

DEPARTMENT OF CITY PLANNING RECOMMENDATION REPORT

City Planning Commission

Date: September 13, 2018
Time: After 8:30 a.m.

Place: Los Angeles City Hall

Council Chambers

200 N. Spring Street, Room 340

Los Angeles. CA 91401

Public Hearing: June 22, 2018

Appeal Status: The General Plan Amendment

is not appealable. A denial of the Zone Change and/or Height District Change are/is appealable by the applicant, to the City Council. The Vesting Conditional Use and Site Plan Review are appealable to City

Council.

Yes

Expiration September 14, 2018

Date:

Multiple

Approval:

PROJECT LOCATION:

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2005 W. James Wood Boulevard

Add Area: The "Add Area" (additional area proposed by Department of City Planning) for the General Plan Amendment request, consists of properties located at 731 - 847 South Alvarado Street; 730 – 840 South Alvarado Street; 2019 – 2101 West 8th Street; 2030 – 2100 West 8th Street; and 2019 West James M. Wood Boulevard, Los Angeles (Add Area). No development is proposed for the Add Area.

All existing uses would remain.

PROPOSED PROJECT:

The Project involves the demolition of an existing commercial retail building and related surface parking for the construction, use, and maintenance of a new 6-story hotel above two levels of subterranean parking. The Project would contain 100 guest rooms, and approximately 10,948 square feet of office, restaurant, meeting room and support space, on a 22,500 square-foot property. The Project includes approximately 100 automobile parking spaces, as well as 6 long-term and 6 short-term bicycle parking spaces. The Floor Area Ratio (FAR) of the proposed building would be 2.99:1 and the maximum height would be approximately 82 feet.

REQUESTED ACTIONS:

 Pursuant to CEQA Guidelines Section 15074(b), consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2016-713-MND ("Mitigated Negative Declaration"), and all comments received, the imposition of mitigation measures and the Mitigation Monitoring Program prepared for the Mitigated Negative Declaration:

Case No.: CPC-2017-712-GPA-VZC-

HD-VCU-SPR

CEQA No.: ENV-2017-713-MND

Related Cases: None

Council No.: 1-Cedillo

Plan Area: Westlake

Specific Plan: None

Certified NC: Westlake South

GPLU: Highway Oriented

Commercial

Zone: R4-1, C2-1

Applicant: Tauan Chen, Infinitely Group

Representative: Eric Lieberman, QES

Incorporated

- 2. Pursuant to Charter Section 555 and LAMC Section 11.5.6, a General Plan Amendment to the Westlake Community Plan from the Highway Oriented Commercial Land Use Designation to the Community Commercial Land Use Designation to apply to the property and the Add Area;
- 3. Pursuant to Los Angeles Municipal Code Section 12.32, a Vesting Zone Change and Height District Change from R4-1 and C2-1 to (T)(Q)C2-2D to allow a maximum FAR of 2.99:1 (approximately 60,637 square feet).
- 4. Pursuant to Los Angeles Municipal Code Section 12.24 W.24(a), a Vesting Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2 Zone within 500 feet of an A or R Zone.
- 5. Pursuant to Section 16.05 of the Municipal Code, a Site Plan Review for a project that exceeds 50 dwelling units and/or guest rooms.

RECOMMENDED ACTIONS:

- 1. Find, pursuant to CEQA Guidelines Section 15074(b), after consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2016-713-MND ("Mitigated Negative Declaration" or MND), and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment; Find the Mitigated Negative Declaration reflects the independent judgment and analysis of the City; Find the mitigation measures have been made enforceable conditions on the project; and Adopt the Mitigated Negative Declaration and the Mitigation Monitoring Program(MMP) prepared for the Mitigated Negative Declaration.
- 2. **Approve and Recommend that the City Council adopt**, pursuant to Charter Section 555 and LAMC Section 11.5.6, a General Plan Amendment to the Westlake Community Plan from the Highway Oriented Commercial Land Use Designation to the Community Commercial Land Use Designation to apply to the property and the Add Area;
- 3. **Approve and Recommend that the City Council adopt**, pursuant to Los Angeles Municipal Code Section 12.32-Q, a Vesting Zone Change and Height District Change from R4-1 and C2-1 to (T)(Q)C2-2D to allow a maximum FAR of 2.99:1(approximately 60,637 square feet).
- 4. **Approve**, pursuant to Los Angeles Municipal Code Section 12.24 W.24(a), a Vesting Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2 Zone within 500 feet of an A or R Zone.
- 5. **Approve**, pursuant to Section 16.05 of the Municipal Code, a Site Plan Review for a project containing a maximum 100 guest rooms
- 6. Adopt the attached Findings.

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- 8. Advise the applicant that, pursuant to California State Public Resources Code Section 21081.6, the City shall monitor or require evidence that mitigation conditions are implemented and maintained throughout the life of the project and the City may require any necessary fees to cover the cost of such monitoring; and
- 9. **Advise** the applicant that pursuant to State Fish and Wildlife Code Section 711.4, a Fish and Wildlife Fee is now required to be submitted to the County Clerk prior to or concurrent with the Environmental Notice of Determination (NOD) filing.

VINCENT P. BERTONI, AICP Director of Planning

Shana Bonstin, Principal City Planner

Jane Choi, AICP, Senior City Planner

Kevin Golden, City Planner

(213) 978-1396

ADVICE TO PUBLIC: *The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Written communications may be mailed to the Department of City Planning Commission Secretariat, Room 272, City Hall, 200 North Spring Street, Los Angeles, CA 90012 (Phone No. 213-978-1300). While all written communications are given to the Commission for consideration, the initial packets are sent to the week prior to the Commission's meeting date. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to these programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than three working days (72 hours) prior to the meeting by calling the Commission Secretariat at (213) 978-1295.

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PROJECT ANALYSIS

PROJECT SUMMARY

The Project involves the demolition of an existing commercial retail building and related surface parking for the construction, use, and maintenance of a new 6-story hotel above two levels of subterranean parking. The Project would contain 100 guest rooms, and approximately 10,948 square feet of office, restaurant, meeting room and support space, on a 22,500 square-foot property. The Project includes approximately 100 automobile parking spaces, as well as six long-term and six short-term bicycle parking spaces. The Floor Area Ratio (FAR) of the proposed building would be 2.99:1 and the maximum height would be approximately 82 feet.

Add Area: This is additional area with properties that the Department of City Planning recommends also have a land use designation of Community Commercial. No development is proposed for the Add Area. All existing uses would remain. The Add Area for the General Plan Amendment request consists of properties located at 731 - 847 South Alvarado Street; 730 – 840 South Alvarado Street; 2019 – 2101 West 8th Street; 2030 – 2100 West 8th Street; and 2019 West James M. Wood Boulevard, Los Angeles (Add Area).

BACKGROUND

Subject Property

The Applicant is proposing a 100 room hotel located at 2005 W. James M. Wood Boulevard, in the Westlake neighborhood. The approximately 22,500 square-foot project site consists of three lots, bounded by James M. Wood Boulevard. to the south and Westlake Avenue to the east, and a 15-foot wide alley to the west. The site abuts an 8-unit residential complex to the north.

The Project Site is currently developed with an approximately 8,228 square-foot, single-story shopping center and associated surface parking. Current tenants include a bakery, coin laundry and other retail uses. The project Site has dual zoning designations of R4-1(Lot 20) and C2-1 (Lots 21 and 22) with a Highway Oriented Commercial land use designation under the Westlake Community Plan and is designated for Height District No.1 on the Westlake Community Plan's Land Use Map (Footnote No. 1). Additionally, the Project Site is located in the CRA/LA, a Designated Local Authority and successor agency to the former Community Redevelopment Agency of the City of Los Angeles, Westlake Recovery Redevelopment Project Plan Area; Council District 1; Los Angeles State Enterprise Zone; and a Transit Priority Area.

Streets and Circulation

James M. Wood Boulevard, adjoining the Project Site to the south, is a designated Avenue III in Mobility Plan 2035, requiring a total right-of-way width of 72 feet, including a 46-foot roadway and 13-foot sidewalks. The street is currently improved at variable widths of 78 to 80 feet, with sidewalk, curb and gutter.

Westlake Avenue, adjoining the Project Site to the east, is a designated Standard Local Street in Mobility Plan 2035, requiring a total right-of-way width of 60 feet, including a 36-foot roadway and 12-foot sidewalks. The street is currently improved at variable widths of 60 feet, with sidewalk, curb and gutter.

Public Transit

The Project is served by the following local and regional lines:

Metro Local Line 200 runs north-south along Alvarado Street;

Metro Local Line 66 runs east-west along 8th Street and Olympic Boulevard; and,

LADOT Pico Union/Echo Park Line runs in all directions but generally north-south toward Echo Park to the north and the Pico Union neighborhood to the south, including along Alvarado Street, Union Avenue, Westlake Avenue, Lucas Avenue and Washington Boulevard.

Previous Actions on the Project Site

Affidavit No. 3189 was recorded on October 29, 1952 to hold lots 20, 21, and 22 as one parcel.

ZA-1986-617-CUZ-YV: On October 28, 1986, the Zoning Administrator approved a "Conditional Use Permit/Yard Variance" to permit the construction and use of a parking lot for a proposed commercial building in the R5-2 Zone and approval for the eave of the building to extend 3 feet into the R5-2 Zone.

CPC-1986-834-GPC: General Plan/zoning consistency for Wilshire, Westlake, Sherman Oaks and Toluca Lake.

Affidavit No. 63072 was recorded on May 5, 1987 to hold lots 20, 21 and 22 as one parcel.

Building Permit No. 1987LA65010 was issued on June 2, 1988 for a "1-story, Type V-N, 150' x 150' shopping center, retail stores. 16 parking stalls required, 18 parking stalls provided. B-2 occupancy."

ZA-2008-223-CUB: On October 7, 2008, the Zoning Administrator denied request for a Conditional Use Permit to allow the sale and dispensing of a full-line of alcoholic beverages for off-site consumption in connection with an existing store.

Surrounding Properties

North: The property adjoining the Project Site to the north is zoned R4-1 and improved with a two-story, 6-unit apartment home with two guest rooms.

East: Separated by Westlake Avenue, there are two properties east of the Project Site. One is improved with an approximately 9,900 square-foot, three-story church building, in the C2-1 Zone. It has access and frontage along James M. Wood Boulevard and frontage along Westlake Avenue. The second property is improved with a three-story, 226-unit apartment building with three guest rooms, in the R3-1 Zone.

West: Separated by a 15-foot wide alley, there are two properties west of the Project Site. One is improved with a single-story, approximately 12,200 square-foot retail store, in the C2-1 Zone. The second property is improved with a single-story retail building (floor area unknown), in the C2-1 Zone.

South: Separated by James M. Wood Boulevard, the property south of the Project Site is improved with a single-story, approximately 2,118 square-foot restaurant with surface parking, in the C2-1 Zone.

Use

A Conditional Use Permit is required to allow the construction, use and maintenance of a hotel that is located within 500 feet of any "R" Zone. LAMC 12.24T allows Vesting Conditional Use Permits for "hotels and apartment hotels in the C2 Zone if within 500 feet of any A or R Zone." The hotel will offer guest rooms on a temporary basis that cater to visitors, business travelers and others in need of short term accommodations. The rooms generally will contain a kitchenette, allowing for the simple preparation of food in their suite.

Density

Based on a lot size of 20,500 square feet and approval of the proposed Zone Change to C2-2D (R4 density of one guest room per 200 square feet of lot area), a total of 101 guest rooms can be constructed. The applicant proposes a total of 100 guest rooms, which are located in Floors 2 through 6.

Floor Area Ratio and Total Floor Area

With approval of the proposed Height District Change to Height District No. 2, LAMC Section 12.21.1 A.2 provides that the total floor area contained in all buildings shall not exceed six times the buildable area of a lot. As part of the requested Zone Change, a Development "D" Limitation will be placed on the Project Site to limit its FAR to a maximum of approximately 2.99 (approximately 60,637 square feet of floor area). The zone change on a portion of the site to the C2 Zone permits Height District 2 which allows "unlimited" height but an Floor Area Ratio (FAR) maximum of 6:1; however, the subject action will further reduce FAR.

Height

LAMC Section 12.21.1 does not establish a maximum height within the C2 Zone and Height District No. 2. The Project proposes a maximum height of 82 feet. Furthermore, there are no limitations on number of stories for buildings within the C2 Zone and Height District No. 2. The Project consists of six (6) stories, as well as two basement parking levels.

Parking

The Project includes 100 vehicle parking spaces and 12 bicycle parking spaces. Vehicle parking is provided on the ground floor and within two basement levels. On the ground floor are approximately 13 vehicle parking spaces (inclusive if 5 spaces which are in compliance with the Americans with Disabilities Act) for loading and unloading of passengers and luggage. The remainder of the vehicle parking spaces are located in two basement levels.

The Project includes 12 bicycle parking spaces, consisting of 6 long-term spaces and 6 short-term spaces. All 6 short-term spaces are located on the ground floor, just left of the proposed driveway along James M. Wood Blvd. All six of the long-term spaces are located on the first basement level, on the southeast corner of the building.

Automobile Parking Required:

Each of first 30 guest rooms	1 space required	30 spaces
Each room over 30 up to 60	1/2 space required	15 spaces
Each room over 60	1/3 space required	13 spaces
Total Required Parking		59 spaces

Automobile Parking Provided:

Standard	79 spaces
Compact	16 spaces
ADA	5 spaces
Total	100 spaces

Bicycle Parking

	Required	Provided
Long Term	5 spaces	6 spaces
Short Term	5 spaces	6 spaces

Access and Loading

Vehicular access to the Project Site and basement levels is from a proposed driveway on the 15 foot wide alley abutting the west side of the proposed building, and a two-way ramp located at the northern end of the proposed building. Parking on the ground floor allows access for passenger and luggage loading and un-loading. Also located on the ground level is a 600 square-foot loading space, as required by LAMC 12.21 C.6(d).

On-Site Amenities

On-site amenities include a swimming pool and 250 square-foot gym on the second floor, and a 1,033 square-foot meeting room and 2,693 square-foot restaurant on the ground floor.

PUBLIC HEARING

A public hearing by the Hearing Officer on this matter, was conducted on June 22, 2018 at 10:00 a.m., at Los Angeles City Hall, 10th Floor, Room 1060. In attendance were approximately 15 members of the public who are interested parties.

The Applicant's Representative and the Applicant spoke, stating that the project would be an investment in the community, igniting economic activity and tourism, while also creating jobs; and while there is a housing crisis, that does not mean we should deny other uses.

Issues raised by the other speakers were: construction noise and dust, shortage of housing, lack of community benefit and jobs, loss of the shopping center on site, the driving up of housing costs.

In addition to the public testimony, two letters were received prior to the public hearing; one was a request to be on the mailing list, and one stated concerns about air quality impacts, land use impacts, noise impacts, and cumulative impacts.

ISSUES

General Plan Amendment from Highway Oriented Commercial to Community Commercial

The Project Site is located within the Westlake Community Plan area, which designates the site and properties along Alvarado Street between James M Wood Boulevard and midblock between 7th and 8th Streets for Highway Oriented Commercial Land Uses. Properties located north along 7th Street up to Wilshire Boulevard are within the Community Commercial Land Use Designation, as shown in Figure 1 below. The Director of Planning initiated a General Plan Amendment for the Project Site to amend the land use designation from Highway Oriented Commercial to Community Commercial, consistent with the land use designation of the properties located to the north along Alvarado and 7th Streets.

Figure 1: Project Site and Add Area General Plan Land Use Designation

The Westlake Community Plan was last updated in 1997. In 2001, the City readopted the General Plan Framework, which shifted away from the use of the Highway Oriented Commercial Designation to the designations of Neighborhood or Community Commercial to describe land uses along the City's commercial corridors. The Community Commercial Land Use Designation is a useful tool for facilitating walkable neighborhoods as the City and region have embraced a more robust public transportation system, with focused efforts on mixed-use and high density development near rail stations.

Applicability of Measure JJJ

Pursuant to LAMC Section 11.5.11, any development project that will result in 10 or more residential dwelling units and requires a Zone and/or Height District Change that results in increase allowable residential floor area, density, height or allows a residential use where previously not allowed is subject to the provisions of Measure JJJ. As part of this application,

the Director of Planning initiated a General Plan Land Use to change the land use designation from Highway Oriented Commercial to Community Commercial. The project increases floor area, but proposes hotel guestroom uses rather than residential dwelling units. Therefore, it has been determined that the provisions of Measure JJJ do not apply to this Project.

Hotel Use in the C2 Zone

The Westlake community is directly adjacent to Downtown and offers an alternative solution to the lack of supply, and lack of affordability, of hotel rooms in the broader central city area. The hotel and restaurant for hotel guests will provide an additional amenity and service for those who are visiting the area. The hotel use is an allowed use by conditional use approval in the C2 Zone.

Evolution in Project Design

On January 18, 2018, the subject project was presented to the Professional Volunteer Program, a rotating group of architects and designers who provide feedback as a resource to Project Planners as organized by the Department's Urban Design Studio. The following comments were provided.

- The project should incorporate more landscaping.
- The subject building is close to the adjacent building.
- The driveway should not be adjacent to the alley.
- The exterior walls need more articulation.
- The project needs a more prominent entrance to the lobby off of James Wood Boulevard.
- The materials should provide roof plans.
- The materials need renderings showing all four sides.

In response to the comments, the Plans, Elevations, and Renderings were revised with a focus on pedestrian orientation. The original plans showed a driveway on James M. Wood Boulevard in proximity to the existing alley. The vehicular access to the site was removed from James M. Wood Boulevard and redesigned to utilize the alley in order to create a better pedestrian experience by removing the need for a curb cut along James Wood Boulevard. A pedestrian entrance replaced a parking wall, and the lobby was moved to be adjacent to James M. Wood Boulevard. Additional articulation was added to the exterior walls to improve the building elevation, as well as landscaping along the property lines.

The building includes an 18-foot, 9-inch setback at the northerly property line above the first level, which is more than double the required side yard setback that is required.

CONCLUSION

Based on the information submitted, the surrounding uses, input from the public hearing, and good planning and zoning practices, the Department of City Planning recommends that the City Planning Commission approve the requested entitlements. As proposed, the project site will be redeveloped with a new hotel and ground floor ancillary restaurant use. The hotel will serve as a source of employment in the area. The project is consistent with a number of goals, objectives and policies of the General Plan and Westlake Community Plan. As conditioned, the development will be desirable by providing an amenity, in an appropriate location, that will coexist harmoniously with the surrounding commercial and residential uses.

CONDITIONS FOR EFFECTUATING (T) TENTATIVE CLASSIFICATION REMOVAL

BUREAU OF ENGINEERING - SPECIFIC CONDITIONS

Pursuant to Section 12.32 G of the Municipal Code, the (T) Tentative Classification shall be removed by the recordation of a final parcel or tract map or by posting of guarantees through the B-permit process of the City Engineer to secure the following without expense to the City of Los Angeles, with copies of any approval or guarantees provided to the Department of City Planning for attachment to the subject planning case file.

Dedication(s) and Improvement(s). Prior to the issuance of any building permits, the following public improvements and dedications for streets and other rights of way adjoining the subject property shall be guaranteed to the satisfaction of the Bureau of Engineering, Department of Transportation, Fire Department (and other responsible City, regional and federal government agencies, as may be necessary). Dedications and improvements herein contained in these conditions which are in excess of street improvements contained in either the Mobility Element 2035 or any future Community Plan amendment or revision may be reduced to meet those plans with the concurrence of the Department of Transportation and the Bureau of Engineering.

1. Dedication Required;

James M. Wood Boulevard (Avenue III) - None.

Westlake Avenue (Local Street) - None.

Alley (West of Westlake Avenue) - A 2.5-foot wide strip of land along the alley frontage to complete a 10-foot half alley right-of-way in accordance with Alley standards.

2. Improvements Required:

James M. Wood Boulevard - Construct new concrete curb, 2-foot gutter and concrete sidewalk along the property frontage. Upgrade all driveways to comply with ADA requirements or close unused driveway with standard curb height, gutter and concrete sidewalk.

Westlake Avenue - Construct new concrete curb, 2-foot gutter and concrete sidewalk along the property frontage. Upgrade the access ramp at the intersection with James M. Wood Boulevard and open driveways to comply with ADA requirements. Close all unused driveways with standard curb height, gutter and sidewalk.

Alley - Repave the 17.5-foot alley with asphalt concrete and reconstruct the longitudinal gutter per B-Permit requirements along the property frontage. Reconstruct the alley intersection with James M. Wood Boulevard to comply with City standards.

Install tree wells with root barriers and plant street trees satisfactory to the City Engineer and the Urban Forestry Division of the Bureau of Street Services. The applicant should contact the Urban Forestry Division for further information (213) 847-3077.

Notes: Street lighting may be required satisfactory to the Bureau of Street Lighting (213) 847-1551.

Department of Transportation may have additional requirements for dedication and improvements.

Refer to the Department of Water and Power regarding power poles (213) 367-2715.

- 3. Roof drainage and surface run-off from the property shall be collected and treated at the site and drained to the streets through drain pipes constructed under the sidewalk through curb drains or connection to the catch basins.
- 4. Sewer lines exist in alley. Extension of the 6-inch house connection laterals to the new property line may be required. Sewer Facilities Charges and Bonded Sewer Fees are to be paid prior to obtaining a building permit.
- An investigation by the Bureau of Engineering Central District Office Sewer Counter may be necessary to determine the capacity of the existing public sewers to accommodate the proposed development. Submit a request to the Central District Office of the Bureau of Engineering at (213) 482-7050.
- 6. Submit shoring and lateral support plans to the Bureau of Engineering Excavation Counter for review and approval prior to excavating adjacent to the public right-of-way (213) 482-7048.
- 7. Submit parking area and driveway plan to the Central District Office of the Bureau of Engineering and the Department of Transportation for review and approval.

DEPARTMENT OF TRANSPORTATION

8. Suitable arrangements shall be made with the Department of Transportation to assure that a parking area and driveway plan be submitted to the Citywide Planning Coordination Section of the Department of Transportation for approval prior to submittal of building permit plans for plan check by the Department of Building and Safety. Transportation approvals are conducted at 201 N. Figueroa Street Suite 400, Station 3. For an appointment, call (213) 482-7024.

FIRE DEPARTMENT

Prior to the issuance of building permit, a plot plan shall be submitted to the Fire Department for approval.

9. Parking Requirements

The traffic study did not include the number of parking spaces that will be provided by the project. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

<u>Notice</u>: If conditions dictate, connections to the public sewer system may be postponed until adequate capacity is available.

<u>Notice</u>: Certificates of Occupancy for the subject property will not be issued by the City until the construction of all the public improvements (streets, sewers, storm drains, etc.) as required herein, are completed to the satisfaction of the City Engineer.

(Q) QUALIFIED CONDITIONS

Pursuant to Section 12.32 G of the Municipal Code, the following limitations are hereby imposed upon the use of the subject property, subject to the "Q" Qualified classification.

- 1. **Site Plan.** The use and development of the property shall be in substantial conformance with the Plot plan and elevations submitted with the application and marked Exhibit A, dated April 12, 2018, and attached to the administrative file. Prior to the issuance of building permits, revised, detailed development plans that show compliance with all conditions of approval, including complete landscape and irrigation plans, shall be submitted to the Department of City Planning Department for review.
- 2. **Use**. Use of the subject property shall be limited to hotel and guestrooms, with associated ancillary uses only. No residential dwelling units are permitted.

CONDITIONS OF APPROVAL

Pursuant to Section 12.24 W.24(a), and 16.05 of the Los Angeles Municipal Code, the following conditions are hereby imposed upon the use of the subject property:

Entitlement Conditions

- 1. **Use.** Use of the subject property shall be limited to the use and area provisions of the C2 Zone; hotel guest rooms and commercial uses shall be permitted.
- 2. **Residential Density.** Not more than 100 guest rooms may be constructed on the property.
- 3. **Driveway.** The site design for the new building on site shall be limited to one driveway, via the abutting alley.
- 4. **Height.** The building height shall not exceed 82 feet.
- 5. **Floor Area Ratio (FAR).** The proposed project shall be limited to an FAR of 2.99:1 with a total of 60,637 square feet of floor area.
- 6. **Parking.** Parking spaces shall be provided as required by the LAMC.
- 7. **Electric Vehicle Parking.** The project will include at least 20 percent (20%) of the total code-required parking spaces capable of supporting future electric vehicle supply equipment (EVSE). Plans will indicate the proposed type and location(s) of EVSE and also include raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all electric vehicles at all designated EV charging locations at their full rated amperage. Plan design will be based upon Level 2 or greater EVSE at its maximum operating ampacity. Five percent (5%) of the total code required parking spaces will be further provided with EV chargers to immediately accommodate electric vehicles within the parking areas. When the application of either the required 20 percent or 5 percent results in a fractional space, round up to the next whole number. A label stating "EV CAPABLE" will be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.
- 8. **Short-term Bicycle Parking.** The required short-term bicycle parking spaces shall be provided near the stairwell on Westlake Ave.
- 9. **Security Gate (Department of Transportation).** A minimum of 40-foot reservoir space shall be provided between any security gate(s) and the property line.
- 10. **Signage.**
 - a. On-site signs shall be limited to the maximum allowable under the LAMC.
 - b. Multiple temporary signs in windows and along building walls are prohibited.
- 11. **Landscaping.** All open areas not used for buildings, driveways, parking areas, recreational facilities or walks shall be attractively landscaped and maintained in accordance with a landscape loan, including an automatic irrigation plan, prepared by a licensed landscape architect to the satisfaction of the Department of City Planning.

- 12. **Building Materials**. A note shall be added to the Project Elevations to indicate that metal materials incorporated into the design shall be of a non-reflective material.
- 13. **Solar-ready Buildings.** The project shall comply with the Los Angeles Municipal Green Building Code, Section 99.05.211, to the satisfaction of the Department of Building and Safety.
- 14. **Solar and Electric Generator.** Solar generator and electric generator equipment shall be located as far away from sensitive uses as feasible.
- 15. **Window Transparency.** A note shall be added to the Project Elevations to indicate that all ground floor windows shall be comprised of non-reflective, transparent glass. Any atgrade parking uses shall not be visible from the exterior of the building. Architectural treatments, or other design features shall be used to ensure the parking is not visible from the exterior of the building and as shown in Exhibit A.
- 16. Pedestrian Walkways and Entrances. Clearly marked pedestrian access-ways shall be integrated into the site design and connect to the commercial area. The entryway shall incorporate enhanced paving treatment to create a safety buffer between the driveway area and the pedestrian entrance to the building. The doors for pedestrian access throughout the project site shall remain open during business hours. Pedestrian entrances shall be accessible directly from James M. Wood Blvd. and Westlake Ave.
- 17. **No Blank Wall**. A consistent use of architectural and building materials shall be applied throughout all exterior facades of the buildings to avoid creating a "backside" to the site.
- 18. **Wall mounted lighting fixtures.** Wall mounted lighting fixtures to accent and complement architectural details at night shall be installed to provide illumination to pedestrians and motorists in the drop off area.
- 19. **Features.** Project shall incorporate features such as white markings, signage and lighting so that pedestrian crossings are visible to moving vehicles during the day and at night.
- 20. **Roof-mounted Structures.** Any structures on the roof, such as air conditioning units and other equipment, shall be fully screened from view by any abutting properties.
- 21. **Fencing.** All fencing/walls surrounding the ground floor of the subject site shall feature decorative architectural elements or landscaping.
- 23. **Trash/recycling**. Trash and Recycling pick-up and emptying or disposing of trash/recycling into outside containers is permitted to occur only between the hours of 7:00 a.m. and 8:00 p.m., Monday through Friday, and 10 a.m. to 4 p.m., Saturdays and Sundays.
 - a. Trash/recycling containers shall be locked when not in use.
 - b. Trash/recycling containers shall not be placed in or block access to required parking.
- 24. **Solid Waste.** The developer shall institute a recycling program to the satisfaction of the Department of City Planning to reduce the volume of solid waste going to landfills. Recycling bins shall be provided at appropriate locations to promote recycling of paper,

- metal, glass, and other recyclable material. These bins shall be picked up no less than once a week as a part of the project's regular trash pick-up program.
- 25. **Final Plans.** Prior to the issuance of any building permits for the Project by the Department of Building and Safety, the applicant shall submit all final construction plans for final review and approval by the Department of City Planning. All plans that are awaiting issuance of a building permit by the Department of Building and Safety shall be stamped by Department of City Planning staff "Final Plans". A copy of the Final Plans, supplied by the applicant, shall be retained in the subject case file.
- 26. **Flood Hazard.** The project shall comply with the requirements of the Flood Hazard Management Specific Plan, Ordinance No. 172,081 (effective 7/3/98).
- 27. Department of Building and Safety. The granting of this determination by the Director of Planning does not in any way indicate full compliance with applicable provisions of the Los Angeles Municipal Code Chapter IX (Building Code). Any corrections and/or modifications to plans made subsequent to this determination by a Department of Building and Safety Plan Check Engineer that affect any part of the exterior design or appearance of the Project as approved by the Director, and which are deemed necessary by the Department of Building and Safety for Building Code compliance, shall require a referral of the revised plans back to the Department of City Planning for additional review and sign-off prior to the issuance of any permit in connection with those plans.
- 28. **Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning.
- 29. **Expiration.** In the event that this grant is not utilized within three years of its effective date (the day following the last day that an appeal may be filed), the grant shall be considered null and void. Issuance of a building permit, and the initiation of, and diligent continuation of, construction activity shall constitute utilization for the purposes of this grant.
- 30. Covenant. Prior to the issuance of any permits relative to this matter, an agreement concerning all of the information contained in these conditions shall be recorded by the property owner in the County Recorder's Office. The agreement shall run with the land and shall be binding on any subsequent owners, heir, or assigns. Further, the agreement must be submitted to the Planning Department for approval before being recorded. After recordation, a Certified Copy bearing the Recorder's number and date must be given to the City Planning Department for attachment to the subject file.
- 31. **Tree Removal (Non-Protected Trees).** Removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. Contact Urban Forestry Division at (213)847-3077. All trees in the public right-of-way shall conform to the current standards of the Department of Public Works, Urban Forestry Division, Bureau of Street Services
- 32. The applicant shall not permit any loitering on the premises or on property adjacent to the premises.
- 33. The applicant shall be responsible for maintaining free of litter the area adjacent to the premises over which they have control, including the sidewalk in front of the restaurant.

- 34. Prior to the issuance of a demolition, grading, or building permit, the applicant shall contact Metro Bus Operations Control Special Events Coordinator, or Metro's Stops and Zones for closures longer than six months, and coordinate the maintenance or relocation of the bus stop located at the corner of James M. Wood Boulevard and Westlake Avenue. Documentation of correspondence with Metro shall be submitted to the Department of City Planning.
- 35. All off-road construction equipment greater than 50 hp shall meet U.S. EPA Tier 4 emission standards. All construction equipment shall be outfitted with Best Available Control Technology devices certified by the California Air Resources Board. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- 36. Haul trucks (e.g. material delivery trucks and soil import/export) shall be of the 2010 and newer diesel model or trucks that meet U.S. EPA 2007 model year NOx emissions requirements.
- 37. At the time of mobilization of each applicable unit of equipment, a copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided.
- 38. **Construction Impacts.** A Construction work site traffic control plan shall be submitted to the Department of Transportation for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. All construction related traffic be restricted to off-peak hours.
- 39. **Project Access.** As stated above, the proposed driveway will be accessed via an alley way located along James M Wood and will accommodate truck deliveries to the hotel. All delivery truck loading and unloading shall take place on-site with no vehicles backing into the project driveway. Deliveries shall be restricted to off-peak hours only and are expected to occur between the hours of 5 a.m. and 12 p.m. Monday Sunday. A dock manager shall be available on-site to assist delivery trucks accessing the loading area.
- 40. **Development Review Fees.** An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to LADOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.
- 41. **Tribal Cultural Resource Inadvertent Discovery.** In the event that objects or artifacts that may be tribal cultural resources are encountered during the course of any ground disturbance activities (excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, pounding posts, augering, backfilling, blasting, stripping topsoil or a similar activity), all such activities shall temporarily cease on the project site until the potential tribal cultural resources are properly assessed and addressed pursuant to the process set forth below:
 - a. Upon a discovery of a potential tribal cultural resource, the project Permittee shall immediately stop all ground disturbance activities and contact the following: (1) all

California Native American tribes that have informed the City they are traditionally and culturally affiliated with the geographic area of the proposed project; (2) and the Department of City Planning at (213) 978-1454.

- b. If the City determines, pursuant to Public Resources Code Section 21074 (a)(2), that the object or artifact appears to be tribal cultural resource, the City shall provide any effected tribe a reasonable period of time, not less than 14 days, to conduct a site visit and make recommendations to the Project Permittee and the City regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources.
- c. The project Permittee shall implement the tribe's recommendations if a qualified archaeologist, retained by the City and paid for by the project Permittee, reasonably concludes that the tribe's recommendations are reasonable and feasible.
- d. The project Permittee shall submit a tribal cultural resource monitoring plan to the City that includes all recommendations from the City and any effected tribes that have been reviewed and determined by the qualified archaeologist to be reasonable and feasible. The project Permittee shall not be allowed to recommence ground disturbance activities until this plan is approved by the City.
- e. If the project Permittee does not accept a particular recommendation determined to be reasonable and feasible by the qualified archaeologist, the project Permittee may request mediation by a mediator agreed to by the Permittee and the City who has the requisite professional qualifications and experience to mediate such a dispute. The project Permittee shall pay any costs associated with the mediation.
- f. The project Permittee may recommence ground disturbance activities outside of a specified radius of the discovery site, so long as this radius has been reviewed by the qualified archaeologist and determined to be reasonable and appropriate.
- g. Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC) at California State University, Fullerton.

Notwithstanding the above, any information determined to be confidential in nature, by the City Attorney's office, shall be excluded from submission to the SCCIC or the general public under the applicable provisions of the California Public Records Act, California Public Resources Code, and shall comply with the City's AB 52 Confidentiality Protocols.

Environmental Conditions

42. Air Quality

a. Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

43. Biological Resources

- a. Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas) Project activities (including disturbances to native and nonnative vegetation, structures, and substrates) should take place outside of the breeding season for birds, which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code, Section 86). If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Project Applicant shall:
 - Arrange for weekly bird surveys to detect any protected native birds in the habitat
 to be removed and any other such habitat within properties adjacent to the
 Project Site, as access to adjacent areas allows. The surveys shall be conducted
 by a qualified biologist with experience in conducting breeding bird surveys. The
 surveys shall continue on a weekly basis, with the last survey being conducted
 no more than 3 days prior to the initiation of clearance/construction work.
 - If a protected native bird is found, the Project Applicant shall delay all clearance/ construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.
 - Alternatively, the qualified biologist could continue the surveys to locate any
 nests. If an active nest is located, clearing and construction (within 300 feet of the
 nest or as determined by a qualified biological monitor) shall be postponed until
 the nest is vacated and juveniles have fledged, and when there is no evidence of
 a second attempt at nesting. The buffer zone from the nest shall be established
 in the field with flagging and stakes. Construction personnel shall be instructed
 on the sensitivity of the area.
 - The Project Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the Project.

44. Noise

- a. Increased Noise Levels (Demolition, Grading, and Construction Activities)
 - Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
 - Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes.
 - Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.

- Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- The power contractor shall use either plug-in electric or solar powered onsite generators to the extent feasible

45. Transportation and Traffic

- a. The Project Applicant shall submit a formal Work Area Traffic Control Plan for review and approval by the Department of Building and Safety prior to the issuance of any construction permits. This plan shall incorporate safety measures around the site to reduce the risk to pedestrian traffic near the work area. This plan shall identify traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. This plan shall include:
- b. Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times.
- c. Temporary pedestrian facilities shall be adjacent to the project site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.
- d. Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.
- e. Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

Administrative Conditions

- 46. **Approvals, Verification and Submittals.** Copies of any approvals, guarantees or verification of consultations, reviews or approval, plans, etc, as may be required by the subject conditions, shall be provided to the Department of City Planning for placement in the subject file.
- 47. **Code Compliance.** All area, height and use regulations of the zone classification of the subject property shall be complied with, except wherein these conditions explicitly allow otherwise.

- 48. **Covenant**. Prior to the issuance of any permits relative to this matter, an agreement concerning all the information contained in these conditions shall be recorded in the County Recorder's Office. The agreement shall run with the land and shall be binding on any subsequent property owners, heirs or assign. The agreement must be submitted to the Department of City Planning for approval before being recorded. After recordation, a copy bearing the Recorder's number and date shall be provided to the Department of City Planning for attachment to the file.
- 49. **Definition**. Any agencies, public officials or legislation referenced in these conditions shall mean those agencies, public offices, legislation or their successors, designees or amendment to any legislation.
- 50. **Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning and any designated agency, or the agency's successor and in accordance with any stated laws or regulations, or any amendments thereto.
- 51. **Building Plans.** A copy of the first page of this grant and all Conditions and/or any subsequent appeal of this grant and its resultant Conditions and/or letters of clarification shall be printed on the building plans submitted to the Development Services Center and the Department of Building and Safety for purposes of having a building permit issued.
- 52. **Corrective Conditions.** The authorized use shall be conducted at all times with due regard for the character of the surrounding district, and the right is reserved to the City Planning Commission, or the Director pursuant to Section 12.27.1 of the Municipal Code, to impose additional corrective conditions, if, in the Commission's or Director's opinion, such conditions are proven necessary for the protection of persons in the neighborhood or occupants of adjacent property.

53. INDEMNIFICATION AND REIMBURSEMENT OF LITIGATION COSTS.

Applicant shall do all of the following:

- a. Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of the City's processing and approval of this entitlement, including <u>but not limited to</u>, an action to attack, challenge, set aside, void, or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.
- b. Reimburse the City for any and all costs incurred in defense of an action related to or arising out of the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs.
- c. Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the Applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than \$50,000. The City's failure to notice or collect the deposit does not relieve

the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).

- d. Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).
- e. If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

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

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

For purposes of this condition, the following definitions apply:

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

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

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

FINDINGS

Legislative Findings / General Plan / Charter Findings

1. GENERAL PLAN LAND USE DESIGNATION

The Project Site is located within the Westlake Community Plan. The existing Community Plan designates the property as Highway Oriented Commercial with corresponding zones of C2, C1, CR, RAS3, RAS4, and P. The Project Site's current zones are C2-1 and R4-1. The proposed General Plan Amendment will change the land use designation to Community Commercial with corresponding zones of C4, C2, C1, CR, RAS3, RAS4, P, and PB for both the subject Project Site and the "Add Area" (which extends to properties along both sides of Alvarado Street, between 8th Street and James M. Wood Boulevard,). Height District 2 in the C Zone allows unlimited height with a maximum FAR of 6:1.

The Project Site and "Add Area" are in an existing commercial area, a location that is able to support such developments which are in close proximity to rail and bus transit stations. It is made up of retail shops, offices, clinics, and cafés that are pedestrian oriented neighborhood and community serving uses. With approval of the proposed General Plan Amendment from Highway Oriented Commercial to Community Commercial, the Project will be consistent with the land use designation. The mix of commercial uses adjacent to multiple family residential uses give the "Add Area" a distinct identity of being a commercial corridor in proximity to MacArthur Park.

The Westlake Community Plan, last updated in 1997, considers Highway-Oriented commercial uses as drive-thru establishments, auto-repair, and other similar uses, and envisions that these uses be located away from pedestrian oriented areas. However, the built environment of the project site and surrounding properties (including the Add Area) as well as the uses present never evolved into the Highway-Oriented commercial uses identified in the Westlake Community Plan. Most of the buildings in the area are built to the property line. The Project Site and "Add Area" are within walking distance (1,500 feet) of the Metro Red and Purple Line Westlake/MacArthur Park Station. With the continuing investment in the regional and local transit infrastructure and the commitment by the City to create an environment that acknowledges all modes of transportation, the General Plan Amendment from Highway Oriented Commercial to Community Commercial is necessary and appropriate.

2. GENERAL PLAN TEXT

a. Westlake Community Plan: The proposed Project is consistent with several goals, objectives, and policies of the Westlake Community Plan. The plan text includes the following relevant land use goals, objectives and policies:

Commercial, Objective I: To conserve and strengthen viable commercial development in the community and to provide additional opportunities for new commercial development and services.

The Project will develop upon an underutilized site containing a partially-vacant shopping center and will revitalize it with a new viable hotel use.

Commercial, Objective 2: To provide a range of commercial facilities at various locations to accommodate the shopping needs of residents and to provide increased employment opportunities within the community.

The Project will provide short- and long-term jobs, including construction, maintenance, and administrative support staff.

Commercial, Objective 3: To improve the compatibility between commercial and residential uses.

The proposed hotel with a first floor restaurant is compatible with the existing commercial and multiple-family residential development in the area. The existing nearby commercial uses will provide easy access to amenities and services for hotel guests, while the proposed restaurant will be a new amenity for the hotel guests and local residents. The pedestrian friendly architectural design will enhance the streetscape of James M. Wood Boulevard and Westlake Avenue.

Commercial, Policy 1: That commercial facilities be located on existing traffic arteries and commercial corridors.

The development is comprised of a hotel use, is essentially a "hybrid" between residential and commercial uses, and a restaurant commercial use. The development proposed is located along James M. Wood Boulevard, which is a commercial corridor improved with a church just east of the Project Site and a clothing store to the west and a restaurant and hotel to the south.

Commercial, Policy 7: That new commercial development be oriented so as to facilitate pedestrian access by locating parking to the rear of structures.

With the exception of a few spaces for loading/un-loading and compliance with ADA, the majority of the hotel's parking is located in two basement levels.

Commercial, Policy 8: That adequate parking be provided for all types of retail and office commercial development, and that all parking areas adjacent to residential lands be appropriately buffered by a wall and/or landscaped setback.

The Project's parking is provided as required by the LAMC. The majority of the hotel's parking is buffered from residential uses and pedestrians, as it is located in two basement levels.

b. **Framework Land Use Chapter:** The Framework Element's Land Use chapter seeks to support the viability of the City's residential neighborhoods and commercial districts while encouraging sustainable growth in commercial districts.

The General Plan Framework seeks to "reinforce existing and encourage new community centers, which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood and community activity, are compatible with adjacent neighborhoods, and are developed to be desirable places in which to live, work and visit, both in daytime and nighttime." The corresponding zones for the Community Commercial (referred to as Community Centers in the Framework) land use designation are CR, C4, and [Q]C2. The General Plan Framework defines Community Centers as "intended to be identifiable focal points and activity centers for surrounding groups of residential neighborhoods ... and contain a diversity of uses such as small offices, overnight accommodations, cultural and entertainment facilities, schools and libraries in addition to neighborhood-oriented uses."

The General Plan Framework identifies two types of Commercial Centers: I) A multiuse, nonresidential center that encourages the development of professional offices, hotels, cultural and entertainment facilities, in addition to the neighborhood-oriented uses; and, 2) A mixed-use center that encourages the development of housing in concert with the multi-use commercial uses.

The Project supports and is generally consistent with the General Plan Framework Land Use Chapter, and it will contribute an amenity to the residents, employees, and visitors of Los Angeles in general, and the Westlake community in particular. Specifically, the Project will comply with the goals, objectives and policies for the Community Center land use designation, set forth in the General Plan Framework Land Use Chapter:

Goal 3: Pedestrian-oriented, high activity, multi- and mixed-use centers that support and provide identity for Los Angeles' communities.

Objective 3.9: Reinforce existing and encourage new community centers, which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood and community activity, are compatible with adjacent neighborhoods, and are developed to be desirable places in which to live, work and visit, both in daytime and nighttime.

Policy 3.9.1: Accommodate the development of community-serving commercial uses and services and residential dwelling units in areas designated as "Community Center" in accordance with Tables 3-1 and 3-5.

The Community Center land use designation is a focal point for surrounding residential neighborhoods and contains a diversity of uses, Community Centers generally range from floor area ratios of 1.5:1 to 3.0:1, characterized by two- to six-story buildings, e.g., some will be two-story Centers, some four- or six-story Centers depending on the character of the surrounding area.

Policy 3.9.6: Require that commercial and mixed-use buildings located adjacent to residential zones be designed and limited in height and scale to provide a transition with these uses, where appropriate.

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

The Project is consistent with the Community Centers land use designation's first typology: A multiuse, non-residential center that encourages the development of professional offices, **hotels**, cultural and entertainment facilities, in addition to the neighborhood-oriented uses. The Project is located in an area of Westlake consisting of properties with the Highway Oriented Commercial land use designation and are zoned C2-1, among a mix of Medium Residential and High Medium Residential and R3- and R4-zoned properties. The Project Site's proposed Community Commercial land use designation supports the area's diversity of uses, consistent with the Framework's characterization of Community Commercial as a focal point of activity for surrounding groups. The Project will invigorate the immediate area by replacing an obsolete shopping center and associated surface parking lot with a hotel. Approval of the Project will therefore contribute to the existing diversity of jobs and services in an urban area that is well-served by public infrastructure and transit.

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- c. **Health and Wellness Element:** "Plan for a Healthy Los Angeles", the Health and Wellness Element of the General Plan, provides high-level policy vision to elevate health as a priority for the City's future growth and development. The Plan focuses on public health from the perspective of the built environment and City services. The proposed Project is consistent with the Plan 's policies, as follows:
 - Policy 2.2: Healthy building design and construction: *Promote a healthy built environment by encouraging the design and rehabilitation of buildings and sites for healthy living and working conditions, including promoting enhanced pedestrian-oriented circulation, lighting, attractive and open stairs, healthy building materials and universal accessibility using existing tools, practices, and programs.*

Policy 3.8: Active spaces: Support public, private, and nonprofit partners in the ongoing development new and innovative active spaces and strategies to increase the number of Angelinos who engage in physical activity across ages and level of abilities.

Active spaces in the proposed Project include a fitness center and swimming pool. The proposed Project will comply with the state and local Green Building Codes. The project site's location, near several public transit lines, and restaurant uses at the ground level encourage pedestrian circulation in an area currently with limited pedestrian activity.

- d. **Mobility Element:**, The proposed General Plan Amendment and Zone Change are consistent with the Mobility Plan 2035, the Mobility/Transportation Element of the General Plan, including the five goals of the plan to provide:
 - i. Safety First
 - ii. World Class Infrastructure
 - iii. Access for All Angelenos
 - iv. Collaboration, Communication and Informed Choices
 - v. Clean Environments & Healthy Communities

Pursuant to Mobility Plan 2035, the designations for the Project's adjacent streets are: James M. Wood Boulevard, adjoining the project site to the south, is designated an Avenue III and has a 72-foot right-of-way; Westlake Avenue, adjoining the project site to the east, is designated a Standard Local Street with a 60-foot right-of-way. The proposed project will not impact Mobility Plan 2035 as Westlake Avenue is presently 60 feet wide while the portion of James M. Wood Blvd. that is adjoining the project site has varying widths of 78 to 80 feet. The Department of Public Works, Bureau of Engineering is requiring off-site improvements as part of the project's approval, including any necessary removal and reconstruction of the existing right of way improvements.

The Applicant is not requesting discretionary actions to allow relief from off-street automobile stalls and bicycle parking spaces. The project site is well-served by public transportation, including the following regional and local bus lines:

- -Metro Local Line 200 runs north-south along Alvarado Street;
- -Metro Local Line 66 runs east-west along 8th Street and Olympic Boulevard.
- -LADOT Pico Union / Echo Park line runs in all directions but generally north-south toward Echo to the north and the Pico Union neighborhood to

the south, including along Alvarado Street, Union Avenue, Westlake Avenue, Lucas Avenue and Washington Boulevard.

3. CHARTER COMPLIANCE - CITY CHARTER SECTIONS 555, 556 AND 558 (GENERAL PLAN AMENDMENT)

The proposed General Plan Amendment is consistent with Charter Sections 555, 556 and 558. It sustains numerous goals, policies and objectives of the Citywide General Plan Framework and the Westlake Community Plan to provide density in commercial centers, support transit use, reduced vehicle dependency, and improve air quality. The proposed GPA will change the land use designation from Highway Oriented Commercial to Community Commercial on the land use map, promoting job and housing growth in a multi-use, non-residential center that encourages the development of professional offices, hotels, cultural and entertainment facilities, in addition to the neighborhood-oriented uses.

