrative support staff. The Medical Waste Management Program staff is housed in Sacramento (which serves as the Headquarters/Northern California Regional Office base of operations) and Los Angeles/Glendale (which serves as the Southern California Regional Office). Staff from both locations conduct a comprehensive suite of facility compliance inspections and respond to complaints associated with the mismanagement or illegal disposal of medical waste. In addition, the Medical Waste Management Program provides direct technical assistance and consultation to the health care industry to assist them in maintaining compliance with the MWMA, and to the LEAs to share and exchange regulatory information and procedures.

The Medical Waste Management Program also evaluates and approves alternative technologies for the treatment of medical waste in California. Alternative treatment technologies are technologies other than steam sterilization (autoclaving) or incineration, such as microwave treatment, ozone-based treatment, and alkali-based (chemical) treatment. There are approximately 30 alternative treatment technologies currently approved by CDPH for use in California.

As of this report, CDPH staff provide oversight (permits, registrations, and applicable inspections) for:

- 827 Large-Quantity Generators (those facilities that generate greater than 200 pounds of medical waste per month);
- 11,727 Small-Quantity Generators (less than 200 pounds per month);
- 18 Small-Quantity Generators with On-site Treatment (those that treat waste onsite, generally through autoclaving);
- 21 Common Storage Facilities (locations that are used by more than one Small-Quantity Generator to consolidate waste for transport);
- 200 Trauma Scene Waste practitioners ;
- 51 Off-site Transfer Station Facilities (locations in which medical waste transporters bring waste to be consolidated and shipped to treatment facilities); and
- 16 Off-site Medical Waste Treatment Facilities.

IV. STAKEHOLDER MEETING PROCESS

During the Technical Advisory meetings, CDPH held a series of stakeholder meetings. At each stakeholder meeting, CDPH focused on inviting similar trade groups that would have much the same interests and concerns to that particular meeting. CDPH used these meetings to provide technical assistance and also as an opportunity to solicit how transportation related issues affected their specific trade group. During the Regional

Stakeholder meetings, representatives from multiple interest groups were in attendance, and CDPH solicited information from all of the stakeholder groups regarding any issues, concerns, or comments they had with respect to the new requirements mandated by AB 333, including, but not limited to, the interaction of federal and state transportation laws.

Outreach for the Technical Advisory and Regional Stakeholder meetings included:

- Direct outreach by staff through e-mail, letter, or phone call to interested parties;
- Posting the meeting schedule on the CDPH MWMP website;
- Direct communication with stakeholders by CDPH inspectors;
- Direct communication with stakeholders by local county inspectors that are the LEAs in their respective counties; and
- Information provided during a California Hospital Association-sponsored webinar.

V. KEY FINDINGS

Through the information gathering process, CDPH has determined that the relationship between federal and state law regarding the transportation of medical waste is complementary, with some limited areas of overlap. The laws work together to protect the public and environment from potential harm from exposure to untreated medical waste. State law governs the containment and storage of medical waste at the point of generation and places of consolidation (transfer stations), and the final treatment and disposal of medical waste. Federal oversight is limited in scope and purpose to oversee the transport of the waste on public roads to protect the public and environmental health should a traffic accident occur.

Because some aspects of waste management are applicable to the areas of authority of both federal and state law, there is overlap. Both state and federal law require specific, but differing, types of documentation and provide a set of standards for proper packaging of medical waste.

A. Shipping and Tracking Documents

The primary issue of overlap between the two authorities lies in the administrative documentation required. USDOT requires a shipping paper (also known as a “bill of lading”) for all transportation of hazardous materials, of which medical waste is a subset. The shipping paper is required to contain the following elements:

- Identification number;
- Proper shipping name;
- Hazard class or division number;
- Technical name for Category A waste (the proper biological name for any highly infectious waste, such as Ebola virus, human immunodeficiency virus, West Nile virus, or *Escherichia coli*);

- Packing Group (the group specified in federal regulations under which the waste is categorized and assigned packaging requirements);
- Number and type of packages;
- Quantity or weight of material transported;
- Date material was removed from generator's facility;
- Shipper's certification;
- Emergency response telephone number; and
- Special Permit or Exemption Number, if applicable (the permit number of any exemption to the federal regulations granted by USDOT).

This document must be carried in the truck at all times during transportation of the medical waste.

State law requires generators and transporters to use a tracking document as a means of tracking the waste from generation to final disposal (cradle-to-grave). A tracking document must contain the following information:

- The name, address, telephone number, and registration number of the transporter;
- The type of medical waste transported and the quantity or aggregate weight of the medical waste transported;
- The name, address, and telephone number of the generator;
- The name, address, telephone number, permit number, and the signature of an authorized representative of the permitted facility receiving the medical waste; and
- The date the medical waste was collected or removed from the generator's facility, the date the medical waste was received by the transfer station, if applicable, and the date the medical waste was received by the treatment facility.

The state's tracking document follows the waste from pickup by the transporter at the facility that generated the waste to its final destination, where it undergoes proper treatment or destruction. Once the waste is treated and rendered solid waste, the treatment facility will return a copy of the tracking document or provide other evidence to the generator that the waste was properly treated and disposed. This method of tracking the waste enables the "cradle-to-grave" system implemented in 1991 as a means to ensure the protection of public health.

Compared to the federal shipping papers, which only provide a record of the type of waste being transported on the vehicle, California's tracking document tracks medical waste from generation to final treatment, which is a much more comprehensive oversight system. The tracking document establishes a chain of custody record of the medical waste as a method of protecting public and environmental health. USDOT shipping papers play a vital role in public health protection while the waste is in transport, but do not provide the same level of comprehensive oversight.

Prior to the passage of AB 333, a shipping document was not expressly required in state law, although it has been a longstanding requirement of federal law under USDOT.

AB 333 mandated the use of a separate shipping document and tracking document for tracking medical waste. CDPH heard from many stakeholders that a single document was previously utilized that contained both federal and state required elements, with no objections from the USDOT or the California Highway Patrol, the agency with delegated authority from USDOT to enforce USDOT requirements. Stakeholders from all the industry groups represented expressed significant concerns with the requirement to use and maintain two different documents. Reasons for the concerns included:

- Costs associated with printing another set of documents;
- Costs associated with the storage of another set of documents; and
- Confusion about what type of information is required on which document, and the retention times for each document.

Senate Bill (SB) 225 (Wieckowski, Chapter 352, Statutes of 2015) addressed this concern. In relevant part, the bill eliminated the need to maintain a separate and distinct USDOT shipping document. The regulated community will be able to use a single document meeting the requirements of both state and federal law, or if desired, can continue to use two separate documents.

B. Packaging Requirements

The other area of overlap between federal and state law is the packaging requirements for biohazardous waste. California statute provides for slightly more stringent standards in packaging than federal regulations, as California law governs the accumulation, storage, and treatment of waste, rather than just its transport.

Specifically, the MWMA requires biohazardous waste to be bagged in a biohazard bag and placed into a rigid, leak-resistant container with a tight-fitting cover that is kept clean and in good repair. Federal law requires medical waste being prepared for transport, in transport, or in a location incidental to transport (i.e., loading dock or transfer station) to be placed into secondary container packaging certified to withstand specified leak, durability, and strength tests, if the waste is to be hauled with other materials. An exception from these tests exists for transporters that exclusively transport medical waste. This exception allows transporters that exclusively transport medical waste to use packaging that meets qualitative strength and leak standards rather than the quantitative standards of certified packaging.

There are also slight variations between the packaging requirements of state law and federal regulation due to the larger regulatory oversight of medical waste in state law. Specifically, USDOT allows the use of cardboard or fiberboard boxes to transport medical waste, as long as the integrity of the box is maintained throughout

the transportation process. However, California statutes govern the storage of medical waste prior to disposal, often in circumstances in which cardboard boxes would not maintain structural integrity or remain leak-resistant, such as storage facilities that may be exposed to the elements. During the stakeholder meetings, industry representatives indicated that there are no issues complying with both state and federal requirements regarding packaging materials.

VI. OTHER FINDINGS

Throughout the series of meetings, attendees identified other areas of concern regarding the MWMA and the management of medical waste that are beyond the reporting requirements in AB 333 specifically related to transportation or the overlap of state and federal law. Those concerns include:

- Non-Commercial Hauling: Limited Quantity Hauling Exemption versus MOT. Prior to the passage and enactment of AB 333, the MWMA allowed medical waste generators to self-transport small quantities of medical waste through the issuance of a Limited Quantity Hauling Exemption permit through their respective enforcement agency. AB 333 replaced Limited Quantity Hauling Exemption with USDOT MOT exception (49 CFR 173.6). While somewhat similar, the MOT exception does not require registration or issuance of a permit. Several LEAs indicated concern that they no longer have an inventory of medical waste being hauled under this method in their enforcement areas.

- Inconsistent Enforcement. Several members of the regulated community indicated an inconsistent enforcement and interpretation of the MWMA between different LEAs, and between CDPH and LEAs.

- Clarification on Animal Operations. Some members of the regulated community expressed a desire to see additional clarification in the MWMA regarding veterinary or animal operations, including stronger definitions of “pathology,” “medical waste,” and “not medical waste” with regard to the health care of animals.

- Definitions. AB 333 restructured and revised numerous definitions in the MWMA. Stakeholders have indicated ongoing concerns with definitions of “biohazardous waste,” “pharmaceuticals,” and “empty.” The regulated industry may have difficulty properly implementing MWMA requirements, and enforcement agencies may have differing interpretations of requirements.

- Storage Time. The restructuring of the MWMA unintentionally resulted in certain types of waste streams no longer having a clear limitation on storage times, which could lead to confusion and inconsistent enforcement.

- Timeframe for Maintaining Shipping and Tracking Records. Prior to the passage and enactment of AB 333, the MWMA required large and small quantity generators to maintain tracking records for three years. AB 333 changed the record retention timeframe for shipping and tracking records to three years for small quantity generators and two years for large quantity generators. Generators and LEAs have voiced their concerns about the differing requirements.

- Labeling Requirements for Pharmaceutical Containers and Containers Holding Sharps and Pharmaceuticals. AB 333 required a change in the labeling requirement for pharmaceutical waste containers and containers that combine sharps and pharmaceutical waste together. Previously, the containers had to be labeled as either "High Heat" or "Incineration Only." The new law requires the container to be labeled with the single phrase "High Heat or Incineration Only." Generators expressed concerns that the change would be very expensive to implement, as all of the waste containers would need to be relabeled or replaced. SB 225 (Wieckowski, Chapter 352, Statutes of 2015) returned the labeling requirement to pre-AB 333 requirements, thereby alleviating the cost impact.

- Hand-Carrying of Biohazard Bags. The passage of AB 333 allows a limited amount of medical waste to be hand-carried without the use of a secondary container from a patient room to a soiled utility room or other biohazardous waste storage area. Many stakeholders and LEAs expressed concerns that the language is confusing and leads to different interpretations on the allowable amounts that may be hand-carried and the specific situations when hand-carrying is allowed.

- Biohazard Bag Standards. AB 333 increased the tear and impact resistance standards biohazard bags would have to meet, and required all bags to be marked and certified as having passed prescribed ASTM (American Society for Testing Materials) tests. Numerous generators expressed concerns about the increased costs of these bags, as well as the potential for the bags to interfere with some types of on-site treatment, such as autoclaving. CDPH and the regulated community agreed that the bags used for transport offsite should meet the increased standards, but bags used solely onsite could continue to meet pre-AB 333 standards. These changes are reflected in SB 225 (Wieckowski, Chapter 352, Statutes of 2015).

- Enforcement Authority. Many LEAs voiced their concerns that there are no formal administrative enforcement procedures set in statutes for LEAs to follow. LEAs would like to have a formal administrative enforcement order process established in regulations or statutes. SB 612 (Jackson, Chapter 452, Statutes of 2015) implements an administrative enforcement process for the LEAs and should address this concern.

VII. CONCLUSION

The stakeholder meetings clarified that the overlap between federal and state law on the transportation of medical waste is limited and that the laws work in concert to protect the environment and the health and safety of health care workers, patients, law enforcement officers, and members of the public. In the event of a perceived discrepancy between federal requirements and state law, USDOT has a long-standing formal administrative process established. To date, no petitions have been filed specific to California's medical waste laws.

Participants in the stakeholder meeting process were almost uniform in their opposition to the requirement to use a separate and distinct shipping document and tracking document. Numerous stakeholders also expressed their opinion that a tracking document is a critical aspect of the waste management system in California, and that they would be reluctant to relinquish its use. SB 225 (Wieckowski, Chapter 352, Statutes of 2015) addressed this concern. Two separate documents are no longer mandated, which should alleviate widespread industry concerns.

Several other issues of concern to the regulated community were also addressed by SB 225. CDPH and stakeholders agreed on several technical fixes that would alleviate some of these concerns, specifically: (1) labeling requirements for pharmaceutical containers would be restored to previous requirements; and (2) increased standards for biohazard bags would be applicable only to bags used to transport waste offsite (biohazard bags used for on-site collection of medical waste would continue to meet the previous strength and impact resistance standards).

A long-standing concern of LEAs, a process for administrative enforcement actions, was also recently implemented through SB 612 (Jackson, Chapter 452, Statutes of 2015). LEAs will now be able to take administrative actions against violators of the MWMA, rather than be limited to criminal or civil actions.

CDPH intends to continue the dialogue with stakeholders started through this report in order to address the concerns noted above. Some concerns, such as inconsistent enforcement and controlled substances management, can best be addressed through continued stakeholder outreach, regular meetings with and training of LEAs, and coordination with other affected agencies, including USDOT, Board of Pharmacy, and Department of Toxic Substances Control (DTSC). Such efforts will include regular meetings, such as the long-standing Bay Area Medical Waste Advisory Group, and the newly-revived Southern California Medical Waste Specialist Coordinating Committee, as well as LEA walk-along site visits and training. Other issues may require statutory change to clarify definitions, animal operations, hand-carrying of biohazard bags, and document retention requirements. CDPH intends to continue collaboration and discussion with stakeholders on possible solutions.

APPENDIX A

Technical Advisory and Regional Stakeholder Meetings

October 1, 2014 – Sacramento (California Highway Patrol)
October 29, 2014 – Redding (Local Enforcement Agencies)
October 30, 2014 – Sacramento (Local Enforcement Agencies)
November 13, 2014 – Monterey (Bay Area Medical Waste Management Group)
November 18, 2014 – Fresno (Local Enforcement Agencies)
December 3, 2014 – Oakland (Local Enforcement Agencies)
January 6, 2015 – San Diego (Transporters, Transfer Stations Operators, Treatment Facility Operators)
January 8, 2015 – San Diego (Southern California Medical Waste Management Group)
February 3, 2015 – Diamond Bar (Transporters, Transfer Stations Operators, Treatment Facility Operators)
February 4, 2015 – Van Nuys (Transporters, Transfer Stations Operators, Treatment Facility Operators)
February 10, 2015 – Sacramento (Small-Quantity Generators, Retailers)
February 26, 2015 – Santa Clara (Bay Area Medical Waste Management Group)
March 25, 2015 – San Jose (Transporters, Transfer Stations Operators, Treatment Facility Operators)
March 25, 2015 – San Jose (Generators)
March 26, 2015 – Santa Rosa (Transporters, Transfer Stations Operators, Treatment Facility Operators)
March 26, 2015 – Santa Rosa (Generators)
April 7, 2015 – Fresno (Transporters, Transfer Stations Operators, Treatment Facility Operators)
April 7, 2015 – Fresno (Generators)
April 14, 2015 – Diamond Bar (Regional Stakeholders)
April 14, 2015 – U.S. Department of Transportation
April 15, 2015 – San Bernardino (Southern California Medical Waste Management Group)
April 16, 2015 – San Diego (Regional Stakeholders)
April 29, 2015 – Sacramento (Regional Stakeholders)
May 12, 2015 – Fresno (Regional Stakeholders)
May 19, 2015 – Oakland (Regional Stakeholders)
June 10, 2015 – Santa Clara (Bay Area Medical Waste Management Group)
June 11, 2015 – San Luis Obispo (Regional Stakeholders)
June 16, 2015 – Redding (Regional Stakeholders)

APPENDIX B

Summary of AB 333 and Legislative History of the Medical Waste Management Act

AB 333 (Wieckowski, Chapter 564, Statutes of 2014)

- Revised and reorganized the definition of “medical waste” and its sub-categories.
- Added a requirement for generators and transporters to use and maintain a USDOT-specified shipping document, in addition to the CDPH-required tracking document.
- Amended the requirements of a facility’s Medical Waste Management Plan.
- Removed the Limited Quantity Hauling Exemption and replaced it with the federal MOT exemption.
- Changed the labeling requirements for pharmaceutical waste containers.

AB 1442 (Wieckowski, Chapter 689, Statutes of 2012)

- Added a definition of “pharmaceutical waste.”
- Allowed pharmaceutical waste to be transported by the generator (under specified conditions) or by common carrier (i.e., UPS or FedEx), rather than by registered medical waste hauler.

AB 2335 (Saldana, Chapter 166, Statutes of 2006)

- Made necessary clarifications to various aspects of the MWMA, including record retention times and waste storage times.

SB 407 (Alpert, Chapter 139, Statutes of 1999)

- Authorized the use of chemical disinfection under specified conditions.

SB 1034 (Maddy, Chapter 732, Statutes of 1997)

- Added trauma scene waste management to the MWMA.

SB 1966 (Wright, Chapter 536, Statutes of 1995)

- Included waste pharmaceuticals in the MWMA, transferring authority for management from DTSC to CDPH.
- Authorized CDPH to enter into a contract with medical waste companies to collect small quantity generator fees.
- Reestablished the authority for CDPH to charge an annual regulatory fee of $25 on small-quantity medical waste generators.

SB 372 (Wright, Chapter 877, Statutes of 1995)

- Redefined "large-quantity generator."
- Revised the definition of what is not medical waste.
- Expanded the definition of "storage" of medical waste to include the holding of waste at off-site facilities (including transfer stations) or in trailers detached from truck tractors.

- Authorized a medical waste generator to accept home-generated sharps waste (hypodermic needles, syringes, etc.) for consolidation with its own medical waste, under specified conditions. Additionally, enforcement agencies are authorized to approve a location as a point of consolidation for the collection of home-generated sharps waste, which would be required to be transported and treated as medical waste.
- Allows a parent organization that employs health care professionals that generate medical waste to apply to the enforcement agency for a limited-quantity hauling exemption, and revised the requirements for the limited-quantity hauling exemption.
- Required the Governor's Office of Planning and Research to make recommendations to exempt facilities proposing to treat medical waste with steam sterilization units from California Environmental Quality Act.
- Authorized the use of approved alternative technologies using extremely high temperatures (in excess of 1,300 degrees Fahrenheit) to treat medical waste prior to disposal.

APPENDIX C

Local Enforcement Agencies

Counties or cities that have elected to oversee medical waste management within their jurisdiction

Alameda County
Colusa County
Contra Costa County
Del Norte County
El Dorado County
Kern County
Kings County
Lassen County
Madera County
Marin County
Merced County
Modoc County
Monterey County
Napa County
Orange County
Riverside County
Sacramento County
San Bernardino County
San Diego County
San Francisco City and County
San Joaquin County
San Mateo County
Santa Clara County
Santa Cruz County
Shasta County
Siskiyou County
Sonoma County
Stanislaus County
Tehama County
Tulare County
Tuolumne County
Ventura County
Yuba County
City of Long Beach
City of Vernon

APPENDIX D

Department Enforcement Areas
Counties in which the oversight of medical waste management is conducted by CDPH

Alpine County
Amador County
Butte County
Calaveras County
Fresno County
Glenn County
Humboldt County
Imperial County
Inyo County
Lake County
Los Angeles County
Mariposa County
Mendocino County
Mono County
Nevada County
Placer County
Plumas County
San Benito County
San Luis Obispo County
Santa Barbara County
Sierra County
Solano County
Sutter County
Trinity County
Yolo County
City of Berkeley (Alameda County is the LEA in the remaining areas in the county)

APPENDIX E

Assembly Bill No. 333

CHAPTER 564

An act to amend Sections 117605, 117665, 117695, 117700, 117710, 117725, 117747, 117765, 117775, 117780, 117805, 117820, 117835, 117885, 117890, 117900, 117903, 117904, 117918, 117920, 117924, 117928, 117935, 117938, 117940, 117943, 117945, 117950, 117960, 117970, 117985, 117990, 118000, 118025, 118027, 118029, 118032, 118040, 118045, 118135, 118150, 118155, 118160, 118205, 118215, 118220, 118222, 118240, 118245, 118275, 118280, 118286, 118307, 118321.1, 118321.5, 118335, and 118345 of, to add Sections 117636, 117647, 117771, 117946, 117967, and 117976 to, to repeal Sections 117620, 117635, 117748, 117755, 117777, 117933, 117955, 118005, and 118030 of, and to repeal and add Sections 117630, 117690, 117750, 117895, and 117975 of, the Health and Safety Code, relating to medical waste.

[Approved by Governor: September 25, 2014. Filed with Secretary of State: September 25, 2014.]

LEGISLATIVE COUNSEL'S DIGEST

AB 333, Wieckowski. Medical waste.

(1) Existing law, the Medical Waste Management Act, regulates the disposal of medical waste, including requiring specified biohazard materials to be disposed of in biohazard bags and requiring specified treatment for medical waste. Transportation, storage, treatment, or disposal of medical waste in a manner not authorized by the act is a crime. Existing law defines specified terms for purposes of the Medical Waste Management Act, including "biohazard bag," "medical waste management plan," "sharps container," "tracking document," and "treatment." Under existing law, health care professionals who generate medical waste are generally required to have medical waste transported by a registered hazardous waste transporter.

This bill would require the State Department of Public Health to submit a report to the Legislature by no later than January 1, 2016, describing the interaction of federal and state law for the transport of regulated medical waste and would require the department to convene a stakeholder group for that purpose. The bill would authorize the department to update standards related to the transportation of medical waste during transport through a guidance document, as specified. The bill would authorize the department to temporarily waive the transportation requirements of this bill while a federal preemption determination is pending, as specified. The bill would provide that during this period of temporary waiver, or if federal preemption is found, the federal requirements would be deemed to be the law of this state and enforceable by the department.

The bill would also redefine specified terms for purposes of the act, including those above, and add definitions of new terms, including shipping document and chemotherapeutic agent. The bill would include all subsets of waste in the definition of treatment. The bill would also authorize the color coding of biohazard bags, as specified.

(2) Existing law authorizes a local agency to adopt a medical waste management program to, among other things, issue medical waste registrations and permits and inspect medical waste generators and treatment facilities, and requires the local agency, if it elects to do so, to notify the department. Under existing law, if the local agency chooses not to adopt a medical waste management program or if the department withdraws its designation, then the department is the enforcement agency.

Existing law requires the department to impose and cause to be collected an annual medical waste generator fee, as specified. Existing law authorizes the department to contract with a medical waste transporter or provider of medical waste mail-back systems for the collection of these fees and authorizes the collecting body to recover not more than 5% of the fees as administrative costs.

This bill would remove the ability of the department to use medical waste mail-back systems for the collection of these fees and would authorize medical waste transporters that collect these fees to recover up to 7.5% as administrative costs.

- Under the act, medical waste generators, including large quantity generators and small quantity generators, are subject to various requirements relating to registration, record retention, and transportation of medical waste.

This bill would revise the registration procedures and the record requirements for large quantity and small quantity generators. The bill would require large and small quantity generators that operate treatment equipment to receive annual training to operate the

equipment. The bill would exempt from regulation as a hazardous waste hauler a small quantity generator or large quantity generator that meets specified requirements, including retaining specified documentation and complying with certain federal requirements relating to a materials of trade exception.

The bill would make technical, conforming, and clarifying changes relating to these provisions.

Existing law prohibits a large quantity generator from generating medical waste unless the large quantity generator is registered with the enforcement agency and requires small quantity generators to register with the local enforcement agency.

This bill would authorize a registered large quantity or small quantity medical waste generator to generate medical waste at a temporary event, including vaccination clinics, and would require the large quantity or small quantity generator to notify the enforcement agency of its participation at such an event at least 72 hours before the event, except as provided.

- Existing law requires that all medical waste be hauled by either a registered hazardous waste hauler or by a person with an approved limited-quantity exemption granted pursuant to specified provisions of law. Existing law also specifies treatment methods and processes that medical waste treatment facilities are required to use, including requiring heat sensitive tape to show that materials went through a heat process, and requires a medical waste treatment facility to be permitted by the department.

This bill would make various changes to the provisions relating to medical waste haulers, including removing provisions that conflict with the United States Department of Transportation regulation of those entities, authorizing a registered trauma scene waste practitioner, as specified, to haul medical waste, and making changes to the information medical waste haulers are required to provide to the department annually. This bill would also make various changes to the provisions relating to medical waste treatment facilities, including specifying the decontamination methods for a closure plan, lowering the time period for which records are maintained from 3 to 2 years, and authorizing the use of electronic information for operating records and shipping and tracking documents.

- Existing law exempts from specified provisions of the act, a person who is authorized to collect solid waste and who unknowingly transports medical waste to a solid waste facility, incidental to the collection of solid waste.