The Project Site and "Add Area," which extends to properties along both sides of Alvarado Street, between 8th Street and James M. Wood Boulevard, are in an existing commercial and multiple family residential area, a location that is able to support such developments that are in close proximity to rail and bus transit stations. recommended "Add Area" is zoned C2, and is a mix of commercial uses, in a node of urban activity. The project site and "Add Area" are located within one-half mile from the MacArthur Park Metro Red Line and Purple Line Rail Station, which is at the corner of 6th Street and Alvarado Boulevard adjacent to the popular McArthur Park. The MacArthur Park Metro Red Line station provides access to Hollywood and the San Fernando Valley. with connecting service to the Metro Orange Line (serving the west Valley and Chatsworth). The Metro Red Line and Purple Line serve Downtown, including Los Ange les Union Station, with connecting service to the Metro Gold Line (serving Azusa and East Los Angeles), Amtrak passenger rail, Metrolink commuter rail, and bus service for regional and local lines. The Metro Purple Line also serves Koreatown. The Metro Blue Line originates at the 7th Street/Metro Center station and provides access from downtown Los Angeles to downtown Long Beach, as well as connecting service to the Metro Green Line (serving Norwalk, Redondo Beach, and LAX via shuttle). Additionally, the Wilshire/Alvarado Bus Station provides access to the several Metro Bus lines that are available.

The Project Site is located within the Westlake Community Plan area, which designates the site and properties along Alvarado Street between James M Wood Boulevard and midblock between 7th and 8th Streets for Highway Oriented Commercial Land Uses. Properties located north along 7th Street up to Wilshire Boulevard are within the Community Commercial Land Use Designation. The General Plan Amendment for the Project Site to amend the land use designation from Highway Oriented Commercial to Community Commercial, is consistent with the land uses of the properties located to the north along Alvarado and 7th Streets, which includes local serving commercial uses such as local restaurants, bakeries, and retail establishments.

The Westlake Community Plan was last updated in 1997. In 2001, the City readopted the General Plan Framework, which shifted away from the use of the Highway Oriented Commercial Designation to the designations of Neighborhood or Community Commercial to describe land uses along the City's commercial corridors. The Community Commercial Land Use Designation is a useful tool for facilitating walkable neighborhoods as the City and region have embraced a more robust public transportation system, with focused efforts on mixed-use and high density development near rail stations.

The Community Commercial Land Use Designation is a useful tool for facilitating walkable neighborhoods consistent with the region's increasingly more robust public transportation system, including mixed-use and high density development near rail stations and bus lines.

As conditioned, the Project will be designed in harmony with the existing neighborhood and minimize impacts on neighboring properties. The Project's recommended bulk and height will be an appropriate addition to adjacent land uses. The Project will replace an underutilized shopping center and associated surface parking lot with a hotel, which is compatible with other developments and improvements in the immediate vicinity. The GPA will unify land use and zoning with adjacent and future planned land use patterns in the "Add Area." Moreover, it would allow for redevelopment of the Project Site, reflecting the typical scale envisioned by the General Plan Framework. It would also provide a hotel in the Westlake area to accommodate a growing shortage of hotel rooms and employment opportunities in the surrounding neighborhood.

Entitlement Findings

- 1. Zone Change Findings.
 - a. Pursuant to Section 12.32 C of the Municipal Code, and based on these findings, the recommended action is deemed consistent with public necessity, convenience, general welfare and good zoning practice.

The proposed Project is a new six-story hotel comprising 100 guest rooms, approximately 10,948 square feet of office, restaurant, meeting room and support space, and two levels of basement parking. The Project includes approximately 100 vehicle parking spaces and 12 bicycle parking spaces. The Project Site is currently improved with an approximately 8,228 square-foot, single-story shopping center and related surface parking on three lots totaling approximately 22,500 square feet. The Project Site is zoned R4-1 and C2-1 and designated in the Westlake Community Plan as Highway Oriented Commercial.

The proposed Vesting Zone Change to C2-2D would lead to a development that is deemed consistent with public necessity, convenience, general welfare and good zoning practice. The Westlake Community Plan designates the property for Highway Oriented Commercial uses, which corresponds to the C 1, C2, CR, RAS3, RAS4 and P Zones. The proposed Zone Change to C2-2D is consistent with the proposed General Plan Land Use Designation of Community Commercial, as the C2 Zone is one of the corresponding zones. For the C2 Zone, Height District No.2 allows unlimited height; however, height is effectively limited by a maximum FAR of 6: I. The proposed Project will be built to a height of approximately 82 feet and an FAR of 2.99:1. The proposed Zone Change would allow for the R4 portion of the lot to match the C2 portion.

<u>Public Necessity, Convenience, and General Welfare.</u> The rezoning of the site to accommodate the conditioned project will be consistent with public necessity as it will increase both job opportunities and tourism in the Westlake Community of Los Angeles. The Project site is located within an area that includes a dense collection of office buildings, hotels, stores, churches, schools and apartment buildings, as well as the MacArthur Park Metro Red Line and Purple Line Rail subway station at the corner of 6th Street and Alvarado Boulevard. The rezoning allows for the construction of commercial, residential and hotel uses. As conditioned, the design of the

proposed project will enhance the neighborhood and will contribute to the Westlake Community Plan Area.

The objectives of the Westlake Community Plan include providing adequate land for strengthening existing commercial areas and designing new development to be compatible with adjacent residential neighborhoods. Changing the existing zone to the (T)(Q)C2-2D Zone will allow for the development of project that complements adjacent properties and the neighborhood. Public Convenience is also served by increasing pedestrian activity and accommodating tourism, given the close proximity to downtown.

The Project reduces reliance on the car by locating a hotel use near transit access to local and regional destinations. The proposed project will be located less than a mile from an existing Metro subway station and just south of a major transportation corridor that provides substantial public transit opportunities and facilities. The site is located near many office, residential, retail and restaurant uses. These opportunities increase pedestrian activity, which in turn benefits local businesses and neighborhoods.

The proposed project will promote general welfare of the community by the following:

- Help meet local job needs.
- Enhance the sense of community in the area by providing an amenity near substantial public transit opportunities and facilities.
- o Bring investment to the Westlake community.

The requested Zone Change to (T)(Q)C2-2D is in substantial conformance with the purposes, intent and provisions of the General Plan, and is consistent with good zoning practice. It will provide for development of Project that complements both the commercial and residential character of the area. The Project's bulk and size is compatible and consistent with the dense multifamily and commercial uses in the area. The proposed Zone Change would enhance the pedestrian experience, provide new opportunities for tourism, and provide a development compatible with the surrounding area.

b. Per LAMC Section 12.32 G.1 and 2, the current action, as recommended, has been made contingent upon compliance with new "T" and "Q" conditions of approval imposed herein for the proposed project. The "T" Conditions are necessary to ensure the identified dedications, improvements, and actions are undertaken to meet the public's needs, convenience, and general welfare served by the actions required. These actions and improvements will provide the necessary infrastructure to serve the proposed community at this site. The "Q" conditions that limits the scale and scope of future development on the site are also necessary to protect the best interests of and to assure a development more compatible with surrounding properties and the overall pattern of development in the community, to secure an appropriate development in harmony with the General Plan, and to prevent or mitigate the potential adverse environmental effects of the subject recommended action.

2. Height District Change Findings.

a. Pursuant to Section 12.32 of the Municipal Code, and based on these findings, the recommended action is deemed consistent with public necessity, convenience, general welfare and good zoning practice.

The proposed Height District Change from Height District 1 to Height District 2D would permit an FAR of 3:1 on the site. The proposed Height District Change will allow for the construction, use and maintenance of the proposed hotel project, which is consistent with the General Plan and serves the public necessity, convenience and general welfare and good zoning practice. The requested Height District Change would allow for consistent scale of development throughout the Project Site. The proposed FAR would be equivalent in Floor Area Ratio allowed within the surrounding parcels with zoning designations of R3 and R4. The concurrent Height District Change to Height District No. 2D will limit development of the proposed hotel to a maximum FAR of 3:1, ensuring that bulk and scale are compatible with existing zoning and future development in the neighborhood.

3. Vesting Conditional Use Findings.

a. That the project will enhance the built environment in the surrounding neighborhood or will perform a function or provide a service that is essential or beneficial to the community, city or region.

The Applicant is requesting a Conditional Use Permit ("CUP") to allow the construction, use and maintenance of a 6-story, 100-room hotel with two levels of basement parking which is located within 500 feet of an "R" Zone. The proposed hotel would replace the current underutilized 8,228 square-foot shopping center and associated surface parking lot.

Approval of the CUP will provide a service that is essential and beneficial to the community and region. There is currently a hotel shortage in the Downtown area-particularly around the convention center. Much of the existing supply in Downtown Los Angeles is characterized by two types of hotels: very high-end and expensive or low-end. Current real estate values can make it difficult to build moderately priced hotels Downtown. Communities outside of Downtown Los Angeles that are just a short distance away, offer an alternative.

On-site amenities include a swimming pool and 250 square-foot gym on the second floor, and a 1,033 square-foot meeting room and 2,693 square-foot restaurant on the ground floor.

The use of the hotel and ground floor restaurant is compatible with the surrounding development and will serve as a source for increased employment. The hotel and restaurant will provide an additional amenity and service for those who are visiting the area and local residents. As conditioned herein, the project will enhance the built environment in the surrounding neighborhood and will provide an amenity and service that will be beneficial to the community.

b. That the project's location, size, height, operations and other significant features will be compatible with and will not adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.

Within 500 feet of the Project Site are parcels with land use designations of Medium Residential and High Medium Residential (R3 and R4 Zones) with an accompanying footnote on the Westlake Community Plan Land Use Map limiting height and FAR to Height District No.1. The surrounding parcels with zoning designations of R3 and R4 are permitted a maximum FAR of 3:1. The concurrent request for a Height District

Change to Height District No. 2 will limit development of the proposed hotel to a maximum FAR of 3:1, ensuring that bulk and scale are compatible with existing and future development in the neighborhood.

Furthermore, the Project Site is located on James M. Wood Boulevard, a commercial corridor characterized at this location by a church to the east, a restaurant and hotel to the south, and retail to the west. The 9-foot setback along the northern boundary of the Project Site and the "U"-shaped orientation of the hotel provides a buffer and reduces massing between the hotel and the existing apartment complex north of the Project Site.

c. That the project substantially conforms with the purpose, intent and provisions of the General Plan, the applicable community plan, and any applicable specific plan.

The Project Site's proposed zoning is C2-2D, which is consistent with the proposed land use designation of Community Commercial. The proposed Project substantially conforms with the general purpose and intent of the Westlake Community Plan, including;

Commercial, Objective No.1: To conserve and strengthen viable commercial development in the community and to provide additional opportunities for new commercial development and services.

Approval of the requested CUP will allow demolition of the existing 8,228 square-foot underutilized shopping center and allow the development of a hotel, a much-needed service that will foster tourism and create jobs for the Westlake community.

Commercial, Objective No.3: To improve the compatibility between commercial and residential uses.

Defined as a residential use, hotels represent a "hybrid" of residential and commercial uses, ensuring compatibility between the commercial uses surrounding its three sides and the multifamily development to the north.

Commercial, Policy No.7: That new commercial development be oriented so as to facilitate pedestrian access by locating parking to the rear of structures.

Except for a few parking spaces on the ground floor to facilitate loading and unloading, the majority of the Project's parking is located in two basement levels. Vehicular access to the Project Site is limited to a single driveway located on the abutting alley. Access to the basement levels is through a two-way ramp at the rear of the property, ensuring that James M. Wood Boulevard and Westlake Avenue remain pedestrian-friendly.

Commercial, Policy No.8: That adequate parking be provided for all types of retail and office commercial development, and that all parking areas adjacent to residential lands be appropriately buffered by a wall and/or landscaped setback.

The proposed Project provides the Code-required vehicle parking spaces. That the majority of the Project's parking is located below ground level certainly ensures that the parking area is appropriately buffered from residential uses.

- **4. Site Plan Review Findings.** In order for the site plan review to be granted, all three of the legally mandated findings delineated in Section 16.05 F of the Los Angeles Municipal Code must be made in the affirmative:
 - a. The project is in substantial conformance with the purposes, intent and provisions of the General Plan, applicable community plan, and any applicable specific plan.

The proposed Project involves the demolition of an existing shopping center and associated surface parking lot and the construction of a six-story, 100-room hotel with two levels of basement parking. The building will include ancillary uses such as meeting room, office, maintenance, swimming pool, fitness center and restaurant for the hotel's guests.

The Project Site is within the Westlake Community Plan and contains dual zoning designations of R4-1 and C2-1 and a single General Plan Land Use Designation of Highway Oriented Commercial. The proposed GPA would designate the Project Site with the Community Commercial Land Use Designation with a corresponding zone of C2-2D in order to allow construction of the proposed hotel. The requested Zone and Height District Change from R4-1 and C2-1 to C2-2D is compatible with the existing development of the neighborhood, consistent with the general intent and provisions of Westlake Community Plan. The proposed 6-story building would be compatible with the surrounding 2 and 4 story buildings because proposed Project is on a corner, in node of urban activity.

Framework Element

Land Use (Framework Chapter 3)

Goal3A (Distribution of Land Use): A physically balanced distribution of land uses that contributes towards and facilitates the City's long-term fiscal and economic viability, revitalization of economically depressed areas, conservation of existing residential neighborhoods, equitable distribution of public resources, conservation of natural resources, provision of adequate infrastructure and public services, reduction of traffic congestion and improvement of air quality, enhancement of recreation and open space opportunities, assurance of environmental justice and a health of living environment, and achievement of the vision for a more livable city.

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

Objective 3.2: Provide for the spatial distribution of development that promotes an Improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled, and air pollution.

Objective 3.3: Accommodate projected population and employment growth within the City and each community plan area and plan for the provision of adequate supporting transportation and utility infrastructure and public services.

Objective 3.4: Encourage new multi-family residential, retail commercial, and office development in the City's neighborhood districts, community, regional, and downtown centers as well as along primary transit corridors/boulevards, while at the same time conserving existing neighborhoods and related districts.

Economic Development (Framework Chapter 7)

Goal 7D: A City able to attract and maintain new land uses and businesses.

Conformance with the Westlake Recovery Redevelopment Project Plan

The Project is consistent with the following Redevelopment Plan goals:

Goal No.1: To promote the economic well-being of Westlake through the encouragement of the revitalization of viable commercial areas.

Goal No.4: To enhance the safety of residents, business owners, employees and visitors and their property.

Goal No. 21: To reduce crime, the fear of crime, graffiti and vandalism in the community to enhance livability for residents and businesses and to encourage visitors.

Goal No. 26: To enhance and promote the Westlake community as a place to live, shop and work, and to create a safe 24-hour viable community.

The Project meets several objectives and goals, including promoting the economic well-being of Westlake by contributing to the revitalization of a commercial area, and locating new development near public transit, and shopping, services, and employment. The Project represents the re-development of an existing underutilized site, in an urbanized location, near a major transit corridor. A hotel at this location helps to revitalize a neighborhood, accommodate tourism, enhance business development, and promote efficient use of the land.

Commercial Citywide Design Guidelines

The City of Los Angeles' General Plan Framework Element and each of the City's 35 Community Plans promote architectural and design excellence in buildings, landscape, open space, and public space. They also stipulate that preservation of the City's character and scale, including its traditional urban design form, shall be emphasized in consideration of future development. The Citywide Design Guidelines serve to implement the Urban Design Principles, a part of the Framework Element. These principles are a statement of the City's vision for the future of Los Angeles, providing guidance for new development and encouraging projects to complement existing urban form in order to enhance the built environment. The proposed development is consistent with the following goals, objectives and policies of the Residential Citywide Design Guidelines:

Objective No. 1: Consider Neighborhood Context & Linkages in Building & Site Design

Site Planning:

Creates a strong street wall by locating building frontages at the front property line where no setback requirement exists, or at the required setback.

Provide direct paths of travel for pedestrian destinations within large developments. Especially near transit lines, create primary entrances for pedestrians that are safe, easily accessible, and a short distance from transit stops.

The project meets this guideline by bringing the building close to the property line and incorporating landscaping within the transition between the sidewalk and the private property. The main entrance is located in the middle of James M. Wood Boulevard, and a secondary entrance is located at the corner of James M. Wood Boulevard and Westlake Avenue.

Entrances

Ensure that the main entrance and entry approach can accommodate persons of all mobility levels.

The building was designed to provide multiple entry points that are accessible to persons of all mobility levels. A main entrance is located on James M. Wood Boulevard and at corner, both of which are at existing grade. The vehicular parking area also includes an entryway directly into the lobby area. The short-term bicycle parking is located on the ground level away from vehicles, with easy access to the lobby area.

Relationship to Adjacent Buildings

Ensure that new buildings are compatible in scale, massing, style, and/or architectural materials with existing structures in the surrounding neighborhood. In older neighborhoods, new developments should likewise respect the character of existing buildings with regards to height, scale, style, and architectural materials.

The new building is built to the property line at the street level, which is in keeping with most of the adjacent development. The building is 6 stories tall, whereas the tallest buildings within the vicinity is 5 stories tall. The C-zoned properties within the vicinity have no height limit. In addition, the less intense development is located between the corridors, and the proposed project is appropriate for the site as it fronts a commercial corridor.

Plant trees, shrubs, and vines to screen walls between property lines. Use decorative walls that include a change in color, material, and texture.

The project includes landscaping in the areas between the property and building lines. The project features horizontal and vertical contrasts at the base and the upper stories and utilizes a variety of materials including stucco, aluminum textured wall panels, and wood siding to create visual interest.

Objective No. 2: Employ High Quality Architecture to Define the Character of Commercial Districts

Pedestrian Scale

Differentiate the ground floor from upper floors. Changes in massing and architectural relief add visual interest and help to diminish the perceived height of buildings.

The project features a strong base that is differentiated from the upper stories. The base incorporates horizontal accents, while the upper stories include articulated masses and window fins to create verticality.

Objective 4: Minimize the Appearance of Driveways and Parking Areas

Off-Street Parking and Driveways

Place on-site parking to the side or rear of buildings so that parking does not dominate the streetscape.

Maintain continuity of the sidewalk by minimizing the number of curb cuts for driveways and utilizing alleys for access and egress. Where alleys do not exist, concentrate curb cuts at side streets or mid-block.

The project was designed to have vehicular access to the project taken from the alley to the west of the project site. The sidewalk along the property lines do not have any curb cuts, which will create a seamless walking experience.

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

The Project will be compatible with existing and future development on adjacent and neighboring properties, as described below:

Arrangement of Buildings and Structures

Arrangement of the Project's building and site features, including bulk and massing, height and setbacks, will be compatible with surrounding development. The Project comprises a six-story building with 100 guest rooms, approximately 10,948 square feet of office, restaurant, meeting room and support space on the ground floor and mezzanine that is open only to hotel guests, and two levels of basement parking, with frontage along James M. Wood Boulevard and Westlake Avenue.

In terms of bulk and massing the Project will rise as a single "U" shaped building above two levels of basement parking. The "U" shape of the building "opens" along the northern boundary of the site, breaking up the mass of the Project's northern elevation and ensuring compatibility with the adjacent multi-family building north of the Project Site.

The Project's massing is further articulated by varied architectural treatments and materials. The combination of platinum, metal fringe and lace veil cement plaster and yellow teak wood veneer, dark bronze aluminum and boat anchor metal canopies accentuate the building form while windows and doors enliven the ground floor and encourage foot traffic. The variation in colors and wall planes provide additional articulation. The canopy and signage draw attention to the main entrance to the building at James M. Wood Boulevard, ensuring compatibility with the residential neighborhood along Westlake Avenue.

In terms of height, the new zone designation does not have a height limit. The six-story Project's stair cases and elevator shafts create a varied roofline that range between 73 and 82 feet which, together with other elements of the Project's design, is compatible with the height and scale of the surrounding urban neighborhood. The proposed six story height for the Project helps provide a visual transition from the two- to four-story multifamily residential buildings surrounding the Project Site, including along adjoining Westlake Avenue and along James M. Wood Boulevard past Alvarado Street and Bonne Brae Avenue.

The Project will meet or exceed all yard setback requirements which include 0-feet required at the front yard along Westlake Avenue, 0-feet at the side yard along James M. Wood Boulevard, 0-feet rear yard along the alley adjoining the Project Site to the west and, a 9-foot side yard along the northern boundary. The 9-foot side yard-including the landscaping on the ground floor along the northern boundary provides a buffer from the adjacent multi-family building. Together with the "U" shape of the building, the setback will further contribute to compatibility with the surrounding neighborhood and enhance the urban experience for pedestrians and residents.

Off-Street Parking Facilities

The Project will provide all 100 automobile parking spaces on-site. Except for a few spaces on the ground floor to accommodate loading / un-loading and in compliance with ADA regulations, most of the Project's parking spaces are contained within two basement levels. Automobile access will be limited to one driveway off the alley to the west. The proposed automobile parking spaces and restriction of vehicular access to James M. Wood Boulevard will minimize potential traffic and parking impacts on adjacent streets.

Long-term bicycle parking spaces will be secured in the subterranean parking structure. Short-term bicycle parking spaces will be located along the James M. Wood Boulevard frontage, in proximity to the main pedestrian entrance to the hotel lobby, consistent with the LAMC's bicycle parking regulations.

Loading Areas

The Project will contain one loading space and trash area that will be located on-site and will be accessible from the abutting alley on the north side of the building. It is situated to minimize visibility from surrounding properties to the greatest extent feasible and, minimize disruptions to traffic flow.

Lighting

The Project's lighting program will be compatible with surrounding development. Exterior lighting will illuminate on-site facilities in order to provide sufficient lighting for circulation and security, while minimizing impacts on adjacent properties.

Landscaping

Landscaping is incorporated into portions of the project not covered by buildings or structures, including within the side yard along the northern boundary of the Project Site and along the James M. Wood Boulevard frontage.

Trash Collection

The Project will provide adequate, on-site space for trash receptacles in order to ensure safe and efficient handling of solid waste. Trash areas will be accessible from the Project's loading area and will not be visible from the street.

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

The hotel use is defined as a residential use due to the habitable rooms; however, it is not required to provide open space pursuant to LAMC Section 12.21 G as there are no dwelling units proposed. Although recreational and service amenities are not required, the Project will provide a restaurant, meeting room, swimming pool and gym, allowing guests the option to enjoy the convenience of these amenities on-site. These amenities will be limited for use by hotel patrons only. As conditioned herein, impacts will be minimized on neighboring properties.

Environmental Findings

- **5. Environmental Finding.** A Mitigated Negative Declaration (ENV-2015-2031-MND) was prepared for the proposed project. On the basis of the whole of the record before the lead agency including any comments received, the lead agency finds that, with imposition of the mitigation measures described in the MND and the Revisions and Additional Analysis dated January 10, 2018, there is no substantial evidence that the proposed project will have a significant effect on the environment. The attached Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. The records upon which this decision is based are with the Department of City Planning on the 13th floor of 221 N. Figueroa Street.
- **6. Flood Insurance.** The National Flood Insurance Program rate maps, which are a part of the Flood Hazard Management Specific Plan adopted by the City Council by Ordinance No. 172,081, have been reviewed and it has been determined that this project is located in Zone C, areas of minimal flooding.

PUBLIC HEARING AND COMMUNICATIONS

A public hearing by the Hearing Officer, on this matter, was conducted on June 22, 2018, at 10:00 a.m., at Los Angeles City Hall, 10th Floor, Room 1060.

1. Attendees

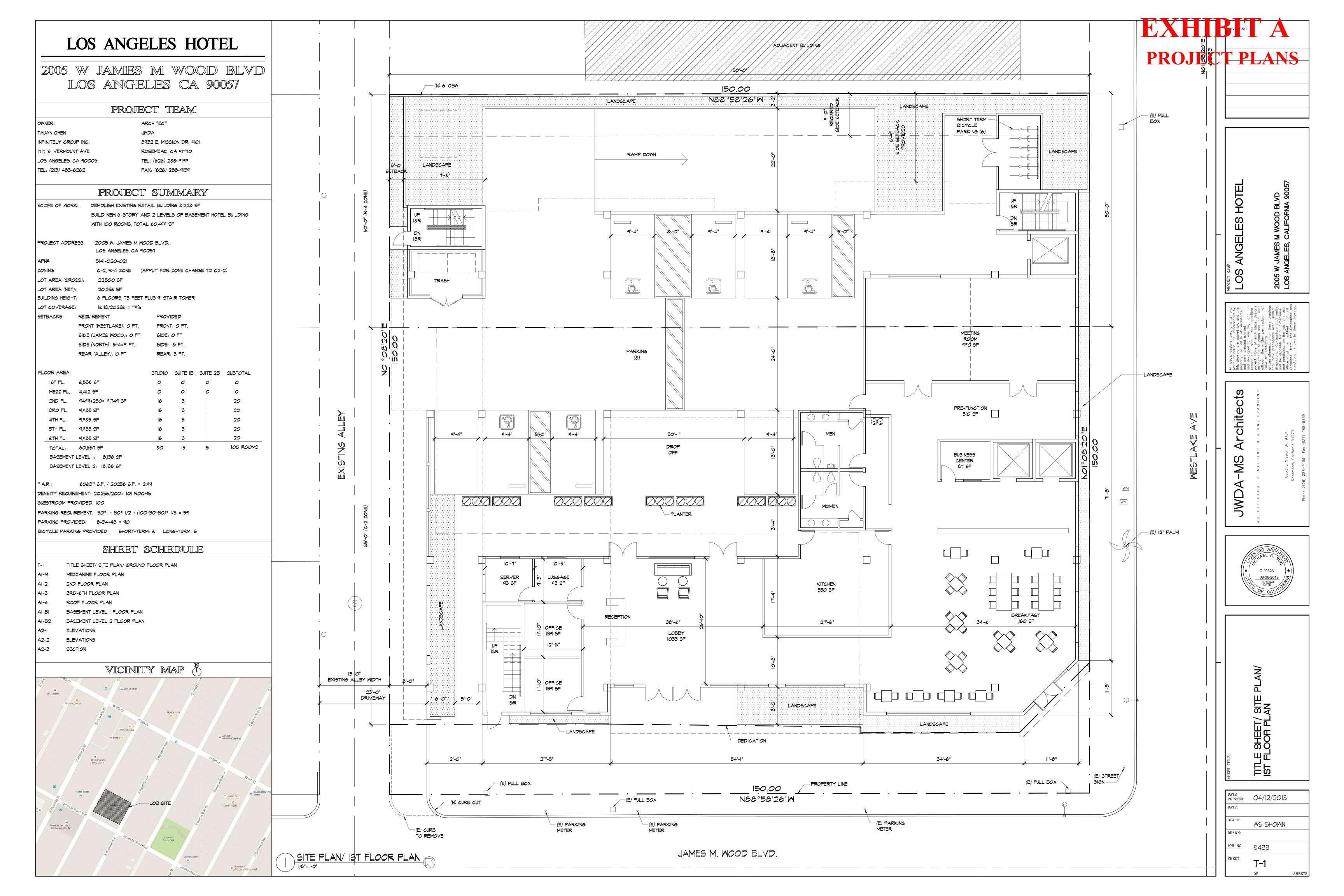
The hearing was attended by the applicant, the applicant's representatives, and approximately 15 members of the public who are interested parties to the project.

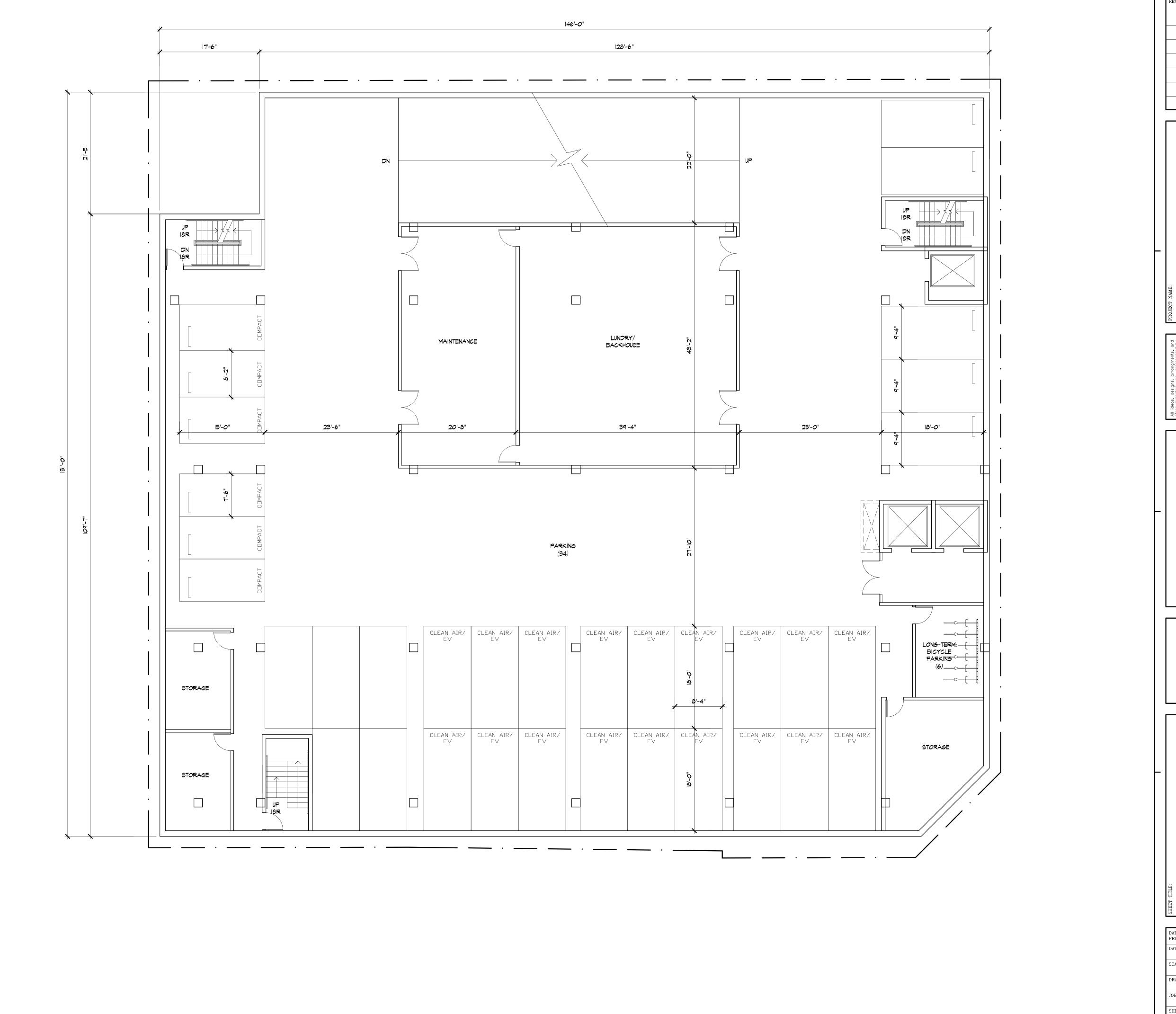
2. Testimony

The Applicant's Representative and the Applicant spoke, stating that the project would be an investment in the community, igniting economic activity and tourism, while also creating jobs. And while there is a housing crisis, that does not mean we should deny other uses.

Five other individuals spoke, one representing a union group. Issues raised were, construction noise and dust, shortage of housing, lack of community benefit and jobs, loss of the shopping center on site, the driving up of housing costs.

In addition to the public testimony, two letters were received prior to the public hearing; one was a request to be on the mailing list, and one stated concerns about air quality impacts, land use impacts, noise impacts, and cumulative impacts.





BASEMENT LEVEL | FLOOR PLAN

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Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be reposible for all dimensions and conditions on the job, and this office must be notified of all variations from the dimensions and conditions shown by these drawings.

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8932 E Mission Dr. #101

C-29323

C-2

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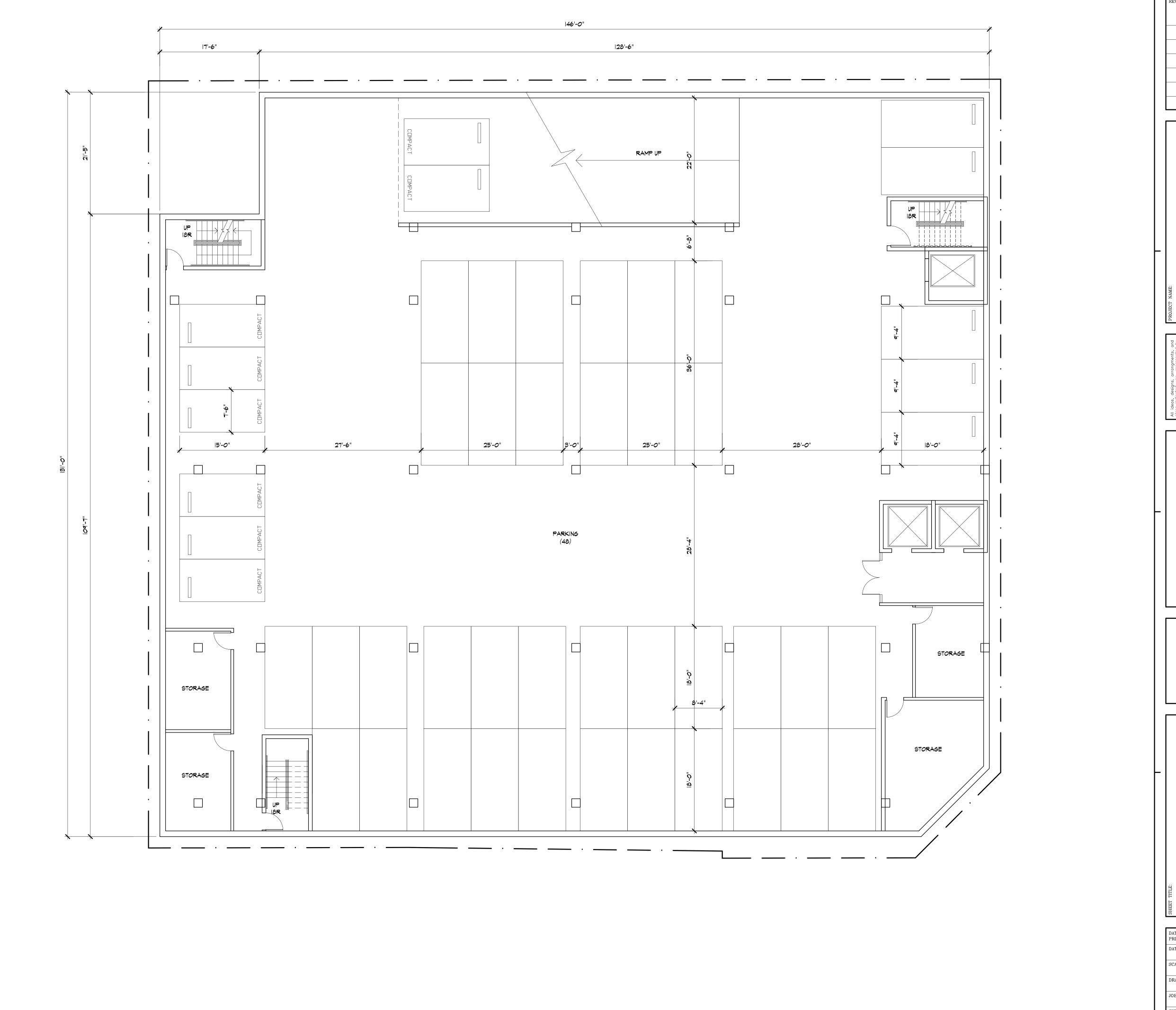
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BASEMENT LEVEL 2 FLOOR PLAN

LOS ANGELES HOTEL
2005 W JAMES M WOOD BLVD
LOS ANGELES, CALIFORNIA 90057

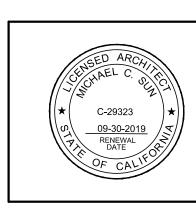
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SEMENT LEVEL 2 FLOOR PLAN

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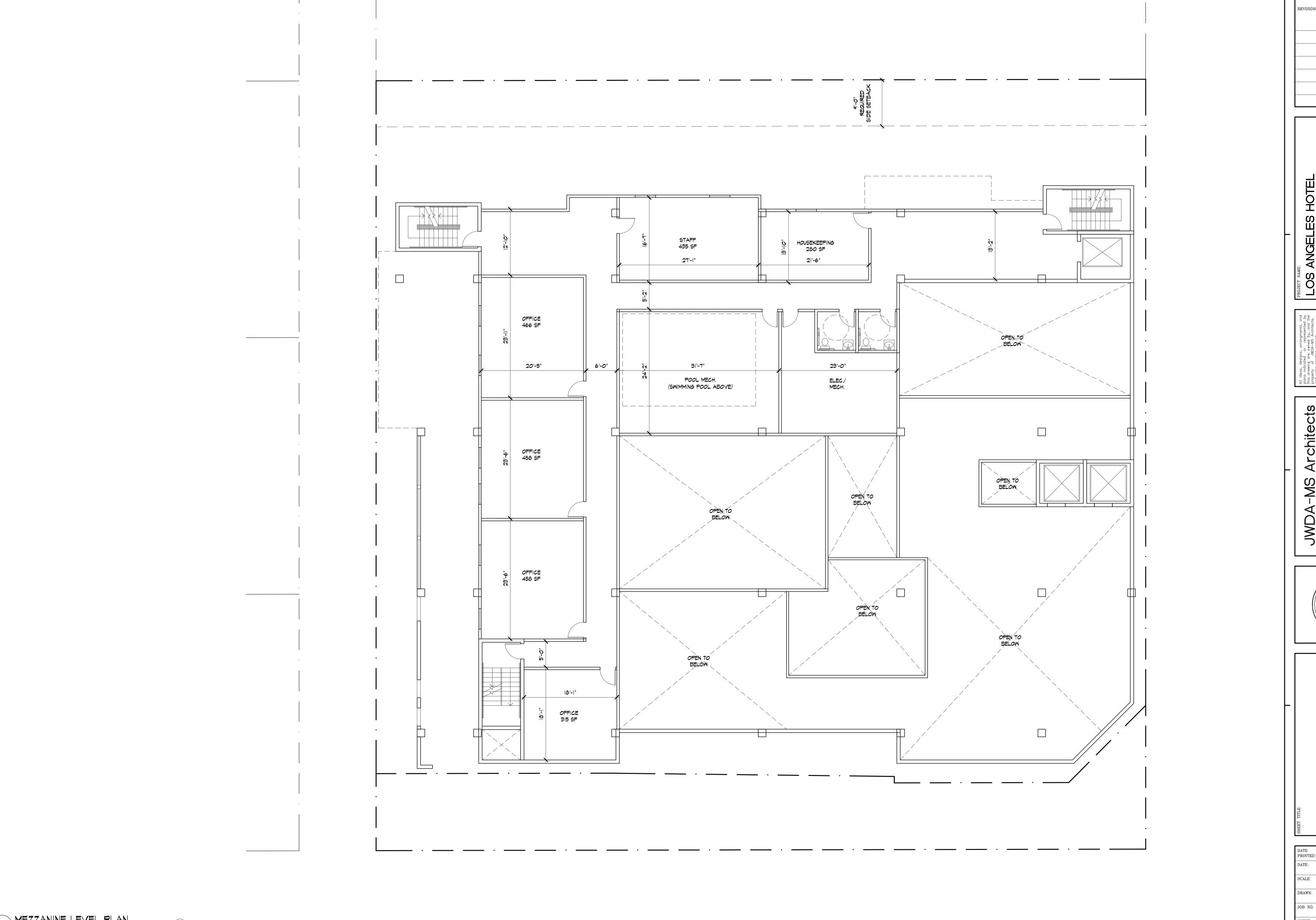
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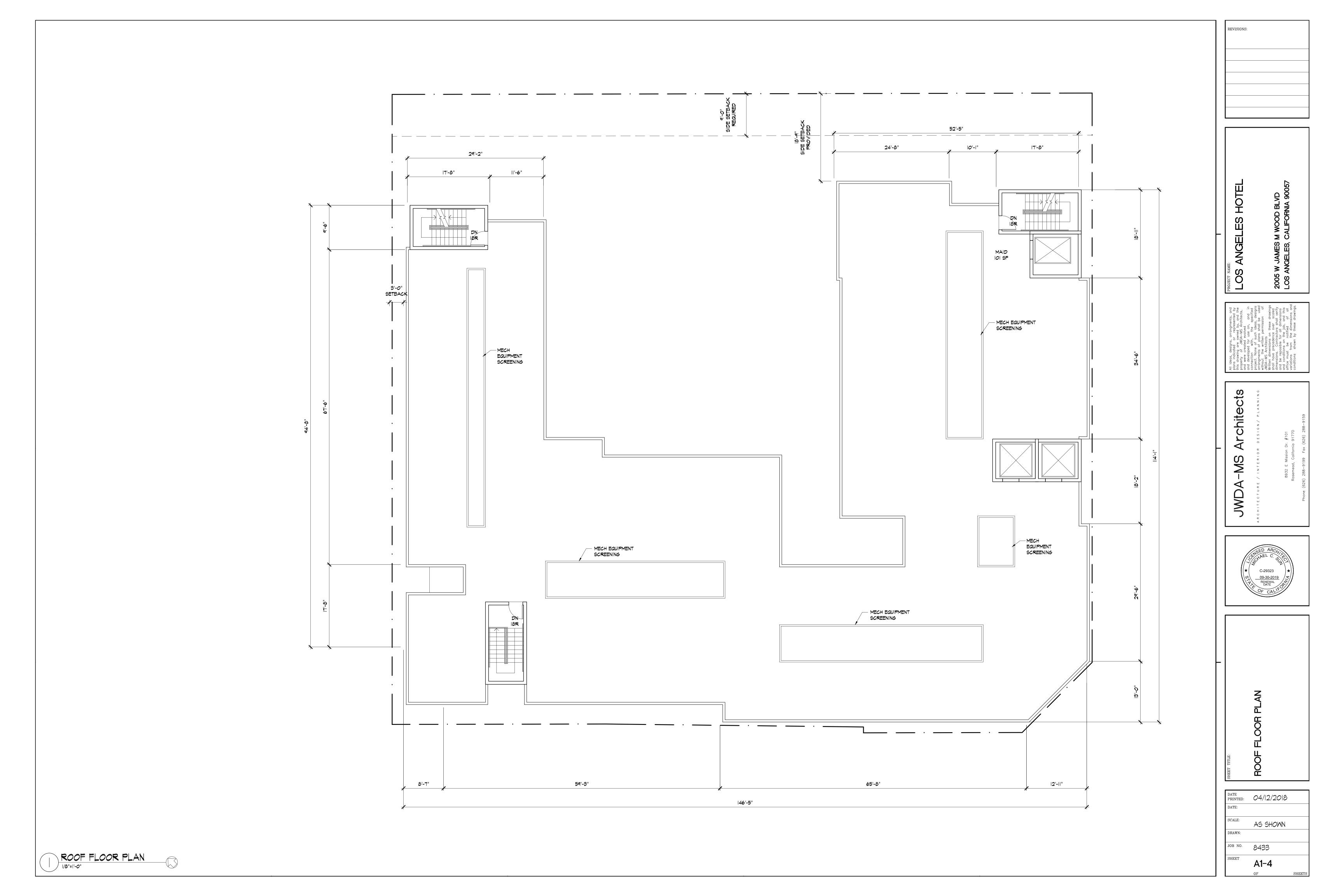


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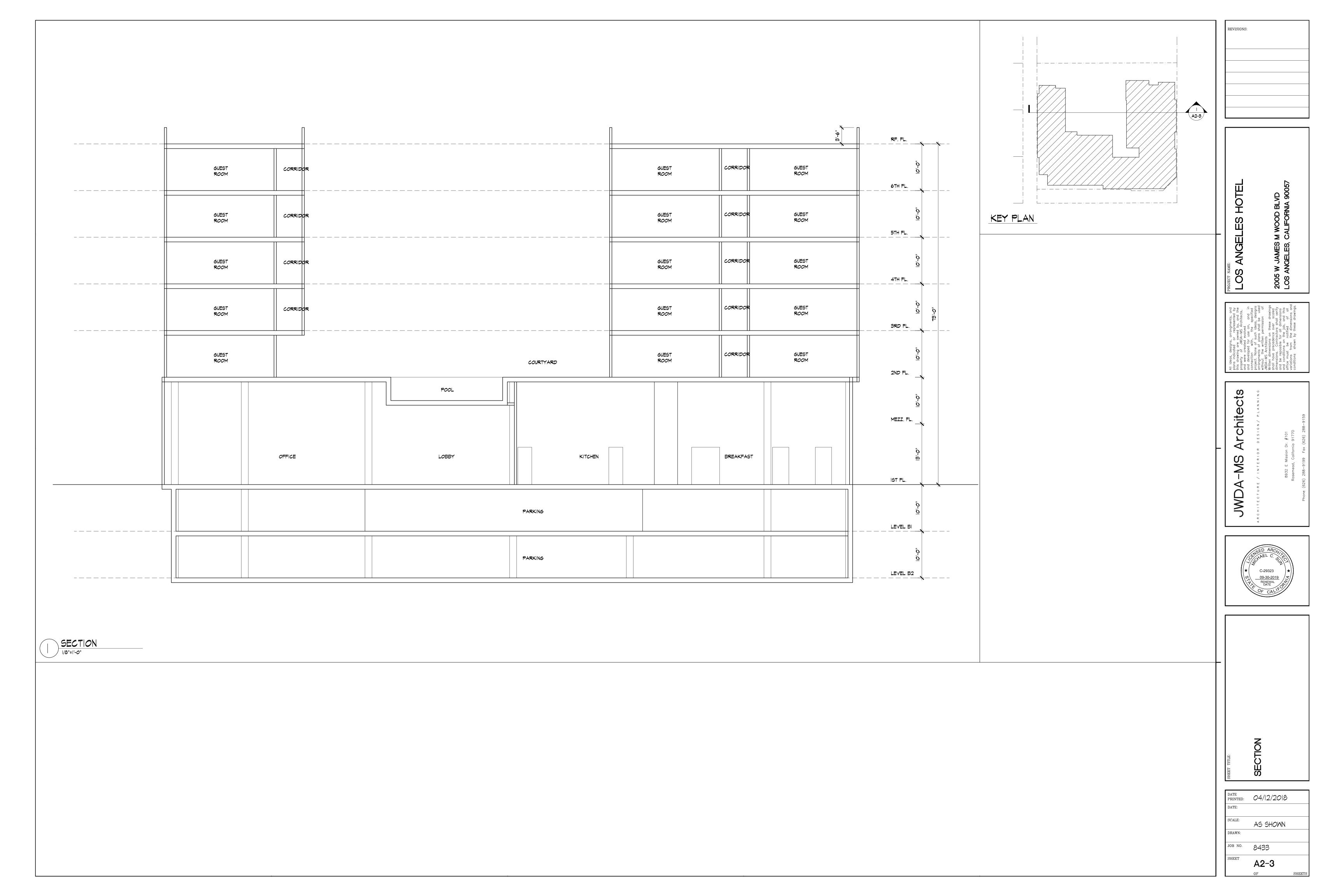