This bill would exempt those persons from the entire act, with regard to that waste, and would require the solid waste transporter to contact the originating generator of the medical waste to respond to the facility to provide ultimate proper disposal of the medical waste.

- Existing law requires that animals that die of infectious diseases be treated as medical waste, as specified, if, in the opinion of the attending veterinarian or local health officer, the carcass presents a danger of infection to humans.

This bill would require the carcasses of animals that have died of infectious diseases or that have been euthanized because of suspected exposure to infectious disease to be treated with a treatment technology approved by the department if, in the opinion of the attending veterinarian or local health officer, the carcass presents a danger of infection to humans. By expanding the definition of a crime, this bill would create a state- mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason. Vote: majority

Appropriation: no Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 117605 of the Health and Safety Code is amended to read:

117605. (a) This part governs medical waste management at the facility where waste is generated, at transfer stations, and at treatment facilities. This part also governs the tracking of medical waste beyond what is required in federal shipping documents and regulates aspects of the transport of regulated medical waste.

(b) Sections 173.196 and 173.197 of Title 49 of the Code of Federal Regulations impose standards for the transportation of medical waste on public roads and highways while in transport, unless an affected person applies to, and receives a determination of any perceived conflict from, the United States Secretary of Transportation. Domestic Mail Manual 601.10.17.5 (Mailability: Hazardous Materials: Sharps and Other Mailable Regulated Medical Waste) imposes standards for the transportation of medical waste through the mail and approves medical waste mail back systems.

(c) The department shall submit to the Legislature by no later than January 1, 2016, a report describing the interaction of federal and state law for the transport of regulated medical waste. The department shall convene a stakeholder group that includes, but is not limited to, small and large quantity generators, haulers, transfer station operators, treatment facility operators, local enforcement

agencies, retailers, and other affected entities for this purpose. The reporting requirement imposed by this subdivision shall expire as of January 1, 2016, or when the report is submitted to the Legislature. The report submitted pursuant to this section shall be submitted in compliance with Section 9795 of the Government Code.

(d) The department may, in its discretion, update standards related to the transportation of medical waste during transit through a guidance document provided to regulated entities and posted on the department's Internet Web site. This guidance document shall be exempt from the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code) to the extent that the department finds that the updated standards are consistent with the standards of the United States Department of Transportation.

(e) If an affected person, including the department, seeks a preemption determination pursuant to Section 5125 of Title 49 of the United States Code or by a court of competent jurisdiction, the department may, in its discretion, temporarily waive the state transportation requirements under this part until that determination is made and shall provide notice of the waiver on its Internet Web site.

(f) During the period of temporary waiver described in subdivision (e), or if preemption is found, the federal requirements shall be deemed to be the law of this state and enforceable by the department. The department may enforce these federal requirements by providing an updated guidance document to interested parties and posting the updated guidance document on the department's Internet Web site.

(g) The Medical Waste Management Act does not preempt any local ordinance regulating infectious waste, as that term was defined by Section 25117.5 as it read on December 31, 1990, if the ordinance was in effect on January 1, 1990, and regulated both large and small quantity generators. Any ordinance may be amended in a manner that is consistent with this part.

SEC. 2. Section 117620 of the Health and Safety Code is repealed.

SEC. 3. Section 117630 of the Health and Safety Code is repealed.

SEC. 4. Section 117630 is added to the Health and Safety Code, to read:

117630. "Biohazard bag" means a disposable film bag that is impervious to moisture. The film bags that are used for transport shall be marked and certified by the manufacturer as having passed the tests prescribed for tear resistance in the American Society for Testing Materials (ASTM) D1922, "Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method" and for impact resistance in ASTM D 1709, "Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method," as those documents were published on January 1, 2014. The film bag shall meet an impact resistance of 165 grams and a tearing resistance of 480 grams in both parallel and perpendicular planes with respect to the length of the bag. The color of the bag shall be red, except when yellow bags are used to further segregate trace chemotherapy waste and white bags are used to further segregate pathology waste.

SEC. 5. Section 117635 of the Health and Safety Code is repealed.

SEC. 6. Section 117636 is added to the Health and Safety Code, to read:

117636. "Chemotherapeutic agent" means an agent that kills or prevents the reproduction of malignant cells. Chemotherapeutic agent excludes anti-inflammatory and antibiotic medications used to treat malignant cells in the practice of veterinary medicine.

SEC. 7. Section 117647 is added to the Health and Safety Code, to read:

117647. "Empty" means a condition achieved when tubing, a container, or inner liner removed from a container that previously contained liquid or solid material, including, but not limited to, a chemotherapeutic agent, is considered empty. The tubing, container, or inner liner removed from the container shall be considered empty if it has been emptied so that the following conditions are met:

(a) If the material that the tubing, container, or inner liner held is pourable, no material can be poured or drained from the tubing, container, or inner liner when held in any orientation, including, but not limited to, when tilted or inverted.

(b) If the material that the container or inner liner held is not pourable, no material or waste remains in the container or inner liner that can feasibly be removed by scraping.

SEC. 8. Section 117665 of the Health and Safety Code is amended to read:

117665. "Highly communicable diseases" means diseases, such as those caused by organisms classified by the federal Centers for Disease Control and Prevention as risk group 3 organisms or higher.

SEC. 9. Section 117690 of the Health and Safety Code is repealed.

SEC. 10. Section 117690 is added to the Health and Safety Code, to read:

117690. (a) "Medical waste" means any biohazardous, pathology, pharmaceutical, or trace chemotherapy waste not regulated by the federal Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended; sharps and trace chemotherapy wastes generated in a health care setting in the diagnosis, treatment, immunization, or care of humans or animals; waste generated in autopsy or necropsy; waste generated during preparation of a body for final disposition such as cremation or interment; waste generated in research pertaining to the production or testing of microbiologicals; waste generated in research using human or animal pathogens; sharps and laboratory waste that poses a potential risk of infection to humans generated in the inoculation of animals in commercial farming operations; waste generated from the consolidation of home-generated sharps; and waste generated in the cleanup of trauma scenes. Biohazardous, pathology, pharmaceutical, sharps, and trace chemotherapy wastes that meet the conditions of this section are not subject to any of the hazardous waste requirements found in Chapter 6.5 (commencing with Section 25100) of Division 20.

(b) For purposes of this part the following definitions apply:

(1) "Biohazardous waste" includes all of the following:

(A) (i) Regulated medical waste, clinical waste, or biomedical waste that is a waste or reusable material derived from the medical treatment of a human or from an animal that is suspected by the attending veterinarian of being infected with a pathogen that is also infectious to humans, which includes diagnosis and immunization; or from biomedical research, which includes the production and testing of biological products.

(ii) Regulated medical waste or clinical waste or biomedical waste suspected of containing a highly communicable disease.

(B) Laboratory waste such as human specimen cultures or animal specimen cultures that are infected with pathogens that are also infectious to humans; cultures and stocks of infectious agents from research; wastes from the production of bacteria, viruses, spores, discarded live and attenuated vaccines used in human health care or research, discarded animal vaccines, including Brucellosis and Contagious Ecthyma, as defined by the department; culture dishes, devices used to transfer, inoculate, and mix cultures; and wastes identified by Section 173.134 of Title 49 of the Code of Federal Regulations as Category B "once wasted" for laboratory wastes.

(C) Waste that, at the point of transport from the generator's site or at the point of disposal contains recognizable fluid human blood, fluid human blood products, containers, or equipment containing human blood that is fluid, or blood from animals suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

(D) Waste containing discarded materials contaminated with excretion, exudate, or secretions from humans or animals that are required to be isolated by the infection control staff, the attending physician and surgeon, the attending veterinarian, or the local health officer, to protect others from highly communicable diseases or diseases of animals that are communicable to humans.

(2) Pathology waste includes both of the following:

(A) Human body parts, with the exception of teeth, removed at surgery and surgery specimens or tissues removed at surgery or autopsy that are suspected by the health care professional of being contaminated with infectious agents known to be contagious to humans or having been fixed in formaldehyde or another fixative.

(B) Animal parts, tissues, fluids, or carcasses suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

(3) "Pharmaceutical waste" means a pharmaceutical, as defined in Section 117747, including trace chemotherapy waste, that is a waste, as defined in Section 25124. For purposes of this part, "pharmaceutical waste" does not include a pharmaceutical that meets either of the following criteria:

(A) The pharmaceutical is being sent out of the state to a reverse distributor, as defined in Section 4040.5 of the Business and Professions Code, that is licensed as a wholesaler of dangerous drugs by the California State Board of Pharmacy pursuant to Section 4161 of the Business and Professions Code.

(B) The pharmaceutical is being sent by a reverse distributor, as defined in Section 4040.5 of the Business and Professions Code, offsite for treatment and disposal in accordance with applicable laws, or to a reverse distributor that is licensed as a wholesaler of dangerous drugs by the California State Board of Pharmacy pursuant to Section 4160 of the Business and Professions Code and as a permitted transfer station if the reverse distributor is located within the state.

(4) "Sharps waste" means a device that has acute rigid corners, edges, or protuberances capable of cutting or piercing, including, but not limited to, hypodermic needles, hypodermic needles with syringes, blades, needles with attached tubing, acupuncture needles, root canal files, broken glass items used in health care such as Pasteur pipettes and blood vials contaminated with biohazardous waste, and any item capable of cutting or piercing from trauma scene waste.

(5) "Trace chemotherapeutic waste" means waste that is contaminated through contact with, or having previously contained, chemotherapeutic agents, including, but not limited to, gloves, disposable gowns, towels, and intravenous solution bags and attached tubing that are empty. A biohazardous waste that meets the conditions of this paragraph is not subject to the hazardous waste requirements of Chapter 6.5 (commencing with Section 25100) of Division 20.

(6) "Trauma scene waste" means waste that is a regulated waste, as defined in Section 5193 of Title 8 of the California Code of Regulations, and that has been removed, is to be removed, or is in the process of being removed, from a trauma scene by a trauma scene waste management practitioner.

SEC. 11. Section 117695 of the Health and Safety Code is amended to read:

117695. Medical waste that has been treated in accordance with the provisions of the Medical Waste Management Act, Chapter 8 (commencing with Section 118215), and that is not otherwise hazardous, shall thereafter be considered solid waste as defined in Section 40191 of the Public Resources Code and not medical waste.

SEC. 12. Section 117700 of the Health and Safety Code is amended to read:

117700. Medical waste does not include any of the following:

(a) Waste generated in food processing or biotechnology that does not contain an infectious agent, as defined in Section 117675, or an agent capable of causing an infection that is highly communicable, as defined in Section 117665.

(b) Waste generated in biotechnology that does not contain human blood or blood products or animal blood or blood products suspected of being contaminated with infectious agents known to be communicable to humans or a highly communicable disease.

(c) Urine, feces, saliva, sputum, nasal secretions, sweat, tears, or vomitus, unless it contains visible or recognizable fluid blood, as provided in subparagraph (C) of paragraph (1) of subdivision (b) of Section 117690.

(d) Waste which is not biohazardous, such as paper towels, paper products, articles containing nonfluid blood, and other medical solid waste products commonly found in the facilities of medical waste generators.

(e) Hazardous waste, radioactive waste, or household waste, including, but not limited to, home-generated sharps waste, as defined in Section117671.

(f) Waste generated from normal and legal veterinarian, agricultural, and animal livestock management practices on a farm or ranch unless otherwise specified in law.

SEC. 13. Section 117710 of the Health and Safety Code is amended to read:

117710. "Medical waste management plan" means a document that is completed by generators of medical waste that describes how the medical waste generated at their facility shall be segregated, handled, stored, packaged, treated, or shipped for treatment, as applicable, pursuant to Section 117935 for small quantity generators and Section 117960 for large quantity generators, on forms prepared by the enforcement agency, if those forms are provided by the enforcement agency.

SEC. 14. Section 117725 of the Health and Safety Code is amended to read:

117725. (a) "Medical waste treatment facility" means all land and structures, and other appurtenances or improvements on the land under the control of the treatment facility, used for treating medical waste offsite from a medical waste generator, including all associated handling and storage of medical waste as permitted by the department.

(b) For purposes of this section, land is under the control of the treatment facility if it is owned, rented, or controlled by contractual agreement.

SEC. 15. Section 117747 of the Health and Safety Code is amended to read:

117747. (a) "Pharmaceutical" means a prescription or over-the-counter human or veterinary drug, including, but not limited to, a drug as defined in Section 109925 of the Federal Food, Drug, and Cosmetic Act, as amended, (21 U.S.C.A. Sec. 321(g)(1)).

(b) For purposes of this part, "pharmaceutical" does not include any pharmaceutical that is regulated pursuant to either of the following:

(1) The federal Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C.A. Sec. 6901 et seq.). This waste stream shall be handled as a hazardous waste under the authority of Chapter 6.5 (commencing with Section 25100) of Division 20.

(2) The Radiation Control Law (Chapter 8 (commencing with Section 114960) of Part 9).

SEC. 16. Section 117748 of the Health and Safety Code is repealed.

SEC. 17. Section 117750 of the Health and Safety Code is repealed.

SEC. 18. Section 117750 is added to the Health and Safety Code, to read:

117750. (a) "Sharps container" means a rigid puncture-resistant container used in patient care or research activities meeting the standards of, and receiving approval from, the United States Food and Drug Administration as a medical device used for the collection of discarded medical needles or other sharps.

(b) Sharps containers, including those used to containerize trace chemotherapeutic wastes, shall not be lined with a plastic bag or inner liner.

SEC. 19. Section 117755 of the Health and Safety Code is repealed.

SEC. 20. Section 117765 of the Health and Safety Code is amended to read:

117765. "Storage" means the holding of medical wastes, in compliance with the Medical Waste Management Act, including Chapter 9 (commencing with Section 118275), at a designated accumulation area, offsite point of consolidation, transfer station, other registered facility, or in a vehicle detached from its means of locomotion.

SEC. 21. Section 117771 is added to the Health and Safety Code, to read:

117771. "Shipping document" means the medical waste shipping document required by the United States Department of Transportation pursuant to Section 172.200 et seq. of Title 49 of the Code of Federal Regulations or the document required by the United States Postal Service pursuant to Domestic Mail Manual 601.10.17.5 (Mailability: Hazardous Materials: Sharps and Other Mailable Regulated Medical Waste).

SEC. 22. Section 117775 of the Health and Safety Code is amended to read:

117775. (a) "Transfer station" means an offsite location permitted by the department where medical waste is loaded, unloaded, stored, or consolidated by a registered hazardous waste hauler during the normal course of transportation of the medical waste.

(b) "Transfer station" does not include any onsite facility, including, but not limited to, common storage facilities, facilities of medical waste generators employed for the purpose of consolidation, or onsite treatment facilities.

SEC. 23. Section 117777 of the Health and Safety Code is repealed.

SEC. 24. Section 117780 of the Health and Safety Code is amended to read:

117780. "Treatment" means any method, technique, or process designed to change or destroy the biological character or composition of any medical waste so as to eliminate its potential for causing disease or creating public or environmental harm, as specified in Chapter 8 (commencing with Section 118215).

SEC. 25. Section 117805 of the Health and Safety Code is amended to read:

117805. A local agency that elects to implement a medical waste management program shall notify the department of its intent to do so.

SEC. 26. Section 117820 of the Health and Safety Code is amended to read:

117820. A medical waste management program shall include, but not be limited to, all of the following:

(a) Issuing medical waste registrations and permits pursuant to the Medical Waste Management Act.

(b) Processing and reviewing the medical waste management plans and inspecting onsite treatment facilities in accordance with Chapter 4 (commencing with Section 117925) for all small quantity medical waste generators required to be registered.

(c) Conducting an evaluation, inspection, or records review for all facilities or persons issued a large quantity medical waste registration pursuant to Chapter 5 (commencing with Section 117950) or issued a permit for an onsite medical waste treatment facility pursuant to Chapter 7 (commencing with Section 118130).

(d) Inspecting medical waste generators in response to complaints or emergency incidents, or as part of an investigation or evaluation of the implementation of the medical waste management plan.

(e) Inspecting medical waste treatment facilities in response to a complaint or as part of an investigation or emergency incident.

(f) Taking enforcement action for the suspension or revocation of medical waste permits issued by the local agency pursuant to this part.

(g) Referring or initiating proceedings for civil or criminal prosecution of violations specified in Chapter 10 (commencing with Section 118335).

(h) Reporting in a manner determined by the department so that the statewide effectiveness of the program can be determined.

SEC. 27. Section 117835 of the Health and Safety Code is amended to read:

117835. The department shall establish and maintain a database of persons registered as small quantity generators and as large quantity generators for whom the department is the enforcement agency under Chapter 4 (commencing with Section 117925) and Chapter 5 (commencing with Section 117950).

SEC. 28. Section 117885 of the Health and Safety Code is amended to read:

117885. (a) There is in the State Treasury the Medical Waste Management Fund, that shall be administered by the director. Money deposited in the fund shall be available to the department, upon appropriation by the Legislature, for the purposes of this part.

(b) In addition to any other funds transferred by the Legislature to the Medical Waste Management Fund, the following shall be deposited in the fund:

(1) Fees, penalties, interest earned, and fines collected by, or on behalf of, the department pursuant to this part.

(2) Funds granted by the federal government for purposes of carrying out this part.

SEC. 29. Section 117890 of the Health and Safety Code is amended to read:

117890. (a) No large quantity generator shall generate medical waste unless the large quantity generator is registered with the enforcement agency pursuant to this part.

(b) Registration pursuant to this part shall also allow the large quantity generator to generate medical waste at temporary events, including, but not limited to, health fairs, vaccination clinics, and veteran stand downs, without further registration or permitting required. The large quantity generator shall notify the local enforcement agency of their intended participation in a temporary event at least 72 hours before the event, unless the sponsor of the temporary event previously notified the local enforcement agency of the event.

SEC. 30. Section 117895 of the Health and Safety Code is repealed.

SEC. 31. Section 117895 is added to the Health and Safety Code, to read:

117895. Registration pursuant to this part shall allow a small quantity generator to generate medical waste at temporary events, including, but not limited to, health fairs, vaccination clinics, and veteran stand downs, without further registration or permitting required. The small quantity generator shall notify the local enforcement agency of their intended participation in a temporary event at least 72 hours before the event, unless the sponsor of the temporary event previously notified the local enforcement agency of the event.

SEC. 32. Section 117900 of the Health and Safety Code is amended to read:

117900. No person shall haul medical waste unless the person is one of the following:

(a) A registered hazardous waste hauler pursuant to the requirements of Chapter 6.5 (commencing with Section 25100) of Division 20.

(b) A mail-back system approved by the United States Postal Service.

(c) A common carrier allowed to haul pharmaceutical waste pursuant to Section 118029 or 118032.

(d) A small quantity generator or a large quantity generator transporting limited quantities of medical waste with an exemption granted pursuant to either Section 117946 or Section 117976, respectively.

(e) A registered trauma scene waste practitioner hauling trauma scene waste pursuant to Section 118321.5.

SEC. 33. Section 117903 of the Health and Safety Code is amended to read:

117903. No person shall treat medical waste unless the person is permitted by the enforcement agency as required by this part or unless the treatment is performed by a medical waste generator and is a treatment method approved pursuant to Chapter 8 (commencing with Section 118215).

SEC. 34. Section 117904 of the Health and Safety Code is amended to read:

117904. (a) In addition to the consolidation points authorized pursuant to Section 118147, the enforcement agency may approve a location as a point of consolidation for the collection of home-generated sharps waste, which, after collection, shall be transported and treated as medical waste.

(b) A consolidation location approved pursuant to this section shall be known as a "home-generated sharps consolidation point."

(c) A home-generated sharps consolidation point is not subject to the requirements of Chapter 9 (commencing with Section 118275), to the permit or registration requirements of this part, or to any permit or registration fees, with regard to the activity of consolidating home-generated sharps waste pursuant to this section.

(d) A home-generated sharps consolidation point shall comply with all of the following requirements:

(1) All sharps waste shall be placed in sharps containers.

(2) Sharps containers ready for disposal shall not be held for more than seven days without the written approval of the enforcement agency.

(e) An operator of a home-generated sharps consolidation point approved pursuant to this section shall not be considered the generator of that waste, but shall be listed on the shipping document in compliance with United States Department of Transportation and United States Postal Service requirements.

(f) The medical waste treatment facility which treats the sharps waste subject to this section shall maintain the shipping and tracking documents required by Sections 118040 and 118165 with regard to that sharps waste.

SEC. 35. Section 117918 of the Health and Safety Code is amended to read:

117918. Medical waste shall be treated using treatment technologies in accordance with Chapter 8 (commencing with Section 118215).

SEC. 36. Section 117920 of the Health and Safety Code is amended to read:

117920. The fee schedule specified in Section 117923 shall be for the issuance of medical waste registrations and for conducting inspections pursuant to this chapter when the department serves as the enforcement agency for small quantity generators. This fee schedule shall be adjusted annually in accordance with Section 100425, or as provided in the regulations adopted by the department, not to exceed the reasonable regulatory costs of the department. Local enforcement agencies shall set fees that shall be sufficient to cover their costs in implementing this part with regard to small quantity generators required to be registered pursuant to Section 117925.

SEC. 37. Section 117924 of the Health and Safety Code is amended to read:

117924. (a) When the department is the enforcement agency, the department shall impose and cause the collection of an annual medical waste generator fee in an amount not to exceed twenty-five dollars ($25) on small quantity generators of medical waste, except for those small quantity generators that are required to register pursuant to Section 117925 and those generators generating only pharmaceutical waste as defined in paragraph (3) of subdivision (b) of Section 117690. Nothing in this part shall prevent the department from contracting with entities other than the department for these fee collection activities or from entering into agreements with medical waste transporters for the collection of these fees, if the department determines that such a fee collection arrangement would be cost effective.

(b) If the department determines to enter into a contract with a medical waste transporter for the collection of the fees, the department shall do all of the following:

(1) Establish that not more than 7.5 percent of the fees collected may be recovered by the medical waste transporter as administrative costs for the collection of those fees.

(2) Establish that the administrative costs for the collection of the fees shall be the same for all medical waste transporters.

(3) Prohibit any medical waste transporter from waiving the generator fee without the written approval of the department and only if the medical waste generator has made a written request for the waiver.

(4) Require the medical waste transporter to report the fees collected pursuant to subdivision (a) to the department.

(5) Prohibit the medical waste transporter from assuming the role of the department as an enforcement agent for purposes of collecting the medical waste generator fees.

(6) Require medical waste transporters to include the following language in at least 12-point type on their invoices to medical waste generators:

"Pursuant to Section 117924 of the California Health and Safety Code, the State Department of Public Health has contracted with us to collect your annual medical waste generator fee. The department may offset our costs of collection and administration in an amount that may not exceed 7.5 percent of the fee collected. We may not waive the fee without written approval of the department, and only if you have made a written request for the waiver."

(7) Ensure that generators subject to this section are required to pay the fee only once per year.

SEC. 38. Section 117928 of the Health and Safety Code is amended to read:

117928. (a) Any common storage facility for the collection of medical waste produced by small quantity generators operating independently, but sharing common storage facilities, shall have a permit issued by the enforcement agency prior to the commencement of storage of medical waste in the common storage facility.

(b) A permit for any common storage facility specified in subdivision (a) may be obtained by any one of the following:

(1) A provider of health care as defined in Section 56.05 of the Civil Code.

(2) The registered hazardous waste transporter.

(3) The property owner.

(4) The property management firm responsible for providing tenant services to the medical waste generators.

SEC. 39. Section 117933 of the Health and Safety Code is repealed.

SEC. 40. Section 117935 of the Health and Safety Code is amended to read:

117935. A small quantity generator required to register with the enforcement agency pursuant to Section 117930 shall file with the enforcement agency a medical waste management plan on forms prescribed by the enforcement agency, if provided. The plans shall contain, but are not limited to, all of the following:

(a) The name of the person.

(b) The business address of the person.

(c) The type of business.

(d) The types, and the estimated average monthly quantity, of medical waste generated.

(e) The type of treatment used onsite.

(f) The name and business address of the registered hazardous waste hauler used by the generator for backup treatment and disposal, for waste when the onsite treatment method is not appropriate due to the hazardous or radioactive characteristics of the waste.

(g) The name of the registered hazardous waste hauler used by the generator to have untreated medical waste removed for treatment and disposal, if applicable.

(h) The name of the common carrier used by the generator to transport pharmaceutical waste offsite for treatment and disposal pursuant to Section 118032, if applicable.

(i) If applicable, the steps taken to categorize the pharmaceutical wastes generated at the facility to ensure that the wastes are properly disposed of as follows:

(1) Pharmaceutical wastes classified by the federal Drug Enforcement Agency (DEA) as "controlled substances" are disposed of in compliance with DEA requirements.

(2) The name and business address of the registered hazardous waste hauler used by the generator to have wastes that are not regulated pursuant to the federal Resource Conservation and Recovery Act of 1976 and nonradioactive pharmaceutical wastes regulated as medical waste safely removed for treatment in compliance with subdivision (b) of Section 118222 as waste requiring specific methods.

(j) A closure plan for the termination of treatment at the facility using, at a minimum, one of the methods of decontamination specified in subdivision (a) or (b) of Section 118295, thereby rendering the property to an acceptable sanitary condition following the completion of treatment services at the site.