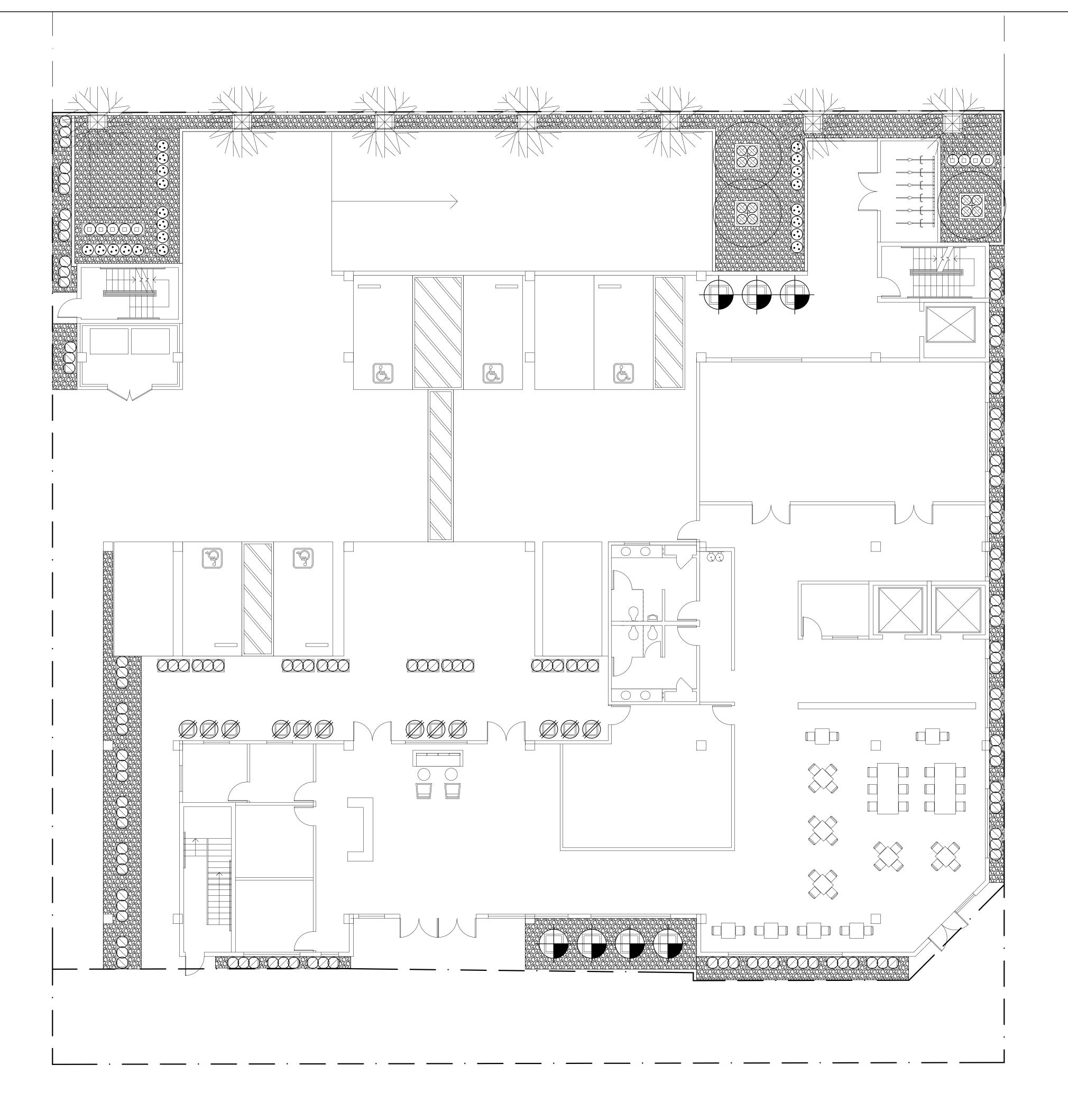


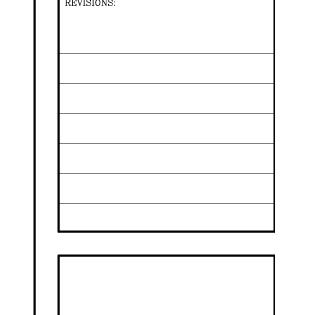




PLANT LEGEND

SYMBOL 	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
	LAGERSTROEMIA INDICA "MUSKOGEEI"	CRAPE MYRTLE	36" BOX	TREE
	RAPHIOLEPIS INDICA "MAJESTIC BEAUTY"	INDIAN HAMTHRONE	36" BOX	TREE
\bigcirc	RHAMNUS CALIFORNIA "EVE CASE"	LOWBOY FIRETHRON	5 GAL	SHRUB
	PHOTINIA X FRASERI "NANA"	FRASER PHOTINIA	5 GAL	SHRUB
\odot	ROSEA "ICEBERG"	ICEBERG ROSE	5 GAL	SHRUBS
\otimes	PELARGONIUM PELTATUM "RED"	IVY GERANIUM	5 GAL	SHRUB
	AGAVE ATTENUATA	AGAVE	5 GAL	SHRUB
	PHORMIUM "YELLOM WAVE"	NEM ZEALAND FLAX	5 GAL	SHRUB
•	SENECIO MANDRALISCAE	BLUE CHALK STICKS	I GAL	SHRUB
	JUNIPERUS TORULOSA "VARIEGATA"	HOLLYWOOD JUNIPER	15 GAL	SHRUB POTTED
\varnothing	LIGUSTRUM TEXANUM "PYRAMID"	TEXAS PRIVET	15 <i>G</i> AL	SHRUB POTTED (6' HT.)
	TABEBUIA AVELLANEDAE	PINK TRUMPET TREE	36" BOX	TREE

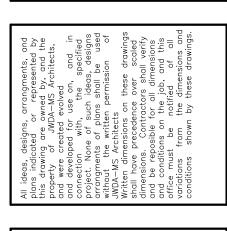




LOS ANGELES HOTEL

2005 W JAMES M WOOD BLVD

LOS ANGELES, CALIFORNIA 90057

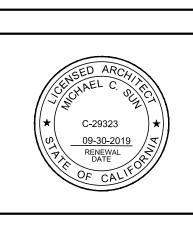


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8932 E Mission Dr. #101

Rosemead, California 91770



CONCEPTUAL LANDSCAPE PLAN 1ST FLOOR

DATE PRINTED: 04/12/2018

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SCALE: AS SHOWN

DRAWN:

JOB NO. 8433

SHEET L-1

PLANT LEGEND

SYMBOL 	BOTANICAL NAME	COMMON NAME	SI <i>Z</i> E	TYPE
	LAGERSTROEMIA INDICA "MUSKOGEEI"	CRAPE MYRTLE	36" BOX	TREE
£	RAPHIOLEPIS INDICA "MAJESTIC BEAUTY"	INDIAN HAMTHRONE	36" B <i>O</i> X	TREE
\bigcirc	RHAMNUS CALIFORNIA "EVE CASE"	LOWBOY FIRETHRON	5 GAL	SHRUB
	PHOTINIA X FRASERI "NANA"	FRASER PHOTINIA	5 GAL	SHRUB
\odot	ROSEA "ICEBERG"	ICEBERG ROSE	5 GAL	SHRUBS
\otimes	PELARGONIUM PELTATUM "RED"	IVY GERANIUM	5 GAL	SHRUB
	AGAVE ATTENUATA	AGAVE	5 GAL	SHRUB
	PHORMIUM "YELLOW WAVE"	NEW ZEALAND FLAX	5 GAL	SHRUB
•	SENECIO MANDRALISCAE	BLUE CHALK STICKS	l GAL	SHRUB
	JUNIPERUS TORULOSA "VARIEGATA"	HOLLYWOOD JUNIPER	15 GAL	SHRUB POTTED
\varnothing	LIGUSTRUM TEXANUM "PYRAMID"	TEXAS PRIVET	15 GAL	SHRUB POTTED (6' HT.)
	TABEBUIA AVELLANEDAE	PINK TRUMPET TREE	36" BOX	TREE

2ND FLOOR CONCEPTUAL LANDSCAPE PLAN

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ARCHITECTURE / INTERIOR DESIGN / PLANNING

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CONCEPTUAL LANDSCAPE PLAN 2ND FLOOR

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JOB NO. 8433

SHEET L-2

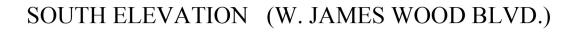




FAX: (626) 288-9159

TEL: (626) 288-9199







WEST ELEVATION

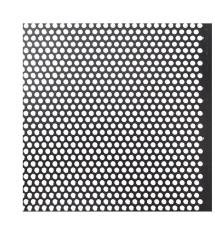
EXTERIOR CEMENT PLASTER (STUCCO) COLOR - DUNN EDWARDS DE 5490 ANTIQUE CHINA



EXTERIOR WOOD VENEER RESYSTA - COLOR: DE5350 PALE RAYS



ALUMINUM TEXTURED WALL PANELS



PERFORATED METAL SHEET

EXTERIOR CEMENT PLASTER (STUCCO) COLOR - DUNN EDWARDS DET 617 WINTER MOM



ALUMINUM WINDOW ARCADIA - COLOR: DARK BRONZE AB-6 OR E.Q.



ALUCOBOND WALL PANEL



METAL CORRUGATED SHEET PROFILED PANEL

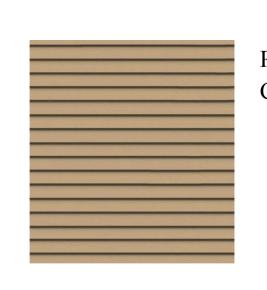
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WALL SHEET METAL-COLOR MATCH DUNN EDWARDS DE 6377 BOAT ANCHOR



CANOPY ALUCOBOND



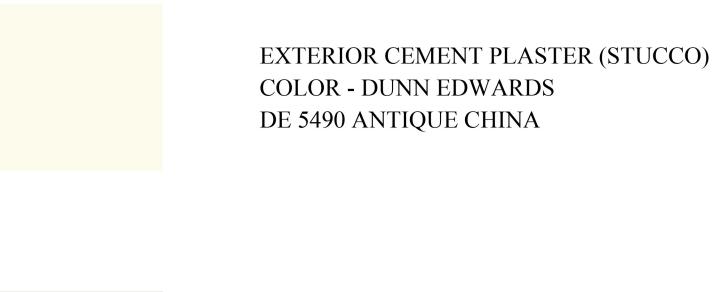
RESYSTA WOOD SIDING COLOR: JAVA

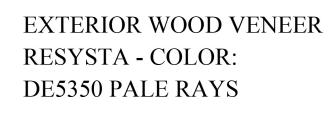




EAST ELEVATION (WESTLAKE AVE)

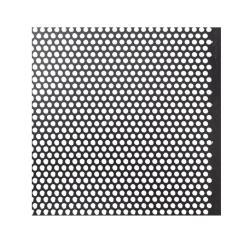
NORTH ELEVATION







ALUMINUM TEXTURED WALL PANELS



PERFORATED METAL SHEET





ALUMINUM WINDOW ARCADIA - COLOR: DARK BRONZE AB-6 OR E.Q.



ALUCOBOND WALL PANEL



METAL CORRUGATED SHEET PROFILED PANEL

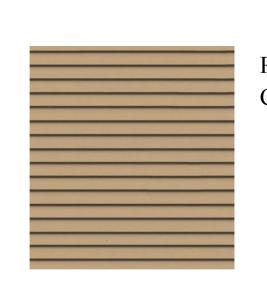
EXTERIOR CEMENT PLASTER (STUCCO) COLOR - DUNN EDWARDS DE6374 SILVER POLISH



WALL SHEET METAL-COLOR MATCH DUNN EDWARDS DE 6377 BOAT ANCHOR



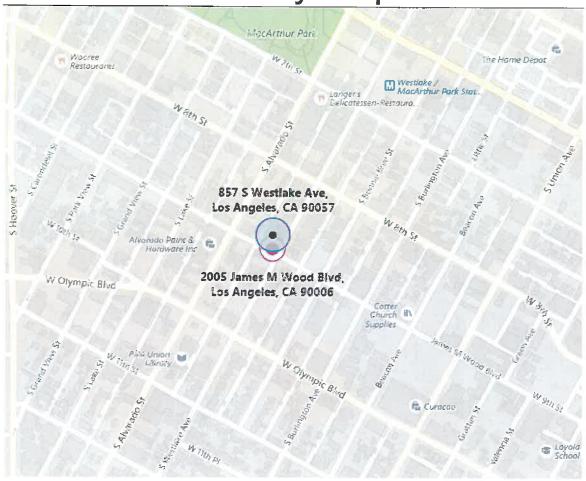
CANOPY ALUCOBOND



RESYSTA WOOD SIDING COLOR: JAVA

EXHIBIT BMaps

Vicinity Map

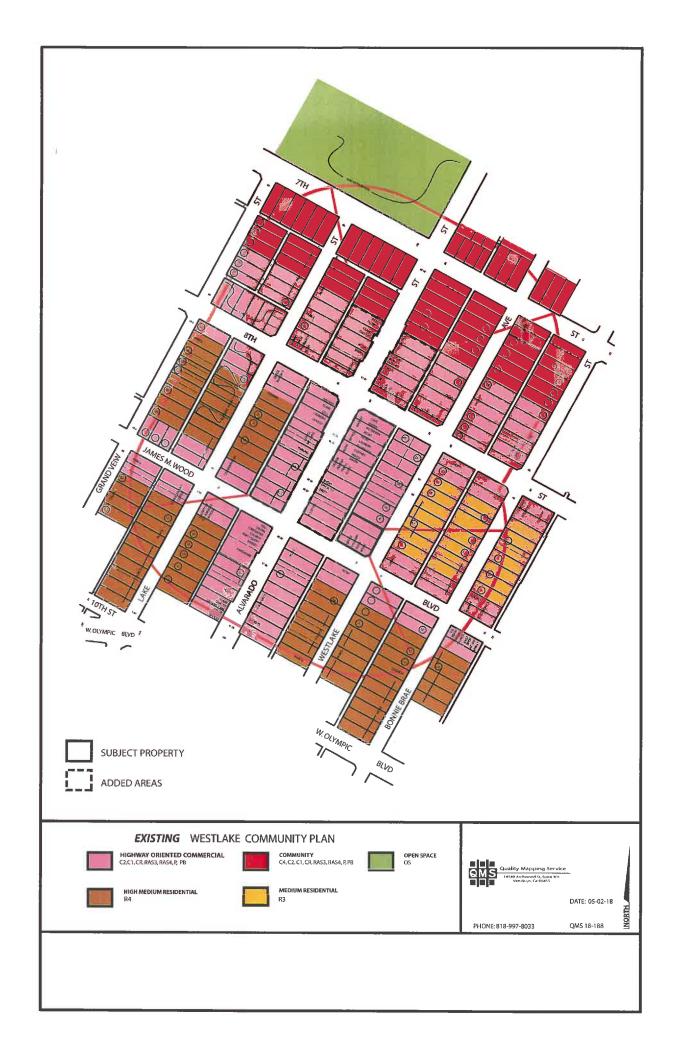


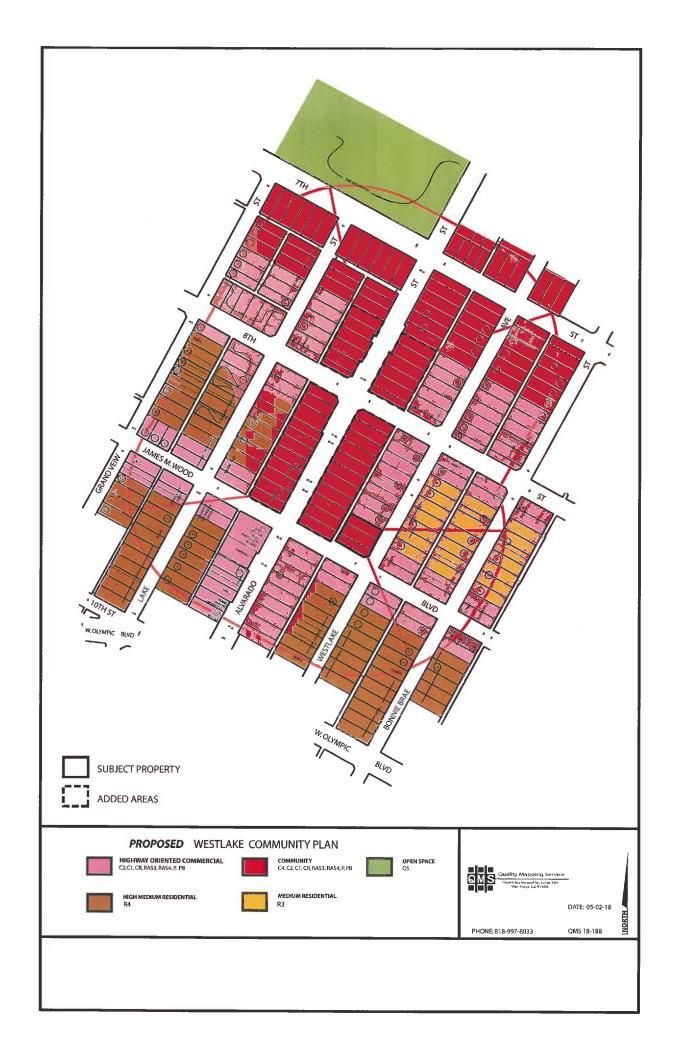
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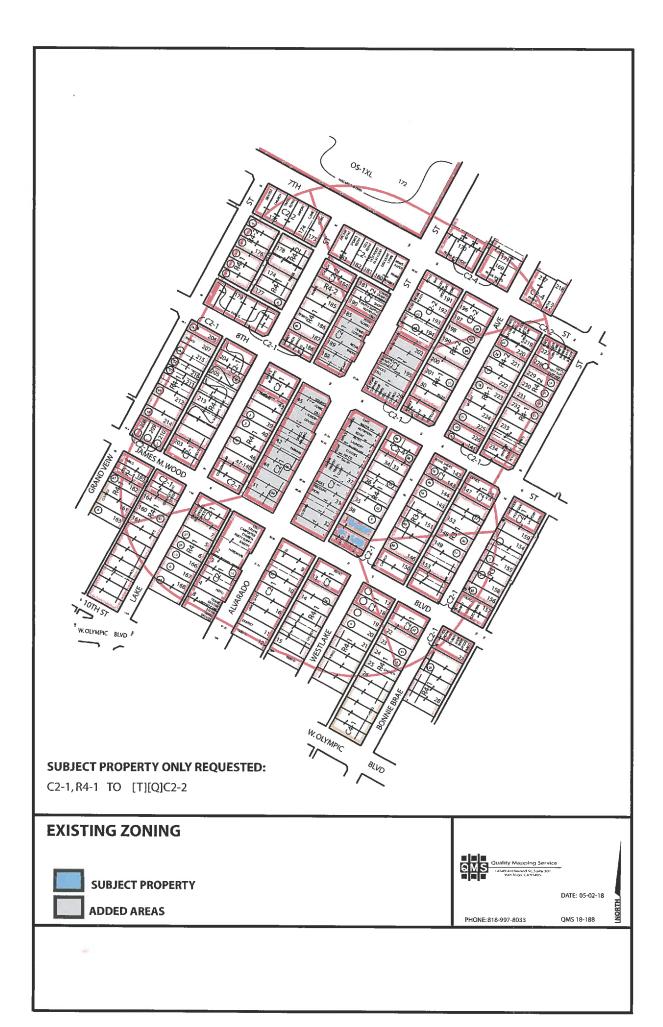
857 S. WESTLAKE AVE











NG-17-151-PL



Department of City Planning • Environmental Analysis Section

City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012

INITIAL STUDY/Mitigated Negative Declaration

WESTLAKE COMMUNITY PLAN AREA

2005 James M Wood Boulevard Hotel Project

Case Number: ENV-2017-713-MND

Project Location: The Project is located in the City of Los Angeles on the northwest corner of James M Wood Boulevard and South Westlake Avenue intersection.

Council District: 1; Gilbert Cedillo

Project Description: The Project would involve the demolition of an existing commercial retail building and related surface parking, for the construction of a new 6-story hotel above two levels of subterranean parking. The Project would contain 100 rooms on a 22,500-square-foot property. The Project would include approximately 100 automobile parking spaces, as well as 6 long-term and 6 short-term bicycle parking spaces. The Floor Area Ratio (FAR) of the proposed building would be 2.99:1 and the maximum height would be approximately 82 feet.

The Applicant has requested that the City approve (1) a General Plan amendment from Highway Oriented Commercial to Community Commercial and a modification to footnote No. 1 of the Westlake Community Plan's land use map to allow Height District 2, pursuant to 11.5.6 of the Los Angeles Municipal Code (LAMC); (2) a Vesting Zone Change and Height District Change from R4-1 and C2-1 to C2-2 to allow a maximum FAR of 2.99 (approximately 60,637 square feet), pursuant to Section 12.32F and 12.32Q of the LAMC; (3) a Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2-2 zone and within 500 feet of any residence, pursuant to 12.24T and 12.24W.24 of the LAMC; and (4) permit for removal of street tree.

APPLICANT:

Infinitely Group, Inc. 611 South Westlake Avenue Los Angeles, CA 90057

PREPARED BY:

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

ON BEHALF OF:

City of Los Angeles
Department of City Planning
Environmental Analysis Section

December 2017

CITY OF LOS ANGELES

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD CITY AGENCY:		COUNCIL DISTRICT:		
City of Los Angeles, Department of City Planning		CD 1 – Gilbert Cedillo		
PROJECT TITLE: 2005 James M Wood Boulevard Hotel Project	ENVIRONMENTAL CASE: ENV-2017-713-MND	CASE NOS: CPC-2017-712-GPA-VZC-HD-VCU-SPR		
PROJECT LOCATION: The Project is located at 2005 James M Wood Boulevard in the City of Los Angeles, on the northwest corner of the James M Wood Boulevard and South Westlake Avenue intersection.				

PROJECT DESCRIPTION: The Project would involve the demolition of an existing commercial retail building and related surface parking, for the construction of a new 6-story hotel above two levels of subterranean parking. The Project would contain 100 rooms on a 22,500-square-foot property. The Project would include approximately 100 automobile parking spaces, as well as 6 long-term and 6 short-term bicycle parking spaces. The Floor Area Ratio (FAR) of the proposed building would be 2.99:1, and the maximum height would be approximately 82 feet.

The Applicant has requested that the City approve (1) a General Plan amendment from Highway Oriented Commercial to Community Commercial and a modification to footnote No. 1 of the Westlake Community Plan's land use map to allow Height District 2, pursuant to 11.5.6 of the Los Angeles Municipal Code (LAMC); (2) a Vesting Zone Change and Height District Change from R4-1 and C2-1 to C2-2 to allow a maximum FAR of 2.99 (approximately 60,637 square feet), pursuant to Section 12.32F and 12.32Q of the LAMC; (3) a Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2-2 zone and within 500 feet of any residence pursuant to 12.24T and 12.24W.24 of the LAMC; and (4) permit for removal of street tree.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY:

Infinitely Group, Inc.

611 South Westlake Avenue

Los Angeles, CA 90057

FINDING: The Department of City Planning of the City of Los Angeles has proposed that a Mitigated Negative Declaration be adopted for this project. The mitigation measures outlined on the attached pages will reduce any potentially significant adverse effects to a level of insignificance.

SEE ATTACHED SHEET(S) FOR ANY MITIGATION MEASURES IMPOSED

Any written comment received during the public review period is attached together with the response of the Lead City Agency. The project decision-maker may adopt the Mitigated Negative Declaration, amend it, or require preparation of an EIR. Any changes made should be supported by substantial evidence in the record and appropriate findings made.

THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED

NAME OF PERSON PREPARING FORM	TITLE	TELEPHONE NUMBER
Kevin Golden	City Planner	213-978-1396
ADDRESS	SIGNATURE (Official)	DATE
200 N. Spring Street, 7 th Flor	2-010	Jan. 10, 2018
Los Angeles, CA 90012	120000	0 000000

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SUMMARY OF MITIGATION MEASURES

Aesthetics: No mitigation measures are required.

Agriculture and Forestry Resources: No mitigation measures are required.

Air Quality:

MM-AIR-1: Off-road diesel-fueled heavy-duty construction equipment

Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

Biological Resources:

MM-BIO-1: Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

Project activities (including disturbances to native and nonnative vegetation, structures, and substrates) should take place outside of the breeding season for birds, which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code, Section 86).

If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Project Applicant shall:

- Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
- If a protected native bird is found, the Project Applicant shall delay all clearance/ construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.

Alternatively, the qualified biologist could continue the surveys to locate any nests. If an active
nest is located, clearing and construction (within 300 feet of the nest or as determined by a
qualified biological monitor) shall be postponed until the nest is vacated and juveniles have
fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from
the nest shall be established in the field with flagging and stakes. Construction personnel shall
be instructed on the sensitivity of the area.

• The Project Applicant shall record the results of the recommended protective measures described previously to document compliance with applicable State and federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the Project.

Cultural Resources: No mitigation measures are required.

Geology and Soils: No mitigation measures are required.

Greenhouse Gas Emissions: No mitigation measures are required.

Hazards and Hazardous Materials: No mitigation measures are required.

Hydrology and Water Quality: No mitigation measures are required.

Land Use and Planning: No mitigation measures are required.

Mineral Resources: No mitigation measures are required.

Noise:

MM-NOI-1 Increased Noise Levels (Demolition, Grading, and Construction Activities)

- Demolition and construction activities shall be scheduled to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise-sensitive uses as feasible during all phases of Project construction.

- Implement noise-attenuation measures to the extent feasible, which may include but are not limited to temporary noise barriers or noise blankets around stationary construction noise sources.
- The power contractor shall use either plug-in electric or solar powered on-site generators to the extent feasible

Population and Housing: No mitigation measures are required.

Public Services: No mitigation measures are required.

Recreation: No mitigation measures are required.

Transportation and Traffic:

MM-TRAF-1: Work Area Traffic Management Plan

- o The Project Applicant shall submit a formal Work Area Traffic Control Plan for review and approval by the Department of Building and Safety prior to the issuance of any construction permits. This plan shall incorporate safety measures around the site to reduce the risk to pedestrian traffic near the work area. This plan shall identify traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. This plan shall include:
 - Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times.
 - Temporary pedestrian facilities shall be adjacent to the project site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.
 - Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.
 - Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

Tribal Cultural Resources: No mitigation measures are required.

Utilities and Service Systems: No mitigation measures are required.

Mandatory Findings of Significance: Applicable mitigation measures have been stated above.

Initial Study 2005 James M Wood Boulevard Hotel Project City of Los Angeles

Prepared for:

City of Los Angeles
Department of City Planning

Prepared by:

Meridian Consultants LLC 910 Hampshire Road, Suite V Westlake Village, California 91361

December 2017

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- B. Phase 2 Environmental Site Assessment Report
- C. Noise Report
- D. Traffic Study

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<u>Project Title:</u> 2005 James M Wood Boulevard Hotel Project

Project Location: The Project is located in the City of Los Angeles on the northwest corner of

James M Wood Boulevard and South Westlake Avenue intersection.

Project Applicants: Infinitely Group Inc.

611 South Westlake Avenue

Los Angeles, CA 90057

<u>Lead Agency:</u> City of Los Angeles

Department of City Planning

200 N. Spring Street Los Angeles, CA 90012

PROJECT SUMMARY

The Project would involve the demolition of an existing commercial retail building and related surface parking, for the construction of a new 6-story hotel above two levels of subterranean parking. The Project would contain 100 rooms on a 22,500-square-foot property. The Project would include approximately 100 automobile parking spaces, as well as 6 long-term and 6 short-term bicycle parking spaces. The Floor Area Ratio (FAR) of the proposed building would be 2.99:1, and the maximum height would be approximately 82 feet.

The Applicant has requested that the City approve (1) a General Plan amendment from Highway Oriented Commercial to Community Commercial and a modification to footnote No. 1 of the Westlake Community Plan's land use map to allow Height District 2, pursuant to 11.5.6 of the Los Angeles Municipal Code (LAMC); (2) a Vesting Zone Change and Height District Change from R4-1 and C2-1 to C2-2 to allow a maximum FAR of 2.99 (approximately 60,637 sf), pursuant to Section 12.32F and 12.32Q of the LAMC; and (3) a Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2-2 zone and within 500 feet of any residence, pursuant to 12.24T and 12.24W.24 of the LAMC.

ENVIRONMENTAL REVIEW PROCESS

This Initial Study is a preliminary analysis, prepared by and for the City of Los Angeles as the Lead Agency in compliance with the California Environmental Quality Act (CEQA), to determine whether an Environmental Impact Report (EIR), a Negative Declaration (ND), or a Mitigated Negative Declaration (MND) should be prepared for the Project. An MND is prepared 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 MND 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. Consequently, the analysis contained herein concludes that an MND should be prepared for the Project.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into six sections as follows:

Section 1.0, Introduction, provides introductory information such as the Project title, the Project Applicants, and the lead agency for the Project.

Section 2.0, Project Description, provides a detailed description of the Project, including the environmental setting, Project characteristics, related Project information, Project objectives, and environmental clearance requirements.

Section 3.0, **Initial Study Checklist**, includes the City of Los Angeles Initial Study Checklist showing the determination of the significance of potential environmental impacts of the Project.

Section 4.0, Environmental Analysis, includes discussion and analysis for each environmental topic and threshold listed in the Initial Study Checklist.

Section 5.0, List of Preparers, identifies the individuals who prepared this report.

Section 6.0, References, identifies all printed references cited in this Initial Study.

Appendices include Project-specific reports and data used to support the analysis in this Initial Study.

2.1 PROJECT LOCATION

The Project is in the Westlake South neighborhood and within the Westlake Community Plan area of the City of Los Angeles, as shown in **Figure 2.0-1**, **Regional Location Map**. The Project is in the City of Los Angeles on the northwest corner of James M Wood Boulevard and South Westlake Avenue intersection, as shown in **Figure 2.0-2**, **Aerial Photograph of the Project Site**.

2.2 EXISTING SITE CONDITIONS

The Project site is approximately 22,500 square feet (0.52 acres) in area and is currently developed with a 1-story, 8,228-square-foot commercial retail structure and related surface parking lot. The commercial property is accessed through driveways along James M Wood Boulevard, South Westlake Boulevard, and the alley on the western Project site border. Landscaping on the Project site is characterized by minimal shrubs and some grasses along the perimeter of the commercial property. There is one palm tree within the sidewalk bordering the site.

The current addresses for the Project site include 2005 and 2009 James M Wood Boulevard; and 857 South Westlake Boulevard. The Project site consists of three parcels (Bonnie Brae Tract) that are linked together under Assessor's Parcel Number (APN) 5141-020-021, as shown in **Figure 2.0-3, Existing Zoning and Parcels Map.**

2.3 ZONING AND LAND USE DESIGNATIONS

As shown in **Figure 2.0-4, Westlake Community Plan Map**, the Project is in the Westlake Community Plan Area. The Westlake Community Plan Map designates the Project site as Highway Oriented Commercial (HOC). The north half of the Project site is zoned R4-1 (Multiple Dwelling Zone); the southern 2 parcels are zoned C2-1 (Commercial Zone). The C2 Commercial Zone permits a variety of commercial uses: retail with limited manufacturing; service stations and garages; and office uses, hotels, and hospitals. The C2 Zone also permits R4 residential uses, as well as churches, schools, and childcare. The R4 Multiple Dwelling Zone permits group dwellings, multiple dwellings, and apartment buildings to a density of 400 square feet of lot size per unit. The Height District No. 1 designation limits the FAR to 1.5:1 for commercial uses and to 3:1 for residential uses.

The purpose of the HOC Zone is to provide for a zoning district that would allow the development of individual retail and service businesses primarily oriented toward serving the traveling/transient public or which require immediate access to the regional transportation system.

2.4 SURROUNDING LAND USES

The Project site is in an urbanized area of Los Angeles. Surrounding uses include a mix of commercial and residential uses and surface parking lots. To the north, east and southeast are multistory, multifamily residential buildings; to the west is a multistory church; to the south are a restaurant and related surface parking lot, with multifamily residential buildings beyond that. Further to the west are single-story commercial businesses.

2.5 ACCESS

Regional Access

Primary regional access to the Project site is provided by State Route (SR) 110, which runs in a north—south direction east of the Project site, and Interstate 10 (I-10) which runs in an east—west direction to the south of the Project site. Additional regional access to the Project site is provided by the US Route 101/Hollywood Freeway (US 101), which generally runs in an east—west direction to the north of the Project site.

Local Street Access

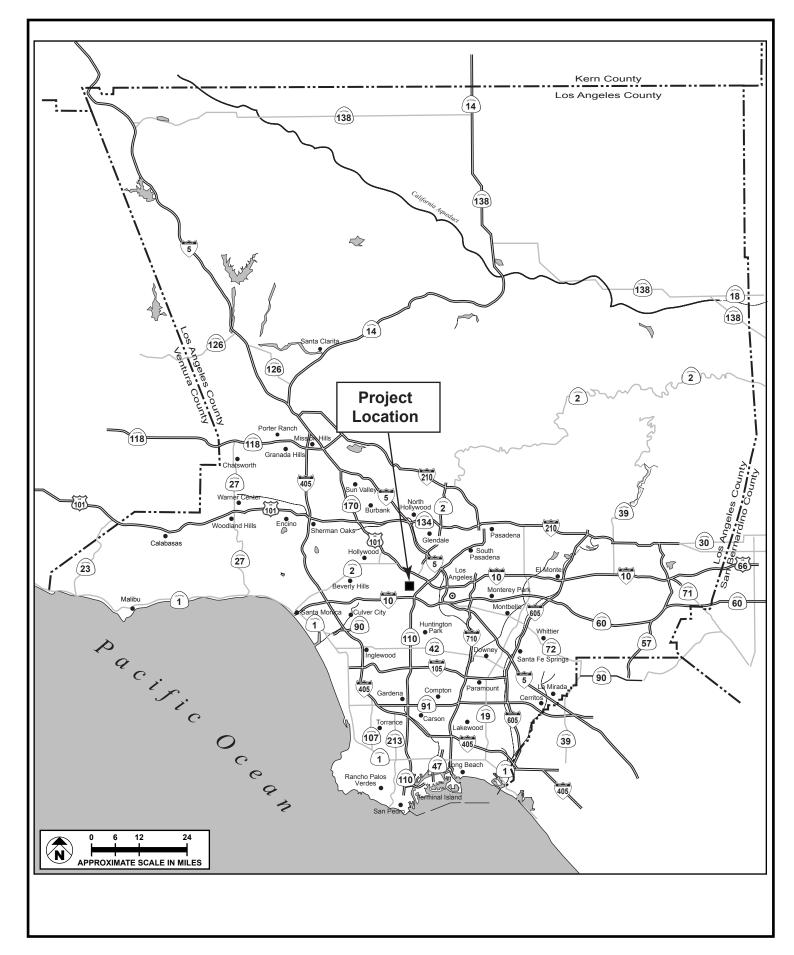
Local street access is provided by a grid roadway system encompassing the Project site and surrounding area. James M Wood Boulevard, which borders the Project site to the south, runs in an east—west direction along the Project site. James M Wood Boulevard generally provides two travel lanes in each direction and is classified as an Avenue III, which is a Secondary Highway that has been developed to maintain the roadway width in some of the older, more historic parts of the City. South Westlake Avenue, east of the Project site, is classified as a Local Street—Standard and runs in a north—south direction, with one travel lane in each direction. Alvarado Street is the closest street to the west of the Project site; it runs in a north—south direction and provides two travel lanes in each direction. It is classified as an Avenue II, which is a Secondary Highway typically located in parts of the City with dense active uses, an active pedestrian environment, and a limited demand for new development. ¹

Public Transit

The Project site is well served by both regional and local public transit. Specifically, the Los Angeles County Metropolitan Transportation Authority ("Metro") and the Los Angeles Department of Transportation (LADOT) provide access to and from the Project area. The Metro Bus Line 200 runs along James M Wood Boulevard, with a stop at the intersection of South Alvarado Street and James M Wood Boulevard.²

¹ City of Los Angeles, *City of Los Angeles General Plan*, "Mobility Plan 2035" (2015), Citywide General Plan Circulation System Map A4—Central, Midcity Subarea.

² Metro, "Maps & Timetables," http://www.metro.net/riding/maps/, accessed June 2017.





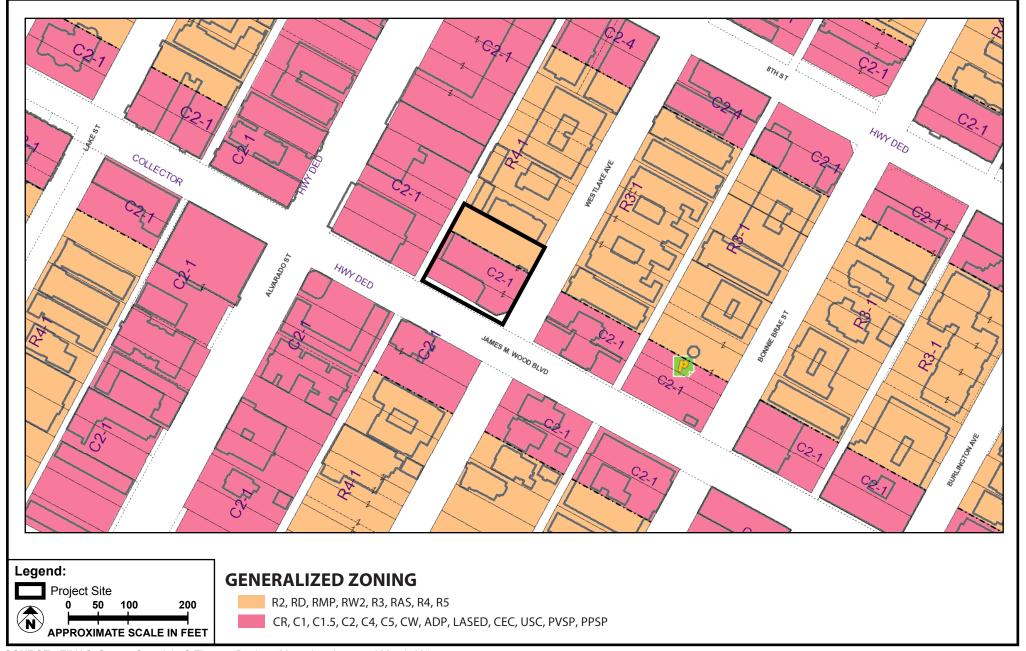


SOURCE: Google Earth - 2017

FIGURE **2.0-2**



Aerial View of Project Site

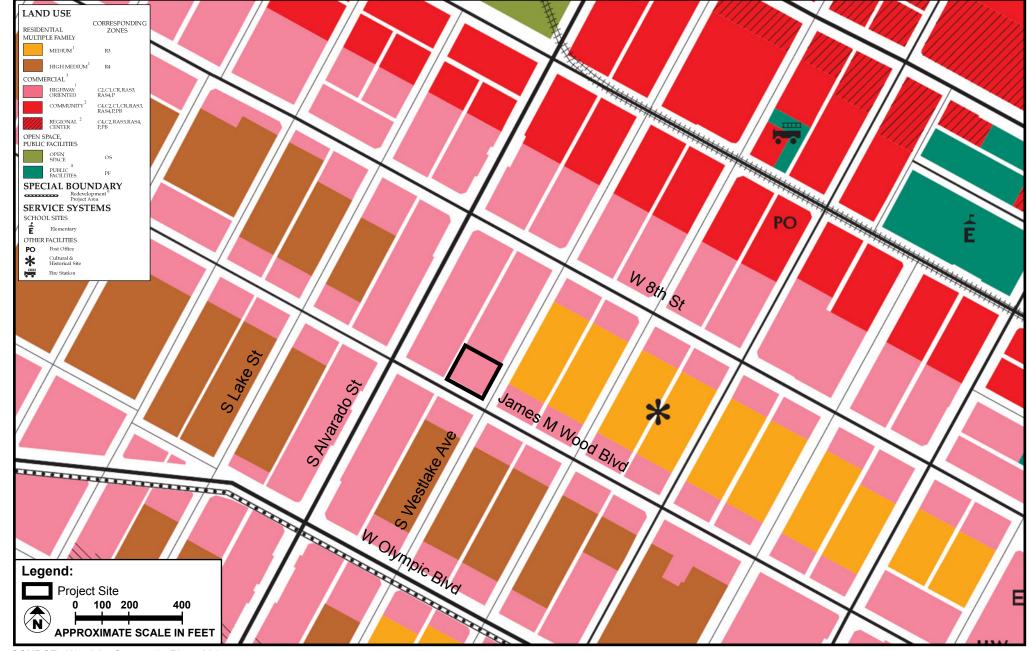


SOURCE: ZIMAS, Streets Copyright © Thomas Brothers Maps, Inc, Accessed March 2017

FIGURE **2.0-3**



Existing Zoning and Parcels Map



SOURCE: Westlake Community Plan - 2015

FIGURE **2.0-4**



Westlake Community Plan Map

2.6 PROJECT CHARACTERISTICS

The Project Applicant has proposed to demolish the existing commercial retail building and related surface parking on the Project site and to construct a 6-story hotel containing 100 rooms above 2 levels of subterranean parking. The building would be 82 feet in height, with an FAR of 2.99:1.

The Project would require 59 parking spaces, and 100 parking spaces would be provided. **Figure 2.0-5**, **Floor Plan—Level B1**, depicts one of the two levels of subterranean parking. These subterranean levels would contain the hotel guest parking and would include 6 short-term and 6 long-term bicycle parking spaces.

As shown in Figure 2.0-6, First-Floor Plan, the ground floor would include the hotel lobby and other hotel administration areas, a breakfast space, and entrance to the subterranean parking levels. Additional office and storage space would be provided on the Mezzanine level, shown in Figure 2.0-7, Mezzanine Floor Plan. As shown in Figure 2.0-8, Second-Floor Plan, this floor has access to the hotel courtyard and pool as well as guest rooms and Figure 2.0-9, Third- through Sixth-Floor Plan contains the remaining hotel guest rooms. Figure 2.0-10, Section View depicts a side view of the hotel, with a summary of what each floor would contain. Figure 2.0-11, South and East Elevations and Figure 2.0-12, North and West Elevation, show each side of the proposed Project.

2.7 APPROVAL ACTIONS

To implement the Project, the Applicant is requesting that the City take the following actions:

- 1) Pursuant to LAMC Section 11.5.6, a General Plan amendment from Highway Oriented Commercial to Community Commercial, and a modification to footnote No. 1 of the Westlake Community Plan's land use map to allow Height District 2;
- 2) Pursuant to LAMC Section 12.32F and 12.32Q, a Vesting Zone Change and Height District Change from R4-1 and C2-1 to C2-2 to allow a maximum FAR of 2.99 (approximately 60,637 sf);
- 3) Pursuant to LAMC Section 12.24T and 12.24 W.24, a Conditional Use Permit to allow the construction, use, and maintenance of a hotel in the C2-2 zone and within 500 feet of any residence;
- 4) Permit to remove one street tree.

In addition to the entitlements identified above, the following approvals are also required from other City entities for the Project, including, but not limited to, approvals and permits from the City's Department of Building and Safety and Public Works (and other municipal agencies) for Project construction activities including, but not limited to the following: demolition, haul route, excavation, shoring, grading, foundation, building and interior improvements and the removal of trees on public and/or private property.

2.8 CONSTRUCTION

The construction of the Project, including demolition, would take approximately 18 months from start to finish. Construction activities associated with the Project would be undertaken in three main steps: (1) demolition/site clearing, (2) site preparation, and (3) building construction.

Construction of the Project would commence with demolition and site-clearing activities. All existing improvements on the Project site would be removed. Construction and demolition debris would be recycled to the maximum extent feasible.

After the completion of site clearing, excavation for two subterranean levels of parking would begin. Approximately 16,590 cubic yards of soil would be removed from the Project site and taken to an approved landfill. The Project would require a haul route permit that would specify the truck route to and from the Project site. The anticipated haul route would direct trucks to reach the Project site via the West 8th Street exit on Interstate 10, then west along West 8th Street and south on South Westlake Avenue. Similarly, trucks would be directed from the Project site traveling north on South Westlake Avenue and east on West 8th Street to the Interstate 10.

Construction activities may necessitate temporary lane closures on streets adjacent to the Project site on an intermittent basis for utility relocations/hookups, delivery of materials, and other construction activities as needed. Site deliveries and staging of all equipment and materials would be organized on-site in the most efficient manner possible to mitigate any temporary impacts to the neighborhood and surrounding traffic. Construction equipment would be staged on site for the duration of construction activities. Traffic lane and right-of-way closures, if required, will be properly permitted by the City and will conform to City standards.

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

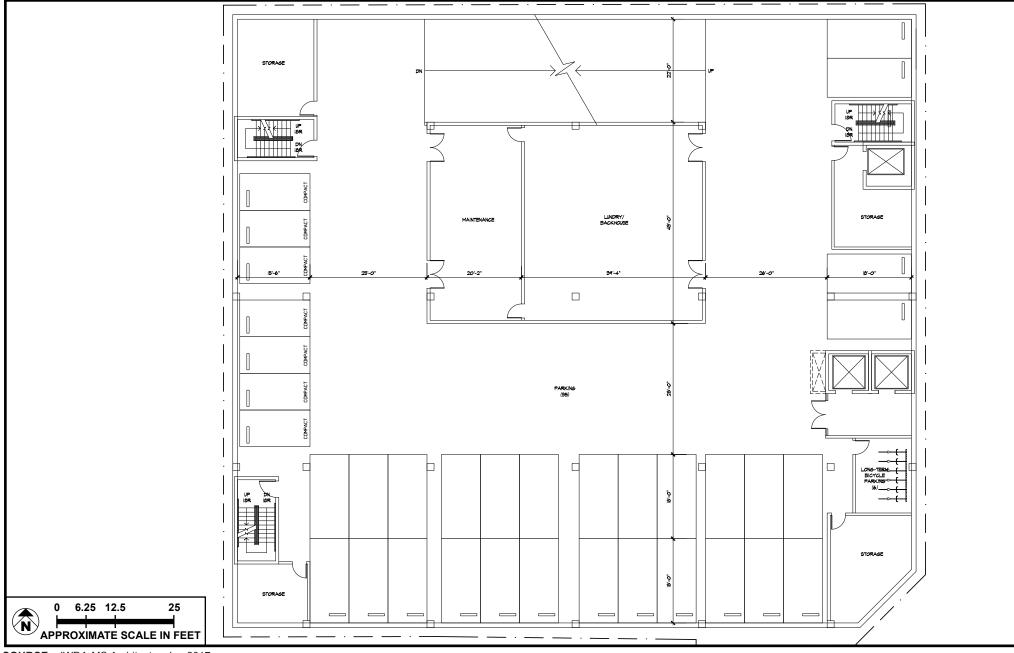


FIGURE **2.0-5**



Floor Plan—Level B1

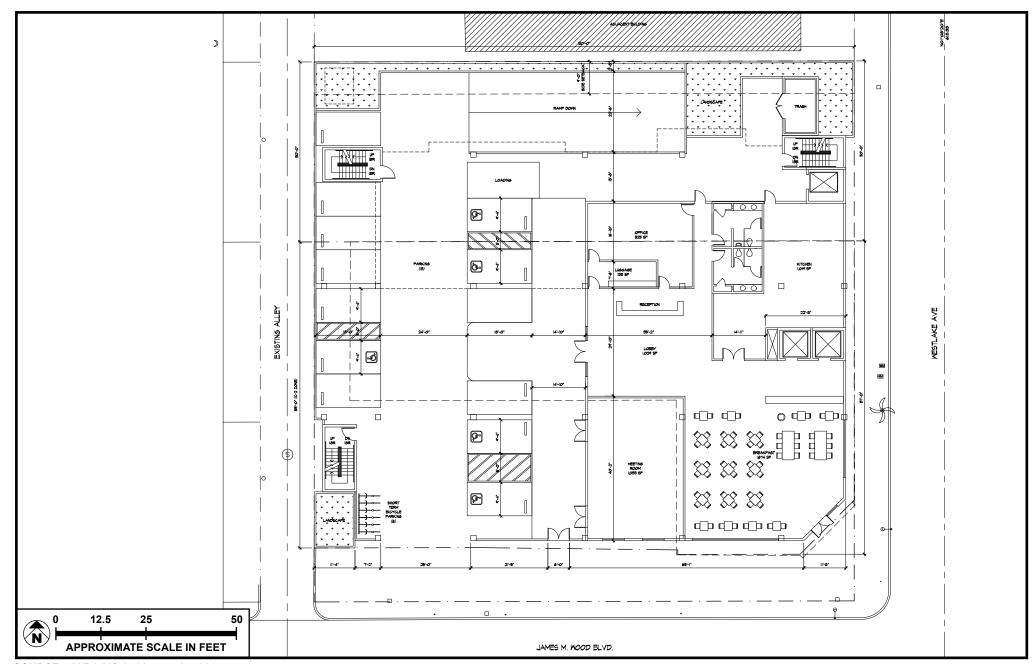


FIGURE **2.0-6**



First-Floor Plan

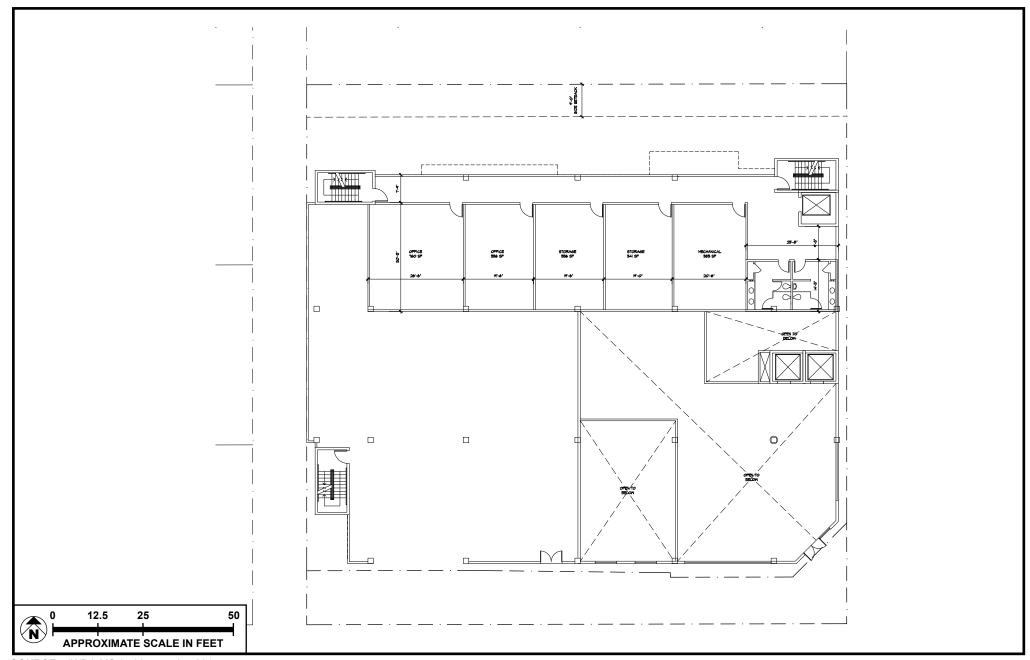


FIGURE **2.0-7**



Mezzanine Floor Plan

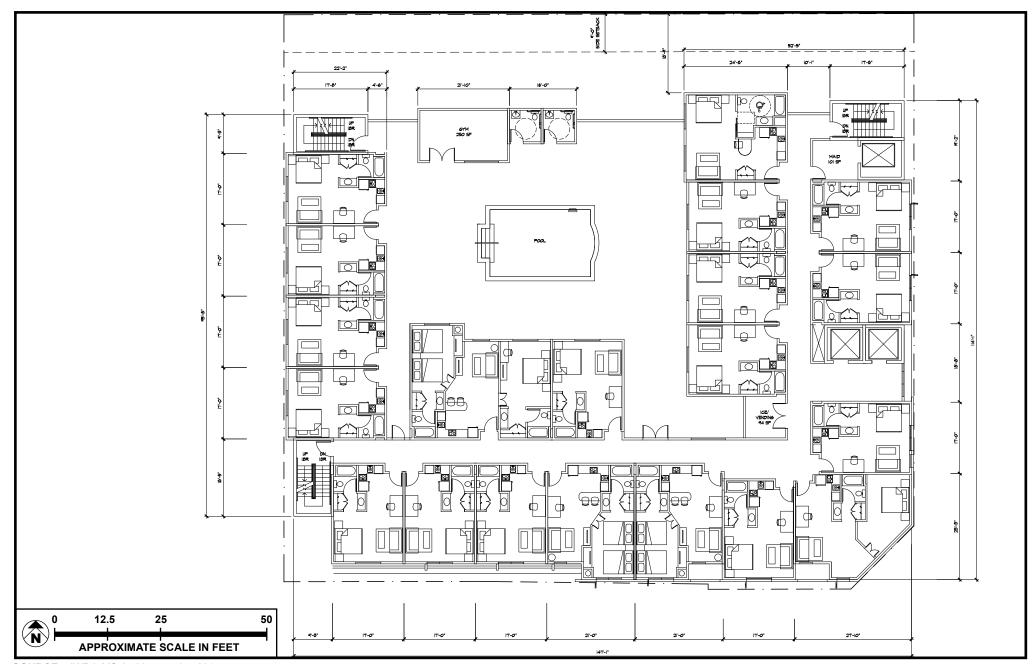


FIGURE **2.0-8**



Second-Floor Plan

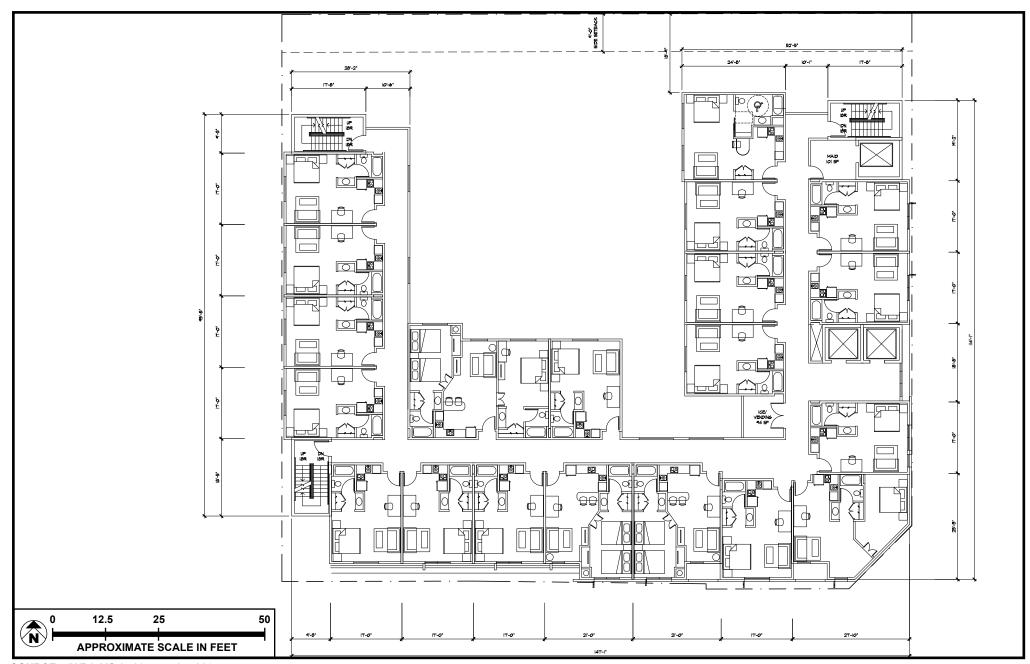


FIGURE **2.0-9**



Third- through Sixth-Floor Plan

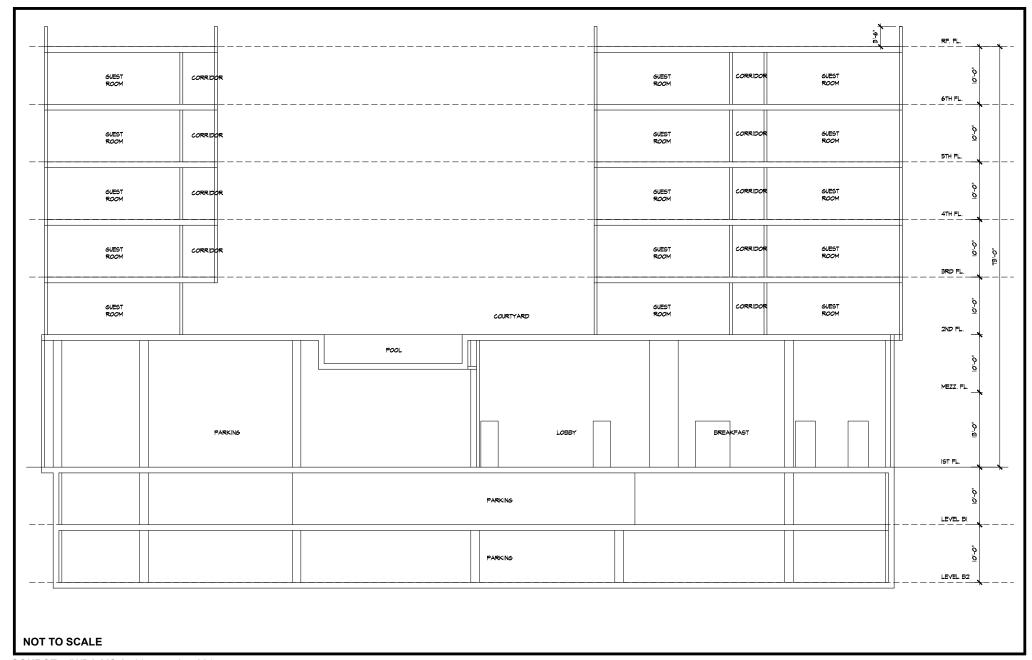


FIGURE **2.0-10**



Section View



FIGURE **2.0-11**



South and East Elevations

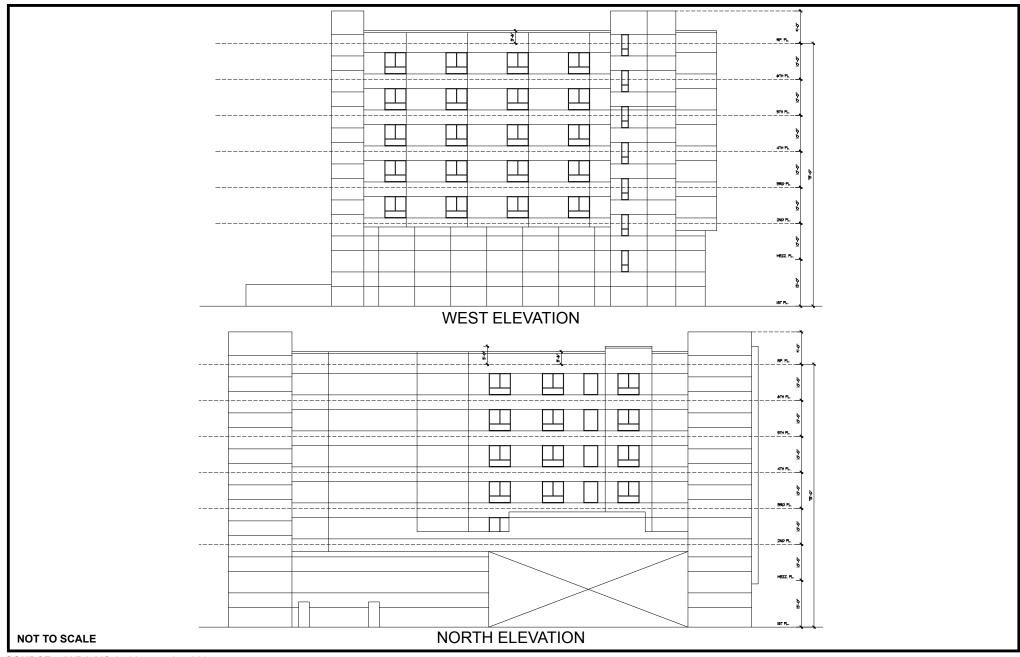


FIGURE **2.0-12**



North and West Elevations

CITY OF LOS ANGELES

CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY and CHECKLIST

(CEQA Guidelines Section 15063)

LEAD CITY AGENCY:		COUNCIL DISTRICT	:	DATE:
City of Los Angeles, Department	t of City Planning	CD 1 – Gilbert Cedil	lo.	XXX
RESPONSIBLE AGENCIES:				
Southern California Air Quality I	Management District			
Los Angeles Regional Water Qu	ality Control Board			
PROJECT TITLE:	ENVIRONMENT	AL CASE:	CASE NOS:	
2005 James M Wood Boulevard	ENV-2017-713	B-EAF	CPC-2017-712	-GPA-VZC-HD-VCU-
Hotel Project			SPR	
PREVIOUS ACTIONS CASE NO.	☐ DOES hav	ve significant change	s from previous	actions.
No recent activity.	□ DOES NO	T have significant ch	angos from prov	ious actions
	DOES NO	of flave significant cir	anges nom prev	ious actions
PROJECT LOCATION: The Project	ct is located in the City	of Los Angeles on the	e northwest corr	er of James M Wood
Boulevard and South Westlake	Avenue intersection.			
PROJECT DESCRIPTION: See Sec	etion 2.0 of this Initial S	:tudy		
PROJECT DESCRIPTION. See Sec	ction 2.0 or this initial 3	ituuy.		
ENVIRONMENTAL SETTING: See	e Section 2.0 of this Ini	tial Study.		
COMMUNITY PLAN AREA: Wes	tlake	AREA PLAN	NING CERT	TIFIED
STATUS:		COMMISSIO	ON: NEIG	HBORHOOD
☐ Preliminary ☐ Do	oes Conform to Plan	Central	cou	NCIL:
☐ Proposed ☐ Do	oes NOT Conform to Pl	an	Wes	tlake South
☑ Adopted in 2001				
EXISTING ZONING:	MAX DENSITY ZONING		jacent:	
C2-1, R4-1	1.5:1 commercial FAR	and No		
	3.0:1 residential FAR			
GENERAL PLAN LAND USE:	MAX. DENSITY PLAN:	PROPOSED	PROJECT DENSI	ΓY:
Highway Oriented	Same as zoning	2.99:1 FAR		
Commercial				

Determination (to be completed by Lead Agency) On the basis of this initial evaluation: I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. \boxtimes I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. City Planner (213) 978-1396

FACH	DETERMINATION IN THIS INITIAL STUDY CHECKLIST IS BASED LIDON	Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact					
	ACH DETERMINATION IN THIS INITIAL STUDY CHECKLIST IS BASED UPON SECTION 4.0, ENVIRONMENTAL ANALYSIS. PLEASE REFER TO HE APPLICABLE SECTION THEREIN FOR A DETAILED DISCUSSION OF THE CHECKLIST DETERMINATIONS.									
1.	AESTHETICS									
Wou	ıld the project:									
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, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?									
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?									
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			\boxtimes						
2.	AGRICULTURE AND FOREST RESOURCES									
Wou	ıld the project:									
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 a Williamson Act contract?				\boxtimes					
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?									
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				\boxtimes					
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?									
3.	AIR QUALITY									
Wou	old the project:									
a.	Conflict with or obstruct implementation of the SCAQMD or congestion management plan?			\boxtimes						
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?									
_		· ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·						

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			\boxtimes	
d.	Expose sensitive receptors to substantial pollutant concentrations?				
e.	Create objectionable odors affecting a substantial number of people?			\boxtimes	
4.	BIOLOGICAL RESOURCES				
Wou	ıld the project:				
a.	Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by The California Department of Fish and Game or U.S. Fish and Wildlife Service?		\boxtimes		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the city or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
C.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
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 tree preservation policy or ordinance?			\boxtimes	
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				
5.	CULTURAL RESOURCES				
Wou	ıld the project:		,		<u> </u>
a.	Cause a substantial adverse change in significance of a historical resource as defined in State CEQA Section 15064.5?			\boxtimes	

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
b.	Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA Section 15064.5?				
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			\boxtimes	
d.	Disturb any human remains, including those interred outside of formal cemeteries?				
6.	GEOLOGY AND SOILS				
Wou	ıld the project:				
	ocerbate existing hazardous environmental conditions by bring potential substantial adverse effects, including the risk of loss,			reas that are s	usceptible
a.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to division of mines and geology special publication 42.				
b.	Strong seismic ground shaking?			\boxtimes	
c.	Seismic-related ground failure, including liquefaction?				
d.	Landslides?				\boxtimes
e.	Result in substantial soil erosion or the loss of topsoil?			\boxtimes	
f.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse caused in whole or in part by the project's exacerbation of the existing environmental conditions?				
g.	Be located on expansive soil, as defined in Table 18-1-b of the Uniform Building Code (1994), creating substantial risks to life or property caused in whole or in part by the project exacerbating the expansive soil conditions?				
h.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
7.	GREENHOUSE GAS EMISSIONS				
Wou	uld the project:				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				
8.	HAZARDS AND HAZARDOUS MATERIALS				
Wou	ld the project:				1
a.	Create a significant hazard to the public or the environment through the routine transport, 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 into the environment?				
C.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile 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 exacerbate the current environmental conditions so as to 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 exacerbate current environmental conditions so as to result in a safety hazard for people residing or working in the project area?				
f.	For a project within the vicinity of a private airstrip, would the project exacerbate current environmental conditions so as to result in a safety hazard for people residing or working in the project area?				
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
h.	Exacerbate existing hazardous environmental conditions by bringing people or structures into areas that are susceptible to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				
9.	HYDROLOGY AND WATER QUALITY				
Wou	ld the project:		1		T .
а.	Violate any water quality standards or waste discharge requirements?				
b.	Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit				

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
	in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?				
C.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite?				
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite?				
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			\boxtimes	
f.	Otherwise substantially degrade water quality?			\boxtimes	
g.	Place housing within a 100-year flood plain as mapped on federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map?				
h.	Place within a 100-year flood plain structures which would impede or redirect flood flows?				
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j.	Inundation by seiche, tsunami, or mudflow?				\boxtimes

			Less than		
		Potentially Significant	Significant with Project	Less than Significant	
		Impact	Mitigation	Impact	No Impact
10.	LAND USE AND PLANNING				
Wou	ıld the project:				
a.	Physically divide an established community?				
b.	Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				
11.	MINERAL RESOURCES				
Wou	uld the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				
12.	NOISE				
Wou	ıld the project:				
a.	Exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b.	Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?		\boxtimes		
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 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?				
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?				

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
13.	POPULATION AND HOUSING				
Wοι	ıld the project:				T
a.	Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b.	Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?				
C.	Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?				
14.	PUBLIC SERVICES				
Wou	ıld the project:				
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	i. Fire protection?			\boxtimes	
	ii. Police protection?			\boxtimes	
	iii. Schools?			\boxtimes	
	iv. Parks?				
	v. Other public facilities?			\boxtimes	
15.	RECREATION				•
Wou	ıld the project:				
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				
16.	TRANSPORTATION AND TRAFFIC				
Wou	ıld the project:				
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including				

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
	but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?				
b.	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
C.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				\boxtimes
d.	Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
e.	Result in inadequate emergency access?			\boxtimes	
f.	Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				
17.	TRIBAL CULTURAL RESOURCES		l		
Re of an	ould the project cause a substantial adverse change in the sign sources Code section 21074 as either a site, feature, place, cul the size and scope of the landscape, sacred place, or object w d that is:	ltural landscap ith cultural val	e that is geogra	phically defin	ed in terms
	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)			\boxtimes	
	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				
18.	UTILITIES & SERVICE SYSTEMS				
Wo	uld the project:				
a.	Exceed wastewater treatment requirements of the applicable regional water quality control board?			\boxtimes	
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				

		Potentially Significant Impact	Less than Significant with Project Mitigation	Less than Significant Impact	No Impact
C.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			\boxtimes	
d.	Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?				
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			\boxtimes	
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			\boxtimes	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?			\boxtimes	
18.	MANDATORY FINDINGS OF SIGNIFICANCE				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below selfsustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			\boxtimes	
b.	Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).			\boxtimes	
C.	Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?		\boxtimes		

This section contains an assessment of impacts associated with the issues and subject areas identified in the Initial Study Checklist. The thresholds of significance are based on the L.A. *CEQA Thresholds Guide*.

4.1 **AESTHETICS**

Senate Bill (SB) 743, effective January 1, 2014, deems the aesthetic impacts of employment center projects located on an infill site and in defined Transit Priority Areas (TPA) as less than significant under CEQA. ³ Zoning Information File (ZI) No. 2451 issued by the Planning Department, includes a corresponding map of TPAs than identifies the Project site as within the TPA associated with the Westlake/MacArthur Park station of the Red and Purple lines, approximately ½ mile from the Project site.

An employment center project is defined as a project located on property zoned for commercial uses with a FAR of no less than 0.75 within a TPA. As previously mentioned, two of the three parcels for the proposed Project are zoned for commercial uses. The third parcel is zoned R4-1 Multiple Dwelling Zone, which allows some commercial uses. Additionally, an approval item under the proposed Project is to change the Project zoning to C2-2 (commercial uses), thus the Project would be consistently zoned for commercial uses per SB 743.

Therefore, any aesthetic impacts, including but not limited to (a) adverse effects on scenic vistas, (b) damage to scenic resources, (c) degradation of existing visual character, (d) light and/or glare, and (e) shade shadow are deemed less than significant as a matter of law. Notwithstanding the mandate imposed by SB 743, the following aesthetic analysis of the project is provided for informational purposes only.

Impact Analysis

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

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, a significant impact could occur for non–SB 743 projects if the Project introduced incompatible visual elements within a field of view containing a scenic vista or substantially blocked views of a scenic vista. Scenic vistas are generally described in two ways: panoramic views (visual access to a large geographic area, for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, or feature of interest).

The Project site is within the Westlake South neighborhood in the Westlake Community Plan area of the City of Los Angeles. The Project site is not located within or along a designated scenic corridor or roadway.

³ The Governor's Office of Planning and Research, Changes to CEQA for Transit Oriented Development, Senate Bill 743 (Steinberg, 2013).

The Project site is within the field of view of surrounding mountain ranges. However, the existing level of development on the site and in the surrounding area limits views across and beyond the site from surrounding roadways. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, a significant impact could occur for non–SB 743 projects if existing structures on the Project site have been identified as a scenic resource. The Project site is not bordered by or within the viewshed of a designated scenic highway. No historic buildings, rock outcroppings, or unique geologic features exist on the Project site. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

<u>Mitigation Measures</u>: No mitigation measures are necessary.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

<u>Less than Significant Impact</u>. Based on the *L.A. CEQA Thresholds Guide,* a significant impact could occur for non–SB 743 projects if the Project were to introduce incompatible visual elements on the Project site or visual elements that would be incompatible with the character of the area surrounding the Project site.

Building Heights and Massing

Within the Westlake area, commercial retail, office, restaurant, parking, residential, and mixed-use land uses exist ranging in various heights. Buildings close to the Project site are considered low to medium rise in height, ranging from 1 to 5 stories. The proposed building in the Project site would be 6 stories and approximately 82 feet in height. Though the proposed building would be taller than buildings immediately adjacent, it would be consistent with the overall visual character of Westlake. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

Views

At a height of approximately 82 feet above grade, the proposed hotel building may be visible from private viewpoints within commercial or residential buildings in the Westlake South neighborhood. Existing views

toward the Los Angeles skyline or the Hollywood Hills from these vantage points may be obstructed as a result of the Project. However, it should be noted that private views are not protected by any viewshed protection ordinance, and the alteration of private views would not constitute a significant impact. The visual impact of one building blocking another building is not considered a significant impact because the general characteristics of the urban setting would not be altered. The Project would be consistent with the general visual character of Westlake South when viewed from a distance. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

Streetscape

The façade of the proposed building would be articulated with geometric forms and variations in color. The center of the James M Wood Boulevard front would feature an entry plaza. These design elements are intended to create visual interest that mitigate the visual effect of the building mass. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

Shade and Shadow

Based on the *L.A. CEQA Thresholds Guide*, a shading impact would normally be considered significant if the proposed Project's structure cast shadows on shade sensitive uses for more than 3 hours each day between the hours of 9:00 AM and 3:00 PM during winter months, or for more than 4 hours each day between the hours of 9:00 AM and 5:00 PM during the summer months. Shade sensitive uses include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors. The Project would cast shadows across neighboring buildings to the northeast, north and northwest. At 82 feet high, the Project could cast shadows as long as 250 feet.⁴ No specific outdoor spaces or shade sensitive uses would be affected that are not already subjected to shadow from existing structures. As such, and given that the Project is within a Transit Priority Area, and falls under the aforementioned exemption to aesthetic impacts, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

<u>Less than Significant Impact</u>. Based on the *L.A. CEQA Thresholds Guide*, a significant impact could occur for non–SB 743 projects if the Project introduces new sources of light or glare on or from the Project site

⁴ L.A. CEQA Thresholds Guide, Exhibit A.3-2.

that would be incompatible with the areas surrounding the Project site, or which pose a safety hazard to motorists using adjacent streets or freeways. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether the Project results in a significant nighttime illumination impact shall be made considering the change in ambient illumination levels as a result of Project sources and the extent to which Project lighting would spill off the Project site and affect adjacent light-sensitive areas.

Light

Night lighting for the Project site would be provided to illuminate the building entrances and common open space areas, and largely to provide adequate night visibility for hotel guests and to provide a measure of security. The Project site would utilize outdoor lighting designed and installed to meet City Code requirements for shielding. In general, lighting would be typical of the existing structures found in the surrounding area. As such, and given that the Project is within a Transit Priority Area and falls under the aforementioned exemption for aesthetic impacts, impacts would be less than significant.

Glare

Potential reflective surfaces in the Project site vicinity include automobiles, exterior building windows, and other glass and polished metal surfaces. Excessive glare not only restricts visibility, but also increases the ambient heat reflectivity in a given area. The Project site's architectural materials would include a mix of glass, metal, and wood panels. While distinct in style, the Project would utilize materials and finishes typical of the modern existing structures in the surrounding area. As such, and given that the Project is within a Transit Priority Area and falls under the aforementioned exemption for aesthetic impacts, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Impact Analysis

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

No Impact. The Project site is within a developed and heavily urbanized area within the City of Los Angeles. No farmland or agricultural activity exists on or near the Project site. According to the California Department of Conservation "Los Angeles County Important Farmland 2012" map, the Project site is designated as "urban and built-up land." No portion of the Project site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

No Impact. The Project site is within the jurisdiction of the City of Los Angeles and is subject to the applicable land use and zoning requirements of the LAMC. The Project site has a land use designation of Highway Oriented Commercial and is zoned for commercial uses [C2-1] and residential uses [R4-1]. As such, the Project site is not zoned for agricultural production, and there is no farmland at the Project site. In addition, no Williamson Act Contracts are in effect for the Project site.⁶ No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

2005 James Wood Boulevard Hotel Project Initial Study

California Department of Conservation, Division of Land Resource Protection, "Los Angeles County Important Farmland 2012," map (January 2015), ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/los12.pdf.

⁶ California Department of Conservation, Division of Land Resource Protection, "The Land Conservation (Williamson) Act" (2013), http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx.

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

No Impact. The Project site has a land use designation of Highway Oriented Commercial and is zoned for commercial uses [C2-1] and multiple dwelling zone uses [R4-1]. As such, the Project site is not zoned as forest land or timberland, and there is no timberland production at the Project site. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

No Impact. The Project site is currently developed with a single-story commercial retail complex and related surface parking. No forested lands or natural vegetation exists on or near the Project site. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

No Impact. Neither the Project site, nor nearby properties, are currently utilized for agricultural or forestry uses. The Project site is not classified in any "Farmland" category designated by the State of California. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

4.3 AIR QUALITY

Impact Analysis

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

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, a significant air quality impact could occur if the Project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. The South Coast Air Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin ("Basin"). To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments. In addition, the SCAQQMD cooperates actively with all State and federal government agencies to develop rules and regulations; establishes permitting requirements; inspects emissions sources; and enforces such measures though educational programs or fines, when necessary. Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management chapter of the Regional Comprehensive Plan (RCP) are considered consistent with the AQMP growth projections because the Growth Management chapter forms the basis of the land use and transportation control portions of the AQMP.

The Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Mitigation Measures; No mitigation measures are necessary.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact; Based on the *L.A. CEQA Thresholds Guide*, the Project could have a significant impact where Project-related emissions would exceed Federal, State, or regional standards or thresholds, or where Project-related emissions would substantially contribute to an existing or projected air quality violation. The Project would contribute to regional and localized air pollutant emissions during construction and Project operation. The applicable air quality standards and the calculated emissions associated with the Project are discussed in the Air Quality and Greenhouse Gas Technical Report included as **Appendix A** of this Initial Study. The analysis of construction emissions associated with the Project has been prepared utilizing CalEEMod (version 2016.3.1), an emissions modeling software program recommended by the SCAQMD. **Table 4.3-1, Maximum Unmitigated Construction Emissions**, identifies daily emissions that are estimated for peak construction days for each construction phase on and off site.

Table 4.3-1
Maximum Unmitigated Construction Emissions (pounds/day)

Source	VOC	NOx	СО	SOx	PM10	PM2.5
Demolition	3	34	18	<1	4	2
Site Preparation	2	18	9	<1	3	2
Grading/Excavation	3	52	19	<1	5	3
Building Construction, Architectural Coating, and Paving	25	32	27	<1	3	2
Maximum Regional Threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A**.

Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Source: 2005 W. James M Wood Blvd Hotel Project Air Quality Technical Report. ESA (February 2017)

The proposed Project would contribute to regional and localized air pollutant emissions during construction (short term) and proposed Project occupancy (long term). These construction activities would create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities during demolition/site clearing and site preparation/excavation would primarily generate particulate matter less than 10 microns (PM10) and particulate matter less than 3.0 microns (PM2.5) emissions. Mobile sources (such as diesel-fueled equipment on site, and traveling to and from the Project site) would primarily generate nitrogen oxide (NOx) emissions. The application of architectural coatings would primarily result in the release of reactive organic gas (ROG) emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time. In addition, these calculations assume that appropriate dust control measures would be implemented as part of the proposed Project during each phase of development, as required by SCAQMD Rule 403—Fugitive Dust.

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities of the Project. Area-source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. The analysis of daily operational emissions associated with the Project has been prepared utilizing CalEEMod, as recommended by the SCAQMD. The estimated emissions from existing uses on the site were subtracted from the estimated emissions resulting from the Project to calculate a potential net change in emissions. The results of these calculations are presented in **Table 4.3-2**, **Maximum Unmitigated Operational Emissions**. Note that the results reflect the net difference between the existing operational emissions generated by uses that would be removed from the Project site and

the Project's operational emissions. As shown in **Table 4.3-2**, the operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD. As such, impacts would be less than significant. Based on the above, impacts from the Project would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

Table 4.3-2

Maximum Unmitigated Operational Emissions (pounds/day)

Maximum offinitigated operational Emissions (pounds) day)						
Source	VOC	NOx	СО	SOx	PM10	PM 2.5
Area	<u>1</u>	<1	<1	<1	<0.1	<0.1
Energy	<1	<1	<1	<1	<0.1	<0.1
Mobile	2	7	18	<1	3.9	1.1
Total	3	7	18	<1	4.0	1.1
Existing	1	2	6	<1	1.2	0.3
Net Total	2	5	12	<1	2.8	0.8
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

___ Source: CalEEMod.

c. Would the project result in a cumulatively considerable net increase of any criteria

pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, a significant impact could occur if the Project would add a considerable cumulative contribution to federal or State nonattainment pollutants. Given that the Basin is currently in State nonattainment for ozone, PM10, and PM2.5, ⁷ related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. In regard to determining the significance of the Project contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that "projects that do not exceed the project-specific

⁷ California Air Resources Board (CARB), "Area Designation Maps/State and National," http://www.arb.ca.gov/desig/adm/adm.htm.

thresholds are generally not considered to be cumulatively significant."⁸ If an individual Project generates less than significant construction or operational emissions, then the Project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

The emissions from construction of the Project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the National Ambient Air Quality Standards (NAAQS) or the California Ambient Air Quality Standards (CAAQS). Therefore, the project would not result in a cumulatively considerable net increase for nonattainment pollutants or ozone precursors. As such, the impact would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact with Project Mitigation. Project construction activities and operations, as described previously, may increase air emissions above current levels. Also, concentrations of pollutants may have the potential to impact nearby sensitive receptors. Sensitive receptors are defined as schools, residential homes, hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality.

The SCAQMD has developed localized significance thresholds (LSTs) based on the pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds apply to projects that are less than or equal to 5 acres in size and are only applicable to the following criteria pollutants: NOx, CO, PM10, and PM2.5. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each Source Receptor Area (SRA). For PM10, the LSTs were derived based on requirements in SCAQMD Rule 403—Fugitive Dust. For PM2.5, LSTs were derived based on a general ratio of PM2.5 to PM10 for both fugitive dust and combustion emissions.

The nearest sensitive receptors that could potentially be subject to localized air quality impacts associated with construction of the Project are the multifamily residential units on the northern boundary of the Project site. The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project.

⁸ South Coast Air Quality Management District (SCAQMD), White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2003), Appendix A.

⁹ SCQAMD, Final Localized Significance Threshold Methodology (June 2003; rev. July 2008).

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. The LST analysis for the Project has been prepared utilizing CalEEMod and threshold levels as recommended by the SCAQMD. Shown in **Table 4.3-3, Maximum Unmitigated LST Emissions**, the net difference between the emissions from current uses at the Project site and the peak daily emissions that would be generated within the Project site during construction activities for each phase. No other construction emissions would occur and, therefore, localized air quality impacts from construction activities to the off-site sensitive receptors would be less than significant.

Project construction would result in short-term emission of diesel particulate, which is a toxic air contaminant. Given the proximity of residential uses, it is possible that the Project could contribute to cumulative health impacts from toxic air contaminants. Therefore, it is conservatively considered that the Project would have a potentially significant impact and mitigation is identified below.

Project operations would generate only minor amounts of diesel emissions from residential delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emissions from existing diesel trucks. Therefore, the Project operations would not be considered a substantial source of diesel particulates.

In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings and other household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed residential uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance. Therefore, operational impacts would be less than significant.

<u>Mitigation Measures:</u> The Project Applicant shall adopt the following mitigation measure in order to reduce potential impacts to a less than significant level.

MM-AIR-1: Off-road diesel-fueled heavy-duty construction equipment

Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

Table 4.3-3
Maximum Unmitigated LST Emissions¹ (pounds/day)

Source	NOx	СО	PM10	PM2.5
Construction				
Total unmitigated maximum emissions	29	23	3	2
LST threshold	58	503	4	2
Threshold Exceeded?	No	No	No	No
Operational				
Project Area/energy emissions	<1	<1	<0.1	<0.1
Existing Area/energy emissions	<1	<1	<0.1	<0.1
Net Area/energy emissions	<1	<1	<0.1	<0.1
LST threshold	58	503	2.0	0.5
Threshold Exceeded?	No	No	No	No

Notes: Emission calculations are provided in Appendix A.

e. Create objectionable odors affecting a substantial number of people?

Less than Significant Impact. A significant impact could occur if a project were to generate objectionable odors that adversely affected sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. As the Project involves no elements related to these types of activities, no odors are anticipated. During the construction phase for the Project, activities associated with the operation of construction equipment, the application of asphalt, the application of architectural coatings, and other interior and exterior finishes may produce discernible odors typical of most construction sites. Although these odors could be a source of nuisance to adjacent receptors, they are temporary and intermittent in nature. As construction-related emissions dissipate from the construction area, the odors associated with these emissions would also decrease, dilute, and become unnoticeable. Good housekeeping practices, such as the use of trash receptacles, would be sufficient to prevent nuisance odors. Adherence with SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts from the proposed uses. Therefore, impacts from the Project would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

The operational emissions of the Project represent the net difference between the existing operational uses that would be removed and the Project operational emissions.

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

¹ LST for a 1.18-acre site, LST values were interpolated between the 1-acre and 2-acre values accordingly, then rounded down to the nearest whole number.

4.4 BIOLOGICAL RESOURCES

Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact with Project Mitigation. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on biological resources if it would result in (a) the loss of individuals, or the reduction of existing habitat of a State- or federal-listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern; (b) the loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated natural habitat or plant community; or (c) interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise or light) to a degree that may diminish the chances for long-term survival of a sensitive species.

The Project site is currently developed with an existing commercial retail building and related surface parking. The Project site does not contain any critical habitat or support any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or US Fish and Wildlife Service (USFWS).

Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA)¹⁰ and the California Department of Fish and Wildlife Code11, and the removal of trees could impact bird nests. There is one street adjacent to the site that may be removed during construction. As such, the potential exists for disruption of nesting habitat.

<u>Mitigation Measures:</u> The Project Applicant shall adopt the following mitigation measure in order to reduce potential impacts from the Project to a less than significant level.

• MM-BIO-1: Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

Project activities (including disturbances to native and nonnative vegetation, structures, and substrates) should take place outside of the breeding season for birds, which generally runs from March 1 to August 31 (and as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young).

¹⁰ United States Code, tit. 33, sec. 703 et seq.; see also Code of Federal Regulations, tit. 50, pt. 10.

¹¹ California Department of Fish and Wildlife Code, sec. 3503.

Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code, Section 86).

If Project activities cannot feasibly avoid the breeding season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Project Applicant shall:

- Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. The surveys shall be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
- If a protected native bird is found, the Project Applicant shall delay all clearance/ construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.
- Alternatively, the qualified biologist could continue the surveys to locate any nests. If an active
 nest is located, clearing and construction (within 300 feet of the nest or as determined by a
 qualified biological monitor) shall be postponed until the nest is vacated and juveniles have
 fledged, and when there is no evidence of a second attempt at nesting. The buffer zone from
 the nest shall be established in the field with flagging and stakes. Construction personnel shall
 be instructed on the sensitivity of the area.
- The Project Applicant shall record the results of the recommended protective measures
 described previously to document compliance with applicable State and federal laws
 pertaining to the protection of native birds. Such record shall be submitted and received into
 the case file for the associated discretionary action permitting the Project.
- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project site is within a developed and heavily urbanized area within the City of Los Angeles. The Site is currently occupied by a commercial retail complex and related surface parking lot. No riparian or other sensitive natural community is found on or adjacent to the Project site. No impacts would occur.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on biological resources if it would result in the alteration of an existing wetland habitat. The Project site is entirely developed and covered with impermeable surfaces. The Project site does not contain any wetlands or natural drainage channels. The Project site does not have the potential to support any riparian or wetland habitat as defined by Section 404 of the Clean Water Act. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

No Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on biological resources if it would interfere with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species. The Project site is in an area that has been previously developed in a heavily urbanized area of the Westlake community of the City of Los Angeles. Due to the highly urbanized surroundings, there are no wildlife corridors or native wildlife nursery sites in the Project vicinity. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact with Project Mitigation. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project-related, significant adverse effect could occur if the Project were to cause an impact that is inconsistent with local regulations pertaining to biological resources, such as the City of Los Angeles Protected Tree Ordinance¹² or the City's adopted street tree policies. The Project site does not contain any trees, however there is a palm tree within the sidewalk right of way adjacent to the site. This tree is not covered by the Protected Tree Ordinance. The Applicant would be required to process a tree removal permit through the Department of Public Works if this tree is to be removed. With compliance with the permit process, impacts would be less than significant.

¹² City of Los Angeles Department of City Planning, Los Angeles Tree Ordinance (No. 177404), LAMC, sec. 12.21

Mitigation Measures: No mitigation measures are necessary.

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

No Impact. A significant impact could occur if the Project would be inconsistent with mapping or policies in any conservation plans of the types cited. The Project site is not part of any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. No impacts would occur.

4.5 CULTURAL RESOURCES

Impact Analysis

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

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if the Project would disturb historic resources that presently exist within the Project site. Section 15064.5 of the CEQA Guidelines generally defines a historic resource as a resource that is (1) listed in, or determined to be eligible for listing, in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or (3) identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code). Additionally, any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register.

The Project site is currently developed with a commercial retail building and related surface parking. The existing structure is not designated for listing on the National Register of Historic Places, California Register of Historic Places, or the Los Angeles Historic Cultural Monument list. None of the existing structures have been identified as culturally significant through the SurveyLA, a comprehensive program by the City of Los Angeles Office of Historic Resources to identify significant historic resources. The nearest historic resource or potentially historic resource is the Charles B Booth Residence and Carriage House, located approximately 0.22 miles east of the Project site, which is designated as a Los Angeles Historic-Cultural Monument.¹³

Section 15064.5(b)(2) of the State CEQA Guidelines states that a Project would cause a substantial adverse change in the significance of a historic resource if it:

¹³ HistoricPlacesLA, *Los Angeles Historic Resources Inventory*, http://www.historicplacesla.org/reports/f159b844-37e1-4d1b-9c01-68c1bec5bb8c, accessed June 2017.

- a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
- b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Construction and operation of the Project would not alter any of the physical characteristics of the nearby historic resources. Additionally, construction and operation of the Project would not alter the historic context of these buildings. The Project would be compatible in mass, size, and scale with the development pattern of the surrounding portion of Downtown Los Angeles and would not adversely alter the design, character or feeling associated with these historic resources. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if grading or excavation activities associated with the Project would disturb unique archaeological resources that could exist within the Project site. The Project site is located within an urbanized area that has been subject to grading and development in the past. There are no known archaeological sites or archaeological survey areas on or adjacent to the Project site. As such, the likelihood of unearthing unique archeological resources is considered low. Per California Public Resources Code Section 21083.2(f), a lead agency may make provisions for archeological sites accidently discovered during construction. As a condition of approval, the City of Los Angeles requires that if archeological artifacts are unearthed, construction activity cease while the significance of the artifacts are evaluated. With compliance, any potential archeological impacts of the Project would be less than significant.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if grading or excavation activities associated with the Project were to disturb unique paleontological resources or geologic features that presently exist within the Project site. The Project site has been previously graded and is currently improved with an existing commercial retail building and related surface parking. The Project site and immediate surrounding areas do not contain any known vertebrate paleontological resources. As such, the likelihood of unearthing unique paleontological resources is considered low. As a condition of approval, the City of Los Angeles requires that if paleontological artifacts are unearthed, construction activity cease while the significance of the artifacts are evaluated. With compliance, any potential paleontological impacts of the Project would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a significant adverse effect could occur if grading or excavation activities would disturb previously interred human remains. The Project site is located in an urbanized area and has been subject to grading and development in the past. No known burial sites are located on or adjacent to the Project site. Furthermore, the Project Applicant shall be required to comply with existing regulations, including State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 that specify the protocol if human remains are discovered during excavation, grading, or construction activities. If human remains are encountered State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. If the County Coroner concludes that the remains are of Native American descent, the Native American Heritage Commission must be notified within 24 hours, and NAHC guidelines would be adhered to in the treatment and disposition of the remains. With regulatory compliance, any potential impacts of the Project would be less than significant.

4.6 GEOLOGY AND SOILS

Impact Analysis

Would the project exacerbate existing hazardous environmental conditions by bringing people or structures into areas that are susceptible to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if a project were located within a State-designated Alquist-Priolo Zone or other designated fault zone. According to the City's General Plan, the Project site is not located within a seismic hazard zone for liquefaction, landsliding, or faulting, as delineated by the State of California, in accordance with the Seismic Hazards Mapping Act or the Alquist-Priolo Act. ¹⁴ Additionally, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone, nor do any known active faults cross the Project site. ¹⁵ The potential risk for surface fault rupture through the Project site is considered low. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Strong seismic ground shaking?

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if a project were to represent an increased risk to public safety or destruction of property by exposing people, property, or infrastructure to seismically induced ground-shaking hazards that are greater than the average risk associated with other locations in Southern California.

As previously discussed, the Project site is not located within a seismic hazard zone for liquefaction, landsliding, or faulting. The nearest potentially active fault is, the Puente Hills Blind Thrust Fault and is within 5 miles of the Project site. ¹⁶ The Project would conform to all applicable provisions of the California Building Code seismic standards with respect to new construction, as approved by the Department of

¹⁴ City of Los Angeles General Plan, "Safety Element" (1996).

¹⁵ Department of Conservation, "Regulatory Maps: Hollywood Quadrangle, GIS Data," http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps.

¹⁶ City of Los Angeles Department of City Planning, Parcel Profile Reports, *Zoning Information and Map Access System (ZIMAS)*, database, http://www.zimas.lac.ity.org.

Building and Safety. Adherence to current building codes and engineering practices would ensure that the Project would not expose people, property, or infrastructure to seismically induced ground-shaking hazards that are greater than the average risk associated with locations in the Southern California region. As such, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

c. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a significant impact could occur if a project site were located within a liquefaction zone. As stated in the City's General Plan, Safety Element, and as noted in the City's parcel information report, the Project site is not located within an area identified as having a potential for liquefaction. Impacts would be less than significant.

<u>Mitigation Measures</u>: No mitigation measures are necessary.

d. Landslides?

No Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant geologic hazard impact if it were to cause or accelerate geologic hazards that would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. A project-related, significant adverse effect could occur if the project were located in a hillside area with soil conditions that would suggest a high potential for sliding.

The Project site is on relatively level terrain. According to the California Division of Mine and Geology Seismic Hazard Zones Map of the Hollywood Quadrangle¹⁷ and the City of Los Angeles Safety Element,¹⁸ the Project site is not in a designated earthquake-induced landslide hazard zone. Therefore, the probability of landslides is considered to be very low. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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¹⁷ California Department of Conservation, Division of Mines and Geology, "Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle, Los Angeles County, California" (1998).

¹⁸ City of Los Angeles General Plan, "Safety Element" (1996).

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

<u>Less than Significant Impact</u>. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have significant sedimentation or erosion impacts if it would (a) constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or (b) accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.

Although development of the Project site has the potential to result in the erosion of soils during site preparation and construction activities, erosion would be reduced by implementation of stringent erosion controls imposed by the City of Los Angeles through grading and building permit regulations. Minor amounts of erosion and siltation could occur during grading. The potential for soil erosion during the ongoing operation of the Project is extremely low due to the predominantly level topography of the site; furthermore, the Project site would be almost entirely built upon, with little or no soil exposed.

All grading activities would require grading permits from the Los Angeles Department of Building and Safety (LADBS), and would be required to comply with the standards designed to limit potential erosion impacts. All on-site grading and site preparation would comply with applicable provisions of Chapter IX, Division 70 of the LAMC, which addresses grading, excavations, and fills. The grading plan would conform to the City's Landform Grading Manual Guidelines, subject to approval by the Department of City Planning and the Department of Building and Safety's Grading Division. Chapter IX, Division 70 of the LAMC addresses grading, excavations, and fills. For these reasons, Project impacts would less than significant.

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

<u>Less than Significant Impact</u>. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant geologic hazard impact if it could cause or accelerate geologic hazards causing substantial damage to structures or infrastructure, or expose people to substantial risk of injury. For this specific issue, a significant impact could occur if the Project is built in an unstable area without proper site preparation or design features to provide adequate foundations for buildings, thus posing a hazard to life and property.

As previously discussed, the Project site is not located within a liquefaction zone and the potential for seismically induced settlement at the Project site is considered small. The design and construction of the Project would be to the satisfaction of the LADBS to ensure favorable conditions for the permanent retaining structure. Additionally, construction of the Project would comply with the City of Los Angeles Uniform Building Code (Building Code) which is designed to ensure safe construction and includes building foundation requirements appropriate to site conditions. Code requirements to prevent soil erosion and liquefaction would be implemented.

For all these reasons, Project Impacts would less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant geologic hazard impact if it were to cause or accelerate geologic hazards that would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. For this specific issue, a significant impact could occur if a project were built on expansive soils without proper site preparation or design features to provide adequate foundations for buildings, thus posing a hazard to life and property. Expansive soils contain significant amounts of clay particles that swell considerably when wetted and that shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

The Project site is currently improved with a commercial retail building and related surface parking lot. Construction of the Project would be required to comply with the City of Los Angeles Uniform Building Code, Los Angeles Municipal Code and other applicable building codes which includes building foundation requirements appropriate to site-specific conditions. Therefore, Project impacts would less than significant.

Mitigation Measures: No mitigation measures are necessary.

h. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project site is located in a developed area that is served by the wastewater collection, conveyance, and treatment system operated by the City of Los Angeles. The Project's wastewater demand would be accommodated via connections to this existing wastewater infrastructure. No septic tanks or alternative disposal systems would be utilized. Moreover, there is no construction proposed or contemplated on the remaining properties within the Project site. For all these reasons, no impacts would occur.

4.7 GREENHOUSE GAS EMISSIONS

Impact Analysis

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

Less than Significant Impact. A significant impact could occur if a project were to generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. GHG emissions refer to a group of emissions that are believed to affect global climate conditions. These gases trap heat in the atmosphere, and the major concern is that increases in GHG emissions are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. The background and regulatory context of GHG emissions is discussed in the Technical Report included as an Appendix A of this Initial Study.

As detailed therein, construction and operational GHG emissions were modeled using CalEEMod for each year of construction of the Project and for a typical year of operation. The estimated emissions from existing uses on the site were subtracted from the estimated emissions resulting from the Project to calculate a potential net change in emissions.

The California Air Pollution Control Officers Association suggests making significance determinations on a case-by-case basis when no significance thresholds have been formally adopted by a lead agency. Although GHG emissions are quantified and shown in **Table 4.7-1 Annual Greenhouse Gas Emissions**, CARB, SCAQMD, and the City of Los Angeles have yet to adopt project-level significance thresholds for GHG emissions that would be applicable to the Project. The Technical Report includes a threshold that was once used for the City of Los Angeles, which is included in **Table 4.7-1**. As shown, the net increase in GHG emissions generated by the Project would be 1,116 MTCO2e per year.