(k) A statement certifying that the information provided is complete and accurate.

SEC. 41. Section 117938 of the Health and Safety Code is amended to read:

117938. (a) Small quantity generators using onsite steam sterilization, incineration, or microwave technology to treat medical waste are subject to biennial inspection of that onsite treatment facility by the enforcement agency and may be subject to the permitting requirements for onsite medical waste treatment facilities as determined by the enforcement agency.

(b) (1) The operators of the treatment equipment specified in subdivision (a) shall be required to receive training in the operation of the treatment equipment, proper protective equipment to wear, if any, how to clean up spills, and other information required to operate the treatment equipment in a safe and effective manner.

(2) Annual training for the operators shall be provided after the initial training has been completed.

(3) The training shall be documented for each treatment operator and retained on file at the generator facility for a minimum of two years. Training shall comply with applicable federal Occupational Safety and Health Administration regulations, including those found in Section 1910 of Title 29 of the Code of Federal Regulations.

SEC. 42. Section 117940 of the Health and Safety Code is amended to read:

117940. (a) Each enforcement agency shall follow procedures consistent with this chapter in registering medical waste generators.

(b) Each medical waste generator registration for small quantity generators issued by the enforcement agency shall be valid for two years.

(c) An application for renewal of the registration for small quantity generators shall be filed with the enforcement agency on or before the expiration date.

(d) Generators shall submit an updated application form when any of the information specified in their medical waste management plan, created pursuant to Section 117935, changes. The updated application form shall be submitted within 30 days of the change.

SEC. 43. Section 117943 of the Health and Safety Code is amended to read:

117943. (a) A medical waste generator required to register pursuant to this chapter shall maintain for a minimum of three years individual treatment operating records, and if applicable, shipping and tracking documents for all untreated medical waste shipped offsite for treatment, and shall report or submit to the enforcement agency, upon request, all of the following:

(1) Treatment operating records. Operating records shall be maintained in written or electronic form.

(2) An emergency action plan complying with regulations adopted by the department.

(3) Shipping and tracking documents or electronically archived shipping and tracking documents maintained by the facility and medical waste hauler of all untreated medical waste shipped offsite for treatment.

(b) Documentation shall be made available to the enforcement agency onsite.

SEC. 44. Section 117945 of the Health and Safety Code is amended to read:

117945. (a) Small quantity generators who are not required to register pursuant to this chapter shall maintain on file in their office all of following:

(1) An information document stating how the generator contains, stores, treats, and disposes of any medical waste generated through any act or process of the generator.

(2)) Records required by the United States Department of Transportation or the United States Postal Service of any medical waste shipped offsite for treatment and disposal. The small quantity generator shall maintain, or have available electronically at the facility or from the medical waste hauler or common carrier, these records, for not less than three years.

(b) Documentation shall be made available to the enforcement agency onsite.

SEC. 45. Section 117946 is added to the Health and Safety Code, to read:

117946. (a) A small quantity medical waste generator or parent organization that employs health care professionals who generate medical waste may transport medical waste generated in limited quantities up to 35.2 pounds to the central location of accumulation, provided that all of the following are met:

(1) The principal business of the generator is not to transport or treat regulated medical waste.

(2) The generator shall adhere to the conditions and requirements set forth in the materials of trade exception, as specified in Section 173.6 of Title 49 of the Code of Federal Regulations.

(3) A person transporting medical waste pursuant to this section shall provide a form or log to the receiving facility, and the receiving facility shall maintain the form or log for a period of two years, containing all of the following information:

(A) The name of the person transporting the medical waste.

(B) The number of containers of medical waste transported.

(C) The date the medical waste was transported.

(b) A generator transporting medical waste pursuant to this section shall not be regulated as a hazardous waste hauler pursuant to Section 117660.

SEC. 46. Section 117950 of the Health and Safety Code is amended to read:

117950. (a) Each large quantity generator, except as specified in subdivisions (b) and (c), shall register with the enforcement agency prior to commencement of the generation of medical waste.

(b) Large quantity generators operating as a business in the same building, or that are associated with a group practice in the same building, may register as one generator.

(c) Large quantity generators as specified in subdivision (a), operating in different buildings on the same or adjacent property, or as approved by the enforcement agency, may register as one generator.

(d) "Adjacent," for purposes of subdivision (c), means real property within 400 yards from the property boundary of the primary registration site. All federal transportation requirements specified in Section 173.6 of Part 49 of the Code of Federal Regulations shall apply for purposes of transporting medical waste from adjacent properties.

SEC. 47. Section 117955 of the Health and Safety Code is repealed.

SEC. 48. Section 117960 of the Health and Safety Code is amended to read:

117960. A large quantity generator required to register with the enforcement agency shall file with the enforcement agency a medical waste management plan, on forms prescribed by the enforcement agency, if provided. The plans shall contain, but are not limited to, all of the following:

(a) The name of the person.

(b) The business address of the person.

(c) The type of business.

(d) The types, and the estimated average monthly quantity, of medical waste generated.

(e) The type of treatment used onsite, if applicable. For generators with onsite medical waste treatment facilities, the treatment capacity of the onsite treatment facility.

(f) The name and business address of the registered hazardous waste hauler used by the generator to have untreated medical waste removed for treatment, if applicable, and, if applicable, the name and business address of the common carrier transporting pharmaceutical waste pursuant to Section 118032.

(g) The name and business address of the offsite medical waste treatment facility to which the medical waste is being hauled, if applicable.

(h) An emergency action plan complying with regulations adopted by the department.

(i) If applicable, the steps taken to categorize the pharmaceutical wastes generated at the facility to ensure that the wastes are properly disposed of as follows:

(1) Pharmaceutical wastes classified by the federal Drug Enforcement Agency (DEA) as "controlled substances" are disposed of in compliance with DEA requirements.

(2) The name and business address of the hazardous waste hauler used by the generator to have wastes that are not regulated pursuant to the federal Resource Conservation and Recovery Act of 1976 and nonradioactive pharmaceutical wastes regulated as medical wastes safely removed for treatment in compliance with subdivision (b) of Section 118222, as waste requiring specific methods.

(j) A closure plan for the termination of treatment at the facility using, at a minimum, one of the methods of decontamination specified in subdivision (a) or (b) of Section 118295, thereby rendering the property to an acceptable sanitary condition following the completion of treatment services at the site.

(k) A statement certifying that the information provided is complete and accurate.

SEC. 49. Section 117967 is added to the Health and Safety Code, to read:

117967. (a) Large quantity generators that treat medical waste onsite using steam sterilization, incineration, microwave technology, or other department approved treatment technology to treat medical waste shall train the operators of the equipment in its use, proper protective equipment to wear, if necessary, and how to clean up spills to ensure that the equipment is being operated in a safe and effective manner.

(b) Annual training for the operators shall be provided after the initial training has been completed.

(c) The training shall be documented and the documentation shall be retained at the facility for a minimum of two years. Training shall comply with applicable federal Occupational Safety and Health Administration regulations, including those found in Section 1910 of Title 29 of the Code of Federal Regulations.

SEC. 50. Section 117970 of the Health and Safety Code is amended to read:

117970. (a) Each enforcement agency shall follow procedures consistent with this chapter in registering medical waste generators.

(b) Each medical waste registration issued by the enforcement agency for large quantity generators shall be valid for one year.

(c) An application for renewal of the registration shall be filed with the enforcement agency not less than 90 days prior to the expiration date. Failure to meet this requirement shall result in an assessment of a late fee.

(d) Generators shall update their medical waste management plan, established pursuant to Section 117960, when any of the information in the plan changes and shall have the plan on file for review during an inspection or upon request. The updated plan shall be submitted within 30 days of the change.

SEC. 51. Section 117975 of the Health and Safety Code is repealed.

SEC. 52. Section 117975 is added to the Health and Safety Code, to read:

117975. (a) A large quantity medical waste generator required to register pursuant to this chapter shall maintain for a minimum of two years individual treatment records and shipping and tracking documents for all untreated medical waste shipped offsite for treatment. The generator shall report or submit to the enforcement agency, upon request, all of the following:

(1) Treatment operating records. Operating records shall be maintained in written or electronic form.

(2) An emergency action plan in accordance with regulations adopted by the department.

(3) Shipping and tracking documents or electronically archived shipping and tracking documents maintained by the facility or medical waste hauler of all untreated medical wastes shipped offsite for treatment.

(b) Documentation shall be made available to the enforcement agency onsite as soon as feasible, but no more than two business days following the request.

SEC. 53. Section 117976 is added to the Health and Safety Code, to read:

117976. (a) A large quantity medical waste generator or parent organization that employs health care professionals who generate medical waste may transport medical waste generated in limited quantities up to 35.2 pounds to the central location of accumulation, provided that all of the following are met:

(1) The principal business of the generator is not to transport or treat regulated medical waste.

(2) The generator shall adhere to the conditions and requirements set forth in the materials of trade exception, as specified in Section 173.6 of Title 49 of the Code of Federal Regulations.

(3) A person transporting medical waste pursuant to this section shall provide a form or log to the receiving facility, and the receiving facility shall maintain the form or log for a period of two years, containing all of the following information:

(A) The name of the person transporting the medical waste.

(B) The number of containers of medical waste transported.

(C) The date the medical waste was transported.

(b) A generator transporting medical waste pursuant to this section shall not be regulated as a hazardous waste hauler pursuant to Section 117660.

SEC. 54. Section 117985 of the Health and Safety Code is amended to read:

117985. Medical waste shall be treated using treatment technologies approved in accordance with Chapter 8 (commencing with Section 118215).

SEC. 55. Section 117990 of the Health and Safety Code is amended to read:

117990. The fee schedule specified in Section 117995 shall be for the issuance of medical waste registrations and onsite medical waste treatment facility permits when the department serves as the enforcement agency for large quantity generators. This fee schedule shall be adjusted annually in accordance with Section 100425, or as provided in the regulations adopted by the department, not to exceed the reasonable regulatory costs of the department. Local enforcement agencies shall set fees that shall be sufficient to cover their costs in implementing this part with regard to large quantity generators.

SEC. 56. Section 118000 of the Health and Safety Code is amended to read:

118000. (a) Medical waste shall only be transported to a permitted medical waste treatment facility, or to a transfer station or another registered generator for the purpose of consolidation before treatment and disposal.

(b) Facilities for the transfer of medical waste shall be annually inspected and issued permits in accordance with the regulations adopted pursuant to this part.

(c) Medical waste transported out of state shall be consigned to a permitted medical waste treatment facility in the receiving state. If there is no permitted medical waste treatment facility in the receiving state or if the medical waste is crossing an international border, the medical waste shall be treated in accordance with Chapter 8 (commencing with Section 118215) prior to being transported out of the state.

SEC. 57. Section 118005 of the Health and Safety Code is repealed.

SEC. 58. Section 118025 of the Health and Safety Code is amended to read:

118025. All medical waste shall be hauled by a registered hazardous waste hauler, the United States Postal Service, or by a person with an exception granted pursuant to Section 117946 for small quantity generators or pursuant to Section 117976 for large quantity generators.

SEC. 59. Section 118027 of the Health and Safety Code is amended to read:

118027. A person who is authorized to collect solid waste, as defined in Section 40191 of the Public Resources Code, who unknowingly transports medical waste to a solid waste facility, as defined in Section 40194 of the Public Resources Code, incidental to the collection of solid waste, is exempt from the provisions of the Medical Waste Management Act with regard to that waste. If a solid waste transporter discovers that he or she has hauled untreated medical waste to a landfill or materials recovery facility, he or she shall contact the originating generator of the medical waste to respond to the landfill or recovery facility to provide ultimate proper disposal of the medical waste. The solid waste facility operator may, at its discretion and after contacting the generator, make arrangements for the proper treatment and disposal of the medical waste at a facility approved by the department. Title to the waste remains with the generator. Reimbursement costs for the proper management of discovered waste shall be the originating generator's responsibility.

SEC. 60. Section 118029 of the Health and Safety Code is amended to read:

118029. (a) Haulers of medical waste in California, with the exception of those using a materials of trade exception as specified in Sections 117946 and 117976, and United States Department of Transportation licensed common carriers hauling pharmaceutical waste, shall meet all United States Department of Transportation requirements for transporting medical waste and shall be hazardous waste haulers in California. On or before July 1 of each year, a registered hazardous waste hauler that transports medical waste shall so notify the department, and provide, in a format that conforms to the protocol requirements for submission of data to the department, the following information:

(1) Business name, address, and telephone number.

(2) Name of owner, operator, and contact person.

(3) Hazardous waste transporter registration number.

(4) The number of vehicles and trailers transporting medical waste within the state as of that date.