Assessing the significance of a project's contribution to cumulative global climate change involves (1) evaluating the project's sources of GHG emissions; and (2) considering project consistency with applicable emission reduction strategies and goals, such as those set forth by the lead agency or other regional state agency. As described below, the Project would be consistent with the City of Los Angeles goals and actions to reduce the generation and emission of GHGs from both public and private activities pursuant to the applicable portions of the Westlake Community Plan, LA Green Plan and Sustainable City pLAn. As such, impacts would be less than significant.

Table 4.7-1
Annual Greenhouse Gas Emissions

7	5 211110510110
GHG Emissions Source	Emissions (MTCO2e/year)
Project Construction	449
Construction (amortized)	15
Operational (mobile) sources*	850
Area sources	<1
Energy (Gas and Electricity)	568
Waste	7
Water	21
Annual Total	1,461
Existing	345
Net Total	1,116
Significance Threshold	3,000
Threshold Exceeded?	No

Source: CalEEMod.

Notes: Emissions calculations are provided in Appendix A

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

The emissions of the Project represent the net difference between the existing greenhouse-generated uses that would be removed and the Project greenhouse gas emissions.

MTCO2e = metric tons of carbon dioxide emissions.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. The goal of AB 32 is to reduce Statewide GHG emissions to 1990 levels by 2020. As previously noted, in 2014, the CARB updated the Scoping Plan, which details strategies to meet that goal. In addition, Executive Order S-3-05 aims to reduce Statewide GHG emissions to 80 percent below 1990 levels by 2050. On September 8, 2016, Governor Brown enacted SB 32 that extends AB 32 another ten years to 2030 and increase the State's objectives. SB 32 calls on Statewide reductions in GHG emissions to 40 percent below 1990 levels by 2030. In addition, AB 197 requires ARB to approve a statewide GHG emissions limit equivalent to the statewide GHG emission level in 1990 to be achieved by 2030. SB 32 requires ARB to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions.

^{*} N2O emissions account for 0.04 MTCO2e/year.

Executive Orders S-3-05 and B-30-15, SB 375, and SCAG's Sustainable Communities Strategy all apply to the Project and are all intended to reduce GHG emissions to meet the statewide targets set forth in AB 32.

Sustainable Communities and Climate Protection Act (SB 375)

SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. This act requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that prescribes land use allocation in that MPO's regional transportation plan (RTP). CARB, in consultation with MPOs, provided regional reduction targets for GHGs for the years 2020 and 2035. As mentioned above, the Project would be within the employment and population forecasts.

Green Building Standards (CALGreen) Code

In November 2008, the California Building Standards Commission established the California Green Building Standard Code (CALGreen Code), which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. As of January 1, 2011, the CALGreen Code is mandatory for all new building construction in the State. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.

In December 2010, the Los Angeles City Council adopted various provisions of the CALGreen Code as part of Ordinance No. 181,480, thus codifying certain provisions of the CALGreen Code as the new Los Angeles Green Building Code (LA Green Building Code). The LA Green Building Code imposes more stringent green building requirements than those contained within the CALGreen Code, and is applicable to the construction of every new building, every new building alteration with a permit valuation of over \$200,000, and every building addition unless otherwise noted. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. In 2016, the Los Angeles City Council adopted the 2017 Los Angeles Green Building Code, which is in effect as of January 1, 2017. The 2017 Los Angeles Green Building Code contains mandatory measures for residential and nonresidential development related to site development; water use; weather resistance and moisture development; construction waste reduction; disposal and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; outdoor air quality; and electric vehicle charging requirements. The GHG emissions resulting from operation of the proposed Project would comply with the LA Green Building Code and not conflict with any policies set forth by the CALGreen Code.

Consistency with SCAG 2016-2040 RTP/SCS

Senate Bill (SB) 375, authored by Senate President Pro Tem Darrell Steinberg, was signed into law on September 30, 2008. SB 375 is the most ambitious attempt yet to coordinate planning for land use and transportation at a regional scale, with the goal of reducing the amount that people have to drive and associated greenhouse gases. ¹⁹ As mentioned previously, projects that are consistent with the population forecasts identified in the Growth Management chapter forms the basis of the land use and transportation control portions of the AQMP. According to the SCAG estimates, the 2015 population within Los Angeles County is 10,158,776 residents. The population projections used to estimate emissions in the 2016 AQMP for the year 2040 anticipated a population of 11,513,435 by the year 2040. The project would not generate any residences. As such, the project would be consistent with the planned land uses and employment growth for Los Angeles and would not conflict with the AQMP.

City of Los Angeles Sustainable City pLAn

On April 8, 2015, the City of Los Angeles released the Sustainable City pLAn ("pLAn") which defines a roadmap for actions to be taken by the City over the next 20 years to create a City that is environmentally healthy, economically prosperous, and equitable in opportunity. The pLAn addresses increasing local water and solar energy resources, energy efficiency in new buildings, carbon and climate leadership and waste and landfills. The pLAn also addresses the housing shortage in the City by calling for 100,000 new housing units by 2021, leading to 150,000 new housing units by 2035, with policies to encourage that 57 percent of these units be built near transit in 2025 and 65 percent by 2025 to help the City meet its GHG reduction goals. In 2014, 43 percent of new housing units in the City were built near transit.

On carbon and climate leadership, the pLAn states that the City will reduce GHG emissions below the 1990 levels called for by state law by 2020. The City's objectives are to reduce GHG emissions below 1990 baseline by at least 45 percent by 2025, 60 percent by 2035 and 80 percent by 2050. By 2017, the City will develop a comprehensive climate action and adaptation plan. Strategies and policy initiative include creating a benchmarking policy for building energy use, and incentivizing or requiring Leadership in Energy and Environmental Design (LEED) Silver or better for new construction.

The Project would be consistent with the planned land use for the Van Nuys-North Sherman Community Plan area and would not conflict with the AQMP. As described previously, through required implementation of the LA Green Building Code, the Project would be consistent with local and Statewide goals and policies aimed at reducing the generation of GHGs. The Project's generation of GHG emissions would not make a cumulatively considerable contribution to or conflict with an applicable plan, policy, or

¹⁹ Climate Plan, SB 375 Fact Sheet, http://www.climateplan.org/wp-content/uploads/2011/05/TransForm-SB-375-4-page-Statewide-Oct-2011.pdf

regulation for the purposes of reducing the emissions of greenhouse gases. Impacts would be less than significant.

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following section incorporates by reference, information from the *Phase 2 Environmental Site Assessment*, dated December 22, 2015 and prepared by Western Environmental Engineers Company on behalf of the Applicant is shown in **Appendix B**.

Impact Analysis

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

Less than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact to hazards and hazardous materials if (a) the project involved a risk of accidental explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals or radiation); or (b) the project involved the creation of any health hazard or potential health hazard. The types and amounts of hazardous materials that would be used in connection with the Project would include typical household products used by the hotel staff (e.g., cleaning solutions, solvents, pesticides for landscaping, painting supplies, and petroleum products). The routine use and disposal of normal household products is not considered to create a significant hazard to the public or the environment.

Construction of the Project would also involve the temporary use of potentially hazardous materials, including vehicle fuels, paints, oils, transmission fluids, solvents, and other acidic and alkaline solutions that would require special handling, transport, and disposal. However, all potentially hazardous materials would be used and stored in accordance with applicable federal, State, and Local regulations. As such, the Project would not create a significant hazard to the public or the environment. Impacts would be less than significant.

<u>Mitigation Measures</u>: No mitigation measures are necessary.

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

Less than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact to hazards and hazardous materials if (a) A project involved a risk of accidental explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals or radiation); or (b) A project involved the creation of any health hazard or potential health hazard. A common list of potentially hazardous materials that may be found at the Project site could consist of, but are not limited to, the following:

Household Products

By far the most common hazardous materials are those found or used in the home for such activities as cleaning, painting, and pest control. However, it is expected that household products would be used and stored in accordance with applicable federal, State, and local regulations.

Asbestos-Containing Materials

Asbestos is a crumbly material often found in older buildings, typically used as insulation in walls or ceilings. It was formerly popular as an insulating material because it had the desirable characteristic of being fire resistant and asbestos-containing materials were taken off the market in 1984. However, it can pose a health risk when very small particles become airborne. These dust-like particles can be inhaled, where their microscopically sharp structures can puncture the tiny air sacs in the lungs, resulting in long-term health problems. The Department of Toxic Substance Control (DTSC) classifies asbestos waste as potentially hazardous if it is greater than 1 percent and easily crumbled (friable). The existing structure was built in 1989, therefore the potential that asbestos-containing material was used in the building is low.

Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) are man-made organic chemicals that were formerly manufactured for use in various industrial and commercial applications as a result of their nonflammability, chemical stability, high boiling point, and electrical insulating properties. While the manufacture of PCBs was banned in 1979, these hazardous materials may be found in products associated with transformers, electrical equipment, motor oil, hydraulic systems, cable and thermal insulation, adhesives and tapes, oil-based paint, caulking, plastics, and floor finish.²⁰ During the site visit performed for the Phase 2 assessment, no PCB-containing equipment was identified.

Methane and Radon Gas

According to the City's parcel records, the Project site is not located within a Methane Buffer Zone.²¹ According to the Radon Potential Zone Map for Southern Los Angeles County, California,²² the Project site is not located within a radon zone. No further investigations related to these hazards would be required.

²⁰ US Environmental Protection Agency (USEPA), "Polychlorinated Biphenyls," http://www.epa.gov/wastes/hazard/tsd/pcbs/about.htm (accessed June 2017).

²¹ City of Los Angeles Department of Planning, *Zone Information and Map Access System (ZIMAS)*, http://zimas.lacity.org/, accessed June 2017.

California Geologic Survey, "Radon Potential Zone Map for Southern Los Angeles County, California," map, prepared by Ron Churchill (January 2005), http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/radon/Documents/sr182map.pdf.

<u>Mitigation Measures:</u> No mitigation measures are necessary.

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

Less than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact to hazards and hazardous materials if (a) the project involved a risk of accidental explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation); or (b) the project involved the creation of any health hazard or potential health hazard. According to the *L.A. CEQA Thresholds Guide*, the determination of significance shall be made on a case-by-case basis considering the following factors: (a) the regulatory framework for the health hazard; (b) the probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance; (c) the degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance; (d) the probable frequency and severity of consequences to people from exposure to the health hazard; and (e) the degree to which project design would reduce the frequency of exposure or severity of consequences to exposure to the health hazard.

The closest schools to the Project site are the Hoover Street Elementary School, located 0.1 miles west at 2726 Francis Avenue, and Berendo Middle School, located 0.7 miles southwest at 1157 South Berendo Street. No hazardous materials other than modest amounts of typical cleaning supplies and solvents used for housekeeping and janitorial purposes would be present at the Project site; moreover, use of these substances would comply with State health codes and regulations. Therefore, the Project would not create a significant hazard through hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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 exacerbate the current environmental conditions so as to create a significant hazard to the public or the environment?

<u>Less than Significant Impact</u>. The Project site is currently developed with a retail building and related surface parking. There are 23 leaking underground storage tanks (LUSTs) within one-half mile of the Project site, all of which have been remediated or are currently under remediation with the State Water Resources Control Board (SWRCB). Based on the distance to the Project site and the status of the cases,

these properties are not considered to pose a significant hazard to the Project site. Impacts would be less than significant.²³

Mitigation Measures: No mitigation measures are necessary.

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 exacerbate current environmental conditions so as to result in a safety hazard for people residing or working in the project area?

No Impact. A significant impact may occur if a project were located within a public airport land use plan area or within 2 miles of a public airport and subject to a safety hazard. The closest public airports to the Project site are the Bob Hope Airport, Santa Monica Airport, and Los Angeles International Airport, all within 10 miles of the Project site to the north, west, and southwest, respectively. None of these airports are located within 2 miles of the Project site. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

f. For a project within the vicinity of a private airstrip, would the project exacerbate current environmental conditions so as to result in a safety hazard for people residing or working in the project area?

No Impact. The Project is neither within the vicinity of a private airstrip nor within an area that would expose hotel guests and workers to a safety hazard. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based on the criteria established in the L.A. CEQA Thresholds Guide, a project could have a significant impact to hazards and hazardous materials if the project involved possible interference with an emergency response plan or emergency evacuation plan. According to the L.A. CEQA Thresholds Guide, the determination of significance shall be made on a case-by-case basis considering the degree to which the project may require a new (or interfere with an existing) emergency response or evacuation plan, and the severity of the consequences.

²³ Western Environmental Engineers Company, Phase 21 Environmental Site Assessment (December 22, 2015).

The Project site is located at 2005 James M Wood Boulevard and South Westlake Avenue is to the east; neither is a selected disaster route as identified by the City's General Plan. ²⁴ However, the Project site is located approximately 190 feet to the east of South Alvarado Street, which is a selected disaster route. While it is expected that the majority of construction activities for the Project would be confined to the Project site, limited off-site construction activities may occur in adjacent street rights-of-way during certain periods of the day, which may result in temporary lane closures that could have the potential to interfere with established emergency response or evacuation plans. However, any such closures would be temporary in nature and would be coordinated with the City of Los Angeles Departments of Transportation, Building and Safety, and Public Works. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

h. Exacerbate existing hazardous environmental conditions by bringing people or structures into areas that are susceptible to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project site is in a highly urbanized area of Los Angeles and does not include wildlands or high fire hazard terrain or vegetation. Additionally, the Project site is not in a Very High Fire Hazard Severity Zone.²⁵ No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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²⁴ City of Los Angeles General Plan "Safety Element" (1996), Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles.

²⁵ City of Los Angeles Department of City Planning, *ZIMAS*, "Parcel Profile Reports," http://www.zimas.lacity.org, accessed June 2017.

4.9 HYDROLOGY AND WATER QUALITY

Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements?

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable National Pollution Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for the receiving water body. For this specific issue, a significant impact may occur if the Project would discharge water that does not meet the quality standards of local agencies that regulate surface water quality and water discharge into stormwater drainage systems. Significant impacts would also occur if the project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include the Standard Urban Storm Water Mitigation Plan (SUSMP) requirements to reduce potential water quality impacts.

Construction Impacts

The three general sources of potential short-term, construction-related stormwater pollution associated with the Project are (1) the handling, storage, and disposal of construction materials containing pollutants; (2) the maintenance and operation of construction equipment; and (3) earthmoving activities, which, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. Under the NPDES, the Project Applicant is responsible for preparing a Storm Water Pollution Prevention Plan (SWPPP) to mitigate the effects of erosion and the inherent potential for sedimentation and other pollutants entering the stormwater system.

Surface water runoff from the Project site would continue to be collected on the Project site and directed toward existing storm drains in the Project vicinity that have adequate capacity. Pursuant to local practice and City policy, stormwater retention will be required as part of the Low Impact Development (LID) and SUSMP implementation features (despite no increased imperviousness of the site). Any contaminants gathered during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits.

Additionally, any pollutants from the parking areas on the Project site would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance. The Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first three-quarters of an inch of rainfall in a 24-hour period, which would reduce the Project's impact to the stormwater infrastructure. The Project would not create or contribute runoff water that would exceed the capacity of

existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. With regulatory compliance, any potential water quality impacts from the Project during construction would be less than significant.

Operation Impacts

The Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first three-quarters of an inch of rainfall in a 24-hour period. Compliance with the LID Ordinance would reduce the amount of surface water runoff leaving the Project site as compared to the current conditions. City of Los Angeles Ordinance Nos. 172,176 and 173,494 specify Storm Water and Urban Runoff Pollution Control, which requires the application of BMPs. The Project would also comply with water quality standards and wastewater discharge requirements set forth by the SUSMP for Los Angeles County and Cities in Los Angeles County and approved by the Los Angeles Regional Water Quality Control Board (LARWQCB). Full compliance with the LID Ordinance and implementation of design-related BMPs would ensure that the operation of the Project would not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on groundwater level if it would change potable water levels sufficiently to (a) reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or respond to emergencies and drought; (b) reduce yields of adjacent wells or well fields (public or private); (c) adversely change the rate or direction of flow of groundwater; or (d) result in demonstrable and sustained reduction in groundwater recharge capacity.

The Project is not adjacent to a well field nor part of a substantial groundwater recharge area. Most of the surface water runoff from the Project site is directed to adjacent storm drains though some percolation occurs around the existing residential properties. Given the relatively small pervious site area and the location, the development of the existing residential lots to impervious surfaces would not substantially interfere with groundwater supplies. Impacts on groundwater would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

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

Less than Significant Impact. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. The Project site is in a highly urbanized area of Los Angeles, and no streams or river courses are located on or within the Project vicinity. The Project site is fully developed with impervious surface. Implementation of the Project would not increase site runoff or result in changes to the local drainage patterns. Implementation of a SWPPP for the Project would reduce the amount of surface water runoff after storm events because the Project would be required to implement stormwater BMPs to retain or treat the runoff from a storm event producing three-quarters of an inch of rainfall in a 24-hour period. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant Impact. Based on the criteria established in the L.A. CEQA Thresholds Guide, a project could have a significant impact on surface water hydrology if it would result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. The Project site is fully developed and has a completely impervious surface. Implementation of the Project would not result in a significant increase in site runoff or cause any changes in the local drainage patterns that would result in flooding on or off site. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

<u>Less than Significant Impact</u>. Based on the criteria established in the *L.A. CEQA Thresholds Guide*, a project could have a significant impact on surface water quality if discharges associated with the project would

create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact may occur if the volume of stormwater runoff from the Project site were to increase to a level that exceeds the capacity of the storm drain system serving the Project site. A Project-related significant adverse effect would also occur if the Project would substantially increase the probability that polluted runoff would reach the storm drain system.

The Project would not result in a significant increase in site runoff, or any changes in the local drainage patterns. Runoff from the Project site currently is, and would continue to be, collected on the site and directed toward existing storm drains in the Project vicinity that have adequate capacity. Pursuant to local practice and City policy, stormwater retention would be required as part of the LID/SUSMP implementation features (despite no increased imperviousness of the site). Any contaminants gathered during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits. Further, any pollutants from the parking areas would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance requirements. Accordingly, the Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first three-quarters of an inch of rainfall in a 24-hour period. The Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

f. Would the project otherwise substantially degrade water quality?

<u>Less than Significant Impact</u>. A significant impact could occur if the Project includes potential sources of water pollutants that would have the potential to substantially degrade water quality. Construction of the Project, such as grading and excavation activities, could potentially degrade water quality through erosion and subsequent sedimentation. However, the implementation of BMPs and compliance with all federal, State, and Local regulations governing stormwater discharge would reduce the impacts of the Project on surrounding water quality. Impacts would be less than significant.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. A significant impact could occur if the Project were to place housing within a 100-year flood hazard area. A 100-year flood is defined as a flood that results from a severe rainstorm with a probability of occurring approximately once every 100 years. According to the Safety Element of the City's General Plan, the Project site is not within a designated flood zone. ²⁶ Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

h. Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No Impact. A significant impact could occur if a Project were located within a 100-year flood zone and would impede or redirect flood flows. The Project site is not in an area designated as a 100-year flood hazard area. The Project site is in a highly-urbanized area, and no changes to the local drainage pattern would occur with implementation of the Project. Therefore, the Project would not have the potential to impede or redirect floodwater flows. No impact would occur.

Mitigation Measures: No mitigation measures are necessary.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. A significant impact could occur if the Project were to expose people or structures to a significant risk of loss or death caused by the failure of a levee or dam. According to the Safety Element of the City General Plan, the Project site is not within a potential inundation area. As such, the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

j. Would the project expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

No Impact. A significant impact would occur if the Project site were sufficiently close to the ocean or other water body to potentially be at risk of the effects of seismically induced tidal phenomena (e.g., seiche and tsunami), or if the Project site were located adjacent to a hillside area with soil characteristics that would

²⁶ City of Los Angeles General Plan, "Safety Element" (1996), Exhibit F, 100-Year & 500-Year Flood Plains in the City of Los Angeles, (1996).

indicate potential susceptibility to mudslides or mudflows. The Project site more than 11 miles from the ocean, and is not in a potential seiche or tsunami zone. With respect to the potential impact from a mudflow, the Project site is relatively flat and is surrounded by urban development. Therefore, there are no sources of mudflow within the vicinity of the Project site. No impacts would occur.

4.10 LAND USE AND PLANNING

Impact Analysis

a. Would the project physically divide an established community?

No Impact. A significant impact could occur if a project were to be sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community. According to the L.A. CEQA Thresholds Guide, the determination of significance shall be made on a case- by-case basis considering the following factors: (a) the extent of the area that would be impacted, the nature and degree of impacts, and the types of land uses within that area; (b) the extent to which existing neighborhoods, communities, or land uses would be disrupted, divided or isolated, and the duration of the disruptions; and (c) the number, degree, and type of secondary impacts to surrounding land uses that could result from implementation of the proposed Project.

The Project site is in the Westlake Community Plan Area of the City of Los Angeles. The neighborhood is urbanized and contains uses similar to the proposed use of the Project site. No alteration of street pattern is proposed and no separation of uses or disruption of access between land use types would occur as a result of the Project. Therefore, the Project would not significantly disrupt or divide the physical arrangement of the established community. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. A significant impact could occur if a project were to be inconsistent with the *General Plan* or zoning designations currently applicable to a project site, and would cause adverse environmental effects, which the General Plan and Zoning Ordinance are designed to avoid or mitigate.

The Project site is within the jurisdiction of the City of Los Angeles, and is therefore subject to the designations and regulations of several local and regional land use plans and the municipal zoning code.

SCAG Regional Comprehensive Plan. The Project site is within the six-county region that makes up the SCAG planning area. The SCAG RCP includes growth management policies that strive to improve the standard of living, maintain the regional quality of life, and provide social, political, and cultural equity. The guiding principles of the RCP are (1) Improve mobility for all residents; (2) Foster livability in all communities; (3) Enable prosperity for all people; and (4) Promote sustainability for future generations.

The Project would be consistent with policies set forth in the RCP because it would replace a developed site within an existing urban setting. Relevant land use goals of the RCP include focusing growth along transportation corridors; targeting growth within walking distance of transit; and injecting new life into under-used areas. The Project would further these strategies by redeveloping an underutilized commercial property with a denser hotel project that is within walking distance of public transit and located within a Transit Oriented District. Impacts would be less than significant.

City of Los Angeles General Plan. The land use component of the City of Los Angeles General Plan is set forth in the General Plan Framework (GPF) and in Community Plans. The GPF sets forth a citywide comprehensive long-range growth strategy and defines Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. GPF land use policies are further guided at the community level through community plans and specific plans. The GPF Land Use chapter designates Districts (i.e., Neighborhood Districts, Community Centers, Regional Centers, Downtown Centers, and Mixed-Use Boulevards) and provides policies applicable to each District to support the vitality of the City's residential neighborhoods and commercial districts.

The Project site is along the edge of an area designated as a Regional Center as shown in Figure 3-1 of the GPF, which defines Regional Center as a "focal point of regional commerce, identity and activity and containing a diversity of uses." The GPF states that Regional Centers will have a range of FARs from 1.5:1 to 6.0:1 and are characterized by 6- to 20-story buildings.²⁷ As such, the Project is consistent with the General Plan Framework.

Los Angeles Municipal Code. Development of the Project site is subject to the constraints of the Los Angeles Municipal Code (LAMC), especially Chapter I, the Planning and Zoning Code.

The Project site is zoned C2 and R4. C2 permits a range of retail and commercial uses as well as the multiple dwelling zone uses permitted in the R4 zone. As such, the proposed uses would conform to existing zoning.

The Project site is also currently zoned as Height District 1, which permits a maximum FAR for commercial uses of 1.5:1 and for residential uses of 3.0:0. The Project would have an FAR of approximately 2.99:1. As such, it would exceed the permitted density of Height District 1. The applicant is requesting a Vesting Zone Change pursuant to LAMC 12.23F and 12.32Q, from R4-1 and C2-1 to a C2-2 zone.

Pursuant to LAMC Section 12.22.A.25, the Project would therefore be eligible for an increase in FAR of up to 35 percent, allowing for the proposed 2.99:1 FAR ratio. Pursuant to LAMC Section 12.24 the Applicant has also requested a Conditional Use Permit to further exceed the FAR limit on the site. The City may

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²⁷ City of Los Angeles General Plan, "Framework Element" (2003), Fig. 3-1, Long Range Land Use Diagram.

approve this request after it has determined that the Project would support the overall planning and housing policies of the City, would enhance the neighborhood, and would not adversely affect or degrade adjacent properties. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. A project-related significant adverse effect could occur if a project site were located within an area governed by a habitat conservation plan or natural community conservation plan.

No conservation plans presently exist which govern any portion of the Project site. Further, the Project site is within a heavily urbanized area of Los Angeles. Therefore, the Project would not conflict with the provisions of an adopted habitat conservation plan or natural community conservation plan. No impacts would occur.

4.11 MINERAL RESOURCES

Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?

No Impact. A significant impact could occur if a project site were located in an area used or available for extraction of a regionally important mineral resource, or if a project were to convert an existing or future regionally important mineral extraction use to another use, or if a project were to affect access to a site used or potentially available for regionally important mineral resource extraction. According to the *L.A. CEQA Thresholds Guide*, the determination of significance shall be made on a case-by-case basis considering (a) whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a mineral resource that is located in a State Mining and Geology Board Mineral Resource Zone 2 (MRZ-2) Area, or other known or potential mineral resource area, and (b) whether the mineral resource is of regional or Statewide significance, or is noted in the Conservation Element as being of local importance.

The Project site is not within a designated MRZ-2 Area, an Oil Drilling/Surface Mining Supplemental Use District, or an Oil Field/Drilling Area.²⁸ No mineral resources are known to exist beneath the Project site. Therefore, no impacts associated with the loss of availability of a known mineral resource would occur.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As noted, the Project site is not located within a MRZ-2 Area. The Project site is not designated as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

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²⁸ City of Los Angeles General Plan, "Safety Element" (1990).

4.12 NOISE

Impact Analysis

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant with Project Mitigation. A significant impact could occur if a project would generate excessive noise that would cause the ambient noise environment to exceed noise level standards set forth in the City of Los Angeles Noise Ordinance (Noise Ordinance) or the City of Los Angeles CEQA Thresholds Guide. The City's Noise Ordinance (Section 112.05 of the LAMC) prohibits construction equipment noise that produces a maximum noise level exceeding 75 dB(A) at a distance of 50 feet. However, the Noise ordinance also states that this limitation does not apply where compliance is technically infeasible. According to the City of Los Angeles CEQA Threshold Guide, a significant noise impact could occur if construction activities lasting more than one day would increase the ambient noise levels by 10 dB(A) or more at a noise-sensitive location or construction activities lasting more than 10 days in a three-month period would increase ambient noise levels by 5 dB(A) or more at a noise-sensitive location. The Threshold Guide defines sensitive uses as "residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks." 29

To identify the existing ambient noise levels at nearby off-site sensitive receptors as well as the general vicinity of the Project site, noise measurements were taken using monitoring equipment that conforms to industry standards and the requirement specified in Section 111.01(I) of the LAMC shown in **Appendix** C. The measured noise levels are shown in **Table 4.12-1**, **Existing Ambient Daytime Noise Levels in the Project Site Vicinity**.

Construction of the Project would require the use of heavy equipment for demolition, site clearing, grading, excavation and foundation preparation, the installation of utilities, paving, and building construction. During each construction phase, there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity.

The US Environmental Protection Agency (USEPA) has compiled data regarding the noise-generating characteristics of specific types of construction equipment and typical construction activities.³⁰ Based on this data, **Table 4.12-2**, **Typical Outdoor Construction Noise Levels** presents composite noise levels pertaining to the type and number of construction equipment that would occur at the Project site.

²⁹ City of Los Angeles, L.A. CEQA Thresholds Guide (2006), p. I.1-3.

³⁰ USEPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717 (1971).

Table 4.12-1
Existing Ambient Daytime Noise Levels in the Project Vicinity

Site	Location	Leq minute)	(15-
Site R1	Southern boundary of Project site on James M Wood Blvd.	67.2	
Site R2	Eastern boundary of Project site along S Westlake Ave.	63.2	
Site R3	Western Boundary of Project site in the alley.	61.0	

Measurements were taken on Thursday, February 15, 2017 from 10:40 AM through 11:28 AM.

Table 4.12-2
Typical Outdoor Construction Noise Levels

	Approximate Leq dB(A) with Mufflers			
Construction Phase	25 Feet	50 Feet	100 Feet	200 Feet
Demolition	92	86	80	74
Site Preparation	88	82	76	70
Grading	93	87	81	75
Building Construction	94	88	82	76
Architectural Coating	88	82	76	70

Source: U.S. Department of Transportation, Construction Noise Handbook, Chapter 9.0 (August 2006).

The nearest sensitive receptors are the residential units along South Westlake Avenue to the north of the Project site. Given the measured ambient noise levels along the Project site boundaries, construction noise would exceed ambient exterior noise levels at the nearest identified off-site sensitive receptors by more than 5 dB(A) during construction. As such, a substantial temporary increase in ambient noise levels would occur at the identified off-site sensitive receptors. Impacts would be potentially significant. As such, mitigation identified below shall be incorporated into the Project to reduce noise levels.

<u>Mitigation Measures</u>: The incorporation of the following mitigation measure into the Project would reduce construction noise impacts to a less than significant level.

MM-NOI-1 Increased Noise Levels (Demolition, Grading, and Construction Activities)

 Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- The power contractor shall use either plug-in electric or solar powered onsite generators to the extent feasible

b. Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant with Project Mitigation. Vibration is sound radiated through the ground. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for most people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Construction activities have the potential to generate low levels of ground-borne vibration. The operation of construction equipment generates vibrations that propagate through the ground but diminishes in intensity with distance from the source. Vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage of buildings at the highest levels.

In terms of construction-related impacts on buildings, the City of Los Angeles has not adopted policies or guidelines relative to ground-borne vibration. While the Los Angeles County Code (LACC Section 12.08.350) provides a presumed perception threshold of 0.01 inch per second RMS, this threshold applies to ground-borne vibrations from long-term operational activities, not construction. Consequently, as both the City of Los Angeles and the County of Los Angeles do not have a significant threshold to assess vibration impacts during construction, the Federal Transit Administration (FTA) and California Department of Transportation's ("Caltrans") adopted vibration standards for buildings are used to evaluate potential impacts related to project construction. Based on the FTA and Caltrans criteria, construction impacts relative to ground-borne vibration would be considered significant if the following were to occur: 31

- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.5 inches per second (ips) at any building that is constructed with reinforced concrete, steel, or timber.
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.3 ips at any engineered concrete and masonry buildings.
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.2 ips at any nonengineered timber and masonry buildings.
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.12 ips at
 any historical building or building that is extremely susceptible to vibration damage.

Table 4.12-2, Vibration Source Levels for Construction Equipment, identifies various PPV and RMS velocity (in VdB) levels for the types of construction equipment that would operate at the Project site during construction.

Residences to the south are located within 25 feet of the Project site, thus vibration levels could reach 0.086 ips at these residences. As discussed previously, the most restrictive threshold for building damage from vibration is 0.12 PPV for historic buildings and buildings that are extremely susceptible to vibration damage. Therefore, vibration levels at the nearby buildings would not exceed the building damage threshold from vibration. As maximum off-site vibration levels would not exceed 0.12 PPV, there would be no potential for Project construction to result in vibration levels exceeding the most restrictive threshold of significance. Impacts with respect to building damage resulting from Project-generated vibration would be less than significant.

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Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (May 2006); and California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual* (June 2004).

Table 4.12-3
Vibration Source Levels for Construction Equipment

Approximate PPV (in/sec)						Approximate RMS (VdB)				
	25	50	60	75	100	25	50	60	75	100
Equipment	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet
Caisson drill	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded truck	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Excavator	0.040	0.014	0.011	0.008	0.005	80	71	69	66	62
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, 2006.

The FTA guidance manual also provides vibration criteria for human annoyance based on the frequency of vibration events and sensitivity of land uses. For residential buildings subject to infrequent vibration events (construction) the criterion is 80 VdB. The multifamily residential use located adjacent to the Project site could be exposed to increased vibration levels during construction. The activity of loaded trucks at the northern property edge could expose the adjacent property to vibration that would slightly exceed the threshold. As such, impacts from the Project could be potentially significant unless mitigated. Mitigation Measure **MM NOI-1** would reduce impacts from construction-related vibration, to less than significant.

<u>Mitigation Measures</u>: Mitigation Measure **MM NOI-1**, described above, would serve to reduce construction-related vibration impacts of the Project to a less than significant level. Specifically, restriction of the construction schedule, limitation on operating several pieces of equipment simultaneously, and placement of noise-generating equipment and staging areas away from sensitive uses would increase the distance from the noise-source and reduce the frequency of vibration events.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

<u>Less than Significant Impact</u>. A significant impact could occur if the Project were to result in a substantial permanent increase in ambient noise levels above existing ambient noise levels without the Project. The primary long-term noise source associated with the Project would be Project-related traffic. According to the *L.A. CEQA Thresholds Guide*, if a project would result in traffic that is less than double the existing traffic, then the project's mobile noise impacts can be assumed to be less than significant. As evaluated in **Section 4.16, Transportation and Traffic**, the Project would not result in a doubling of the existing traffic volumes. Therefore, traffic-generated noise impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant with Project Mitigation. The Project does not involve uses that are sources of substantial increases in periodic noise. Noise from traffic and the commercial activities associated with the Project currently exist in the Project vicinity. As discussed above, substantial temporary increases in ambient noise levels are likely during construction, however Mitigation Measure MM NOI-1, would ensure impacts from construction-related noise would remain less than significant.

<u>Mitigation Measures</u>: Mitigation measure **MM NOI-1**, identified above, would reduce potential construction noise impacts to a less than significant level.

e. For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. A significant impact may occur if a project were to be located within an airport land use plan and would introduce substantial new sources of noise or substantially add to existing sources of noise within or near a project site. There are no airports within a 2-mile radius of the Project site. The Project would not expose people to excessive noise levels associated with airport uses. No impact would occur.

Mitigation Measures: No mitigation measures are necessary.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not near a private airstrip. No impact would occur.

4.13 POPULATION AND HOUSING

Impact Analysis

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. A significant impact could occur if a project would locate new development, such as homes, businesses, or infrastructure, with the effect of substantially inducing growth in the proposed area that would otherwise not have occurred as rapidly or in as great a magnitude. At the time of the 2010 Census, the Westlake Community Plan area contained 111,010 residents; the City estimated a 2014 population of 111,010 residents.³² Implementation of the Project would accommodate hotel guests and would not add permanent residents to the area. According to an Employment Density Study conducted by SCAG, for a hotel with 60,637 gross square feet, there would be the addition of approximately 40 employees to the Project site.^{33 34} The City of Los Angeles had a total of 1,696,400 employees in 2012, and estimates a total of 2,169,100 employees by the year 2040, the addition of 40 employees would be approximately 0.002 percent of the projected employment population in the City of Los Angeles for the year 2040.³⁵ However, it should be noted that these employees are likely to come from the existing area, and would therefore not significantly increase the population. As such, the Project would not cause substantial growth. In addition, the Project would not occur in an undeveloped area nor would it introduce unplanned infrastructure. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would involve the demolition of a commercial retail building and related surface parking lot. The proposed Project would not result in the displacement of any existing housing units, and would therefore not necessitate the construction of replacement housing. No impacts would occur.

³² Los Angeles Department of City Planning, American Community Survey (ACS)2010-2014. (July 21, 2016).

³³ The Natelson Company, *Employment Density Study*, 4.

³⁴ The Natelson Company, Employment Density Study 4.

³⁵ Southern California Association of Governments, *Final 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (April 2016), Demographics and Growth Forecast.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As noted above, the Project would involve the demolition of a commercial retail building and related surface parking. The proposed Project would not result in the displacement of any existing housing units, or people, and would therefore not necessitate the construction of replacement housing. No impacts would occur.

4.14 PUBLIC SERVICES

Impact Analysis

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire Protection

Less than Significant. Based on the *L.A. CEQA Thresholds Guide*, a project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service. The City of Los Angeles Fire Department (LAFD) considers fire protection services for a project adequate if a project is within the maximum response distance for the land use proposed. Pursuant to LAMC Section 57.09.07A, the maximum response distance between land uses and a LAFD fire station that houses an engine or truck company is 1.5 miles; for a commercial land use, the distance is 1 mile for an engine company and 1.5 miles for a truck company. If either of these distances is exceeded, all structures located in the applicable residential or commercial area would be required to install automatic fire sprinkler systems.

As noted above, the approximate percent increase of 40 employees to the Project site. However most of these employees would already live nearby, therefore not contributing to the overall population growth. Nonetheless, the Project could potentially increase the demand for LAFD services. The Project site is served by LAFD Station No. 11, located at 1819 7th Street, approximately 0.4 miles northeast of the Project site; LAFD Station No. 13, located at 2401 West Pico Boulevard approximately 0.8 miles southwest and LAFD Station 10 at 1335 South Olive Street, approximately 1.4 miles southeast of the Project site. Based on the response distance criteria specified in LAMC Section 57.09.07A and the relatively short distance from the stations to the Project site, fire protection response would be considered adequate. As such, a new fire station would not be needed to serve the project. Impacts would be less than significant.

<u>Mitigation Measures</u>: No mitigation measures are necessary.

ii. Police Protection

Less than Significant Impact. A significant impact may occur if the City of Los Angeles Police Department (LAPD) could not adequately serve a project without necessitating a new or physically altered station, the construction of which may cause significant environmental impacts. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether a project results in a significant impact on police protection shall be

made considering the following factors: (a) the population increase resulting from the project, based on the net increase of residential units or square footage of nonresidential floor area; (b) the demand for police services anticipated at the time the project is completed compared to the expected level of service available, considering, as applicable, scheduled improvements to LAPD services (facilities, equipment, and officers) and the project's proportional contribution to the demand; and (c) whether the project includes security and/or design features that would reduce the demand for police services.

The Project site is within Patrol Area 2 of the LAPD's Rampart Division. The Rampart Community Police Station is located at 1401 West 6th Street, less than a 1-mile driving distance to the northwest of the Project site.

Implementation of the Project would result in an increase in visitors and employees at the Project site, thereby generating a potential increase in the number of service calls from the Project site. As noted above, there would a net increase in approximately 40 employees to the Project site. However most of these employees would already live nearby, therefore not contributing to the overall population growth. Nonetheless, responses to thefts, vehicle burglaries, vehicle damage, traffic-related incidents, and crimes against persons would be anticipated to rise as a result of the increased on-site activity and increased traffic on adjacent streets and arterials. However, as a result of security lighting and other public safety features, any increase in demands on police services would be relatively low and not necessitate the construction of a new police station, the construction of which may cause significant environmental impacts. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

iii. Schools

<u>Less Than Significant Impact</u>. A significant impact may occur if a project were to include substantial employment or population growth, which could generate a demand for school facilities that would exceed the capacity of the Los Angeles Unified School District (LAUSD).

The Project area is currently served by the following LAUSD public schools: MacArthur Park Elementary, located at 2300 West 7th Street, which serves kindergarten through 5th grade students; John H Liechty Middle School, located at 650 South Union Avenue, which serves 6th through 8th grade students; and Belmont Senior High School, located at 1575 West 2nd Street, which serves 9th through 12th grade students. The hotel would introduce a net increase of 40 commuter employees to the area. Therefore, the Project is not expected to generate demand for LAUSD school services. Impacts would be less than significant.

iv. Parks

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, a significant impact could occur if the Project resulted in the construction of new recreation and park facilities that creates significant direct or indirect impacts to the environment. The Project site is within a highly urbanized area of the Westlake South neighborhood and has access to numerous parks and public recreation facilities within a 2-mile radius. The proposed Project would result in an increase of visitors and employees. Visitors would be temporary users of the parks, and as noted above, there would a net increase in approximately 40 employees to the Project site. However, most of these employees would already live nearby, therefore not contributing to the overall population growth. Consequently, the Project would not result in a change in the population of the local community and as such would not result in the construction of new facilities. Impacts of the Project would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

v. Other Public Facilities

Less than Significant Impact. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether a project results in a significant impact on libraries shall be made considering the following factors: (a) the net population increase resulting from the Project; (b) the demand for library services anticipated at the time of project build-out compared to the expected level of service available, considering, as applicable, scheduled improvements to existing library services (renovation, expansion, addition or relocation) and the project's proportional contribution to the demand; and (c) whether the project includes features that would reduce the demand for library services (e.g., on-site library facilities or direct financial support to the Los Angeles Public Library [LAPL]).

Within the City of Los Angeles, the LAPL provides library services at the Central Library, 7 regional branch libraries, 56 community branches, and 2 bookmobile units consisting of a total of 5 individual bookmobiles. Approximately 6.5 million books and other materials form the LAPL collection. The closest branch to the Project site is the Pico Union Branch Library, located at 1030 South Alvarado Street, approximately 0.2 miles south of the Project site, although other branch locations are nearby. The proposed Project would result in an increase of visitors and employees. Visitors would be temporary users of the libraries. Moreover, as noted above, there would a net increase in approximately 40 employees to the Project site. However, most of these employees would already live nearby and, therefore, would not contribute to the overall population growth. Consequently, the projected resident population for the Project represents a relatively small change in the population of the local community. Given the multiple branches serving the area, as well as the other library facilities, new or physically altered library facilities would not be needed to serve the Project. Impacts would be less than significant.

4.15 RECREATION

Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact. A significant impact could occur if a project were to include substantial employment or population growth, which would increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether a project results in a significant impact on recreation and parks shall be made considering the following factors: (a) the net population increase resulting from the Project; (b) the demand for recreation and park services anticipated at the time of Project build-out compared to the expected level of service available, considering, as applicable, scheduled improvements to recreation and park services (renovation, expansion, or addition) and the Project's proportional contribution to the demand; and (c) whether the Project includes features that would reduce the demand for park services (e.g., on-site recreation facilities, land dedication, or direct financial support to the Department of Recreation and Parks).

The proposed Project would result in an increase of visitors and employees. Visitors would be temporary users of the recreational facilities, and as noted above, there would a net increase in approximately 40 employees to the Project site. However most of these employees would already live nearby, therefore not contributing to the overall population growth. Additionally, the Project includes on-site recreational amenities intended to serve some of the needs of the hotel guests. Notwithstanding the availability of on-site recreational amenities, it may be assumed that the future guests of the Project would utilize recreation and park facilities in the surrounding area. There are several existing parks and recreation centers that are located within the surrounding area and larger regional facilities located further away. The Project would not include the addition of permanent residents, and with the on-site amenities, it is not expected that the Project would substantially increase the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of such facilities would result. Impacts would be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

<u>Less than Significant Impact</u>. A significant impact could occur if a project were to include or require the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment. The Project does not include recreational facilities or require the construction or expansion of such facilities. As such, impacts would be less than significant.

4.16 TRANSPORTATION AND TRAFFIC

The following section summarizes and incorporates by reference information from the *Traffic Impact Study, 2005 James M Wood Boulevard Hotel Project,* dated February 17, 2017 (Traffic Study) prepared by Linscott, Law & Greenspan, Engineers for the Applicant and the review memorandum dated April 6, 2017 by LADOT, as contained in **Appendix D of this Initial Study**.

a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

<u>Less than Significant Impact</u>. A significant impact could occur if the Project were to result in substantial increases in traffic volumes in the vicinity of the Project such that the existing street capacity experiences a decrease in the existing volume-to-capacity (V/C) ratios or experiences increased traffic congestion exceeding LADOT's recommended level of service.

Operational Traffic

Seventeen study intersections were identified, in coordination with LADOT staff, for inclusion in the traffic analysis. The analyzed locations are shown in the Traffic Study and correspond to locations where potential traffic impacts from the Project are most likely to occur. The intersections identified for analysis are as follows:

- 1. Hoover Street/James M Wood Boulevard
- 2. Hoover Street/Olympic Boulevard
- 3. Alvarado Street/7th Street
- 4. Alvarado Street/8th Street
- 5. Alvarado Street/James M Wood Boulevard
- 6. Alvarado Street/Olympic Boulevard
- 7. Union Avenue/James M Wood Boulevard

Estimated Trip Generation

Trip generation estimates for the Project were reviewed and approved by LADOT and were calculated using trip generation rates contained in *Trip Generation*, *9th Edition*. **Table 4.16-1**, **Trip Generation Estimates**, summarizes the trip generation estimates for the daily AM peak-hour and PM peak-hour periods, respectively. In addition to calculating the trip rates for the specific components of the proposed

Project, credits and offsets were calculated. The existing uses on the Project site would be removed, thus future traffic conditions surrounding the Project site would not include trips associated with the existing uses of the Project site. The Trip Generation manual also assumes separate, distinct land uses. However, there will be some internal activity by on-site hotel guests without generating off-site traffic. In addition, due to its proximity to transit, some of the trips assumed in the Trip Generation manual would occur by transit rather than private vehicle. Finally, there would be some trips to the Project site that would be drawn from existing traffic passing the site and thus would not be considered new trips. Based on these factors, the trip calculation was adjusted accordingly.

As shown in **Table 4.16-1**, the Project would generate a net increase of 545 weekday trips, including 42 morning peak-hour trips and 38 afternoon peak-hour trips.

Project Impacts

Existing with Project Impacts

Project traffic was added to the surrounding existing traffic conditions, and the potential for impacts was evaluated. Table 4.16-2, Existing with Project Conditions—Intersection Level of Service, AM/PM Peak Hours, summarizes the level of service for the existing with Project conditions at the analyzed intersections for the AM and PM peak hours, respectively. Based on the City's guidelines, an impact could be significant if one of the following scenarios would occur: at an intersection with Level of Service C if the volume-to-capacity (V/C) ratio increased by .04 or greater; at an intersection with Level of Service D if the volume-to-capacity (V/C) ratio increased by .02 or greater; or at an intersection with Level of Service E or F if the volume-to-capacity (V/C) ratio increased by .01 or greater. The analysis summarized in Table-4.16-2 indicates that for the AM/PM peak hour, the addition of Project traffic would not cause an increase in V/C ratios above the threshold. Therefore, it is concluded that the Project would not cause any significant traffic impacts compared to existing conditions in either the AM or PM peak hours.

Future with Project Impacts

Table 4.16-3, Future without and with Project Conditions—Intersection Level of Service, AM/PM Peak Hours, summarizes the results of the future with Project conditions intersections analysis during the weekday morning and afternoon peak hours. The future with Project conditions were compared to the future without Project conditions to assess the impacts of the Project as compared to the future environment without of the Project. In addition, potential net increases in average daily vehicle trips and peak-hour vehicle trips from the related projects were taken into consideration. Based on the City's significance criteria, the change in traffic flow generated by the Project when compared to conditions without the Project, is not anticipated to result in a significant impact at any of the study intersections under future conditions.

Table 4.16-1
Trip Generation Estimates for Project

				AM I	Peak-Hou	r Trips	PM I	Peak-Hou	r Trips
Land Use (ITE Code)	Size	Units	Daily	In	Out	Total	In	Out	Total
Proposed Project									
Hotel	100	rooms	817	31	22	53	31	29	60
Deduction for transit (15%)			(123)	(5)	(3)	(8)	(5)	(4)	(9)
Project Subtotal			694	26	19	45	26	25	51
Existing Uses									
Retail	(8,228)	glsf	351	5	3	8	15	16	31
Deduction for transit (15%)			(53)	(1)	(0)	(1)	(2)	(2)	(4)
Deduction for pass-by trips (5	50%)		(149)	(2)	(2)	(4)	(7)	(7)	(14)
Existing Subtotal			149	2	1	3	6	7	13
Total Net Project Trips			545	24	18	42	20	18	38

Source: Traffic Impact Study, Linscott, Law & Greenspan, Engineers (February 17, 2017). glsf = Gross Leasable Square Feet

Table 4.16-2
Existing with Project Conditions—Intersection
Level of Service, AM/PM Peak Hours

		Peak	Existing 20	17	Existing 2 Project	2017 with	Change in	Significant
No.	Intersection	Hour	V/C	LOS	V/C	LOS	V/C	Impact?
1	Hoover Street/James	AM	0.721	С	0.723	С	0.002	No
1	M Wood Boulevard	PM	0.702	С	0.704	С	0.002	No
2	Hoover Street/	AM	0.873	D	0.875	D	0.002	No
2	Olympic Boulevard	PM	0.834	D	0.834	D	0.000	No
2	Alvarado Street/7th Street	AM	0.538	А	0.541	А	0.003	No
3		PM	0.585	Α	0.586	А	0.001	No
_	Alvarado Street/8th Street	AM	0.614	В	0.617	В	0.003	No
4		PM	0.633	В	0.635	В	0.002	No
	Alvarado Street/	AM	0.692	В	0.699	В	0.007	No
5	James M Wood Boulevard	PM	0.701	С	0.708	С	0.007	No
6	Alvarado Street/	AM	0.756	С	0.760	С	0.004	No
b	Olympic Boulevard	PM	0.797	С	0.803	D	0.006	No
	Union Avenue/James	AM	0.773	С	0.775	С	0.002	No
7	M Wood Boulevard	PM	0.761	С	0.762	С	0.001	No

Source: Linscott, Law & Greenspan, Engineers (February 17, 2017)

LOS = level of service; V/C = volume to capacity.