(5) Types and quantities of medical waste collected, in pounds.

(6) The names of the generators whose waste has been transported by the hauler and the amounts of medical waste transported, by waste type category.

(b) Each registered hazardous waste hauler shall provide to the department a list of all medical waste generators serviced by that person during the previous 12 months. That list shall include the business name, business address, mailing address, telephone number, and other information as required by the department to collect annual fees pursuant to Section 117924. The list shall be provided to the department within 10 days of the close of the earliest calendar quarter ending September 30, December 31, March 31, or June 30, or as otherwise required by the department.

SEC. 61. Section 118030 of the Health and Safety Code is repealed.

SEC. 62. Section 118032 of the Health and Safety Code is amended to read:

118032. A pharmaceutical waste generator or parent organization that employs health care professionals who generate pharmaceutical waste is exempt from the requirements of subdivision (a) of Section 118000 if all of the following requirements are met:

(a) The generator or parent organization has on file one of the following:

(1) If the generator or parent organization is a small quantity generator required to register pursuant to Chapter 4 (commencing with Section 117925), a medical waste management plan prepared pursuant to Section 117935.

(2) If the generator or parent organization is a small quantity generator not required to register pursuant to Chapter 4 (commencing with Section 117925), the information document maintained pursuant to subdivision (a) of Section 117945.

(3) If the generator or parent organization is a large quantity generator, a medical waste management plan prepared pursuant to Section 117960.

(b) The generator or health care professional who generated the pharmaceutical waste transports the pharmaceutical waste himself or herself, or directs a member of his or her staff to transport the pharmaceutical waste to a parent organization or another health care facility for the purpose of consolidation before treatment and disposal, or contracts with a common carrier to transport the pharmaceutical waste to a permitted medical waste treatment facility or transfer station.

(c) Except as provided in subdivision (d), all of the following requirements are met:

(1) Prior to shipment of the pharmaceutical waste, the generator notifies the intended destination facility that it is shipping pharmaceutical waste to it and provides a copy of the shipping and tracking documents, as specified in Section 118040.

(2) The generator and the facility receiving the pharmaceutical waste maintain the shipping and tracking documents, as specified in Section 118040.

(3) The facility receiving the pharmaceutical waste notifies the generator of the receipt of the pharmaceutical waste shipment and any discrepancies between the items received and the shipping and tracking documents, as specified in Section 118040, evidencing diversion of the pharmaceutical waste.

(4) The generator notifies the enforcement agency of any discrepancies between the items received and the shipping and tracking documents, as specified in Section 118040, evidencing diversion of the pharmaceutical waste.

(d) (1) Notwithstanding subdivision (c), if a health care professional who generates pharmaceutical waste returns the pharmaceutical waste to the parent organization for the purpose of consolidation before treatment and disposal over a period of time, a single-page form or multiple entry log may be substituted for the tracking document, if the form or log contains all of the following information:

(A) The name of the person transporting the pharmaceutical waste.

(B) The number of containers of pharmaceutical waste. This clause does not require any generator to maintain a separate pharmaceutical waste container for every patient or to maintain records as to the specified source of the pharmaceutical waste in any container.

(C) The date that the pharmaceutical waste was returned.

(2) The form or log described in paragraph (1) shall be maintained in the files of the health care professional who generates the pharmaceutical waste and the parent organization or another health care facility that receives the pharmaceutical waste.

(3) This subdivision does not prohibit the use of a single document to verify the return of more than one container to a parent organization or another health care facility, provided the form or log meets the requirements specified in paragraphs (1) and (2).

SEC. 63. Section 118040 of the Health and Safety Code is amended to read:

118040. (a) Except with regard to sharps waste consolidated by a home-generated sharps consolidation point approved pursuant to Section 117904, a hazardous waste transporter or generator transporting medical waste shall maintain a completed shipping document in compliance with United States Department of Transportation (USDOT) requirements when medical waste is transported. In addition to the shipping document required by USDOT, a hazardous waste transporter or generator who transports medical waste to a facility, other than the final medical waste treatment facility, shall also maintain tracking documents which show the name, address, and telephone number of the medical waste generator, for purposes of tracking the generator of medical waste when the waste is transported to the final medical waste treatment facility. At the time that the medical waste is received by a hazardous waste transporter, the transporter shall provide the medical waste generator with a copy of the shipping and tracking documents for the generator's medical waste records. The transporter or generator transporting medical waste shall maintain its copy of the shipping and tracking documents for three years.

(b) The tracking document shall include, but not be limited to, all of the following information:

(1) The name, address, telephone number, and registration number of the transporter, unless transported pursuant to Section 118030.

(2) The type of medical waste transported and the quantity or aggregate weight of medical waste transported.

(3) The name, address, and telephone number of the generator.

(4) The name, address, telephone number, permit number, and the signature of an authorized representative of the permitted facility receiving the medical waste.

(5) The date that the medical waste is collected or removed from the generator's facility, the date that the medical waste is received by the transfer station, the registered large quantity generator, or point of consolidation, if applicable, and the date that the medical waste is received by the treatment facility.

(c) Any hazardous waste transporter or generator transporting medical waste in a vehicle shall have the shipping and tracking documents in his or her possession while transporting the medical waste. The tracking document shall be shown upon demand to any enforcement agency personnel or officer of the Department of the California Highway Patrol. If the medical waste is transported by rail, vessel, or air, the railroad corporation, vessel operator, or airline shall enter on the shipping papers any information concerning the medical waste that the enforcement agency may require.

(d) A hazardous waste transporter or a generator transporting medical waste shall provide the facility receiving the medical waste with the original shipping and tracking documents.

(e) Each hazardous waste transporter and each medical waste treatment facility shall provide tracking data periodically and in a format as determined by the department.

SEC. 64. Section 118045 of the Health and Safety Code is amended to read:

118045. (a) The department shall charge an application fee for a permit for a transfer station equal to one hundred dollars ($100) for each hour which the department spends on processing the application, but not more than ten thousand dollars ($10,000), or as provided in the regulations adopted by the department, not to exceed the reasonable regulatory costs of the department.

(b) In addition to the fee specified in subdivision (a), the annual permit fee for a transfer station is two thousand dollars ($2,000), or as provided in the regulations adopted by the department, not to exceed the reasonable regulatory costs of the department.

SEC. 65. Section 118135 of the Health and Safety Code is amended to read:

118135. Each person operating an offsite medical waste treatment facility shall obtain a permit pursuant to this chapter from the department prior to commencement of the treatment facility's operation.

SEC. 66. Section 118150 of the Health and Safety Code is amended to read:

118150. Each enforcement agency shall follow procedures that are consistent with the Medical Waste Management Act and the regulations adopted pursuant to this chapter, when issuing medical waste permits.

SEC. 67. Section 118155 of the Health and Safety Code is amended to read:

118155. A person required to obtain an offsite medical waste treatment facility permit pursuant to this part shall file with the enforcement agency an application containing, but not limited to, all of the following:

(a) The name of the applicant.

(b) The business address of the applicant.

(c) The type of treatment provided, the treatment capacity of the facility, a characterization of the waste treated at this facility and the estimated average monthly quantity of waste treated at the facility.

(d) A disclosure statement, as provided in Section 25112.5, except for onsite medical waste treatment facilities.

(e) A plan for closure of the facility using, at minimum, one of the methods of decontamination specified in subdivision (a) or (b) of Section 118295, thereby rendering the property to an acceptable sanitary condition following the ending of treatment services at the site.

(f) Any other information required by the enforcement agency for the administration or enforcement of this part or the regulations adopted pursuant to this part.

SEC. 68. Section 118160 of the Health and Safety Code is amended to read:

118160. (a) Prior to issuing or renewing a permit for an offsite medical waste treatment facility, the department shall review the compliance history of the applicant, under any local, state, or federal law or regulation governing the control of medical waste or pollution.

(b) The department shall, pursuant to this section, deny a permit, or specify additional permit conditions, to ensure compliance with applicable regulations, if the department determines that in the three-year period preceding the date of application the applicant has violated laws or regulations identified in subdivision (a) at a facility owned or operated by the applicant, and the violations demonstrate a recurring pattern of noncompliance or pose, or have posed, a significant risk to public health and safety or to the environment.

(c) In making the determination of whether to deny a permit or to specify additional permit conditions, the department shall take both of the following intoconsideration:

(1) Whether a permit denial or permit condition is appropriate or necessary given the severity of the violation.

(2) Whether the violation has been corrected in a timely fashion.

SEC. 69. Section 118205 of the Health and Safety Code is amended to read:

118205. The fee schedule specified in Section 118210 shall cover the issuance of medical waste treatment facility permits and an inspection program, when the department serves as the enforcement agency. This fee schedule shall be adjusted annually in accordance with Section 100425. The department may adjust by regulation the fees specified in Section 118210 to reflect the actual costs of implementing this chapter. Local enforcement agencies shall set fees that shall be sufficient to cover their costs in implementing this part with regard to large quantity generators.

SEC. 70. Section 118215 of the Health and Safety Code is amended to read:

118215. (a) Except as provided in subdivisions (b) and (c), a person generating or treating medical waste shall ensure that the medical waste is treated by one of the following methods, thereby rendering it solid waste, as defined in Section 40191 of the Public Resources Code, prior to disposal:

(1) (A) Incineration at a permitted medical waste treatment facility in a controlled-air, multichamber incinerator, or other method of incineration approved by the department which provides complete combustion of the waste into carbonized or mineralized ash.

(B) Treatment with an alternative technology approved pursuant to paragraph (3), which, due to the extremely high temperatures of treatment in excess of 1300 degrees Fahrenheit, has received express approval from the department.

(2) Steam sterilization at a permitted medical waste treatment facility or by other sterilization, in accordance with all of the following operating procedures for steam sterilizers or other sterilization:

(A) Standard written operating procedures shall be established for biological indicators, or for other indicators of adequate sterilization approved by the department, for each steam sterilizer, including time, temperature, pressure, type of waste, type of container, closure on container, pattern of loading, water content, and maximum load quantity.

(B) Recording or indicating thermometers shall be checked during each complete cycle to ensure the attainment of 121° Centigrade (250° Fahrenheit) for at least one-half hour, depending on the quantity and density of the load, to achieve sterilization of the entire load. Thermometers, thermocouples, or other monitoring devices identified in the facility operating plan shall be checked for calibration annually. Records of the calibration checks shall be maintained as part of the facility's files and records for a period of two years or for the period specified in the regulations.

(C) Heat-sensitive tape, or another method acceptable to the enforcement agency, shall be used on each biohazard bag or sharps container that is processed onsite to indicate that the waste went through heat treatment. If the biohazard bags or sharps containers are placed in a large liner bag within the autoclave for treatment, heat-sensitive tape or another method acceptable to the enforcement agency only needs to be placed on the liner bag and not on every hazardous waste bag or sharps container being treated.

(D) The biological indicator Geobacillus stearothermophilus, or other indicator of adequate sterilization as approved by the department, shall be placed at the center of a load processed under standard operating conditions at least monthly to confirm the attainment of adequate sterilization conditions.

(E) Records of the procedures specified in subparagraphs (A), (B), and (D) shall be maintained for a period of not less than two years.

(3) (A) Other alternative medical waste treatment methods which are both of the following:

(i) Approved by the department.

(ii) Result in the destruction of pathogenic micro-organisms.

(B) Any alternative medical waste treatment method proposed to the department shall be evaluated by the department and either approved or rejected pursuant to the criteria specified in this subdivision.

(b) Fluid blood or fluid blood products may be discharged to a public sewage system without treatment if its discharge is consistent with waste discharge requirements placed on the public sewage system by the California regional water quality control board with jurisdiction.

(c) (1) A medical waste that is a biohazardous laboratory waste, as defined in subparagraph (B) of paragraph (1) of subdivision (b) of Section 117690, may be treated by a chemical disinfection if the waste is liquid or semiliquid and the chemical disinfection method is recognized by the National Institutes of Health, the Centers for Disease Control and Prevention, or the American Biological Safety Association, and if the use of chemical disinfection as a treatment method is identified in the site's medical waste management plan.

(2) If the waste is not treated by chemical disinfection, in accordance with paragraph (1), the waste shall be treated by one of the methods specified in subdivision (a).

(3) Following treatment by chemical disinfection, the medical waste may be discharged to the public sewage system if the discharge is consistent with waste discharge requirements placed on the public sewage system by the California regional water control board, and the discharge is in compliance with the requirements imposed by the owner or operator of the public sewage system. If the chemical disinfection of the medical waste causes the waste to become a hazardous waste, the waste shall be managed in accordance with the requirements of Chapter 6.5 (commencing with Section 25100) of Division 20.