Table 4.16-3

Future without and with Project Conditions—
Intersection Level of Service, AM/PM Peak Hours

		Peak	Future 20: Project	19 without	Future 2 Project	019 with	Change in	Significant
No.	Intersection	Hour	V/C	LOS	V/C	LOS	V/C	Impact?
1	Hoover Street/James	AM	0.845	D	0.847	D	0.002	No
1	M Wood Boulevard	PM	0.893	D	0.895	D	0.002	No
,	Hoover Street/	AM	1.003	F	1.005	F	0.002	No
2	Olympic Boulevard	PM	1.104	F	1.104	F	0.000	No
3	Alvarado Street/7th Street	AM	0.697	В	0.698	В	0.001	No
0	5	PM	0.796	С	0.797	С	0.001	No
4	Alvarado Street/8th Street	AM	0.785	С	0.787	С	0.002	No
4		PM	0.843	D	0.846	D	0.003	No
	Alvarado Street/	AM	0.853	D	0.861	D	0.008	No
5	James M Wood Boulevard	PM	0.923	Е	0.930	Е	0.007	No
,	Alvarado Street/	AM	0.885	D	0.888	D	0.003	No
6	Olympic Boulevard	PM	1.045	F	1.050	F	0.005	No
7	Union Avenue/ James	AM	0.985	E	0.987	E	0.002	No
7	M Wood Boulevard	PM	1.068	F	1.069	F	0.001	No

Source: Linscott, Law & Greenspan, Engineers (February 17, 2017)

Congestion Management Plan Analysis

The Los Angeles County Congestion Management Plan (CMP) requires that when a Traffic Impact Assessment (TIA) is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the amount of project traffic expected to use these facilities.

CMP Significant Traffic Impact Criteria

The *CMP Guidelines* state that a CMP freeway analysis must be conducted if 150 or more trips attributable to the proposed Project are added to a mainline freeway-monitoring location in either direction during the morning or afternoon weekday peak hours. Similarly, a CMP arterial monitoring station analysis must be conducted if 50 or more peak-hour project trips are added to a CMP arterial monitoring station during the morning or afternoon weekday peak hours of adjacent street traffic.

A significant project-related CMP impact would be identified if the CMP facility is projected to operate at LOS F (V/C > 1.00) and if the project traffic causes an incremental change in the V/C ratio of 0.02 or greater. The proposed Project would not be considered to have a regionally significant impact, regardless of the increase in V/C ratio, if the analyzed facility is projected to operate at LOS E or better after the addition of the project traffic.

There is one CMP intersection-monitoring location within the vicinity of the Project:

CMP Station No. 85, located at Wilshire Boulevard & Alvarado Street.

Based on the trip distribution analysis in the Traffic Impact Study, the Project would not contribute 50 or more new trips at these intersections during the morning or afternoon weekday peak hours.

The two CMP freeway-monitoring stations closest to the Project vicinity includes:

- CMP Station No. 1013, located on the I-10 Freeway at Budlong Avenue.
- CMP Station No. 1048, located at I-110 Freeway south of SR-101 Freeway.

As shown in **Table 4.16-1**, the Project would not generate 150 or more trips (in either direction) during the morning or afternoon weekday peak period. Thus, no further review of the Project's potential impacts to CMP freeway-monitoring locations is required. Impacts would be less than significant.

Regional Transit Impact Analysis

An analysis of potential Project impacts on the transit system was also performed, per the CMP requirements and guidelines. The CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle occupancy (AVO) factor of 1.4 to estimate the number of person-trips to and from the Project.

The CMP guidelines estimate that approximately 10 percent of total project person-trips may use public transit to travel to and from the site if the site is within 0.25 miles of a CMP transit center. The nearest station from the Project site is Metro's Alvarado Street/James M Wood Boulevard stop, located approximately 0.1 miles west of the Project site. Assuming an AVO of 1.4, the Project is estimated to generate approximately 77 daily transit trips, 6 morning peak-hour trips and 6 afternoon peak-hour trips. Using the 10 percent mode split suggested in the CMP, the Project would generate approximately 6 transit trips during the weekday morning peak-hour and 6 transit trips during the weekday afternoon peak hour.

The Project location is well served by numerous established transit routes. A review of the schedules of the lines serving the area (Metro, DASH, Big Blue Bus and Foothill Transit) shows a total of 91 buses or

trains during the AM peak and 81 buses or trains during the PM peak.³⁶ With multiple public transportation opportunities within the Project vicinity, including bus routes and Metro lines, the existing transit service in the Project vicinity would adequately accommodate the new transit trips generated by the Project. Thus, based on the calculated number of generated transit trips, impacts to the existing or future regional transit system in the vicinity of the Project site are not anticipated to be significant.

Construction—Traffic

The Project would require the use of haul trucks during site clearing and excavation and the use of a variety of other construction vehicles throughout the construction of the Project. The demolition and site clearing phase has been estimated by the Project Applicant to require approximately 2,511 hauling trips. The Haul Route would utilize Western Avenue from Olympic Boulevard south to Interstate 10. The addition of these vehicles into the street system would contribute to increased traffic in the Project vicinity. The haul trips would occur outside of the peak hours. As stated above in **Table 4.16-1**, the operation of the Project is not expected to generate more than 1,200 trips per day. The Project's peak construction trip traffic is estimated at approximately 330 trips per day. Therefore, it is not anticipated that the construction trips would contribute to a significant increase in the overall congestion in the Project vicinity. In addition, any truck trips would be limited to the length of time required for the Project's construction. Impacts would less than significant.

³⁶ Linscott, Law & Greenspan, Engineers, *Traffic Impact Study, 2005 James M Wood Boulevard Hotel Project,* (February 17, 2017).

³⁷ Derived from construction worker and vendor trip rates contained in *California Emissions Estimator Users Guide,* Appendix E, "Technical Source Documentation," California Air Pollution Control Officers Association (July 2013).

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. As discussed previously in **Section 4.16a**, no CMP freeway-monitoring segment or intersection analysis is required, and there would be no Project-related impacts to the CMP. The Project would not conflict with any travel demand measures. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. This question would apply to the Project only if it involved an aviation-related use or would influence changes to existing flight paths. No aviation-related use or changes to existing flight paths, would occur. No impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. A significant impact could occur if a project were to include new roadway design or introduce a new land use or features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if access or other features were designed in such a way as to create hazardous conditions. The Project would include a new vehicular access driveway to the site from James M Wood Boulevard. This driveway would be properly designed and constructed to ensure the safety of vehicular and pedestrian circulation in the Project area. Therefore, impacts would less than significant.

Mitigation Measures: No mitigation measures are necessary.

e. Would the project result in inadequate emergency access?

Less than Significant Impact. A significant impact could occur if a project design would not provide emergency access meeting the requirements of the LAFD, or in any other way threatened the ability of emergency vehicles to access and serve a project or adjacent uses.

As previously discussed, the Project site is located at 2005 James M Wood Boulevard, and is bordered by James M Wood Boulevard and, extending north, along South Westlake Avenue approximately 150 feet.

Neither James M Wood Boulevard nor South Westlake Avenue is a selected disaster route as identified by the City's General Plan.³⁸ However, the Project site is approximately 350 feet to the east of South Alvarado Street, which is a selected disaster route.

Construction of the Project site may require temporary and/or partial street and sidewalk closures due to construction activities. Any such closures would be temporary in nature and would be coordinated with the City of Los Angeles Departments of Transportation, Building and Safety, and Public Works. While such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans.

As described previously, the Project would satisfy the emergency response requirements of the LAFD. No hazardous design features are included in the access design or site plan for the Project that could impede emergency access. Furthermore, the Project would be subject to the site plan review requirements of both the LAFD and the LAPD to ensure that all access roads, driveways, and parking areas would remain accessible to emergency service vehicles. The Project would not be expected to result in inadequate emergency access. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than Significant Impact with Project Mitigation. For the purpose of this Initial Study, a significant impact could occur if a project were to conflict with adopted polices or involve modification of existing alternative transportation facilities on or off site. The Project would not require the disruption of public transportation services or the alteration of public transportation routes. Furthermore, the Project would not interfere with any Class I or Class II bikeway systems. However, the construction process could temporarily close sidewalks adjacent to the site. As such, potential impacts on pedestrian facilities could occur and the mitigation described below shall be incorporated into the Project.

<u>Mitigation Measures</u>: The incorporation of the following mitigation measure into the Project would reduce impacts to a less than significant level.

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³⁸ City of Los Angeles General Plan, "Safety Element," Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles.

MM-TRAF-1: Work Area Traffic Management Plan

- The Project Applicant shall submit a formal Work Area Traffic Control Plan for review and approval by the Department of Building and Safety prior to the issuance of any construction permits. This plan shall incorporate safety measures around the site to reduce the risk to pedestrian traffic near the work area. This plan shall identify traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. This plan shall include:
 - Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times.
 - Temporary pedestrian facilities shall be adjacent to the project site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.
 - Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.
 - Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

4.17 TRIBAL CULTURAL RESOURCES

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

<u>Less than Significant Impact</u>. As described in section **4.5a**, **Cultural Resources**, above, the Project site does not contain any features that are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; nor would the Project adversely affect any nearby resources that are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. Therefore, potential impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Lead Agencies to consult with California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Section 20174 of the Public Resources Code. In compliance with the Code, on September 7, 2017 the City sent notices to Native American tribes that are known to be traditionally and culturally affiliated with the Project area and have requested to be notified of projects. A response was received from the Gabrieleno Band of Mission Indians – Kizh Nation and the City subsequently consulted with the tribe regarding the potential to unearth subsurface artifacts during construction. The City has an established protocol that will be imposed as a condition of approval for handling cultural artifacts unearthed during construction. Given that no Tribal Cultural Resources have been identified on the site and there is not specific evidence of subsurface resource on the site, impacts to Tribal Cultural Resources would be less than significant.

4.18 UTILITIES AND SERVICE SYSTEMS

Impact Analysis

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact. A significant impact would occur if a project were to exceed wastewater treatment requirements of the applicable RWQCB. Section 13260 of the California Water Code states that persons discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a Report of Waste Discharge containing information that may be required by the appropriate RWQCB. The RWQCB then authorizes an NPDES permit that ensures compliance with wastewater treatment and discharge requirements. Currently, wastewater from the Project site is conveyed via municipal sewage infrastructure maintained by the Los Angeles Bureau of Sanitation to the Hyperion Treatment Plant (HTP), a public facility subject to the State's wastewater treatment requirements. Wastewater from the Project would continue to be conveyed through City sewage infrastructure to the HTP. Though the Project would generate more wastewater than is currently generated on the Project site, pollutant loads would be typical of urban wastewater already processed by the HTP. Furthermore, as discussed below, the HTP has the available capacity to accommodate the additional waste associated with the Project. As such, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

<u>Less than Significant Impact</u>. A significant impact could occur if a project were to increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. Water is provided by the Los Angeles Department of Water and Power (LADWP); the Los Angeles Bureau of Sanitation provides sewer service to the proposed Project area.

LADWP ensures the reliability and quality of its water supply through an extensive distribution system that includes more than 7,100 miles of pipes, more than 100 storage tanks and reservoirs within the City, and eight storage reservoirs along the Los Angeles Aqueducts. Water entering the Los Angeles Aqueduct Filtration Plant (LAAFP) undergoes treatment and disinfection before being distributed throughout the LADWP's Water Service Area. The LAAFP has the capacity to treat approximately 600 million gallons per day (mgd). The average plant flow is approximately 362 mgd averaged over calendar year 2013, and

operates at approximately 60 percent capacity. Therefore, the LAAFP has a remaining capacity of approximately 238 mgd, depending on the season.³⁹

The Los Angeles Bureau of Sanitation provides sewer service to the proposed Project area. Sewage from the Project site is conveyed via sewer infrastructure to the HTP. The HTP treats an average daily flow of 362 mgd, and has the capacity to treat 450 mgd.⁴⁰ This equals a remaining capacity of 88 mgd of wastewater able to be treated at the HTP.

The Project site is in a developed, urbanized portion of Los Angeles that is served by existing water and sewer mains. As shown in **Table 4.18-1, Estimated Water Demand,** below, it is estimated that the Project would have a net daily water demand of 14,742 gallons or an annual demand of 16.51 acre-feet. Water conservation design features are likely to reduce this estimate. Given the remaining capacity of the LAAFP, the Project would not require or result in the construction of new water treatment facilities or expansion of existing facilities. Furthermore, the Project Applicant shall be required to implement applicable LA Green Building Code requirements that would further reduce water flow. Impacts on water treatment facilities would be less than significant.

As shown in **Table 4.18-2, Estimated Sewage Generation**, below, it is estimated that the Project would generate a net increase of 11,794 gpd of wastewater. Given the available capacity of the HTP, the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. Impacts on wastewater treatment facilities would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. A significant impact could occur if the volume of stormwater runoff would increase to a level exceeding the capacity of the existing storm drain system. The Project site is in a developed portion of Los Angeles that is currently served by stormwater infrastructure. In addition, the Project would be required to demonstrate compliance with the Los Angeles Low Impact Development (LID) Ordinance standards and retain or treat the first three-quarter inch of rainfall in a 24-hour period. Impacts would be less than significant.

³⁹ Los Angeles Department of Water and Power, *Urban Water Management Plan* (2016)

⁴⁰ City of Los Angeles Department of Public Works, Bureau of Sanitation, Wastewater System Fact Sheet (2014)

Table 4.18-1
Estimated Water Demand

Land Use	Quantity	Demand Factor (gpd/unit) ^a	Daily Demand (gpd)	Annual Demand (afy)
Land O36	Quantity	Demand ractor (gpa/ant)	(gpu)	(ary)
Hotel	100 rooms	150 gpd/room	15,000 gpd	16.80
Existing Use -Retail	8,228 sq ft	31 gpd/1000 Gr sq ft	257.12 gpd	0.23
Total:			14,742 gpd	16.51

Note: afy = acre-feet per year; gpd = gallons per day; sq ft = square feet.

Table 4.18-2
Estimated Sewage Generation

Land Use	Quantity	Factor (gpd/unit) ^a	Daily Generation (gpd)
Hotel	100 rooms	120 gpd/room	12,000 gpd
Existing Use -Retail	8,228 sq ft	25 gpd/1000 Gr sq ft	205.7 gpd
Total:			11,794 gpd

Note: qpd = gallons per day.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?

Less than Significant Impact. A significant impact may occur if a project were to increase water consumption to such a degree that new water sources would need to be identified. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether the project results in a significant impact on water shall be made considering the following factors: (a) the total estimated water demand for the project; (b) whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project completion; (c) the amount by which the project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of the project completion; and (d) the degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

According to the 2015 City's Urban Water Management Plan (UWMP), the City's projected demand for water, during a single dry season would be 513,540 acre-feet per year (afy) for 2015 and 611,800 afy for 2020.⁴¹ The *UWMP* projects adequate water supplies through 2040. The net Project demand of 14,742

a 125 percent sewage generation loading factor; Los Angeles Bureau of Sanitation, Sewage Generation Factors, April 2012.

a Los Angeles Bureau of Sanitation, Sewage Generation Factors, April 2012.

⁴¹ City of Los Angeles Department of Public Works, 2015 City of Los Angeles Urban Water Management Plan (2016).

gpd would be approximately 2.9 percent of the City of Los Angeles' available capacity during a single dry year. As such, it is expected that LADWP has sufficient water supplies available to serve the Project.⁴² Furthermore, as previously stated, the Project Applicant shall adhere to current standards including the Green Building Code that would reduce demand on local water supplies. Impacts of the Project would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

e. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Based upon the criteria established in the *L.A. CEQA Thresholds Guide*, a project would normally have a significant wastewater impact if (a) the project would cause a measurable increase in wastewater flows to a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or (b) the project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the *Wastewater Facilities Plan* or *General Plan* and its elements. As stated above, the Hyperion Treatment Plant is expected to have capacity to serve the Project. As such, impacts would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. A significant impact could occur if a project were to increase solid waste generation to a degree such that the existing and projected landfill capacity would be insufficient to accommodate the additional solid waste. Based on the *L.A. CEQA Thresholds Guide*, the determination of whether a project results in a significant impact on solid waste shall be made considering the following factors: (a) amount of projected waste generation, diversion, and disposal during demolition, construction, and operation of the project, considering proposed design and operational features that could reduce typical waste generation rates; (b) need for additional solid waste collection route, or recycling or disposal facility to adequately handle project-generated waste; and (c) whether the project conflicts with solid waste policies and objectives in the Source Reduction and Recycling Element (SRRE) or its updates, the Solid Waste Management Policy Plan (SWMPP), or the Framework Element of the

⁴² City of Los Angeles Department of Public Works, 2015 City of Los Angeles Urban Water Management Plan (2016).

Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the SRRE.

Solid waste generated within the City is disposed of at privately owned landfill facilities throughout Los Angeles County. While the Bureau of Sanitation provides waste collection services to single-family and some small multifamily developments, private haulers provide waste collection services for most multifamily residential and commercial developments within the City. Solid waste transported by both public and private haulers is recycled, reused, and transformed at a waste-to-energy facility, or disposed of at a landfill. Within the City of Los Angeles, the Chiquita Canyon Landfill and the Manning Pit Landfill serve existing land uses within the City. Both landfills accept residential, commercial, and construction waste. The Chiquita Canyon Landfill currently has a remaining capacity of 4.9 million tons. 43 The Manning Pit Landfill has a remaining capacity of 540,000 tons. 44 Thus, the Chiquita Canyon Landfill and Manning Pit Landfill combined have a remaining permitted capacity of approximately 5.4 million tons. The Chiquita Canyon Landfill has an estimated remaining life of 4 years. An expansion of the Chiquita Canyon Landfill is currently proposed and would add a capacity of 23,872,000 tons (a 21-year life expectancy).

Construction of the Project would comply with the City's Citywide Construction and Demolition (C&D) Waste Recycling Ordinance. As such, construction waste would be removed from the Project site by a City-permitted solid waste hauler and taken to a City-certified C&D processing facility. As shown in Table 4.18-3, Expected Operational Solid Waste Generation, the Project's net generation during the life of the Project would be 150.64 pounds per day.

This estimate is conservative because it does not factor in any recycling or waste diversion programs. The amount of solid waste generated by the Project is within the available capacities at area landfills. Furthermore, the Project Applicant shall be required to comply with the following regulatory measures regarding recycling. As such, impacts would be less than significant.

⁴³ County of Los Angeles Department of Public Works, Los Angeles Countywide Integrated Waste Management Plan, 2011 Annual Report (March 2013).

County of Los Angeles Department of Public Works (February 2014).

Table 4.18-3
Expected Operational Solid Waste Generation

Type of Use	Size	Waste Generation Rate ^a (lb./unit/day)	Total Solid Waste Generated (lb./day)
Residential units	100 rooms	2 lb/room/day	200 lb/day
Existing – Retail	8,228 sq ft	.006 lb/sq ft/day	49.36 lbs/day
Total Project Waste Gene	eration		150.64 lbs/day

Notes: lb. = pounds

g. Would the project comply with federal, State, and local statutes and regulations related to solid waste?

<u>Less than Significant Impact</u>. A significant impact could occur if a project were to generate solid waste that was not disposed of in accordance with applicable regulations. The Project would generate solid waste during both construction and operation that is typical of a commercial building with ground-floor commercial uses and would comply with all federal, State, and local statutes and regulations regarding proper disposal. As such, impacts would be less than significant.

a City of Los Angeles Bureau of Sanitation, Solid Waste Generation (1981). Waste generation includes all materials discarded, whether or not they are later recycled or disposed of in a landfill.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE

Impact Analysis

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact. A significant impact could occur only if the Project would have an identified potentially significant impact for any of the issues cited above: quality of the environment; habitat or populations of fish or wildlife species; plant or animal communities; rare or endangered plant or animal; or important examples of the major periods of California history or prehistory. As indicated by the analysis in this Initial Study, the Project would not substantially reduce the habitat of fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of a rare or endangered plant or animal. Nor would the Project potentially affect important historic or prehistoric resources. Though potentially significant impacts were identified with respect to construction noise, implementation of the mitigation measures described in this Initial Study would reduce those impacts to less than significant levels. Therefore, impacts on the quality of the environment would be less than significant.

Mitigation Measures: No mitigation measures are necessary.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact. Cumulative impacts can occur when the impacts of two or more separate projects are considerable when considered together. In the preceding topical analyses, cumulative impacts have been considered where appropriate. For example, the evaluation of air quality impacts considered the Project's cumulative contribution to federal or State nonattainment pollutants within the South Coast Air Basin and the evaluation of traffic impacts considered the cumulative effect of other proposed projects in the immediate vicinity. Through the analyses, no significant cumulative impacts were identified for the Project.

c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

<u>Less than Significant Impact with Project Mitigation</u>. As discussed in the preceding sections, the Project could result in potentially significant impacts due to construction noise. Mitigation Measures **MM NOI-1** as listed in **Section 4.12**, **Noise** respectively, have been identified to address these impacts.

<u>Mitigation Measures</u>: Applicable mitigation measures have been identified in the Noise section in this Initial Study. With incorporation of these measures, impacts of the Project would be less than significant.

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- The following documents and information were used in the preparation of this Initial Study:
- California Air Resources Board. *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED)*. Attachment D. August 19, 2011.
- California Department of Conservation, Division of Land Resource Protection. *Farmland Mapping and Monitoring Program, 2012.* ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/los12.pdf.
- California Department of Conservation, Division of Mines and Geology. "Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle. Los Angeles County, California 1998.
- California Department of Conservation. Division of Land Resource Protection. "The Land Conservation (Williamson) Act." 2013. http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx.
- California Department of Fish and Wildlife Code, Section 3503.
- California Department of Toxic Substances Control. *EnviroStor*. http://www.envirostor.dtsc.ca.gov/public/.
- California Department of Transportation. *Transportation- and Construction Vibration Guidance Manual*. June 2013.
- City of Los Angeles Department of City Planning. 2014 Growth & Infrastructure Report.
- City of Los Angeles Department of City Planning. Los Angeles Tree Ordinance (No. 177404), LAMC, sec. 12.21.
- City of Los Angeles Department of City Planning. Survey LA: Historic Resources Survey Report, Westlake Community Plan Area. February 24, 2015.
- City of Los Angeles Department of City Planning, Demographic Research Unit, Statistical Information. "Local Population and Housing Estimates." http://cityplanning.lacity.org/DRU/HomeLocl.cfm.
- City of Los Angeles Department of City Planning, Parcel Profile Reports. *Zoning Information and Map Access System (ZIMAS)*. http://www.zimas.lac.ity.org.
- City of Los Angeles Department of Public Works. *City of Los Angeles Urban Water Management Plan*. 2016.
- City of Los Angeles Department of Public Works, Bureau of Sanitation. "Hyperion Treatment Plant." http://san.lacity.org/lasewers/treatment_plants/hyperion/index.htm.
- City of Los Angeles General Plan. "Air Quality Element." 1992.
- City of Los Angeles General Plan. "Conservation Element." (2001.
- City of Los Angeles General Plan. "Framework Element." 1995.
- City of Los Angeles General Plan. "Housing Element." 2013.
- City of Los Angeles General Plan. "Mobility Element." 2015.

- City of Los Angeles General Plan. "Noise Element." 1999.
- City of Los Angeles General Plan. "Open Space and Conservation Element." 2001.
- City of Los Angeles General Plan. "Plan for a Healthy Los Angeles." 2015.
- City of Los Angeles General Plan. "Safety Element." 1996.
- City of Los Angeles General Plan. "Service Systems Element."
- City of Los Angeles General Plan. "Westlake Community Plan." 2001.
- City of Los Angeles, Historic Places LA. *Los Angeles Historic Resources Inventory*. http://www.historicplacesla.org.
- City of Los Angeles. L.A. CEQA Thresholds Guide. 2006.
- County of Los Angeles Department of Public Works. *Los Angeles County Integrated Waste Management Plan: 2015 Annual Report.* December 2016.
- Federal Transit Administration. Transit Noise and Vibration Impact Assessment. 2006.
- Gabriel Environmental Group, *Phase II Environmental Site Assessment Report, 857 S Westlake Avenue, Los Angeles, CA 90006.* December 22, 2015.
- Linscott, Law & Greenspan, Engineers. *Traffic Impact Study, 2005 James M Wood Boulevard Hotel Project*. February 17, 2017.
- South Coast Air Quality Management District. Final 2016 Air Quality Management Plan. March 2017.
- South Coast Air Quality Management District. *Final Localized Significance Threshold Methodology.* June 2003; October 21, 2009.
- Southern California Association of Governments. 2012 Regional Comprehensive Plan. 2012.
- Southern California Association of Governments. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy. April 2016.
- Southern California Association of Governments. "Profile of the City of Los Angeles." https://www.scag.ca.gov/Documents/LosAngeles.pdf. May 2017.
- The Natelson Company Inc. *Employment Density Study,* prepared for Southern California Association of Governments. 2001.
- US Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*. May 2006.



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2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Air Quality Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017



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EXECUTIVE SUMMARY

The purpose of this Air Quality Technical Report is to assess and discuss the impacts of potential air quality impacts that may occur with the implementation of the proposed 2005 James M Wood Boulevard Hotel Project located in the City of Los Angeles. Emissions of greenhouse gases (GHGs) are also quantified and evaluated in this Technical Report. The Project site is located on the northwest corner of the intersection of James M Wood Boulevard and Westlake Avenue. The Project would remove existing commercial/retail uses on the Project site and develop a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report).

The analysis describes the existing buildings' operational impacts in the project area, estimates future emission levels at surrounding land uses resulting from construction and operation of the project, and identifies the potential for significant impacts. An evaluation of the project's contribution to potential cumulative air quality impacts is also provided. Air quality worksheets and technical data used in this analysis are provided in the Appendices.

This report summarizes the potential for the Project to conflict with an applicable air quality plan, to violate an air quality standard or threshold, to result in a cumulatively net increase of criteria pollutant emissions, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people. The findings of the analyses are as follows:

- The Project would be consistent with air quality policies set forth by the City of Los Angeles, the South Coast Air Quality Management District (SCAQMD), and the Southern California Association of Governments (SCAG).
- The incremental increase in emissions from construction and operation of the Project would not exceed the regional daily emission thresholds set forth by the SCAQMD. Thus, the Project would not result in a regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in the South Coast Air Basin (the Air Basin).
- The incremental increase in onsite emissions from construction and operation of the Project
 would not exceed the localized significance thresholds set forth by the SCAQMD. Thus, the
 Project would not result in a localized violation of applicable air quality standards or expose
 offsite receptors to substantial levels of regulated air contaminants resulting in a less than
 significant impact.
- Emissions from the increase in traffic due to operation of the Project would not have a significant impact upon 1-hour or 8-hour local carbon monoxide (CO) concentrations due to mobile source emissions.

The Project could potentially result in substantial emissions of toxic air contaminants (TACs) during construction affecting adjacent sensitive receptors. Implementation of **Mitigation** Measure AIR-1, listed below, would be expected to reduce this impact to less than significant.

Mitigation Measure AIR-1: Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

- Project construction and operations would not result in significant levels of odors.
- The Project would result in a less than significant cumulative air quality impacts during construction and operation of the Project.

1.0

Introduction

1.1 Project Description

The Project Applicant proposes to redevelop an approximately 20,256 net square foot (22,500 gross square foot) parcel located at 2005 James M Wood Boulevard in the City of Los Angeles with a hotel use ("the Project"). The location of the Project site and nearby vicinity is shown in **Figure 1, Regional and Vicinity Location Map**.

The Project would consist of a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report) consisting of studio units and suites, and hotel amenities including meeting rooms, kitchen and breakfast area, lobby and reception area, office space, and a luggage room. Vehicle loading would occur in an enclosed area on the ground floor. The refuse collection area would be located in an enclosed area on the ground floor on the northeast end of the building. The proposed building would be six floors totaling approximately 60,631 square feet with two basement levels totally approximately 37,020 square feet. The floor-to-area ratio would be 2.99 (60,631 square feet / 20,256 net square feet = 2.99). The Project would provide 100 parking spaces in an enclosed structure on the ground floor and basement levels, which would exceed the City of Los Angeles parking requirement. Short-term and long-term bicycle parking would also be provided. The Project site plan is shown in **Figure 2**, *Project Site Plans*.

1.2 Existing Site Uses

The Project site is developed with approximately 8,228 square feet of commercial/retail uses and surface parking areas. The Project would remove existing commercial/retail uses on the Project site and the existing surface parking areas.

Figure 1 Regional and Vicinity Location Map

Figure 2 Project Site Plan

Regulatory and Environmental Setting

2.1 Regulatory Setting

2.1.1 Air Quality

A number of statutes, regulations, plans and policies have been adopted which address air quality concerns. The Project site and vicinity is subject to air quality regulations developed and implemented at the federal, State, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the federal Clean Air Act. Some portions of the Clean Air Act (e.g., certain mobile source requirements and other requirements) are implemented directly by the USEPA. Other portions of the Clean Air Act (e.g., stationary source requirements) are implemented through delegation of authority to State and local agencies. At the state and regional levels, the California Air Resources Board (CARB) and South Coast Air Quality Management District (SCAQMD) are responsible for air quality planning and regulation. A number of plans, policies, and regulations have been adopted by various agencies that address air quality concerns. Those plans, policies, and regulations that are relevant to the Project are discussed below.

Federal

The federal Clean Air Act of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the federal level, the USEPA is responsible for implementation of certain portions of the Clean Air Act including mobile source requirements. Other portions of the Clean Air Act, such as stationary source requirements, are implemented by state and local agencies.

The Clean Air Act establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The 1990 Amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) of the Clean Air Act are most applicable to the development and operations of the Project. Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: ozone (O₃); nitrogen dioxide (NO₂); carbon monoxide (CO); sulfur dioxide (SO₂); fine particulate

matter (PM10); and lead (Pb). Later, the NAAQS were amended to include an 8-hour standard for O₃ and to adopt a NAAQS for fine particulate matter (PM2.5). **Table 1**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

Table 1
Ambient Air Quality Standards

		California Standards ^a		National Standards ^b			
Pollutant	Average Time	Concentration ^c	Method ^d	Primary ^{c, e}	Secondary ^{c,f}	Method ^g	
O ₃ h	1 Hour	0.09 ppm (180 μg/m³)	Ultraviolet Photometry	_	Same as Primary	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 μg/m³)		0.070 ppm (137 µg/m³)	Standard		
NO ₂ i	1 Hour	0.18 ppm (339 μg/m³)	Gas Phase Chemi-	100 ppb (188 μg/m³)	None	Gas Phase Chemi- luminescence	
	Annual	0.030 ppm	luminescence	53 ppb	Same as		
	Arithmetic Mean	(57 μg/m³)		(100 μg/m ³)	Primary Standard		
CO	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared	
	8 Hour	9.0 ppm (10mg/m³)	Photometry (NDIR)	9 ppm (10 mg/m³)		Photometry (NDIR)	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		_	_		
SO ₂ j	1 Hour	0.25 ppm (655 μg/m³)	Ultraviolet Fluorescence	75 ppb (196 μg/m³)	_	Ultraviolet Fluorescence;	
	3 Hour	_		_	0.5 ppm (1300 μg/m³)	Spectrophotometry (Pararosaniline Method)9	
	24 Hour	0.04 ppm (105 μg/m³)		0.14 ppm (for certain areas) ^j	_		
	Annual Arithmetic Mean	_		0.030 ppm (for certain areas) ^j	_		
PM ₁₀ k	24 Hour	50 μg/m³	Gravimetric or	150 μg/m ³	Same as	Inertial Separation	
	Annual Arithmetic Mean	20 μg/m³	Beta Attenuation	_	Primary Standard	and Gravimetric Analysis	
PM _{2.5} ^k	24 Hour	No Separate State	Standard	35 μg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 μg/m³	Gravimetric or Beta Attenuation	12.0 μg/m ^{3 k}	15 μg/m³		
Lead I,m	30 Day Average	1.5 μg/m³	Atomic Absorption	_	_	High Volume Sampler and	
	Calendar Quarter	_		1.5 µg/m³ (for certain areas)m	Same as Primary Standard	Atomic Absorption	

		California Standards ^a		National Standards ^b			
Pollutant	Average Time	Concentration ^c	Method ^d	Primary ^{c, e}	Secondary ^{c,f}	Method ^g	
	Rolling 3- Month Average ^m			0.15 μg/m³			
Visibility Reducing Particles	8 Hour	Extinction coefficier kilometer — visibilit more (0.07 — 30 m Lake Tahoe) due to relative humidity is percent. Method: Be and Transmittance Tape.	y of 10 miles or iles or more for particles when less than 70 eta Attenuation		No Federal		
Sulfates (SO ₄)	24 Hour	25 μg/m³	lon Chromatography	Standards			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Ultraviolet Fluorescence				
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 μg/m³)	Gas Chromatography				

NOTES:

- a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (μg/m³) is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- d Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health
- f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- g Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- h On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- i To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.
- j On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- k On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 μg/m³ to 12.0 μg/m³.
- 1 The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- m The national standard for lead was revised on October 15, 2008 to a rolling three-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- n In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: California Air Resources Board, Ambient Air Quality Standards (10/1/15), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed January 2016.

The Project is located within the South Coast Air Basin (Air Basin), which is an area designated as non-attainment because it does not currently meet NAAQS for certain pollutants regulated under the Clean Air Act. The Air Basin previously exceeded the NAAQS for PM10, but has met effective July 26, 2013. The Air Basin does not meet the NAAQS for O₃ and PM2.5 and is classified as being in non-attainment for these pollutants. The Los Angeles County portion of the Air Basin is designated as non-attainment for the lead NAAQS; however, this was due to localized emissions from two previously operating lead-acid battery recycling facilities located in the City of Vernon and the City of Industry (SCAQMD 2012a). These facilities are no longer operating and would not affect the Project site. **Table 2**, *South Coast Air Basin Attainment Status (Los Angeles County)*, lists the criteria pollutants and their relative attainment status.

TABLE 2
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A ^a	Non-attainment
Ozone (8-hour standard)	Non-attainment – Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment (Maintenance)	Attainment
Sulfur Dioxide	Attainment	Attainment
PM10	Attainment (Maintenance)	Non-attainment
PM2.5	Non-attainment – Serious	Non-attainment
Lead	Non-attainment (Partial) b	Attainment
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Attainment
Vinyl Chloride	N/A	N/A °

NOTES: N/A = not applicable

SOURCE: South Coast Air Quality Management District, February, 2016. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2. Accessed February 2017.

The Clean Air Act also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a

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The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

Partial Nonattainment designation – Los Angeles County portion of the Air Basin only for near-source monitors. Expect to remain in attainment based on current monitoring data.

In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

¹ Federal Register, Vol. 78, No. 123, June 26, 2013, 38223-38226.

demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

Title II of the Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

State

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include State-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal Clean Air Act planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state. **Table 1** shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the State. As shown, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 2** provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the state standards.

California Air Resources Board Air Quality and Land Use Handbook

The CARB published the *Air Quality and Land Use Handbook* in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions (CARB 2005a). The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other Toxic Air Contaminants (TACs) (13 CCR, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM10, and PM2.5 emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection [h]). The requirements were amended in December 2010 and apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. Under the regulation newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to meet the emissions standards for 2010 model year engines or equivalent.

In addition to limiting exhaust emissions from trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) (e.g., bulldozers, loaders, backhoes, forklifts, etc.). The regulation adopted by the CARB on July 26, 2007 (13 CCR, Section 2449) reduces emissions by the installation of diesel particulate matter filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models. Fleets must demonstrate compliance through one of two methods. The first option is to calculate and maintain declining fleet average emissions targets. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with large fleets beginning compliance in 2014, medium fleets in 2017, and small fleets in 2019. The compliance schedule requires that BACT turn overs or retrofits (VDECS installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Regional

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, and the western, Coachella Valley, and San Gorgonio Pass portions of Riverside County. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

Air Quality Management Plan

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. SCAQMD and CARB have adopted the 2012 AQMP which incorporates the latest scientific and technological information and planning assumptions, including the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and updated emission inventory methodologies for various source categories (SCAQMD 2012b). The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour $PM_{2.5}$ standard. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O_3 standard deadline with new measures designed to reduce reliance on the federal Clean Air Act Section 182(e)(5) long-term measures for NO_X and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: (1) Basin-wide and Episodic Short-term PM_{2.5} Measures; (2) Contingency Measures; (3) 8-hour Ozone Implementation Measures; and (4) Transportation and Control Measures provided by SCAG. The Plan includes eight short-term PM2.5 control measures, 16 stationary source 8-hour ozone measures, 10 early action measures for mobile sources and seven early action measures are proposed to accelerate near-zero and zero emission technologies for goods movement related sources, and five on-road and five off-road mobile source control measures. In general, the SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities associated with the Project include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment. Descriptions of measures ONRD-04 and OFFRD-01 are provided below:

ONRD-04 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles: This proposed measure seeks to replace up to 1,000 heavy-duty vehicles per year with newer or new vehicles that at a minimum, meet the 2010 on-road heavy-duty NO_X exhaust emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr). Given that exceedances of the 24-hour $PM_{2.5}$ air quality standard occur in the state, priority will be placed on replacing older diesel trucks that operate primarily at the warehouse and distribution centers. Funding assistance of up to \$35,000 per vehicle is proposed and the level of funding will depend upon the NO_X emissions certification level of the replacement vehicle. In addition, a provision similar to the Surplus Off-Road Option for NO_X (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation will be sought to ensure that additional NO_X emission reduction benefits are achieved.

OFFRD-01 – **Extension of the SOON Provision for Construction/Industrial Equipment:** This measure seeks to continue the Surplus Off-Road Option for NO_X (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation beyond 2014 through the 2023 timeframe. In order to implement the SOON program in this timeframe, funding of up to \$30 million per year would be sought to help fund the repower or replacement of older Tier 0 and Tier 1 equipment, with reductions that are considered surplus to the statewide regulation with Tier 4 or cleaner engines.

The SCAQMD released the Draft 2016 AQMP on June 30, 2016 for public review and comment (SCAQMD 2016a). A Draft Final 2016 AQMP was released in December 2016 and public hearings were scheduled for February 3, 2017, which was continued to March 3, 2017 (SCAQMD 2016b). The purpose of the hearings is for the SCAQMD Governing Board to consider approving the AQMP (SCAQMD 2016c). Key elements of the Revised Draft 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts. The strategies included in the Draft Final 2016 AQMP are intended to demonstrate attainment of the NAAQS for the federal non-attainment pollutants O₃ and PM2.5.

Air Quality Guidance Documents

The SCAQMD published the *California Environmental Quality Act (CEQA) Air Quality Handbook* to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts (SCAQMD 1993). The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) and the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L as they are outdated. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software, initially released in 2011 and updated in 2013 and again in 2016.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* that is intended to provide guidance in evaluating localized effects from mass emissions during construction (SCAQMD 2008a). The SCAQMD adopted additional guidance regarding PM2.5 in a document called *Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds* (SCAQMD 2006). This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

Rules and Regulations

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction or operation of the Project. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which may apply to the Project:

- **Rule 402 Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter (μg/m³) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

- Rule 1113 Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- Rule 1186 PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).
- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in April 2016, which addresses regional development and growth forecasts and forms the basis for the land use and transportation control portions of the AQMP (SCAG 2016). The growth forecasts are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP/SCS and AQMP are based on projections originating within local jurisdictions.

SCAG is required to adopt an SCS pursuant to Senate Bill (SB) 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional greenhouse gas (GHG) reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. In February 2011, CARB adopted the final GHG emissions reduction targets for the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization for the region in which the City of Los Angeles is located. The target is a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline. The 2016-2040 RTP/SCS meets or exceeds these targets, lowering greenhouse gas lowering greenhouse gas emissions (below 2005 levels) by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the low carbon fuel standard regulations. Compliance with and implementation of 2016-2040 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita VMT.

SCAG's SCS provides specific strategies for successful implementation. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and education, recreation, cultures, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles.

Local

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its land use decision-making authority. Specifically, the City is

responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan includes City wide goals, objectives, and policies related to air quality resources. Several goals, objectives, and policies are relevant to the project and are related to stationary source, mobile source, transportation and land use control, and energy conservation measures.

The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The City of Los Angeles has incorporated the California Green Building (CALGreen) Standards Code, with amendments in Article 9 in its Municipal Code. The City's ordinance requires applicable projects to comply with specified provisions to reduce energy consumption.

2.1.2 Greenhouse Gases

California Greenhouse Gas Reduction Targets

The Governor announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

CARB subsequently expressed its intention to initiate the second update to the Climate Change Scoping Plan update during 2015 and 2016 with adoption scheduled thereafter in the second quarter of 2017.

California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. Under the original projections, the State must reduce its 2020 business as usual (BAU) emissions by 28.4 percent in order to meet the 1990 GHG emissions target level. In 2014, CARB revised the target using the global warming potential values (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 million metric tons of carbon dioxide equivalents (MMTCO₂e). CARB also updated the State's 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's revised 2020 BAU emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO₂e. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO₂e would be 78.4 MMTCO₂e, or a reduction of GHG emissions by approximately 15.4 percent.

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities. CARB is in the process of preparing the second update to the Scoping Plan to reflect the 2030 target established in Executive Order B-30-15 and SB 32.

Transportation Sector

In response to the transportation sector accounting for a large percentage of California's CO₂ emissions, AB 1493 (HSC Section 42823 and 43018.5), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal Clean Air Act waiver from the USEPA. In June 2009, the USEPA granted California the waiver.

The USEPA and United States Department of Transportation (USDOT) adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the USEPA and USDOT standards, California – and states adopting the California emissions standards (referred to as the Pavley standards) – agreed to defer to the national standard through model year 2016. The state standards require additional reductions in CO₂ emissions beyond model year 2016 (referred to as the Pavley Phase II standards). The USEPA and USDOT also adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the Pavley Phase II standards, but the State of California has agreed not to contest these standards, in part due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally and is stringent enough to meet state GHG emission reduction goals. In 2012, CARB adopted regulations that allow manufacturers to comply with the 2017-2025 national standards to meet state law.

In January 2007, Governor Brown enacted Executive Order S-01-07, which mandates the following: (1) establish a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. CARB identified the LCFS as one (1) of the nine (9) discrete early actions in the Climate Change Scoping Plan. The LCFS regulations were approved by CARB in 2009 and established a reduction in the carbon intensity of transportation fuels by 10 percent by 2020 with implementation beginning on January 1, 2011. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted.

As discussed previously, SCAG is required to adopt an SCS pursuant to SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. The 2016-2040 RTP/SCS demonstrates a reduction in per capita transportation GHG emissions by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040.

Energy Sector

The California Energy Commission (CEC) first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2)

Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality" (CBSC 2010). The CALGreen Code is mandatory for all new buildings constructed in the state and establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017 (CBSC 2016).

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Portfolio Standard to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the Renewables Portfolio Standard with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statues of 2015), signed into law on October 7, 2015, further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027.

The City of Los Angeles has adopted a Green Building Code in Los Angeles Municipal Code (LAMC) Chapter IX, Section 99.01.101 et seq. The Green Building Code adopts the CALGreen Code, as well as more stringent City-specific requirements to improve energy, water, and waste efficiency and reduce building-related criteria pollutant and GHG emissions.

2.2 Environmental Setting

2.2.1 Air Quality Sensitive Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. The nearest existing air quality sensitive uses in close proximity to the Project site include the following:

• Multi-Family Residential Dwellings: A two-story multi-family residential building is located adjacent to the Project site property to the north. Two- and three story multi-family residential buildings are located further to the north (approximately 80 feet and greater from the Project site) and to the east across Westlake Avenue (approximately 60 feet and greater from the Project site). Residential uses are also located to the south of James M Wood Boulevard (approximately 180 feet and greater from the Project site).

All other air quality sensitive receptors are located at greater distances from the Project site, and would be less impacted by Project emissions. Impacts are quantified for the above sensitive receptors.

2.2.2 Regional Air Quality

Criteria Air Pollutants

The distinctive climate of the Air Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Air Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Air Basin vary with location, season and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Air Basin and adjacent desert.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_X) under favorable meteorological conditions such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency (CARB 2015).

Volatile Organic Compounds (VOCs): VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as TACs. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NO_X to form O₃ and are regulated as O₃ precursor emissions.

Nitrogen Dioxide (NO₂) and Nitrogen Oxides (NO_X): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO₂ and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO₂. Ambient air quality standards have been promulgated for NO₂, which is a reddish-brown, reactive gas. The principle form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO₂, creating the mixture of NO and NO₂ referred to as NO_X. Major sources of NO_x emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_X are a precursor to the formation of ground-level ozone. NO₂ can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the CARB, "NO₂ is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO₂ along with other trafficrelated pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children" (CARB 2011). The terms "NO_X" and "NO₂" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO₂" is primarily used when discussing ambient air quality standards. More specifically, NO₂ is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_x and NO are not. In cases where the thresholds of significance or impact analyses are discussed in the context of NO_x emissions, it is based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2 .

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations (CARB 2009a).

Sulfur Dioxide (**SO**₂): Major sources of SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness (CARB 2009b).

Particulate Matter (PM10 and PM2.5): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than 10 microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate

existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM₁₀ and PM_{2.5}. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids (CARB 2005b).

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body. The Project would not include sources of lead emissions and would not generate emissions of lead; therefore, lead is not discussed further in this Technical Report.

Toxic Air Contaminants

TACs are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, emission of TACs does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity; how it is released into the air; the weather; and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as particulate matter or as vapors (gases).

Between July 2012 and June 2013, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES IV), which is a follow-up to previous air toxics studies conducted in the Air Basin. The MATES IV Final Report was issued in May 2015 (SCAQMD 2015a). The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk of approximately 418 in 1,000,000 primarily due to diesel exhaust, which is about 65 percent lower than the previous MATES III cancer risk (SCAQMD 2015a). Subsequent to the SCAQMD's risk calculations estimates performed for MATES IV, the California Office of Environmental Health Hazard Assessment (OEHHA) updated the methods for estimating cancer risks (OEHHA 2015). The updated method utilizes higher estimates of cancer potency during early life exposures and uses different assumptions for breathing rates and length of residential exposures. When combined together, SCAQMD staff estimates that risks for the same inhalation exposure level will be about 2.5 to 2.7 times higher using the updated methods. This would be reflected in the average

lifetime air toxics risk estimated from the monitoring sites data going from 418 per million to 1,023 per million (SCAQMD 2015a). Under the updated OEHHA methodology, adopted in March of 2015, the relative reduction in risk from the MATES IV results compared to MATES III would be the same (about 65 percent reduction in risk). Approximately 68 percent of the airborne carcinogenic risk in the Air Basin is attributed to emissions of diesel particulate matter.

2.2.3 Local Air Quality

Existing Ambient Air Quality in the Surrounding Area

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the Project Site is the Central Los Angeles Monitoring Station, located at 1630 North Main Street, Los Angeles, CA 90012. Criteria pollutants monitored at this station include O₃, NO₂, CO, SO₂, PM10, and PM2.5. The most recent data available from the SCAQMD for these monitoring stations are from years 2011 to 2015 (SCAQMD 2011-2015). The pollutant concentration data for these years are summarized in **Table 3**, *Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations*.