SEC. 71. Section 118220 of the Health and Safety Code is amended to read:

118220. Pathology waste of a human nature, as defined in subparagraph (A) of paragraph (2) of subdivision (b) of Section 117690, shall be disposed of by interment, incineration, or alternative treatment technologies approved to treat this type of waste, pursuant to paragraph (1) or paragraph (3) of subdivision (a) of Section 118215.

SEC. 72. Section 118222 of the Health and Safety Code is amended to read:

118222. (a) Pathology waste that meets the conditions of paragraph (2) of subdivision (b) of Section 117690 and trace chemotherapy waste that meets the conditions of paragraph (5) of subdivision (b) of Section 117690 shall be treated by incineration or alternative treatment technologies approved to treat that waste pursuant to paragraph (1) or paragraph (3) of subdivision (a) of Section 118215 prior to disposal.

(b) Pharmaceutical waste from health care settings that meets the conditions specified in paragraph (3) of subdivision (b) of Section 117690 shall be treated by incineration or alternative treatment technologies approved to treat that waste pursuant to paragraph (1) or paragraph (3) of subdivision (a) of Section 118215 prior to disposal.

SEC. 73. Section 118240 of the Health and Safety Code is amended to read:

118240. Notwithstanding Section 9141 of the Food and Agricultural Code, animals that die from infectious diseases or that are euthanized because they are suspected of having been exposed to infectious disease shall be treated with a treatment technology approved by the department for that use if, in the opinion of the attending veterinarian or local health officer, the carcass presents a danger of infection to humans.

SEC. 74. Section 118245 of the Health and Safety Code is amended to read:

118245. The department shall charge an application fee for evaluation of an alternative treatment technology of two thousand five hundred dollars ($2,500) and shall charge an additional fee equal to one hundred dollars ($100) per hour for each hour which the department spends on processing the application, but not more than a total of five thousand dollars ($5,000), or as provided in the regulations adopted by the department, not to exceed the reasonable regulatory costs of the department.

SEC. 75. Section 118275 of the Health and Safety Code is amended to read:

118275. (a) To containerize or store medical waste, at the point of generation and while collected in that room, a person shall do all of the following:

(1) Medical waste, as defined in Section 117690, shall be contained separately from other waste at the point of origin in the producing facility. Sharps containers may be placed in biohazard bags or in containers with biohazard bags.

(2) Biohazardous waste, as defined in paragraph (1) of subdivision (b) of Section 117690, shall be placed in a biohazard bag conspicuously labeled with the words "Biohazardous Waste" or with the international biohazard symbol and the word "BIOHAZARD."

(3) Sharps waste, as defined in paragraph (4) of subdivision (b) of Section 117690, including sharps and pharmaceutical waste containerized pursuant to paragraph (7), shall be contained in a United States Food and Drug Administration (USFDA) approved sharps container that meets USFDA labeling requirements and is handled pursuant to Section 118285.

(4) Trace chemotherapy waste, as defined in paragraph (5) of subdivision (b) of Section 117690, shall be segregated for storage, and, when placed in a secondary container, that container shall be labeled with the words "Chemotherapy Waste," "CHEMO," or other label approved by the department on the lid and sides, so as to be visible from any lateral direction, to ensure treatment of the biohazardous waste pursuant to Section 118222. Sharps waste that is contaminated through contact with, or having previously contained, chemotherapeutic agents, shall be placed in sharps containers labeled in accordance with the industry standard with the words "Chemotherapy Waste," "Chemo," or other label approved by the department, and shall be segregated to ensure treatment of the sharps waste pursuant to Section 118222.

(5) Pathology waste, as defined in paragraph (2) of subdivision (b) of Section 117690, shall be segregated for storage and, when placed in a secondary container, that container shall be labeled with the words "Pathology Waste," "PATH," or other label approved by the department on the lid and sides, so as to be visible from any lateral direction, to ensure treatment of the waste pursuant to Section 118222.

(6) Pharmaceutical waste, as defined in paragraph (3) of subdivision (b) of Section 117690, shall be segregated for storage in accordance with the facility's medical waste management plan. When this waste is prepared for shipment offsite for treatment, it shall be properly containerized for shipment in compliance with United States Department of Transportation and United States Drug Enforcement Agency (DEA) requirements.

(A) Pharmaceutical wastes classified by the DEA as "controlled substances" shall be disposed of in compliance with DEA requirements.

(B) Nonradioactive pharmaceutical wastes that are not subject to the federal Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended, and that are regulated as medical waste are placed in a container or secondary container labeled with the words "HIGH HEAT OR INCINERATION ONLY," or with another label approved by the department, on the lid and sides, so as to be visible from any lateral direction, to ensure treatment of the biohazardous waste pursuant to Section 118222.

(7) A person may consolidate into a common container, which may be reusable, sharps waste, as defined in paragraph (4) of subdivision (b) of Section 117690, and pharmaceutical wastes, as defined in paragraph (3) of subdivision (b) of Section 117690, provided that both of the following apply:

(A) The consolidated waste is treated by incineration or alternative treatment technologies approved to treat that waste pursuant to paragraph (1) or (3) of subdivision (a) of Section 118215 prior to disposal. That alternative treatment shall render the waste unrecoverable and nonhazardous.

(B) The container meets the requirements of Section 118285. The container shall be labeled with the biohazardous waste symbol and the words "HIGH HEAT OR INCINERATION ONLY," or with another label approved by the department, on the lid and sides, so as to be visible from any lateral direction, to ensure treatment of the waste pursuant to this subdivision.

(b) To containerize medical waste being held for shipment offsite for treatment, the waste shall be labeled, as outlined in subdivision (a), on the lid and sides of the container.

(c) When medical waste is containerized pursuant to subdivisions (a) and (b) there is no requirement to label the containers with the date that the waste started to accumulate.

SEC. 76. Section 118280 of the Health and Safety Code is amended to read:

118280. To containerize biohazard bags, a person shall do all of the following:

(a) The bags shall be tied to prevent leakage or expulsion of contents during all future storage and handling. When containers are prepared for transport offsite from the facility, they shall be prepared in compliance with United States Department of Transportation requirements.

(b) (1) Medical waste may be placed into a biohazard bag not to exceed three pounds or one gallon and tied, as required in subdivision (a), in a patient room and shall be immediately transported upon completion of the procedure directly from the point of generation and placed into a biohazard container stored in a soiled utility room or other biohazardous waste storage area without having first been placed into a secondary container in the patient room.

(2) Medical waste may be placed into a biohazard bag hung on a hamper stand in a surgery suite and the bag removed from the hamper stand after completion of the procedure, taken out of the surgery suite, and placed into a biohazard container stored in a soiled utility room or other biohazard waste storage area.

(c) Biohazardous waste, except as provided in subdivision (b), shall be bagged in accordance with subdivision (b) of Section 118275 and placed for storage, handling, or transport in a rigid container that may be disposable, reusable, or recyclable. Containers shall be leak resistant, have tight-fitting covers, and be kept clean and in good repair. Containers may be recycled with the approval of the enforcement agency. Containers may be of any color and shall be labeled with the words "Biohazardous Waste" or with the international biohazard symbol and the word "BIOHAZARD" on the lid and sides so as to be visible from any lateral direction. Containers shall comply with United States Department of Transportation requirements when prepared for transport offsite from the facility.

(d) Biohazardous waste shall not be removed from the biohazard bag until treatment as prescribed in Chapter 8 (commencing with Section 118215) is completed, except to eliminate a safety hazard, or by the enforcement officer in performance of an investigation pursuant to Section 117820. Biohazardous waste shall not be disposed of before being treated as prescribed in Chapter 8 (commencing with Section 118215).

(e) (1) Except as provided in paragraph (5), a person generating biohazardous waste shall comply with the following requirements:

(A) If the person generates 20 or more pounds of biohazardous waste per month, the person shall not contain or store that waste above 0° Centigrade (32° Fahrenheit) at an onsite location for more than seven days without obtaining prior written approval of the enforcement agency.

(B) If a person generates less than 20 pounds of biohazardous waste per month, the person shall not contain or store that waste above 0° Centigrade (32° Fahrenheit) at an onsite location for more than 30 days.

(2) A person may store biohazardous waste at or below 0° Centigrade (32° Fahrenheit) at an onsite location for not more than 90 days without obtaining prior written approval of the enforcement agency.

(3) A person may store biohazardous waste at a permitted transfer station at or below 0° Centigrade (32° Fahrenheit) for not more than 30 days without obtaining prior written approval of the enforcement agency.

(4) A person shall not store biohazardous waste above 0° Centigrade (32° Fahrenheit) at a location or facility that is offsite from the generator for more than seven days before treatment.

(5) Notwithstanding paragraphs (1) to (4), inclusive, if the odor from biohazardous or sharps waste stored at a facility poses a nuisance, the enforcement agency may require more frequent removal.

(f) Waste that meets the definition of pharmaceutical waste in paragraph (3) of subdivision (b) of Section 117690 shall not be subject to the limitations on storage time prescribed in subdivision (e). A person may store that pharmaceutical waste at an onsite location for not longer than 90 days when the container is ready for disposal, unless prior written approval from the enforcement agency is obtained. The container shall be emptied at least once per year, unless prior written approval from the enforcement agency is obtained. A person may store that pharmaceutical waste at a permitted transfer station for not longer than 30 days without obtaining prior written approval from the enforcement agency. A person shall not store pharmaceutical waste at a location or facility that is offsite from the generator for more than 30 days before treatment.

(g) The containment and storage time for wastes consolidated in a common container pursuant to paragraph (7) of subdivision (a) of Section 118275 shall not exceed the storage time for any category of waste set forth in this section.

SEC. 77. Section 118286 of the Health and Safety Code is amended to read:

118286. (a) A person shall not knowingly place home-generated sharps waste in any of the following containers:

(1) Any container used for the collection of solid waste, recyclable materials, or greenwaste.

(2) Any container used for the commercial collection of solid waste or recyclable materials from business establishments.

(3) Any roll-off container used for the collection of solid waste, construction, and demolition debris, greenwaste, or other recyclable materials.

(b) Home-generated sharps waste shall be transported only in a sharps container, or other containers approved by the enforcement agency, and shall only be managed at any of the following:

(1) A household hazardous waste facility pursuant to Section 25218.13.

(2) A "home-generated sharps consolidation point" as defined in subdivision (b) of Section 117904.

(3) A medical waste generator's facility pursuant to Section 118147.

(4) A facility through the use of a medical waste mail-back container approved by the United States Postal Service.

SEC. 78. Section 118307 of the Health and Safety Code is amended to read:

118307. Medical waste that is stored in an area prior to transfer to the designated accumulation area, as defined in Section 118310, shall be stored in an area that is either locked or under direct supervision or surveillance. Intermediate storage areas shall be marked with the international biohazard symbol or the signage described in Section 118310. These warning signs shall be readily legible from a distance of five feet. This section does not apply to the rooms in which medical waste is generated.

SEC. 79. Section 118321.1 of the Health and Safety Code is amended to read:

118321.1. (a) A trauma scene waste management practitioner shall register with the department on forms provided by the department.

(b) The department shall register a trauma scene waste management practitioner and issue a trauma scene waste hauling permit to a trauma scene waste management practitioner who submits a completed application form and the registration fee, upon approval of the application by the department.

(c) A registered trauma scene waste management practitioner is exempt from the registration requirements imposed pursuant to Chapter 6 (commencing with Section 118025) or Article 6.5 (commencing with Section 25167.1) of Chapter 6.5 of Division 20 upon haulers of medical waste.

(d) Registered trauma scene waste management practitioners shall pay an annual fee of two hundred dollars ($200) to the department for deposit in the fund. The fee revenues deposited in the fund pursuant to this subdivision may be expended by the department, upon appropriation by the Legislature, for the implementation of this chapter.

SEC. 80. Section 118321.5 of the Health and Safety Code is amended to read:

118321.5. (a) Trauma scene waste shall be removed from the trauma scene immediately upon completion of the removal phase of a trauma scene waste removal operation.

(b) Trauma scene waste shall be transported to a permitted medical waste transfer station or treatment facility pursuant to subdivision (a) of Section 118000, or may be stored in a dedicated freezer at the business location of the trauma scene waste management practitioner for a period of not more than 14 days, or as otherwise approved by the department.

SEC. 81. Section 118335 of the Health and Safety Code is amended to read:

118335. (a) In order to carry out the purpose of this part, any authorized representative of the enforcement agency may do any of the following:

(1) Enter and inspect a facility for which a medical waste permit or registration has been issued, for which a medical waste permit or registration application has been filed, or that is subject to registration or permitting requirements pursuant to this part. Enter and inspect a vehicle for which a hazardous waste hauler registration has been issued, for which an application has been filed for a hazardous waste hauler registration, or that is subject to registration requirements pursuant to this part.