Table 3

Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations

Pollutant/Standard	2011	2012	2013	2014	2015 ^a
O ₃ (1-hour)					
Maximum Concentration (ppm)	0.120	0.117	0.011	0.091	0.119
Days > CAAQS (0.09 ppm)	8	8	4	0	11
O ₃ (8-hour)					
Maximum Concentration (ppm)	0.084	0.088	0.083	0.079	0.094
4th High 8-hour Concentration (ppm)	0.081	0.081	0.079	0.069	0.087
Days > CAAQS (0.070 ppm)	10	15	17	2	34
Days > NAAQS (0.075 ppm)	6	8	6	1	15
NO ₂ (1-hour)					
Maximum Concentration (ppm)	0.068	0.080	0.073	0.073	0.073
98th Percentile Concentration (ppm)	0.056	0.057	0.060	0.065	0.052
NO ₂ (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.022	0.022	0.020	0.022	0.014
CO (1-hour)					
Maximum Concentration (ppm)				3	3.0
CO (8-hour)					
Maximum Concentration (ppm)	2.4	2.4	2.4	3	2.5

Pollutant/Standard	2011	2012	2013	2014	2015 ^a
SO ₂ (1-hour)					
Maximum Concentration (ppm)	0.009	0.007	0.011	0.005	0.013
99th Percentile Concentration (ppm)	0.005	0.003	0.004	0.004	0.006
PM ₁₀ (24-hour)					
Maximum Concentration (μg/m³)	61	55	52	68	88
Samples > CAAQS (50 µg/m³)	2	1	1	2	26
Samples > NAAQS (150 μg/m³)	0	0	0	0	0
PM ₁₀ (Annual Average)					
Annual Arithmetic Mean (20 µg/m³)	28.4	26.4	28.5	31.2	33.1
PM _{2.5} (24-hour)					
Maximum Concentration (µg/m³)	47.8	54.2	45.1	64.6	36.8
98th Percentile Concentration (μg/m³)	33.5	28.2	30.4	29	28.4
Samples > NAAQS (35 μg/m³)	5	2	4	2	1
PM _{2.5} (Annual)					
Annual Arithmetic Mean (12 µg/m³)	13.2	12.2	12.2	12.1	8.84

NOTES:

ppm = parts per million; µg/m³ = micrograms per cubic meter.

SOURCE: South Coast Air Quality Management District, Historical Data by Year, http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed December 2016.

Existing Toxic Air Contaminant Risk Levels

As part of the MATES IV, the SCAQMD prepared maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The grid in which the Project site is located has an estimated background potential cancer risk per million people using the update OEHHA methodology of 1,554 to 1,610 per million (compared to an overall South Coast Air Basin-wide risk of 1,023 per million) based on the SCAQMD analyzed grid-specific data from 2012-2013 in MATES IV, which is graphically displayed in the Carcinogenic Risk Interactive Map available on the SCAQMD website.² Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near diesel sources (e.g., freeways, airports, and ports).

Background inhalation cancer risk value was obtained from detailed map data found at: South Coast Air Quality Management District, Multiple Air Toxics Exposure Study, MATES IV Carcinogenic Risk Interactive Map, http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b. Accessed February 2017.

2.2.4 Greenhouse Gases and Climate

Worldwide man-made emissions of GHGs were approximately 49,000 MMTCO₂e annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (IPCC AR5). Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total while CO₂ emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and N₂O emissions for 6.2 percent. In 2013, the United States was the world's second largest emitter of carbon dioxide at 5,300 MMT (China was the largest emitter of carbon dioxide at 10,300 MMT) (PBL 2014).

CARB compiles GHG inventories for the State of California. Based on the 2014 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 441.5 MMTCO₂e including emissions resulting from imported electrical power and 405 MMTCO₂e excluding emissions related to imported power (CARB 2016). The transportation sector is the largest contributor to statewide GHG emissions at 36 percent in 2014.

2.2.5 Existing Site Emissions

Criteria Air Pollutants

The Project site is currently developed with a retail strip mall area. The current site usage generates existing vehicle trips and air quality emissions from operations related to retail activities at the site. **Table 4**, *Existing Site Operational Emissions*, identifies the existing emissions from the existing strip mall. The emissions were estimated using the California Emissions Estimator Model (CalEEMod), which is an emissions inventory software program recommended by the SCAQMD. Emissions calculation worksheets are provided in **Appendix A** of this Technical Report.

TABLE 4
EXISTING SITE OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Emissions Source	voc	NO _x	со	SO ₂	PM10	PM2.5
Existing Operational						
Area (Consumer Products, Landscaping)	<1	<1	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<1	<1	<0.1	<0.1
Motor Vehicles	1	2	6	<1	1.2	0.3
Total Existing Emissions	1	2	6	<1	1.2	0.3

NOTES:

SOURCE: ESA 2017.

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

Greenhouse Gases

The existing site GHG emissions are provided in **Table 5**, *Existing Site Greenhouse Gas Emissions*, identifies the existing emissions from the existing strip mall. The emissions were estimated using CalEEMod. Emissions calculation worksheets are provided in **Appendix A** of this Technical Report.

TABLE 5
EXISTING SITE GREENHOUSE GAS EMISSIONS A

Emissions Source	CO₂e (Metric Tons per Year)
Existing Operational	
Area	<1
Electricity	73
Natural Gas	1
Motor Vehicles	262
Water Conveyance	8
Waste	1
Existing Total Emissions	345

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

SOURCE: ESA 2017.

Environmental Impacts

3.1 Significance Thresholds

3.1.1 Air Quality

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

Would a project:

- a. Conflict with or obstruct the implementation of the applicable air quality plan (Impact Threshold AIR-1);
- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation (Impact Threshold AIR-2);
- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (Impact Threshold AIR-3);
- d. Expose sensitive receptors to substantial pollutant concentrations (Impact Threshold AIR-4); or
- e. Create objectionable odors affecting a substantial number of people (Impact Threshold AIR-5).

Pursuant to the State CEQA Guidelines (Section 15064.7), a lead agency may consider using, when available, the significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The *L.A. CEQA Thresholds Guide* incorporates the Appendix G screening questions, and relies on the thresholds established by the SCAQMD. The potential air quality impacts of the Project are, therefore, evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its CEQA *Air Quality Handbook*, *Air Quality Analysis Guidance Handbook*, and

subsequent SCAQMD guidance as discussed previously.³ The Project would result in a potentially significant impact to air quality if it would exceed the thresholds described below.

Air Quality Plan

The Project would have a significant impact if it would substantially conflict with or obstruct implementation of relevant air quality policies in the adopted SCAQMD AQMP (evaluated under Impact Thresholds AIR-1).

Regional Construction

Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-2 and AIR-3):

- 75 pounds a day for VOC;
- 100 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO₂;
- 150 pounds per day for PM10; or
- 55 pounds per day for PM2.5.

Localized Construction

The SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur (SCAQMD 2008a) (evaluated under Impact Threshold AIR-4):

- Maximum daily localized emissions of NO_X and/or CO during construction are greater than
 the applicable localized significance thresholds, resulting in predicted ambient concentrations
 in the vicinity of the Project Site greater than the most stringent ambient air quality standards
 for NO₂ and/or CO.
- Maximum daily localized emissions of PM10 and/or PM2.5 during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 10.4 micrograms per cubic meter (µg/m³) over 24 hours (SCAQMD Rule 403 control requirement).

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While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects such as the Project. As a result, lead emissions are not further evaluated in this Technical Report.

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the SCAQMD screening criteria to evaluate impacts from localized emissions.

Regional Operations

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD 1993). The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the CAA which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone (SCAQMD 1993). The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year \times 2,000 pounds per ton \div 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on federal stationary source significance levels. The Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-2 and AIR-3):

- 55 pounds a day for VOC;
- 55 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO₂;
- 150 pounds per day for PM10; or
- 55 pounds per day for PM2.5.

Localized Operations

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur (SCAQMD 2008a) (evaluated under Impact Threshold AIR-4):

Maximum daily localized emissions of NO_X and/or CO during operation are greater than the
applicable localized significance thresholds, resulting in predicted ambient concentrations in
the vicinity of the project site greater than the most stringent ambient air quality standards for
NO₂ and/or CO.

• Maximum daily localized emissions of PM10 and/or PM2.5 during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 2.5 μg/m³ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the SCAQMD screening criteria to evaluate impacts from localized emissions.

Carbon Monoxide Hotspots

The Project would be considered significant if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-4):

• The Project would cause or contribute to an exceedance of the CAAQS one-hour or eighthour CO standards of 20 or 9.0 parts per million (ppm), respectively, at a Project-impacted intersection or roadway.

Toxic Air Contaminants

Based on the City of Los Angeles CEQA Thresholds Guide and criteria set forth by the SCAQMD, the Project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-4):

• The Project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

Odors

The Project would be considered significant if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-5):

• The Project would create objectionable odors affecting a substantial number of people.

3.1.2 Greenhouse Gases

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

Would a project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (Impact Threshold GHG-1)?

b. Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Impact Threshold GHG-2)?

Greenhouse Gas Emissions

The City of Los Angeles has not yet adopted a numerical significance threshold for assessing impacts related to GHG emissions. When no guidance exists under CEQA, the lead agency may look to and assess general compliance with comparable regulatory schemes.⁴

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds. The Working Group released draft guidance regarding interim CEQA GHG indicators of significance in October 2008, proposing a tiered approach. Under Tier 1, projects that are exempt from CEQA would be less than significant. Under Tier 2, projects that are consistent with an adopted GHG reduction plan would be less than significant. Under Tier 3, non-industrial projects with 3,000 metric tons of CO₂e per year or less would be less than significant. Tier 4 uses performance standards, which requires projects to demonstrate a percent emission reduction target below BAU or an efficiency-based threshold such as GHG emissions on a per service population basis. The aforementioned Working Group has been inactive since 2011 and has not formally submitted thresholds to the Governing Board for approval.

Given the lack of a formally adopted numerical significance threshold or a formally adopted local plan for reducing GHG emission applicable to this project, the significance of the project is evaluated consistent with CEQA, California Air Pollution Control Officers Association (CAPCOA), and Office of Planning and Research (OPR) guidelines and advisories. The significance of the project will be based on an assessment of the project's GHG emissions sources for general compliance with comparable regulatory schemes. "Tier 3," the primary tier by which SCAQMD currently determines the significance of stationary emission sources, relies on Executive Order S-3-05 as the basis for a screening level, and was established at a level that captures 90 percent of Air Basin-wide land use GHG emissions. The SCAQMD proposed a screening level of 3,000 metric tons of carbon dioxide equivalents (MTCO₂e) per year for commercial or mixed-use residential projects under which project impacts are considered less than significant, "to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential/commercial sectors" (SCAQMD

⁴ See Protect Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal. App. 4th 1099, 1107 ["[A] lead agency's use of existing environmental standards in determining the significance of a project's environmental impacts is an effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other environmental program planning and resolution.""] Lead agencies can, and often do, use regulatory agencies' performance standards. A project's compliance with these standards usually is presumed to provide an adequate level of protection for environmental resources. See, e.g., *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal. App. 4th 74. 99 (upholding use of regulatory agency performance standard).

2008b). In CAPCOA's January 2008 CEQA and Climate Change white paper, CAPCOA suggested a possible quantitative threshold option that would capture 90 percent of GHG emissions from future discretionary development projects. According to CAPCOA, the "objective was to set the emission threshold low enough to capture a substantial fraction of future residential and nonresidential development that will be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions" (CAPCOA 2008, pg. 42-43). A 90 percent capture rate would "exclude the smallest proposed developments from potentially burdensome requirements ... to mitigate GHG emissions" (CAPCOA 2008, pg. 43-44). The SCAQMD's proposed screening level of 3,000 MTCO₂e per year is a South Coast Air Basin-specific level that would meet CAPCOA's intent for the suggested quantitative threshold option. It should be noted that the SCAQMD has formally adopted a GHG significance thresholds of 10,000 MTCO₂e per year for industrial/stationary source projects where the SCAQMD is the lead agency based on a 90 percent capture rate for the industrial/stationary source sector. Given the lack of a formally adopted numerical significance threshold applicable to this project, the significance of the project is evaluated based on the SCAQMD's proposed screening level of 3,000 MTCO₂e.

Greenhouse Gas Reduction Plans, Policies, or Regulations

Local and regional agencies and the State recommend general policies and measures to minimize and reduce GHG emissions from land use development projects. Thus, if the Project is designed in accordance and not in conflict with applicable policies and measures, it would result in a less than significant impact since it would be consistent with the strategies and actions to reduce GHG emissions. Therefore, a significant impact would occur if the Project would conflicts with applicable plans, policies, or regulations for the purpose of reducing the emissions of GHGs:

3.2 Methodology

The methodology to evaluate potential impacts to regional and local air quality that may result from the construction and long-term operations of the Project is conducted as follows.

3.2.1 Air Quality

Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM_{2.5}). The SCAQMD's 2012 Air Quality Management Plan contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, which provide the basis for the land use and transportation components of the Air Quality Management Plan and are used in the preparation of the air quality forecasts and the consistency analysis included in the Air

Quality Management Plan. Both the Regional Comprehensive Plan and Air Quality Management Plan are based, in part, on projections originating with county and city general plans.

The 2012 Air Quality Management Plan was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the Air Quality Management Plan do not interfere with attainment because the growth is included in the projections utilized in the formulation of the Air Quality Management Plan. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the Air Quality Management Plan would not jeopardize attainment of the air quality levels identified in the Air Quality Management Plan, even if they exceed the SCAQMD's numeric indicators.

Construction Emissions

Construction of the Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_X , would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the CalEEMod (Version 2016.3.1) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from the CARB off-road emissions model (OFFROAD) and the CARB on-road vehicle emissions model (EMFAC), which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis are based on conservative assumptions in CalEEMod with appropriate adjustments to be Project-specific based on equipment types and expected construction activities. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Appendix B**.

Construction of the Project is estimated to begin as early as mid-2017 with an anticipated completion in 2018. Subphases of construction would include demolition of some of the existing structures and features on-site, site clearing, grading, excavation, building construction, architectural coating, and paving. Demolition activities would generate approximately 1,316 tons of demolition debris (asphalt and general construction debris). The Project would export

approximately 16,590 cubic yards of soil during grading and excavation activities. Emissions from these activities are estimated by construction phase. It should be noted that the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators.

Operational Emissions

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project Site. In addition, emissions would result from area sources on-site such as natural gas combustion, landscaping equipment, and use of consumer products. Operational impacts were assessed for the anticipated Project buildout year (i.e., 2018).

The operational emissions are estimated using the CalEEMod software. CalEEMod was used to forecast the daily regional emissions from area sources that would occur during long-term Project operations. In calculating mobile-source emissions, the trip length values were based on the distances provided in CalEEMod. The trip distances were applied to the maximum daily trip estimates, based on the trip rates in the Project traffic impact analysis prepared by Linscott, Law & Greenspan Engineers (LLG) for the Project (LLG 2017).

Area source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission (CEC) California Commercial End Use Survey (CEUS) data set, which provides energy demand by building type and climate zone. However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for the appropriate version of the Title 24 Building Energy Efficiency Standards in effect.

Operational air quality impacts are assessed based on the incremental increase in emissions compared to baseline conditions. As discussed previously, the Project Site is currently developed with a strip mall that is currently in use and has existing emissions (refer to **Table 1**). Therefore, the analysis is based on the Project's net operational emissions by subtracting the existing site emissions from the Project emissions. The maximum daily net emissions from operation of the Project are compared to the SCAQMD daily regional numeric indicators. Detailed emissions calculations are provided in **Appendix C**.

Localized Emissions

The localized effects from the onsite portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the Project according to the SCAQMD Final Localized Significance Threshold Methodology (SCAQMD 2008a), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling, where appropriate. The localized significance thresholds are only applicable to NO_X, CO, PM10, and PM2.5. For NO_X and CO, the thresholds are based on the ambient air quality standards. For PM10 and PM2.5, the thresholds are based on requirements in SCAQMD Rule 403 (Fugitive Dust) and Rule 1303 (New Source Review Requirements). The SCAQMD provides mass emission rate screening tables that

are used for projects which are five acres or less. Projects which are larger than five acres, detailed dispersion modeling is recommended to assess air quality impacts. The Project site is less than one acre; therefore, the screening tables are used to evaluate localized emissions.

The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project site, and (3) the distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals). The SCAQMD provides screening criteria for distances of 25, 50, 100, 200, and 500 meters and allows for linear interpolation to estimate the screening criteria between these distances. The Project site is located in the Central Los Angeles County area and is approximately 0.52 acres in size. The nearest existing off-site sensitive receptor is the residential development located to the north of the Project site. Therefore, the screening criteria are linearly interpolated for a 0.52-acre site in the Central Los Angeles County area with sensitive receptors located adjacent to the site.

Carbon Monoxide Hotspots

Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause or contribute to the formation of off-site CO hotspots are evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin that has been conducted by the SCAQMD for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the Project to the intersections modeled by the SCAQMD. Project-impacted intersections with peak-hour traffic volumes that are lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations compared to the SCAQMD modeled values in its AQMP.

Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short-term in nature. The OEHHA is responsible for developing and revising guidelines for performing health risk assessments under the State's the Air Toxics Hot Spots Program Risk Assessment (AB 2588) regulation. In March 2015, OEHHA adopted revised guidelines that update the previous guidance by incorporating advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (ASF) (OEHHA 2015). The analysis of potential construction TAC impacts considers the OEHHA revised guidelines as well as the duration of construction, level of construction activity, scale of the Project, and compliance with regulations that would minimize construction TAC emissions.

During long-term operations, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to off-site sensitive receptors. As the Project consists of hotel uses, the Project would not include sources of

substantive TAC emissions identified by the SCAQMD or CARB siting recommendations. Thus a qualitative analysis is appropriate.

Odors

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis as necessary. The screening-level analysis consists of reviewing the Project's site plan and Project description to identify new or modified odor sources. If it is determined that the Project would introduce a potentially significant new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and a site-specific analysis is conducted to determine Project impacts.

3.2.2 Greenhouse Gases

Greenhouse Gas Emissions

The total GHG emissions from the Project were quantified to determine the level of the Project's estimated annual GHG emissions. Consistent with the Air Quality section calculations, in summary, construction emissions were estimated using CalEEMod by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source emissions factors. The modeling used the same input values as previously discussed under the methodology section for air quality (Section 3.2.1, Air Quality). The SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG)* Significance Threshold, recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions" (SCAQMD 2008b). The guidance recommends that construction project GHG emissions should be "amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008b). In accordance with that SCAQMD guidance, GHG emissions from construction are amortized over an assumed 30-year lifetime of the Project.

CalEEMod was also used to estimate operational GHG emissions from electricity, natural gas, solid waste, water and wastewater, fireplaces, and landscaping equipment. Building electricity and natural gas usage rates were adjusted to account for current Title 24 Building Energy Efficiency Standards. Mobile source emissions were estimated based on the CARB EMFAC model. For mobile sources, CalEEMod was used to generate the vehicle miles traveled (VMT) from the existing and Project uses based on the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Energy demand rates were estimated based on square footage and number of rooms of the hotel use, as well as predicted water supply needs for these uses. Energy demand (off-site electricity generation and on-site natural gas consumption) for the Project was calculated within CalEEMod using the CEC CEUS data set, which provides energy demand by building type and climate zone. However, since the data from

the CEUS is from 2002, correction factors are incorporated into CalEEMod to account for the current version of the Title 24 Building Energy Efficiency Standards.

Emissions of GHGs from solid waste disposal were also calculated using CalEEMod software. The emissions are based on the waste disposal rate for the land uses, the waste diversion rate, and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment. A waste diversion rate of 76 percent for municipal solid waste from the City of Los Angeles is applied to the solid waste emissions calculations (City of LA 2013).

Emissions of GHGs from water and wastewater result from the required energy to supply and distribute the water and treat the wastewater. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions are calculated using CalEEMod and are based on the water usage rate for the hotel use, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the emission factors for the wastewater treatment process.

Other sources of GHG emissions from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod software uses landscaping equipment GHG emission factors from the CARB OFFROAD model and the CARB Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003) (CARB 2003).

Consistency with Greenhouse Gas Plans, Policies, and Regulations

In the latest *CEQA Guidelines* amendments, which went into effect on March 18, 2010, the OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the *CEQA Guidelines*. However, the City has adopted the Green Building Code that encourages and requires applicable projects to implement energy efficiency measures. Thus, if the Project is designed in accordance with these policies and regulations, it would result in a less than significant impact, since it would be consistent with the overarching State regulations on GHG reduction.

3.2.3 Project Characteristics

The Project would represent an urban infill development, since it would be undertaken on a currently developed site and would be located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops, including within approximately a quarter mile of the Metro Red and Purple Line Westlake/McArthur Park Station.

Proximity to off-site destinations and public transportation would result in reduced vehicle trips and VMT, and associated air pollutant and GHG emissions compared to the statewide and Air Basin average. Vehicle trips reductions are accounted for, and supported by evidence, in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

3.2.5 Project Design Features

The Project would incorporates Project Design Features that would reduce construction emissions and target sustainable site development, water savings, energy efficiency, green-oriented materials selection, and improved indoor environmental quality. The following project design features (PDFs) would be implemented based on required compliance with regulatory measures:

- The Project would comply with SCAQMD Rule 403 (Fugitive Dust), which requires specific
 dust control measures during construction activities. Control measures include, but are not
 limited to, the following:
 - Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.
 - All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
 - Construction activity on unpaved surfaces shall be suspended when wind speed exceed
 25 miles per hour (such as instantaneous gusts).
 - Ground cover in disturbed areas shall be replaced as quickly as possible.
- The Project would be designed in accordance with applicable energy, water, and waste efficiency measures specified in the Title 24 Building Energy Efficiency Standards, CALGreen standards, and City of Los Angeles Green Building Code (LAMC Chapter IX, Section 99.01.101 et seq.

3.3 Project Impacts

Impact Threshold AIR-1: A significant impact would occur if the Project would conflict with or obstruct the implementation of the applicable air quality plan.

Impact Statement: The Project would not conflict with or obstruct implementation of relevant air quality policies in the adopted Air Quality Management Plan. Therefore, impacts would be less than significant.

Construction

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or

residential units) upon which the air quality plan are based. The Project would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Project would not conflict with implementation of these strategies. Additionally, the Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Operation

The AQMP is designed to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Project would replace existing commercial/retail uses with a hotel use. As a result, the Project would not result in a substantial change in long-term operational population or employment growth that exceeds planned growth projections. As the Project would not conflict with the growth projections in the AQMP, impacts would be less than significant.

Impact Threshold AIR-2: A significant impact would occur if the Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Statement: Construction of the Project would not exceed the applicable SCAQMD significance thresholds. Operation of the Project would not exceed the applicable SCAQMD significance thresholds. Therefore, construction and operational emission impacts would be less than significant.

Regional Construction Emissions

The maximum daily emissions were estimated for construction of the Project for each construction phase. Some individual construction phases could potentially overlap, which is taken into account in the modeling. The maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Detailed emissions calculations are provided in **Appendix B**. Results of the criteria pollutant calculations are presented in **Table 6**, *Maximum Unmitigated Regional Construction Emissions*. As shown therein, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO₂, PM10, and PM2.5) would be substantially below the SCAQMD significance thresholds. Therefore, regional construction emissions would be less than significant and mitigation measure would not be required.

TABLE 6
MAXIMUM UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY) A

Source	voc	NO _x	СО	SO ₂	PM10 ^b	PM2.5 b
Project Construction						
Demolition	3	34	18	<1	4	2
Site Preparation	2	18	9	<1	3	2
Grading and Excavation	3	52	19	<1	5	3
Building Construction, Architectural Coating, and Paving	25	32	27	<1	3	2
Maximum Regional Emissions	25	52	27	<1	5	3
SCAQMD Significance Thresholds	75	100	550	150	150	55
Over (Under)	(50)	(48)	(523)	(150)	(145)	(52)
Exceeds Indicator?	No	No	No	No	No	No

NOTES:

SOURCE: ESA, 2017.

Regional Operational Emissions

Operational emissions were assessed for mobile, area, and stationary sources. Operational criteria pollutant emissions were calculated for the estimated earliest Project buildout year (i.e., 2018). Detailed emissions calculations are provided in **Appendix C**. Results of the criteria pollutant calculations are presented in **Table 7**, *Maximum Unmitigated Regional Operational*

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Emissions. The increase in operational-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO₂, PM10, and PM2.5) would be substantially below the SCAQMD thresholds of significance. Therefore, regional operational emissions would be less than significant and mitigation measure would not be required.

TABLE 7

MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Source	VOC	NO _x	со	SO ₂	PM ₁₀	PM _{2.5}
Project Operations						
Area (Consumer Products, Landscaping)	1	<1	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<1	<1	<0.1	<0.1
Motor Vehicles	2	7	18	<1	3.9	1.1
Total Project Operational Emissions	3	7	18	<1	4.0	1.1
Existing Project Site Emissions	1	2	6	<1	1.2	0.3
Net Project Operational Emissions	2	5	12	<1	2.8	0.8
SCAQMD Significance Thresholds	55	55	550	150	150	55
Over/(Under)	(53)	(50)	(538)	(150)	(147)	(54)
Exceeds Thresholds?	No	No	No	No	No	No

NOTES:

Impact Threshold AIR-3: A significant impact would occur if the Project would 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Statement: The South Coast Air Basin is designated as non-attainment for O_3 , PM10, and PM2.5 under federal and/or state ambient air quality standards. Construction of the Project would not exceed the applicable BAAQMD significance thresholds for ozone precursor emissions (i.e., VOCs and NO_X), PM10, or PM2.5. Operation of the Project would not exceed the applicable SCAQMD significance thresholds for ozone precursor emissions (i.e., VOCs and NO_X), PM10, or PM2.5. Therefore, construction and operational emissions would be less than significant.

Construction

The Project would result in the emission of criteria pollutants for which the project area is in non-attainment during both construction and operation. A significant impact may occur if a project

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix C**. SOURCE: ESA 2017.

would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment under federal or state standards for ozone, PM10, and PM2.5.

The emissions from construction of the Project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Therefore, the project would not result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors and would result in a less than significant impact for construction emissions.

Operation

Future operations would generate ozone precursors (i.e., VOCs and NO_x), CO, PM10, and PM2.5. Operational emissions would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Since the project would not introduce any substantial stationary sources of emissions, Therefore, operation of the Project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors. As a result, the project would result in a less than significant impact for operational emissions.

Impact Threshold AIR-4: A significant impact would occur if the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact Statement: Construction and operation of the Project would not exceed the localized significance thresholds at off-site sensitive receptors. Therefore, localized impacts would be less than significant. The Project would not cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively. Therefore, CO hotspots impacts would be less than significant. Construction of the Project would generate emissions of TACs (i.e., diesel particulate matter) that could potentially result in a significant health impact to off-site sensitive receptors in the immediate vicinity of the Project site, based on the State's recently updated conservative health risk assessment guidelines that incorporate childhood exposure age sensitivity factors. Implementation of Mitigation Measure AIR-1 would be expected to reduce construction health impacts to less than significant. Operation of the Project would not include permanent sources (equipment, etc.) that would generate substantial long-term TAC emissions in excess of the health risk thresholds. Therefore, operational TAC impacts would be less than significant.

Localized Construction Emissions

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (SCAQMD 2008a). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. The maximum daily

localized emissions for each of the construction phases and localized significance thresholds are presented in **Table 8**, *Maximum Unmitigated Localized Construction Emissions*. As shown therein, maximum localized construction emissions would not exceed the localized thresholds for NO_X, CO, PM10, and PM2.5 at sensitive receptors. Therefore, with respect to localized construction emissions, impacts to existing and future sensitive receptors would be less than significant.

Localized Operational Emissions

The localized operational air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (SCAQMD 2008a). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. The maximum daily operational localized emissions and localized significance thresholds are presented in **Table 9**, *Maximum Unmitigated Localized Operational Emissions*. As shown therein, maximum localized construction emissions would not exceed the localized thresholds for NO_X, CO, PM10, and PM2.5 at sensitive receptors. Therefore, with respect to localized operational emissions, impacts to existing and future sensitive receptors would be less than significant.

TABLE 8

MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY) A

Source	NO _x	СО	PM10 ^b	PM2.5 b
Project Construction (On-Site Emissions)				
Demolition	27	16	3	2
Site Preparation	18	9	3	2
Grading and Excavation	24	13	3	2
Building Construction, Architectural Coating, and Paving	29	23	2	2
Maximum Localized Emissions	29	23	3	2
SCAQMD Significance Thresholds	58	503	4	2
Over (Under)	(29)	(480)	(1)	(0)
Exceeds Indicator?	No	No	No	No

NOTES:

SOURCE: ESA, 2017.

TABLE 9
MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Source	NO _x	со	PM ₁₀	PM _{2.5}
Project Operations				
Area (Consumer Products, Landscaping)	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<0.1	<0.1
Total Project Operational Emissions	<1	<1	<0.1	<0.1
Existing Project Site Emissions	<1	<1	<0.1	<0.1
Net Project Operational Emissions	<1	<1	<0.1	<0.1
SCAQMD Significance Thresholds	58	503	2.0	0.5
Over/(Under)	(58)	(503)	(2.0)	(0.5)
Exceeds Thresholds?	No	No	No	No

NOTES:

Carbon Monoxide Hotspots

As shown previously in **Table 3**, CO levels in the Project area are substantially below the federal and state standards. Maximum CO levels in recent years are approximately 3 ppm (one-hour

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix C**. SOURCE: ESA 2017.

average and eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 ppm (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not reasonable to expect that CO levels at Project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, the SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP CO attainment demonstration, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day (SCAQMD 2003, pg. V-4-24). The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.

Based on the Project traffic impact analysis prepared by LLG for the Project (LLG 2017), the studied roadway intersections would have much less than 100,000 ADT under future plus Project conditions. As a result, CO concentrations would be less than 7.6 ppm (one-hour average) and 6.2 (eight-hour average). Total traffic volumes at the maximum impacted intersection would likely have to more than double or triple to cause or contribute to a CO hotspot impact given that vehicles operating today have reduced CO emissions as compared to vehicles operating in year 2003 when the SCAQMD conducted the AQMP attainment demonstration modeling. This comparison demonstrates that the Project would not contribute to the formation of CO hotspots and that no further CO analysis is required. The Project would result in less than significant impacts with respect to CO hotspots.

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Diesel particulate matter poses a carcinogenic health risk that is generally measured using an exposure period of 30 years for sensitive residential receptors. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Sensitive receptors are located adjacent to the Project site. Localized diesel particulate matter emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds as presented in **Table 8**. Nonetheless, while the Project would result in generally low level of diesel particulate matter emissions, it is potentially possible that the Project could result in health impacts to sensitive receptors in the immediate vicinity of the Project site given the updated health risk assessment guideline and age sensitive factors. Therefore, the impact is conservatively considered potentially significant and mitigation measures are recommended. It is noted that the Project would comply with the CARB ATCM anti-idling

measure, which limits idling to no more than five minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area. The Project would also utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation.

Project operations would generate only minor amounts of diesel emissions from residential delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emissions from existing diesel trucks. Therefore, the Project operations would not be considered a substantial source of diesel particulates. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings and other household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed residential uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance. Therefore, operational impacts would be less than significant.

Mitigation Measure

Construction-related TAC emissions have the potential to result in a potentially significant air quality impact at sensitive receptor locations in the immediate vicinity of the Project site. Thus, the following mitigation measure is prescribed to reduce construction-related TAC impacts.

Mitigation Measure AIR-1: Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

Mitigation Measure AIR-1 requires the use of equipment that meet the USEPA Tier 3 emissions standards and are equipped with CARB certified Level 3 Diesel Particulate Filter or equivalent control device. The measure would be expected to reduce diesel particulate matter by approximately 85 percent or more. This would reduce construction-related diesel particulate matter emissions to less than one-half pound per day during the short-term and temporary construction period. According to the SCAQMD, health risk impacts from construction could potentially occur from construction of a one-acre project with one pound per day of diesel particulate matter emissions, based on the updated OEHHA guidelines and age sensitivity factors. Because Mitigation Measure AIR-1 would reduce the diesel particulate matter emissions to substantially less than one pound per day, and given the relatively short-term and temporary duration of construction, it is reasonably concluded that impacts would be mitigated to less than significant.

Impact Threshold AIR-5: A significant impact would occur if the Project would create objectionable odors affecting a substantial number of people.

Impact Statement: The Project would not locate new substantial sources of odors to the area and would not create objectionable odors affecting a substantial number of people during construction and operations. Therefore, construction and operational impacts would be less than significant.

Construction

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in the Section 2.1, Regulatory Setting, SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Project would result in less than significant impacts.

Operation

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project does not include any uses identified by the SCAQMD as being associated with substantial odors. As a result, the Project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the Project would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

Impact Threshold GHG-1: A significant impact would occur if the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact Statement: The Project would generate construction and operational GHG emissions less than the significance threshold. Therefore, construction and operational GHG emission impacts would be less than significant.

Due to the potential persistence of GHGs in the environment, impacts are based on annual emissions and, in accordance with SCAQMD methodology, construction-period impacts are not assessed independent of operational-period impacts.

The emissions of GHGs associated with construction of the Project were calculated for all phases of construction activity. The SCAQMD recommends that construction-related GHG emissions be amortized over a project's 30-year lifetime in order to include these emissions as part of a project's annualized lifetime total emissions, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. In accordance with this methodology, the estimated Project's construction GHG emissions have been amortized over a 30-year period and are included in the annualized operational GHG emissions.

The Project's maximum annual net GHG emissions resulting from motor vehicles, energy (i.e., electricity, natural gas), water conveyance, and waste sources were calculated for the expected opening year. The maximum opening year GHG emissions from operation of the Project are shown in **Table 10**, *Annual Greenhouse Gas Emissions*. Project operational-related GHG emissions would decline in future years as emissions reductions from the state regulations are realized. For example, emissions from electricity would decline as utility providers, including the Los Department of Water and Power (LADWP)—the utility provided for the Project—meet their renewable energy obligations of 33 percent renewable electricity by 2020. Future regulations would also be implemented to increase the percentage of renewable electricity to 50 percent by 2030, which would achieve additional reductions in emissions from electricity demand. Emissions from mobile sources would also decline in future year as older vehicles are replaced with newer vehicles resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017-2025 Payley Phase II standards.

As shown in **Table 10**, the Project would generate net GHG emissions much less than the significance threshold. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. GHG emission impacts would be less than significant.

TABLE 10
ANNUAL GREENHOUSE GAS EMISSIONS A

Emissions Source	CO₂e (Metric Tons per Year)
Project Construction	449
Project Operational	
Amortized Project Construction	15
Area	<1
Electricity	480
Natural Gas	88

Emissions Source	CO a (Matria Tana par Vaar)
Ellissions Source	CO₂e (Metric Tons per Year)
Motor Vehicles	850
Water Conveyance	21
Waste	7
Project Total GHG Emissions	1,461
Existing Site GHG Emissions	345
Net Project GHG Emissions	1,116
Significance Threshold	3,000
Over/(Under)	(1,884)
Exceeds Threshold?	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B and C**.

SOURCE: ESA 2017.

Impact Threshold GHG-2: A significant impact would occur if the Project would conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Statement: The Project would not would conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, construction and operational GHG impacts would be less than significant.

In support of HSC Division 25.5, the State has promulgated specific laws aimed at GHG reductions that are applicable to the Project. The Project is committed to meeting and exceeding the requirements of the CALGreen Code by incorporating strategies such as low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. The Project would comply with the Green Building Standards, which are more stringent that the CALGreen code, to maximize energy efficiency.

Furthermore, the Project site is located in an established residential and commercial area with nearby access to public transportation and off-site destinations, which minimizes trips and trip lengths reducing mobile source emissions. Therefore, the Project would be consistent with State efforts to reduce motor vehicle emissions and congestion, including SB 375 and the SCAG 2016-2040 RTP/SCS. The SCAG RTP/SCS seeks improved "mobility and access by placing destinations closer together and decreasing the time and cost of traveling between them" (SCAG 2012). According to SCAG, incorporating "smart land use strategies encourages walking, biking, and transit use, and therefore reduces vehicular demand" and associated pollutants (SCAG 2012). Additionally, the SCAG RTP/SCS seeks better "placemaking," defined as "the process of developing options for locations where [people] can live and work that include a pleasant and

convenient walking environment that reduces their reliance on their car" (SCAG 2012). As discussed previously, the Project would represent an urban infill development, since it would be undertaken on a currently developed site and would be located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops, including within approximately a quarter mile of the Metro Red and Purple Line Westlake/McArthur Park Station. Proximity to off-site destinations and public transportation would result in reduced vehicle trips and VMT, and associated air pollutant and GHG emissions compared to the statewide and Air Basin average. Vehicle trips reductions are accounted for, and supported by evidence, in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

At the state level, Executive Orders S-3-05 and B-30-15 are orders from the State's Executive Branch for the purpose of reducing GHG emissions. Executive Order S-3-05's goal is to reduce GHG emissions to 1990 levels by 2020. The Executive Orders also establish the goals to reduce GHG emissions to 40 below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Studies have shown that, in order to meet the 2030 and 2050 targets, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its Climate Change Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 goal are too far in the future to define in detail" (CARB 2008). In the First Update, however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately" (CARB 2014). Due to the technological shifts required and the unknown parameters of the regulatory framework in 2030 and 2050, quantitatively analyzing the Project's impacts further relative to the 2030 and 2050 goals currently is speculative for purposes of CEQA. Moreover, CARB has formally adopted the BAU emissions projections for 2030 or 2050, which are necessary data points for quantitatively analyzing a CEQA Project's consistency with these targets.

Although the Project's emissions levels in 2030 and 2050 cannot yet be reliably quantified, statewide efforts are underway to facilitate the State's achievement of those goals and it is reasonable to expect the Project's emissions level to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the Project's emissions total at build-out represents the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would be consistent with the Executive Orders' goals.

The Climate Change Scoping Plan recognizes that HC Division 25.5 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the state on a path to meet the long-term 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate"

(CARB 2008). Also, CARB's First Update provides that it "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2020 emissions level to the extent applicable by law (CARB 2014):

- **Energy Sector:** Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the Project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the Project's emissions level.
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the Project's emissions level.
- **Water Sector:** The Project's emissions level will be reduced as a result of further enhancements to water conservation technologies.
- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the Project's emissions level.

In addition to CARB's First Update, in January 2015, during his inaugural address, Governor Jerry Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions: (1) increasing the State's Renewables Portfolio Standard from 33 percent in 2020 to 50 percent in 2030; (2) cutting the petroleum use in cars and trucks in half; and (3) doubling the efficiency of existing buildings and making heating fuels cleaner (CARB 2014). These expressions of Executive Branch policy may be manifested in adopted legislative or regulatory action through the state agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change. As discussed previously, the Governor has already signed into law SB 350 (Chapter 547, Statues of 2015), which increased the Renewables Portfolio Standard to 50 percent by 2030 and included interim targets of 40 percent by 2024 and 45 percent by 2027.

Further, recent studies shows that the State's existing and proposed regulatory framework can allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2030 and 2050 targets (CARB 2014).

For the reasons described above, the Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the establishment of the 2030 and 2050 targets. Therefore, as the Project would be consistent with State applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding GHG reduction plans, policies, and regulations would be less than significant.

3.4 Cumulative Impacts

3.4.1 Air Quality Construction

The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As shown in **Table 6**, regional emissions calculated for Project construction would be less than the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the region in attaining the applicable state and national ambient air quality standards. Although the Project site is located in a region that is in non-attainment for O₃, PM10, and PM2.5, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. Therefore, construction of the Project would result in cumulative impacts that would be less than significant.

3.4.2 Air Quality Operations

The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As shown in **Table 7**, regional emissions calculated for Project operations would be less than the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the region in attaining the applicable state and national ambient air quality standards. Although the Project site is located in a region that is in non-attainment for O₃, PM10, and PM2.5, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. Therefore, operation of the Project would result in cumulative impacts that would be less than significant.

3.4.3 Greenhouse Gases

According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). As shown in **Table 10**, the Project would generate GHG emissions that would be less than significant. In addition, as discussed previously, the Project would be consistent with State applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions and would result in less than significant impacts regarding GHG reduction plans, policies, and regulations. Thus, as GHG impacts are exclusively cumulative in nature, cumulative impacts would be less than significant.

Summary of Results

4.1 Air Quality Construction

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project site. In addition, fugitive dust emissions would result from grading and construction activities. However, compliance with SCAQMD Rule 403 fugitive dust control requirements and CARB regulations restricting unnecessary idling and implementation of on- and off-road emissions standards, would minimize air pollutant emissions.

The Project would not conflict with implementation of applicable AQMP strategies. The Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

As shown in **Table 6**, regional construction emissions would not exceed the SCAQMD numeric indicators. Therefore, impacts related to regional construction emissions would be less than significant. As shown in **Table 8**, localized emissions would not exceed the SCAQMD numeric indicators. Therefore, impacts related to localized construction emissions would be less than significant. As a result, Project-related construction emissions impacts would be less than significant.

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. While the Project would result in generally low level of diesel particulate matter emissions, it is potentially possible that the Project could result in health impacts to sensitive receptors in the immediate vicinity of the Project site given the updated OEHHA health risk assessment guideline and age sensitive factors. Therefore, the impact is conservatively considered potentially significant and mitigation measures are recommended. **Mitigation**Measure AIR-1 would reduce the diesel particulate matter emissions to substantially less than one pound per day, and given the relatively short-term and temporary duration of construction, it is reasonably concluded that impacts would be mitigated to less than significant.

The Project would not generate construction-related odors that would affect a substantial number of people. Therefore odor impacts would be less than significant.

4.2 Air Quality Operations

The Project would replace existing commercial/retail uses with a hotel use. As a result, the Project would not result in a substantial change in long-term operational population or employment growth that exceeds planned growth projections. As the Project would not conflict with the growth projections in the AQMP, impacts would be less than significant.

Air pollutant emissions associated with Project operations would be generated by the consumption of natural gas and by the operation of on-road vehicles. As shown in **Table 7** and **Table 9**, regional and localized operational emissions associated with the Project would not exceed the SCAQMD daily significance thresholds. In addition, the Project would not result in a CO hotspot, or emit unhealthy levels of TACs and odiferous emissions. Therefore, impacts related to Project operational emissions and consistency with applicable air quality management plans, policies, or regulations would be less than significant.

4.3 Greenhouse Gases

The Project's maximum annual net GHG emissions resulting from motor vehicles, energy (i.e., electricity, natural gas), water conveyance, and waste sources were calculated for the expected opening year. As shown in **Table 10**, the Project would generate net GHG emissions much less than the significance threshold. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. GHG emission impacts would be less than significant.

In support of HSC Division 25.5, the State has promulgated specific laws aimed at GHG reductions that are applicable to the Project. The Project is committed to meeting and exceeding the requirements of the CALGreen Code by incorporating strategies such as low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. The Project would comply with the Green Building Standards, which are more stringent that the CALGreen code, to maximize energy efficiency. In addition, the Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the establishment of the 2030 and 2050 targets. Therefore, as the Project would be consistent with State applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding GHG reduction plans, policies, and regulations would be less than significant.

5.0

References

- California Air Pollution Control Officers Association (CAPCOA), 2008. CEQA and Climate Change, (2008). Available: http://capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf. Accessed February 2017.
- California Air Resources Board (CARB), 1998. Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Part A Exposure Assessment, Approved by the Scientific Review Panel, (1998).
- CARB, 2003. OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003). Available: http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and act.pdf. Accessed November 2013.
- CARB, 2005a. Air Quality and Land Use Handbook: A Community Health Perspective, (2005). Available: https://www.arb.ca.gov/ch/landuse.htm. Accessed February 2017.
- CARB, 2005b. Particulate Matter Overview, (2005). Available: https://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed February 2017.
- CARB, 2008. Climate Change Scoping Plan, (2008).
- CARB, 2009a. Carbon Monoxide, (2009). Available: https://www.arb.ca.gov/research/aaqs/caaqs/co/co.htm. Accessed February 2017.
- CARB, 2009b. History of Sulfur Dioxide Air Quality Standard, (2009). Available: https://www.arb.ca.gov/research/aaqs/caaqs/so2-1/so2-1.htm. Accessed: February 2017.
- CARB, 2011. Nitrogen Dioxide Overview, (2011). Available: http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed February 2017.
- CARB, 2014. First Update to the Climate Change Scoping Plan: Building on the Framework, (2014).
- CARB, 2015. Ozone and Ambient Air Quality Standards. Available: https://www.arb.ca.gov/research/aaqs/caaqs/ozone/ozone.htm. Accessed February 2017.
- CARB, 2016. California Greenhouse Gas Emission Inventory 2016 Edition. Available: https://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed February 2017.

- California Building Standards Commission (CBSC), 2010. 2010 California Green Building Standards Code, (2010). Available: http://www.bsc.ca.gov/Codes.aspx. Accessed February 2017.
- CBSC, 2016. 2016 California Green Building Standards Code, (2016). Available: http://www.bsc.ca.gov/Codes.aspx. Accessed February 2017.
- City of Los Angeles (City of LA), 2013. Zero Waste Program Progress Report, (March 2013). Available: http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf. Accessed February 2017.
- Intergovernmental Panel on Climate Change (IPCC), 2014. Fifth Assessment Report Synthesis Report, (2014). Available: http://ipcc.ch/report/ar5/syr/. Accessed February 2017.
- Linscott, Law & Greenspan Engineers (LLG), 2017. Traffic Impact Study, 2005 James M Wood Blvd Hotel Project, (2017).
- Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (2015). Available: http://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0. Accessed February 2017.
- PBL Netherlands Environmental Assessment Agency and the European Commission Joint Research Center (PBL), 2014. Trends in Global CO₂ Emissions 2014 Report, (2014). Accessed: http://www.pbl.nl/en/publications/trends-in-global-co2-emissions-2014-report. Accessed February 2017.
- Southern California Association of Governments (SCAG), 2012. Final 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012). Available: http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx. Accessed February 2017.
- SCAG, 2016. Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2016). Available: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. Accessed February 2017.
- South Coast Air Quality Management District (SCAQMD), 1993. California Environmental Quality Act (CEQA) Air Quality Handbook, (1993).
- SCAQMD, 2003. 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp. Accessed February 2017.
- SCAQMD, 2006. Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, (2006).
- SCAQMD, 2008a. Final Localized Significance Threshold Methodology, (2008). Available: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed February 2017.
- SCAQMD, 2008b. Board Meeting, December 5, 2008, Agenda No. 31, Interim GHG Significance Threshold Proposal Key Issues/Comments Attachment D. Available:

- http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2. Accessed February 2017.
- SCAQMD, 2011-2015. Historical Data by Year, (2011-2015). Available: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed February 2017.
- SCAQMD, 2012a. Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012. Available: http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf. Accessed February 2017.
- SCAQMD, 2012b. 2012 Air Quality Management Plan. Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan. Accessed February 2017.
- SCAQMD, 2015a. Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015). Available: http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv. Accessed February 2017.
- SCAQMD, 2015b. SCAQMD Air Quality Significance Thresholds, (March 2015). Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed February 2017.
- SCAQMD, 2016a. Draft 2016 Air Quality Management Plan, (2016). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/Draft2016AQMP. Accessed February 2017.
- SCAQMD, 2016b. Draft Final 2016 Air Quality Management Plan, (2016). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-draft-2016-aqmp. Accessed February 2017.
- SCAQMD, 2016c. Notice of Public Hearing Proposed 2016 Air Quality Management Plan for the South Coast Air Quality Management District, (2016). Available: http://www.aqmd.gov/docs/default-source/public-notices/notice-of-public-hearing/2016aqmppubhear020317.pdf?sfvrsn=4. Accessed February 2017.