(2) Inspect and copy any records, reports, test results, or other information related to the requirements of this part or the regulations adopted pursuant to this part.

(b) The inspection shall be made with the consent of the owner or possessor of the facilities or, if consent is refused, with a warrant duly issued pursuant to Title 13 (commencing with Section 1822.50) of Part 3 of the Code of Civil Procedure. However, in the event of an emergency affecting the public health or safety, an inspection may be made without consent or the issuance of a warrant.

(c) Any traffic officer, as defined in Section 625 of the Vehicle Code, and any peace officer, as defined in Section 830.1 or 830.2 of the Penal Code, may enforce Chapter 6 (commencing with Section 118000) and this chapter, and for purposes of enforcing these chapters, traffic officers and these peace officers are authorized representatives of the department.

SEC. 82. Section 118345 of the Health and Safety Code is amended to read:

118345. (a) Any person who intentionally makes any false statement or representation in any application, label, shipping document, tracking document, record, report, permit, registration, or other document filed, maintained, or used for purposes of compliance with this part that materially affects the health and safety of the public is liable for a civil penalty of not more than ten thousand dollars ($10,000) for each separate violation or, for continuing violations, for each day that the violation continues.

Any person who fails to register or fails to obtain a medical waste permit in violation of this part, or otherwise violates any provision of this part, any order issued pursuant to Section 118330, or any regulation adopted pursuant to this part, is liable for a civil penalty of not more than ten thousand dollars ($10,000) for each violation of a separate provision of this part or, for continuing violations, for each day that the violation continues.

SEC. 83. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

Appendix K
Dental, Medical and Veterinary Offices
Managing your Hazardous Wastes
(July 2009)

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

Fact Sheet, July, 2009

Dental, Medical and Veterinary Offices: Managing Your Hazardous Waste

Regulatory Assistance Officer's Note

The Regulatory Assistance Officers of the Department of Toxic Substances Control (DTSC) prepared this fact sheet to provide general information about the hazardous waste requirements for dental, medical and veterinary facilities. Clicking on highlighted text will take you to sites containing the described references, laws and regulations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA) for more detailed compliance requirements. Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

Does DTSC regulate the disposal of sharps and expired pharmaceuticals?

Sharps are not regulated by DTSC. Sharps are regulated by the Medical Waste Management Act, not the Hazardous Waste Management Act. The California Department of Public Health (CDPH) Environmental Management Branch regulates the collection, storage, transportation and disposal of sharps and medical wastes from businesses. Sharps generated by residents are not classified as either medical waste or hazardous waste. Sharps are not to be disposed of in the solid waste but must be sent to an appropriate disposal location.

Expired pharmaceuticals may be regulated by DTSC if the active ingredient in the pharmaceutical in question is regulated by RCRA or if the compound contains some other ingredient that meets the definition of hazardous waste. (e.g. contains enough alcohol to be flammable). Otherwise most other pharmaceuticals from medical and veterinary offices are regulated as medical waste by CDPH. Pharmaceuticals generated by households are not classified as either medical waste or hazardous waste and may be disposed of in the solid waste stream or sanitary sewer. However, it is preferable for residents to dispose of pharmaceuticals at a pharmaceutical take back program operated by the local environmental agency.
For further information about medical waste management, contact the CDPH Medical Waste Management Program at (916) 449-5671, or email to MedWasteInfo@cdph.ca.gov.

What can I do with waste glutaraldehyde and OPA?

Glutaraldehyde and ortho-phthaldehyde (OPA) are the active ingredients in several brands of sterilizing solutions. Health and Safety Code section 25123.5(c) allows medical facilities to use glycine to neutralize waste glutaraldehyde and OPA disinfectant solutions onsite, without a permit or other authorization prior to disposal to the sanitary sewer.

If you prefer to dispose of your wastes rather than treat and dispose onsite, you will still need to characterize the waste as hazardous or non-hazardous. If characterized as hazardous the waste must be managed according to the Hazardous Waste Management Act. See the DTSC fact sheet "Accumulating Hazardous Wastes at Generator Sites" (Jan. 02) and Generator Fact Sheet http://www.dtsc.ca.gov/HazardousWaste/upload/HWM_FS_Generator_Requirements.pdf for more information regarding hazardous waste management requirements for generators.

The manufacturer of OPA has informed DTSC that the solution at use-dilution fails the California aquatic bioassay toxicity characteristic and thus is hazardous waste when discarded without treatment.

Generators of waste glutaraldehyde who wish to classify the waste as non hazardous, based on generator knowledge, must be able to show documentation upon which the waste classification was made. This information may be supplied by the vendor or chemical company producing the sterilant.
Solutions that do not use glutaraldehyde or OPA may or may not be toxic, depending on the cleaning and sterilizing agents used. Check with the manufacturer for guidance, and your sanitary district inspector who may be familiar with the products as well. Many manufacturers of ultrasonic and autoclave systems claim that the chemicals used in their systems are not toxic.

What can I do with formalin and other laboratory waste chemicals?

Formalin is commonly used as a tissue preservative and other chemicals are commonly used in a clinical setting. Health and Safety Code section 25200.3.1 allows the treatment of hazardous wastes without a permit generated in laboratories where relatively small quantities of hazardous chemicals are handled or used. The laboratory must meet the following conditions: The laboratory must be associated with education, research, chemical analysis, clinical testing, product development, testing or quality control.

Treatment of laboratory waste may be conducted without a permit, as long as the laboratory waste treatment methods used have been published in either a peer-reviewed scientific journal or the National Research Council's Prudent Practices in the Laboratory: Handling and Disposal of Chemicals. Please see Health and Safety Code section 25200.3.1 for further details.

DTSC has determined that pathology labs conduct activities that qualify as "clinical testing," and may treat waste formalin or formaldehyde generated from medical specimen preparation or preservation. When a preserved specimen is being disposed of, the formalin must be decanted off of the specimen. The specimen must be managed in accordance with medical waste management requirements, and the formalin as hazardous waste.

If you prefer to dispose of your wastes rather than treat them onsite, you will still need to characterize them as hazardous or non-hazardous, and handle them appropriately. Formalin solutions may vary in their toxicity, depending on the formulation. Some manufacturers have related to DTSC that formulations containing greater than 2.9% formaldehyde may fail the aquatic bioassay or acute toxicity tests. Generators may characterize their waste formalin by having it analyzed or by getting toxicity information from their supplier, if it is available. If toxicity information is not available for their brand of formalin, and the generator does not want to characterize it by laboratory analysis, it may be assumed to be hazardous and sent off for treatment and disposal as a hazardous waste.

How should I handle lead foil from x-ray film and scrap dental amalgam? Are they hazardous wastes?

The lead foil from dental x-ray film, lead blankets and lead film storage boxes are considered to be scrap metal if they are sent to a metal recycler, but they are hazardous wastes if you dispose of them. Most metal recyclers accept lead scrap. Dental amalgam is nearly 50% mercury, a metal that is a hazardous waste constituent and may be managed under the universal waste management standards or as fully regulated hazardous waste. Because amalgam contains mercury, copper and zinc, the amalgam cannot be considered an exempt silver-only waste.

Extracted teeth that have amalgam fillings will likely be hazardous waste. Many scrap amalgam recyclers accept teeth with amalgam as long as the sender certifies that they are not infectious wastes. Extracted teeth without attached tissue are considered non-infectious wastes, unless the extracted teeth are deemed infectious or biohazardous waste by the attending surgeon or dentist.

Changes to the universal waste regulations now allow unused mercury, scrap amalgam, extracted teeth with amalgam fillings, chair traps, sink traps and filters containing amalgam to be handled under the universal waste management standards rather than full hazardous wastes standards. Empty used amalgam capsules are not considered hazardous waste and may be disposed of with solid waste. Check the DTSC publication "Managing Universal Waste in California" for details on management standards for amalgam and other universal wastes.

What do I do with photofixer and other "silver-only wastes"?

For many dental, medical and veterinary establishments, the only hazardous waste you generate is x-ray fixer that is hazardous for the silver content. Health and Safety Code section 25143.13 contains the management standards for silver only wastes. DTSC has prepared a Fact Sheet, "Onsite Tiered Permitting: Changes in Regulation of Silver Wastes" (Jan. 2000)

In my office, photo fixer is the only waste. Can I treat it onsite without a permit and discharge to the sewer?

Health and Safety Code section 25143.13 regulates photofixer that is hazardous only for silver. If the silver is sent for recycling, you may treat the photo fixer waste onsite without a hazardous waste permit from DTSC or your local CUPA. Prior to beginning treatment, you must notify your local sanitation department if you discharge the treated photo fixer to the sewer.

You may not discharge untreated fixer directly to the sewer. You must treat it first to remove the silver by using a silver recovery unit. All recovered silver must be reclaimed. Furthermore, you may also take the waste fixer solution to a permitted recycler or have it hauled off by a service company. You do not need to use a hazardous waste manifest or a transporter registered with DTSC when shipping either the recovered silver or the fixer.

My office generates more than 100 kilograms (that is, about 220 pounds or 27 gallons) of federally-regulated (RCRA) hazardous waste per month. What are my options?

You must have an EPA ID Number for shipping those other hazardous wastes. Further those wastes must be transported offsite by a registered hazardous waste transporter under a hazardous waste manifest.

Again, you do not need a permit to treat the fixer before it is discharged but you will need a permit if you treat other hazardous wastes. Contact you local CUPA for permitting requirements for onsite treatment of hazardous wastes.

As in the previous examples above, you may not discharge untreated fixer directly to the sewer. You must first use a silver recovery unit to reduce the silver concentration to the discharge level allowed by your sanitation district. You must notify your local sanitation department if you discharge to the sewer after the treatment. Another option is to have the silver only waste taken to a permitted recycler. To fit this category, any recovered silver must be reclaimed.

I have been offered a chemical that solidifies my x-ray chemical wastes, and the salesperson claims that it can be disposed of to the municipal trash dumpster after it has been solidified. May this system be used in California without a permit or other authorization?

No, such a system cannot be used to treat hazardous waste without a permit. Conducting treatment for the purposes of disposal would require a treatment permit and the resulting waste would have to be sampled to determine if it is a hazardous waste or not.

I understand that electronic devices, batteries, fluorescent lamps and video terminal are now called "universal wastes." What does that mean for me?

Universal wastes include most consumer-type batteries (nickel-cadmium or Ni-Cad, lithium, silver button, mercury, alkaline, small sealed lead-acid batteries used for burglar alarms and emergency lights (but not auto batteries), as well as fluorescent lamps, electronics, which include electronic devices (CEDs), cathode ray tubes (CRTs) from TVs, computer monitors, and other devices, and mercury containing medical devices such as thermometers and dental amalgam (as discussed earlier), and spent aerosol cans that still contain hazardous materials. While all of these are classified as hazardous wastes, they may be managed under the universal waste management regulations.

The universal waste management regulations specify management standards in line with the risk presented by these waste. In general, you may take these wastes to a universal waste collector for management or to a recycler for recycling.

Please see DTSC's website for the management requirements for universal waste. http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/index.cfm.

As discussed earlier, nearly all mercury-containing wastes and devices may now be handled as "Universal Wastes", including dental amalgam, mercury switches, sphygmomanometers and other mercury-containing gauges. These may not be disposed of in municipal landfills, so cannot be discarded with your regular office trash.

A final word . . .

Remember that all businesses are required to determine whether the wastes that they generate are hazardous wastes. If you have unknown substances, it is your responsibility to determine whether they are hazardous or not. Wastes that have been determined to be hazardous must be labeled and managed as hazardous wastes, regardless of whether you are eligible to treat them onsite under exemptions, or send them away with a hazardous waste hauler for offsite treatment or disposal. If you generate less than 100 kilograms of hazardous waste per month, you may be eligible to take your waste to a small business/house-hold hazardous waste program, if your local agency has one. Call your county environmental health program (look under "Local Environmental Agencies" in the "Information Resources"section of the DTSC website) or your DTSC Regulatory Assistance Officer to determine whether you have a small business program in your area. If you cannot find the answer to your question in this fact sheet, please contact the Regulatory Assistance Officer directly. You can call them at 800-728-6942, or contact them via the Department of Toxic Substances Control website -- http://www.dtsc.ca.gov/ -- click on "Regulatory Assistance Officers" and you will go to a page with links to the Regulatory Assistance Officers' email.

DTSC Regulatory Assistance Officers provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents. If you believe that you have received incorrect information from a Regulatory Assistance Officer, please contact External Affairs, at 916-322-0476. We also encourage you to complete a Cal/EPA Customer Satisfaction survey (http://www.calepa.ca.gov/Customer/) so that we may improve our Regulatory Assistance Program.

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