Appendix A Existing Site Operational Emissions Worksheets



CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/9/2017 2:52 PM

2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Summer

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 33 **Climate Zone** 11 **Operational Year** 2018 **Utility Company** Los Angeles Department of Water & Power **CO2 Intensity** 1227.89 **CH4 Intensity** 0.029 **N2O Intensity** 0.006 (lb/MWhr) (lb/MWhr) (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003					
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554					
Mobile	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3					
Total	0.7850	2.3454	6.2460	0.0162	1.1361	0.0196	1.1557	0.3041	0.0185	0.3226		1,647.447 3	1,647.4473	0.1070	9.0000e- 005	1,650.148 6					

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Mobile	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3
Total	0.7850	2.3454	6.2460	0.0162	1.1361	0.0196	1.1557	0.3041	0.0185	0.3226		1,647.447 3	1,647.4473	0.1070	9.0000e- 005	1,650.148 6

	ROG	NOx	СО	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

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/c	lay							lb/d	lay		
Mitigated	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3
Unmitigated	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3

4.2 Trip Summary Information

	Avera	age Daily Trip R	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49	306.49	534,177	534,177
Total	306.49	306.49	306.49	534,177	534,177

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
	3												

5.0 Energy Detail

Historical Energy Use: Y

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/d	ay							lb/d	lay		
NaturalGas Mitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	
NaturalGas Unmitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005		4.8554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	41.0273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

Mitigated

	NaturalGa s 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/d	day							lb/e	day		
Strip Mall	0.0410273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

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/d	lay							lb/d	ay		
g	0.1839	005	8.5000e- 004	0.0000			0.0000		0.0000	0.0000		1.8000e- 003	003	0.0000		1.9200e- 003
Unmitigated	0.1839		8.5000e- 004				0.0000			0.0000		1.8000e- 003		0.0000		1.9200e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	ay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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
Beilere						

<u>Boilers</u>

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Winter

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 33 **Climate Zone** 11 **Operational Year** 2018 **Utility Company** Los Angeles Department of Water & Power **CO2 Intensity** 1227.89 **CH4 Intensity** 0.029 N2O Intensity 0.006 (lb/MWhr) (lb/MWhr) (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

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/d	lay							lb/d	lay		
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Mobile	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Total	0.7717	2.3904	6.1383	0.0154	1.1361	0.0199	1.1559	0.3041	0.0187	0.3228		1,564.218 6	1,564.2186	0.1079	9.0000e- 005	1,566.941 9

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	ay		
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Mobile	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Total	0.7717	2.3904	6.1383	0.0154	1.1361	0.0199	1.1559	0.3041	0.0187	0.3228		1,564.218 6	1,564.2186	0.1079	9.0000e- 005	1,566.941 9

	ROG	NOx	СО	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

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/d	ay							lb/d	lay		
Mitigated	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Unmitigated	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5

4.2 Trip Summary Information

	Aver	age Daily Trip Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49 306	5.49 534,177	534,177
Total	306.49	306.49 306	5.49 534,177	534,177

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C- H-S or C-C H-O or C-NW			Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: Y

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/d	ay							lb/d	ay		
NaturalGas Mitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
NaturalGas Unmitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267		9.0000e- 005	9.0000e- 005	4.8554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	41.0273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

Mitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	0.0410273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	ay		
Mitigated	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Unmitigated	0.1839		8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003		0.0000		1.9200e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

Mitigated

	ROG	NOx	СО	SO2	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	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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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2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Annual

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

 Urbanization
 Urban
 Wind Speed (m/s)
 2.2
 Precipitation Freq (Days)
 33

 Climate Zone
 11
 Operational Year
 2018

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Area	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Energy	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	73.9387	73.9387	1.7400e- 003	3.7000e- 004	74.0931
Mobile	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373
Waste						0.0000	0.0000		0.0000	0.0000	1.7538	0.0000	1.7538	0.1037	0.0000	4.3451
Water						0.0000	0.0000		0.0000	0.0000	0.1934	6.7331	6.9265	0.0200	5.0000e- 004	7.5766
Total	0.1370	0.4431	1.1239	2.8400e- 003	0.2028	3.5900e- 003	0.2064	0.0544	3.3800e- 003	0.0578	1.9472	342.1678	344.1151	0.1431	8.7000e- 004	347.9523

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT/	/yr		
Area	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Energy	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	73.9387	73.9387	1.7400e- 003	3.7000e- 004	74.0931
Mobile	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.937
Waste						0.0000	0.0000		0.0000	0.0000	0.4209	0.0000	0.4209	0.0249	0.0000	1.0428
Water						0.0000	0.0000		0.0000	0.0000	0.1934	6.7331	6.9265	0.0200	5.0000e- 004	7.5766
Total	0.1370	0.4431	1.1239	2.8400e- 003	0.2028	3.5900e- 003	0.2064	0.0544	3.3800e- 003	0.0578	0.6143	342.1678	342.7822	0.0643	8.7000e- 004	344.650

	ROG	NOx	СО	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	68.45	0.00	0.39	55.06	0.00	0.95

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Mitigated	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373
Unmitigated	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373

4.2 Trip Summary Information

	Avera	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49	306.49	534,177	534,177
Total	306.49	306.49	306.49	534,177	534,177

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	73.1396	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	73.1396	73.1396	1.7300e- 003	3.6000e- 004	73.2893
NaturalGas Mitigated	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
NaturalGas Unmitigated	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	√yr		
Strip Mall	14975	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
Total		8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

Mitigated

	NaturalGa s 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					ton	s/yr							МТ	Γ/yr		
Strip Mall	14975	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
Total		8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Strip Mall	131319	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Total		73.1396	1.7300e- 003	3.6000e- 004	73.2893

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Strip Mall	131319	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Total		73.1396	1.7300e- 003	3.6000e- 004	73.2893

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	s/yr							MT	/yr		
Mitigated	0.0336		1.1000e- 004			0.0000			0.0000	0.0000		2.0000e- 004	2.0000e- 004	0.0000		2.2000e- 004
Unmitigated	0.0336		1.1000e- 004			0.0000	0.0000		0.0000	0.0000		2.0000e- 004		0.0000		2.2000e- 004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
Architectural Coating	3.8100e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Total	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004

<u>Mitigated</u>

	ROG	NOx	СО	SO2	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	3.8100e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Total	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	6.9265	0.0200	5.0000e- 004	7.5766
Unmitigated	6.9265	0.0200	5.0000e- 004	7.5766

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Г/уг	
Strip Mall	0.609617 / 0.373636	6.9265	0.0200	5.0000e- 004	7.5766
Total		6.9265	0.0200	5.0000e- 004	7.5766

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Γ/yr	
Strip Mall	0.609617 / 0.373636		0.0200	5.0000e- 004	7.5766
Total		6.9265	0.0200	5.0000e- 004	7.5766

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e		
	MT/yr					
Mitigated	0.4209	0.0249	0.0000	1.0428		
Unmitigated	1.7538	0.1037	0.0000	4.3451		

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Strip Mall		1.7538	0.1037	0.0000	4.3451
Total		1.7538	0.1037	0.0000	4.3451

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Strip Mall		0.4209	0.0249	0.0000	1.0428
Total		0.4209	0.0249	0.0000	1.0428

9.0 Operational Offroad

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						•
Equipment Type	Number					

11.0 Vegetation

Appendix B Project Construction Emissions Worksheets



CalEEMod Land Use Inputs

Land Use	CalEEMod Land Use Type	Units	
Existing Uses			
Retail	Strip Mall	8,228 sf	
Project			
Six-story Hotel Building	Hotel	110 rooms 66,029 sf	
1st floor		6,341 sf	
2nd floor		22 rooms 11,697 sf	
3rd floor		22 rooms 11,998 sf	
4th floor		22 rooms 11,998 sf	
5th floor		22 rooms 11,998 sf	
6th floor		22 rooms 11,998 sf	
Parking	Enclosed parking w/elevator	110 spaces 40,722 sf	
Basement Level 1		20,361 sf	
Basement Level 2		20,361 sf	
Lot Area		0.52 acres - sf	

last update: 2/14/2017

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

CalEEMod Construction Phase	Start Date	End Date		Site Prep/ Demo (CY)	Truck Capacity (CY)	Truck Total One-Way Trips	Truck Daily One-Way Trips	_	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips
Project												
Demolition	7/3/2017	7/11/2017	7	940	14	140	20					
Site Preparation	7/12/2017	7/14/2017	3									
Grading/Excavation	7/17/2017	8/25/2017	30					16,590	-	14	2,371	79
Building Construction	8/28/2017	6/1/2018	200									
Architectural Coating	5/4/2018	6/15/2018	31									
Paving	5/4/2018	6/15/2018	31									

2005 James M Wood

Work Days

Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Demolition

Description: Surface parking and two-story multi-family structure

7

Demolition Schedule		Notes
Start Date	7/3/2017	
End Date	7/11/2017	

Demolition Quantities			Notes
Land Use	Amount	Units	
Retail Strip Mall	8.2	KSF	Given sf
Hardscape Demo	9.1	KSF	Estimated from review of site plans and aerial imagery

Hardscape Demolition Volume	Notes
Total Area(KSF)	9.1
Thickness (ft)	0.5 feet
Debris Volume (CY)	170

Building Demolition Volume		Notes
Total Area (KSF)	8.2	
Floor Height (ft)	10	Assumed
Building Volume (ft3)	82,280	
Building Volume (CY)	3,050	
Debris Volume (CY)	770 (rounded, estimated)	Rounded, 1 CY building volume = 0.25 CY waste volume

Total Debris (CY)	940		
Effective Building Floor Area (KSF)	11.0	<	ENTER VALUE INTO CALEEMOD
Truck Size (CY)	14		
Total Trucks	70 total trucks		
Daily Trucks	10 trucks/day		
Total One-Way Trips	140 total trips	<	ENTER VALUE INTO CALEEMOD
Daily One-Way Trips	20 trips/day		

CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/16/2017 8:55 AM

2005 James M Wood - Construction - South Coast Air Basin, Summer

2005 James M Wood - Construction South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Departmen	t of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (lb/MWhr)	006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
			:

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
2017	3.3296	51.1469	19.0660	0.0917	6.1579	1.6858	7.5321	2.9202	1.5768	4.1843	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1
2018	24.2070	29.6937	26.1937	0.0481	0.8417	1.6538	2.4955	0.2258	1.5832	1.8091	0.0000	4,636.732 1	4,636.7321	0.8110	0.0000	4,657.007 5
Maximum	24.2070	51.1469	26.1937	0.0917	6.1579	1.6858	7.5321	2.9202	1.5832	4.1843	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1

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/d	lay							lb/d	lay		
2017	3.3296		19.0660	0.0917	3.3323	1.6858	4.7065	1.3910	1.5768	2.6606		8	9,737.1088			9,770.530 1
2018	24.2070	29.6937	26.1937	0.0481	0.8417	1.6538	2.4955	0.2258	1.5832	1.8091	0.0000	4,636.732 1	4,636.7321	0.8110	0.0000	4,657.007 5
Maximum	24.2070	51.1469	26.1937	0.0917	3.3323	1.6858	4.7065	1.3910	1.5832	2.6606	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1

	ROG	NOx	СО	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	40.37	0.00	28.18	48.61	0.00	25.42	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	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00		
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	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	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785
Total	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785

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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/c	lay		
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	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785
Total	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785

3.3 Building Construction - 2017

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/d	ay							lb/c	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
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	0.0881	2.3291	0.6162	4.6900e- 003	0.1152	0.0202	0.1354	0.0332	0.0193	0.0525		500.1435	500.1435	0.0362		501.0494
Worker	0.2762	0.2034	2.6139	5.8000e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		576.6923	576.6923	0.0218		577.2367
Total	0.3643	2.5325	3.2301	0.0105	0.6294	0.0245	0.6538	0.1695	0.0232	0.1928		1,076.835 8	1,076.8358	0.0580		1,078.286 1

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/d	ay							lb/d	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5

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/c	lay							lb/c	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	0.0881	2.3291	0.6162	4.6900e- 003	0.1152	0.0202	0.1354	0.0332	0.0193	0.0525		500.1435	500.1435	0.0362		501.0494
Worker	0.2762	0.2034	2.6139	5.8000e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		576.6923	576.6923	0.0218		577.2367
Total	0.3643	2.5325	3.2301	0.0105	0.6294	0.0245	0.6538	0.1695	0.0232	0.1928		1,076.835 8	1,076.8358	0.0580		1,078.286 1

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6

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/c	ay							lb/c	lay		
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	0.0774	2.1869	0.5551	4.6700e- 003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.2458	0.1772	2.3014	5.6300e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		560.6112	560.6112	0.0192		561.0903
Total	0.3232	2.3640	2.8565	0.0103	0.6294	0.0201	0.6495	0.1695	0.0191	0.1886		1,059.227 8	1,059.2278	0.0536		1,060.567 8

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0774	2.1869	0.5551	4.6700e- 003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.2458	0.1772	2.3014	5.6300e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		560.6112	560.6112	0.0192		561.0903
Total	0.3232	2.3640	2.8565	0.0103	0.6294	0.0201	0.6495	0.1695	0.0191	0.1886		1,059.227 8	1,059.2278	0.0536		1,060.567 8

3.4 **Demolition - 2017**

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Fugitive Dust					4.0230	0.0000	4.0230	0.6091	0.0000	0.6091			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404		2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	4.0230	1.6477	5.6707	0.6091	1.5404	2.1495		2,421.422 9	2,421.4229	0.6125		2,436.734 7

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Hauling	0.2088	6.7976	1.3048	0.0161	0.3493	0.0369	0.3863	0.0957	0.0353	0.1311		1,736.817 4	1,736.8174	0.1266		1,739.981 3
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.2868	6.8550	2.0435	0.0177	0.4947	0.0381	0.5328	0.1343	0.0365	0.1707		1,899.795 7	1,899.7957	0.1327		1,903.113 4

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/c	lay							lb/d	ay		
Fugitive Dust					1.5690	0.0000	1.5690	0.2376	0.0000	0.2376			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	1.5690	1.6477	3.2166	0.2376	1.5404	1.7779	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.2088	6.7976	1.3048	0.0161	0.3493	0.0369	0.3863	0.0957	0.0353	0.1311		1,736.817 4	1,736.8174	0.1266		1,739.981 3
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.2868	6.8550	2.0435	0.0177	0.4947	0.0381	0.5328	0.1343	0.0365	0.1707		1,899.795 7	1,899.7957	0.1327		1,903.113 4

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Fugitive Dust					4.6321	0.0000	4.6321	2.4979	0.0000	2.4979			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289		2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	4.6321	1.2270	5.8591	2.4979	1.1289	3.6267		2,710.807 1	2,710.8071	0.8306		2,731.571 8

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8250	26.8617	5.1562	0.0636	1.3805	0.1460	1.5264	0.3783	0.1396	0.5179		6,863.323 4	6,863.3234	0.5001		6,875.826 2
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.9031	26.9192	5.8949	0.0652	1.5258	0.1472	1.6730	0.4168	0.1407	0.5576		7,026.301 7	7,026.3017	0.5063		7,038.958 3

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/d	ay							lb/d	lay		
Fugitive Dust					1.8065	0.0000	1.8065	0.9742	0.0000	0.9742			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	1.8065	1.2270	3.0335	0.9742	1.1289	2.1030	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Hauling	0.8250	26.8617	5.1562	0.0636	1.3805	0.1460	1.5264	0.3783	0.1396	0.5179		6,863.323 4	6,863.3234	0.5001		6,875.826 2
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.9031	26.9192	5.8949	0.0652	1.5258	0.1472	1.6730	0.4168	0.1407	0.5576		7,026.301 7	7,026.3017	0.5063		7,038.958 3

3.6 Paving - 2018

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/d	ay							lb/c	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601	0.3139		1,041.508 4

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/c	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	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761
Total	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601	0.3139		1,041.508 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761
Total	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479		1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	5.2693	1.0303	6.2997	2.8965	0.9479	3.8444		1,401.247 9	1,401.2479	0.4293		1,411.981 4

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
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	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890
Total	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	lay		
Fugitive Dust					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	2.0550	1.0303	3.0854	1.1296	0.9479	2.0775	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	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	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890
Total	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890

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2005 James M Wood - Construction - South Coast Air Basin, Winter

2005 James M Wood - Construction South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Depa	rtment of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
			:

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
2017	3.3597	51.5587	19.3932	0.0906	6.1579	1.6864	7.5344	2.9202	1.5774	4.1865	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9
2018	24.2439	29.7231	25.9631	0.0475	0.8417	1.6540	2.4958	0.2258	1.5835	1.8093	0.0000	4,574.416 0	4,574.4160	0.8118	0.0000	4,594.710 6
Maximum	24.2439	51.5587	25.9631	0.0906	6.1579	1.6864	7.5344	2.9202	1.5835	4.1865	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9

Mitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
2017	3.3597		19.3932	0.0906	3.3323	1.6864	4.7088	1.3910	1.5774	2.6628		8	9,616.7688			9,650.703 9
2018	24.2439	29.7231	25.9631	0.0475	0.8417	1.6540	2.4958	0.2258	1.5835	1.8093	0.0000	4,574.416 0	4,574.4160	0.8118	0.0000	4,594.710 6
Maximum	24.2439	51.5587	25.9631	0.0906	3.3323	1.6864	4.7088	1.3910	1.5835	2.6628	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9

	ROG	NOx	СО	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	40.37	0.00	28.17	48.61	0.00	25.41	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	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00		
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808	
Total	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808	

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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808
Total	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808

3.3 Building Construction - 2017

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/d	ay							lb/d	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	ay		
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	0.0917	2.3371	0.6780	4.5700e- 003	0.1152	0.0205	0.1357	0.0332	0.0196	0.0528		487.2005	487.2005	0.0387		488.1686
Worker	0.3026	0.2235	2.3936	5.4400e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		541.0702	541.0702	0.0205		541.5835
Total	0.3943	2.5606	3.0716	0.0100	0.6294	0.0248	0.6541	0.1695	0.0235	0.1931		1,028.270 6	1,028.2706	0.0593		1,029.752 0

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/c	ay							lb/d	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0917	2.3371	0.6780	4.5700e- 003	0.1152	0.0205	0.1357	0.0332	0.0196	0.0528		487.2005	487.2005	0.0387		488.1686
Worker	0.3026	0.2235	2.3936	5.4400e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		541.0702	541.0702	0.0205		541.5835
Total	0.3943	2.5606	3.0716	0.0100	0.6294	0.0248	0.6541	0.1695	0.0235	0.1931		1,028.270 6	1,028.2706	0.0593		1,029.752 0

3.3 Building Construction - 2018

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/d	ay							lb/c	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6

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/c	lay							lb/d	lay		
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	0.0807	2.1915	0.6130	4.5500e- 003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2695	0.1947	2.0972	5.2800e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		525.8962	525.8962	0.0180		526.3464
Total	0.3502	2.3862	2.7102	9.8300e- 003	0.6294	0.0204	0.6497	0.1695	0.0193	0.1889		1,011.250 5	1,011.2505	0.0548		1,012.621 6

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/d	ay							lb/c	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
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	0.0807	2.1915	0.6130	4.5500e- 003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2695	0.1947	2.0972	5.2800e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		525.8962	525.8962	0.0180		526.3464
Total	0.3502	2.3862	2.7102	9.8300e- 003	0.6294	0.0204	0.6497	0.1695	0.0193	0.1889		1,011.250 5	1,011.2505	0.0548		1,012.621 6

3.4 **Demolition - 2017**

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	ay		
Fugitive Dust					4.0230	0.0000	4.0230	0.6091	0.0000	0.6091			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404		2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	4.0230	1.6477	5.6707	0.6091	1.5404	2.1495		2,421.422 9	2,421.4229	0.6125		2,436.734 7

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/c	lay							lb/c	lay		
Hauling	0.2141	6.9003	1.4034	0.0158	0.3493	0.0375	0.3869	0.0957	0.0359	0.1316		1,708.912 0	1,708.9120	0.1319		1,712.208 2
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.2996	6.9635	2.0798	0.0174	0.4947	0.0387	0.5334	0.1343	0.0370	0.1713		1,861.823 1	1,861.8231	0.1377		1,865.264 4

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Fugitive Dust					1.5690	0.0000	1.5690	0.2376	0.0000	0.2376			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	1.5690	1.6477	3.2166	0.2376	1.5404	1.7779	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.2141	6.9003	1.4034	0.0158	0.3493	0.0375	0.3869	0.0957	0.0359	0.1316		1,708.912 0	1,708.9120	0.1319		1,712.208 2
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.2996	6.9635	2.0798	0.0174	0.4947	0.0387	0.5334	0.1343	0.0370	0.1713		1,861.823 1	1,861.8231	0.1377		1,865.264 4

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Fugitive Dust					4.6321	0.0000	4.6321	2.4979	0.0000	2.4979			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289		2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	4.6321	1.2270	5.8591	2.4979	1.1289	3.6267		2,710.807 1	2,710.8071	0.8306		2,731.571 8

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8460	27.2678	5.5456	0.0625	1.3805	0.1483	1.5287	0.3783	0.1418	0.5201		6,753.050 6	6,753.0506	0.5210		6,766.075 9
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.9315	27.3310	6.2221	0.0641	1.5258	0.1495	1.6753	0.4168	0.1430	0.5598		6,905.961 7	6,905.9617	0.5268		6,919.132 1

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Fugitive Dust					1.8065	0.0000	1.8065	0.9742	0.0000	0.9742			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	1.8065	1.2270	3.0335	0.9742	1.1289	2.1030	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8460	27.2678	5.5456	0.0625	1.3805	0.1483	1.5287	0.3783	0.1418	0.5201		6,753.050 6	6,753.0506	0.5210		6,766.075 9
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.9315	27.3310	6.2221	0.0641	1.5258	0.1495	1.6753	0.4168	0.1430	0.5598		6,905.961 7	6,905.9617	0.5268		6,919.132 1

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601	0.3139		1,041.508 4

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/c	lay							lb/c	lay		
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	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231
Total	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231

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/c	lay							lb/c	lay		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601	0.3139		1,041.508 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
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	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231
Total	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479		1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	5.2693	1.0303	6.2997	2.8965	0.9479	3.8444		1,401.247 9	1,401.2479	0.4293		1,411.981 4

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884
Total	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	2.0550	1.0303	3.0854	1.1296	0.9479	2.0775	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
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	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884
Total	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884

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2005 James M Wood - Construction - South Coast Air Basin, Annual

2005 James M Wood - Construction South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)31

Climate Zone 11 Operational Year 2019

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
	PhaseEndDate		6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	:	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse		159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	:	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment			Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

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	s/yr							MT	/yr		
2017	0.2094	1.9097	1.1489	2.9900e- 003	0.1436	0.0846	0.2282	0.0581	0.0805	0.1386	0.0000	273.5303	273.5303	0.0412	0.0000	274.5603
2018	0.4903	1.2460	1.0593	2.0000e- 003	0.0372	0.0682	0.1055	0.0100	0.0657	0.0757	0.0000	174.1777	174.1777	0.0280	0.0000	174.8772
Maximum	0.4903	1.9097	1.1489	2.9900e- 003	0.1436	0.0846	0.2282	0.0581	0.0805	0.1386	0.0000	273.5303	273.5303	0.0412	0.0000	274.5603

Mitigated Construction

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
2017	0.2094	1.9097	1.1489	2.9900e- 003	0.0878	0.0846	0.1724	0.0313	0.0805	0.1118	0.0000	273.5302	273.5302			274.5601
2018	0.4903	1.2460	1.0593	2.0000e- 003	0.0372	0.0682	0.1055	0.0100	0.0657	0.0757	0.0000	174.1775	174.1775	0.0280	0.0000	174.8770
Maximum	0.4903	1.9097	1.1489	2.9900e- 003	0.0878	0.0846	0.1724	0.0313	0.0805	0.1118	0.0000	273.5302	273.5302	0.0412	0.0000	274.5601

	ROG	NOx	СО	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	30.85	0.00	16.72	39.35	0.00	12.51	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	7-3-2017	10-2-2017	1.2362	1.2362
2	10-3-2017	1-2-2018	0.8249	0.8249
3	1-3-2018	4-2-2018	0.7314	0.7314
4	4-3-2018	7-2-2018	0.9656	0.9656
		Highest	1.2362	1.2362

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	ŭ	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00		0.74
Building Construction	Cranes	1	6.00		0.20

Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00		
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	-
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle	Vehicle
									Class	Class
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Archit. Coating	0.3122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6300e- 003	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670
Total	0.3168	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709
Total	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709

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	s/yr							MT	/yr		
Archit. Coating	0.3122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6300e- 003	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670
Total	0.3168	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670

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	s/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	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709
Total	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4373	83.4373	0.0175	0.0000	83.8759
Total	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4373	83.4373	0.0175	0.0000	83.8759

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e- 003	0.1072	0.0292	2.1000e- 004	5.1000e- 003	9.1000e- 004	6.0200e- 003	1.4700e- 003	8.7000e- 004	2.3500e- 003	0.0000	20.1956	20.1956	1.5300e- 003	0.0000	20.2337
Worker	0.0124	0.0103	0.1104	2.5000e- 004	0.0227	1.9000e- 004	0.0229	6.0300e- 003	1.8000e- 004	6.2100e- 003	0.0000	22.4358	22.4358	8.5000e- 004	0.0000	22.4570
Total	0.0164	0.1175	0.1395	4.6000e- 004	0.0278	1.1000e- 003	0.0289	7.5000e- 003	1.0500e- 003	8.5600e- 003	0.0000	42.6314	42.6314	2.3800e- 003	0.0000	42.6908

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	s/yr							MT	/yr		
Off-Road	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4372	83.4372	0.0175	0.0000	83.8758
Total	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4372	83.4372	0.0175	0.0000	83.8758

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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e- 003	0.1072	0.0292	2.1000e- 004	5.1000e- 003	9.1000e- 004	6.0200e- 003	1.4700e- 003	8.7000e- 004	2.3500e- 003	0.0000	20.1956	20.1956	1.5300e- 003	0.0000	20.2337
Worker	0.0124	0.0103	0.1104	2.5000e- 004	0.0227	1.9000e- 004	0.0229	6.0300e- 003	1.8000e- 004	6.2100e- 003	0.0000	22.4358	22.4358	8.5000e- 004	0.0000	22.4570
Total	0.0164	0.1175	0.1395	4.6000e- 004	0.0278	1.1000e- 003	0.0289	7.5000e- 003	1.0500e- 003	8.5600e- 003	0.0000	42.6314	42.6314	2.3800e- 003	0.0000	42.6908

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3290	101.3290	0.0204	0.0000	101.8390
Total	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3290	101.3290	0.0204	0.0000	101.8390

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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e- 003	0.1228	0.0322	2.5000e- 004	6.2400e- 003	8.8000e- 004	7.1200e- 003	1.8000e- 003	8.5000e- 004	2.6500e- 003	0.0000	24.6006	24.6006	1.7700e- 003	0.0000	24.6449
Worker	0.0134	0.0110	0.1183	3.0000e- 004	0.0278	2.3000e- 004	0.0280	7.3700e- 003	2.1000e- 004	7.5800e- 003	0.0000	26.6533	26.6533	9.1000e- 004	0.0000	26.6761
Total	0.0178	0.1338	0.1505	5.5000e- 004	0.0340	1.1100e- 003	0.0351	9.1700e- 003	1.0600e- 003	0.0102	0.0000	51.2539	51.2539	2.6800e- 003	0.0000	51.3210

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	s/yr							MT	/yr		
Off-Road	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3289	101.3289	0.0204	0.0000	101.8389
Total	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3289	101.3289	0.0204	0.0000	101.8389

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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e- 003	0.1228	0.0322	2.5000e- 004	6.2400e- 003	8.8000e- 004	7.1200e- 003	1.8000e- 003	8.5000e- 004	2.6500e- 003	0.0000	24.6006	24.6006	1.7700e- 003	0.0000	24.6449
Worker	0.0134	0.0110	0.1183	3.0000e- 004	0.0278	2.3000e- 004	0.0280	7.3700e- 003	2.1000e- 004	7.5800e- 003	0.0000	26.6533	26.6533	9.1000e- 004	0.0000	26.6761
Total	0.0178	0.1338	0.1505	5.5000e- 004	0.0340	1.1100e- 003	0.0351	9.1700e- 003	1.0600e- 003	0.0102	0.0000	51.2539	51.2539	2.6800e- 003	0.0000	51.3210

3.4 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					0.0141	0.0000	0.0141	2.1300e- 003	0.0000	2.1300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e- 003	0.0937	0.0545	8.0000e- 005		5.7700e- 003	5.7700e- 003		5.3900e- 003	5.3900e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370
Total	9.6700e- 003	0.0937	0.0545	8.0000e- 005	0.0141	5.7700e- 003	0.0199	2.1300e- 003	5.3900e- 003	7.5200e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	7.4000e- 004	0.0246	4.7200e- 003	6.0000e- 005	1.2000e- 003	1.3000e- 004	1.3300e- 003	3.3000e- 004	1.2000e- 004	4.5000e- 004	0.0000	5.4774	5.4774	4.1000e- 004	0.0000	5.4877
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	2.7000e- 004	2.3000e- 004	2.4300e- 003	1.0000e- 005	5.0000e- 004	0.0000	5.0000e- 004	1.3000e- 004	0.0000	1.4000e- 004	0.0000	0.4932	0.4932	2.0000e- 005	0.0000	0.4936
Total	1.0100e- 003	0.0248	7.1500e- 003	7.0000e- 005	1.7000e- 003	1.3000e- 004	1.8300e- 003	4.6000e- 004	1.2000e- 004	5.9000e- 004	0.0000	5.9706	5.9706	4.3000e- 004	0.0000	5.9813

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					5.4900e- 003	0.0000	5.4900e- 003	8.3000e- 004	0.0000	8.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e- 003	0.0937	0.0545	8.0000e- 005		5.7700e- 003	5.7700e- 003		5.3900e- 003	5.3900e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370
Total	9.6700e- 003	0.0937	0.0545	8.0000e- 005	5.4900e- 003	5.7700e- 003	0.0113	8.3000e- 004	5.3900e- 003	6.2200e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370

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	s/yr							MT	/yr		
Hauling	7.4000e- 004	0.0246	4.7200e- 003	6.0000e- 005	1.2000e- 003	1.3000e- 004	1.3300e- 003	3.3000e- 004	1.2000e- 004	4.5000e- 004	0.0000	5.4774	5.4774	4.1000e- 004	0.0000	5.4877
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	2.7000e- 004	2.3000e- 004	2.4300e- 003	1.0000e- 005	5.0000e- 004	0.0000	5.0000e- 004	1.3000e- 004	0.0000	1.4000e- 004	0.0000	0.4932	0.4932	2.0000e- 005	0.0000	0.4936
Total	1.0100e- 003	0.0248	7.1500e- 003	7.0000e- 005	1.7000e- 003	1.3000e- 004	1.8300e- 003	4.6000e- 004	1.2000e- 004	5.9000e- 004	0.0000	5.9706	5.9706	4.3000e- 004	0.0000	5.9813

3.5 Grading - 2017

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	s/yr							MT	/yr		
Fugitive Dust					0.0695	0.0000	0.0695	0.0375	0.0000	0.0375	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0326	0.3634	0.1976	4.0000e- 004		0.0184	0.0184		0.0169	0.0169	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706
Total	0.0326	0.3634	0.1976	4.0000e- 004	0.0695	0.0184	0.0879	0.0375	0.0169	0.0544	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0125	0.4169	0.0799	9.5000e- 004	0.0204	2.2000e- 003	0.0226	5.5900e- 003	2.1100e- 003	7.7000e- 003	0.0000	92.7643	92.7643	6.9300e- 003	0.0000	92.9376
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	1.1600e- 003	9.7000e- 004	0.0104	2.0000e- 005	2.1400e- 003	2.0000e- 005	2.1600e- 003	5.7000e- 004	2.0000e- 005	5.8000e- 004	0.0000	2.1135	2.1135	8.0000e- 005	0.0000	2.1155
Total	0.0137	0.4178	0.0903	9.7000e- 004	0.0225	2.2200e- 003	0.0247	6.1600e- 003	2.1300e- 003	8.2800e- 003	0.0000	94.8778	94.8778	7.0100e- 003	0.0000	95.0531

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	s/yr							MT	/yr		
Fugitive Dust					0.0271	0.0000	0.0271	0.0146	0.0000	0.0146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0326	0.3634	0.1976	4.0000e- 004		0.0184	0.0184		0.0169	0.0169	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706
Total	0.0326	0.3634	0.1976	4.0000e- 004	0.0271	0.0184	0.0455	0.0146	0.0169	0.0315	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0125	0.4169	0.0799	9.5000e- 004	0.0204	2.2000e- 003	0.0226	5.5900e- 003	2.1100e- 003	7.7000e- 003	0.0000	92.7643	92.7643	6.9300e- 003	0.0000	92.9376
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	1.1600e- 003	9.7000e- 004	0.0104	2.0000e- 005	2.1400e- 003	2.0000e- 005	2.1600e- 003	5.7000e- 004	2.0000e- 005	5.8000e- 004	0.0000	2.1135	2.1135	8.0000e- 005	0.0000	2.1155
Total	0.0137	0.4178	0.0903	9.7000e- 004	0.0225	2.2200e- 003	0.0247	6.1600e- 003	2.1300e- 003	8.2800e- 003	0.0000	94.8778	94.8778	7.0100e- 003	0.0000	95.0531

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.0117	0.1213	0.1032	1.6000e- 004		6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0117	0.1213	0.1032	1.6000e- 004		6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343
Total	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	0	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	r							MT	/yr		
Off-Road	0.0117	0.1213	0.1032	1.6000e- 004	6	6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003		14.6450
Paving	0.0000				(0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0117	0.1213	0.1032	1.6000e- 004	6	6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450

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	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343
Total	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343

3.7 Site Preparation - 2017

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	s/yr							MT	/yr		
Fugitive Dust					7.9000e- 003	0.0000	7.9000e- 003	4.3400e- 003	0.0000	4.3400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5700e- 003	0.0267	0.0133	2.0000e- 005		1.5500e- 003	1.5500e- 003		1.4200e- 003	1.4200e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214
Total	2.5700e- 003	0.0267	0.0133	2.0000e- 005	7.9000e- 003	1.5500e- 003	9.4500e- 003	4.3400e- 003	1.4200e- 003	5.7600e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302
Total	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					3.0800e- 003	0.0000	3.0800e- 003	1.6900e- 003	0.0000	1.6900e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5700e- 003	0.0267	0.0133	2.0000e- 005		1.5500e- 003	1.5500e- 003		1.4200e- 003	1.4200e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214
Total	2.5700e- 003	0.0267	0.0133	2.0000e- 005	3.0800e- 003	1.5500e- 003	4.6300e- 003	1.6900e- 003	1.4200e- 003	3.1100e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302
Total	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302

Appendix C Project Operational Emissions Worksheets



2005 James M Wood

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Nonresidential

% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	5.0%
5%	9.8%
10%	14.5%
15%	19.3%
20%	24.0%

Residential	
% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	28.0%
5%	31.6%
10%	35.2%
15%	38.8%
20%	42.4%

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) = Residential % savings over Title 24 (2013) =

5.0%
28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					_
Project Nonresidential Land Uses					
Enclosed Parking with Elevator	3.92	0.19	2.63	-	-
Hotel	3.50	2.89	2.67	21.79	4.06

Title 24 (2016)					
Project Nonresidential Land Uses					
Enclosed Parking with Elevator	3.72	0.19	2.50	-	-
Hotel	3.33	2.89	2.54	20.70	4.06

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: $http://www.energy.ca.gov/title 24/2016 standards/rule making/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf.$ Accessed December 2016.

CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/14/2017 4:55 PM

2005 James M Wood - Operational - South Coast Air Basin, Summer

2005 James M Wood - Operational South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2018
Utility Company	Los Angeles Dep	artment of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	ay		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.086
Mobile	1.5938	6.8637	18.6368	0.0528	3.8719	0.0619	3.9338	1.0361	0.0583	1.0944		5,351.884 8	5,351.8848	0.3057		5,359.52 9
Total	3.1383	7.3030	19.0285	0.0554	3.8719	0.0954	3.9672	1.0361	0.0918	1.1278		5,878.888 0	5,878.8880	0.3160	9.6600e- 003	5,889.669 9

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exha PM2		M2.5 otal	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day								lb	/day		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.000		000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.03	34 0.0	0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Mobile	1.5938	6.8637	18.6368	0.0528	3.8719	0.0619	3.9338	1.0361	0.05	83 1.0	0944		5,351.884 8	5,351.884	8 0.3057		5,359.527 9
Total	3.1383	7.3030	19.0285	0.0554	3.8719	0.0954	3.9672	1.0361	0.09	18 1.	1278		5,878.888 0	5,878.888	0.3160	9.6600e- 003	5,889.665 9
	ROG	N	lOx (co s		-			gitive M2.5	Exhaust PM2.5	PM2. Tota		CO2 NBio	-CO2 Tota	I CO2 C	H4 N	20 C
Percent Reduction	0.00	0	.00 0	0.00	.00 0	.00 0	.00 0	.00 (0.00	0.00	0.00	0.0	0 0	00 0.	00 0.	00 0.	00 0

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Mitigated	1.5938	6.8637	18.6368	0.0528		0.0619			0.0583	1.0944		5,351.884 8	5,351.8848			5,359.527 9
Unmitigated	1.5938	6.8637	18.6368		3.8719	0.0619	3.9338	1.0361	0.0583	1.0944		5,351.884 8	5,351.8848			5,359.527 9

4.2 Trip Summary Information

	Aver	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	1	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.546979	0.044837	0.199064	0.126777	0.018273	0.005878	0.019668	0.028140	0.001951	0.002100	0.004606	0.000701	0.001026
Enclosed Parking with Elevator	0.546979		0.199064	0.126777	0.018273			0.028140		0.002100	0.004606		0.001026

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/c	lay							lb/d	ay		
NaturalGas Mitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
NaturalGas Unmitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/c	day		
Enclosed Parking with Elevator	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
Hotel	4479.12	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

Mitigated

	NaturalGa s 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/d	day							lb/c	lay		
Enclosed Parking with Elevator	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
Hotel	4.47912	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Mitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Unmitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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/d	ay							lb/c	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Equipment Type

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Heat Input/Year

Boiler Rating

Fuel Type

Heat Input/Day

User Defined Equipment

Equipment Type	Number

Number

11.0 Vegetation

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2005 James M Wood - Operational - South Coast Air Basin, Winter

2005 James M Wood - Operational South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2018
Utility Company	Los Angeles Department	t of Water & Power			

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N2O Intensity
 0.006

 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

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/d	lay							lb/c	lay		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.086
Mobile	1.5407	7.0197	17.8700	0.0500	3.8719	0.0625	3.9344	1.0361	0.0589	1.0949		5,071.588 9	5,071.5889	0.3063		5,079.24 4
Total	3.0852	7.4590	18.2617	0.0526	3.8719	0.0960	3.9678	1.0361	0.0923	1.1284		5,598.592 1	5,598.5921	0.3165	9.6600e- 003	5,609.38 4

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exha PM		PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb	day								lb/	'day		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.00 00		0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.03	334 0).0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Mobile	1.5407	7.0197	17.8700	0.0500	3.8719	0.0625	3.9344	1.0361	0.0	589 1	.0949		5,071.588 9	5,071.5889	0.3063		5,079.245 4
Total	3.0852	7.4590	18.2617	0.0526	3.8719	0.0960	3.9678	1.0361	0.09)23 1	.1284		5,598.592 1	5,598.592	0.3165	9.6600e- 003	5,609.383 4
	ROG	N	Ox	co s		_			ugitive PM2.5	Exhaust PM2.5	t PM2		CO2 NBio	-CO2 Total	CO2 CI	14 N	20 C
Percent Reduction	0.00	0	.00 0	.00 0	.00 (0.00 0	.00 0	.00	0.00	0.00	0.0	0.0	0 0.	00 0.	00 0.	00 0.	00 0

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/d	lay		
Mitigated	1.5407		17.8700	0.0500			3.9344		0.0589	1.0949		5,071.588 9	5,071.5889			5,079.245 4
Unmitigated	1.5407		17.8700		3.8719	0.0625	3.9344	1.0361	0.0589	1.0949			5,071.5889			5,079.245 4

4.2 Trip Summary Information

	Aver	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	:	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.546979	0.044837	0.199064	0.126777	0.018273	0.005878	0.019668	0.028140	0.001951	0.002100	0.004606	0.000701	0.001026
Enclosed Parking with Elevator	0.546979		0.199064	0.126777	0.018273			0.028140		0.002100	0.004606		0.001026

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/c	lay							lb/d	ay		
NaturalGas Mitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
NaturalGas Unmitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/c	day		
Enclosed Parking with Elevator	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
Hotel	4479.12	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

Mitigated

	NaturalGa s 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/d	day							lb/c	day		
Enclosed Parking with Elevator	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
Hotel	4.47912	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Mitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Unmitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

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/d	ay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

_							
	Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Equipment Type

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Heat Input/Year

Boiler Rating

Fuel Type

Heat Input/Day

User Defined Equipment

Equipment Type	Number

Number

11.0 Vegetation

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2005 James M Wood - Operational - South Coast Air Basin, Annual

2005 James M Wood - Operational South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 31

Climate Zone 11 Operational Year 2018

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Area	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Energy	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	566.4831	566.4831	0.0130	3.9400e- 003	567.9824
Mobile	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Waste						0.0000	0.0000		0.0000	0.0000	12.2262	0.0000	12.2262	0.7225	0.0000	30.2898
Water						0.0000	0.0000		0.0000	0.0000	0.8853	22.1546	23.0398	0.0915	2.2600e- 003	25.9981
Total	0.5534	1.3820	3.3581	9.7100e- 003	0.6919	0.0174	0.7093	0.1854	0.0167	0.2022	13.1114	1,437.774 3	1,450.8857	0.8772	6.2000e- 003	1,474.663 0

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					ton	s/yr							МТ	-/yr		
Area	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Energy	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	566.4831	566.4831	0.0130	3.9400e- 003	567.9824
Mobile	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Waste						0.0000	0.0000		0.0000	0.0000	2.9343	0.0000	2.9343	0.1734	0.0000	7.2695
Water	9					0.0000	0.0000		0.0000	0.0000	0.7082	17.9903	18.6985	0.0732	1.8100e- 003	21.0657
Total	0.5534	1.3820	3.3581	9.7100e- 003	0.6919	0.0174	0.7093	0.1854	0.0167	0.2022	3.6425	1,433.610 0	1,437.2525	0.3098	5.7500e- 003	1,446.710 4
	ROG	N	Ox (co s					_	naust PM M2.5 To	_	CO2 NBio	-CO2 Total	CO2 CI	14 N2	20 CO2
Percent	0.00	0	.00 0	.00 0.	.00 0	.00 0	.00 0	.00 0	.00 0	.00 0.0	00 72.	22 0.2	29 0.9	64.	68 7.3	26 1.9

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Reduction

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Mitigated	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Unmitigated	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870

4.2 Trip Summary Information

	Avera	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator		8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.546979	0.044837	0.199064	0.126777	0.018273	0.005878	0.019668	0.028140	0.001951	0.002100	0.004606	0.000701	0.001026
Enclosed Parking with Elevator						0.005878							

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	479.2398	479.2398	0.0113	2.3400e- 003	480.2206
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	479.2398	479.2398	0.0113	2.3400e- 003	480.2206
NaturalGas Mitigated	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
NaturalGas Unmitigated	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							МТ	-/yr		
Enclosed Parking with Elevator	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
Hotel	1.63488e+ 006	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
Total		8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

Mitigated

	NaturalGa s 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					ton	s/yr							МТ	√yr		
Enclosed Parking with Elevator	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
Hotel	1.63488e+ 006	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
Total		8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/уг	
Enclosed Parking with Elevator	282040	157.0854	3.7100e- 003	7.7000e- 004	157.4069
Hotel	578414	322.1544	7.6100e- 003	1.5700e- 003	322.8137
Total		479.2398	0.0113	2.3400e- 003	480.2206

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Enclosed Parking with Elevator	282040	157.0854	3.7100e- 003	7.7000e- 004	157.4069
Hotel	578414	322.1544	7.6100e- 003	1.5700e- 003	322.8137
Total		479.2398	0.0113	2.3400e- 003	480.2206

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Mitigated	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Unmitigated	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
Architectural Coating	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Total	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

Mitigated

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
Architectural Coating	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Total	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	18.6985	0.0732	1.8100e- 003	21.0657
Unmitigated	23.0398	0.0915	2.2600e- 003	25.9981

7.2 Water by Land Use

Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Г/уг	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
Hotel	2.79034 / 0.310038	23.0398	0.0915	2.2600e- 003	25.9981
Total		23.0398	0.0915	2.2600e- 003	25.9981

<u>Mitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Γ/yr	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
Hotel		18.6985	0.0732	1.8100e- 003	21.0657
Total		18.6985	0.0732	1.8100e- 003	21.0657

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e				
	MT/yr							
Mitigated	2.9343	0.1734	0.0000	7.2695				
Unmitigated	12.2262	0.7225	0.0000	30.2898				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Enclosed Parking with Elevator	·	0.0000	0.0000	0.0000	0.0000
Hotel	00.20	12.2262	0.7225	0.0000	30.2898
Total		12.2262	0.7225	0.0000	30.2898

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	14.4552	2.9343	0.1734	0.0000	7.2695
Total		2.9343	0.1734	0.0000	7.2695

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





1815 E. Wilshire Ave., Suite 905 Santa Ana, CA 92705

(714) 542-2644 Fax: (714) 542-2520

December 22, 2015

Mr. Tony Chien **Divine Hotels Group Inc.** Da-Yuh Development Inc. 611 S. Westlake Avenue Los Angeles, CA 90057

Email: tony@dayuhdevelopmentinc.com

RE: PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

857 S. Westlake Avenue Los Angeles, CA 90057

WEECO Project No.: 2015-5152

Dear Mr. Chien:

Western Environmental Engineers Company (WEECO) has completed a Phase II Environmental Site Assessment at the existing commercial property at 857 S. Westlake Avenue, Los Angeles, California (the Site). The purpose of this assessment was to investigate soil quality at the Site.

WEECO appreciates the opportunity to work on this investigation project. Should you have any questions concerning the information provided herein or in the accompanying report, please contact James Yoon or Sin H. Kim at (714) 542-2644.

Respectfully,

Western Environmental Engineers Company

James Yoon, REPA

Project Manager

Sin Han Kim, P.E.

Principal Engineer

Registered Civil Engineer

California Registration No. C62688

Attachment – Phase II Environmental Site Assessment Report

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Appendix B. Chain of Custody Forms and Laboratory Certificates of Analysis

Appendix C. Geophysical Survey Report

1.0 INTRODUCTION

This report presents the results of Phase II Environmental Site Assessment activities conducted by Western Environmental Engineers Company (WEECO) for existing commercial property located at 857 S. Westlake Avenue, Los Angeles, California (the Site) (Figure 1).

The purpose of this site investigation was to gather detailed information about the contaminants in the existing commercial property of the site, and to determine the contaminants existing on site and to approximate the volume of the contaminants' plumes. This Environmental Site Assessment report contains a brief history of the existing site characteristics, sample collection procedures, analytical results and other supporting data, as well as conclusions and recommendations.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The subject site located at 857 S. Westlake Avenue, in the City of Los Angeles is legally described by the assessor's parcel number: 5141-020-021. According to the Los Angeles County, Office of the Assessor, the subject site is an approximately 20,200 square-foot lot, and has been developed with one (1) commercial building approximately 8,042 square-feet in size. The building was first constructed in 1987/1995, respectively. From the visual inspection, the subject site is composed of one (1) single-story commercial building used as a retail stores and coin laundry. Asphalt-paved parking areas were observed to the south and north of the subject site. Currently, the subject site is occupied by a retail stores with 4-units and a coin laundry.

2.2 SITE ENVIRONMENTAL HISTORY

2.2.1 Historic Operations

WEECO reviewed a historical aerial photo map for the subject site. According to the historical aerial photo map, the subject building's structure does not change since 1989. From 1948 to 1980, one (1) big large building was located at the center of the subject property, and another small building located northwest corner of the subject property. However, the subject property was not occupied a gas station.

2.2.2 Previous Investigations

No previous investigation report received from the client at this time.

2.2.3 Adjacent Properties

During the Site Reconnaissance, WEECO's field assessor has visually inspected and documented the use of the adjacent properties, and findings are as follows:

NORTH

• The property to the north of the subject site is used for a <u>residential purpose (Apartment)</u>.

EAST

• The property to the east of the subject site across S. Westlake Ave. is used for a residential/commercial purpose (Apartment & Church).

SOUTH

• The property to the south of the subject site across James M Wood Blvd. is a <u>commercial</u> <u>purpose (Restaurant)</u>.

WEST

• The property to the west of the subject site is used for a commercial purpose (Fallas Stores).

3.0 ENVIRONMENTAL SETTING

3.1 GEOLOGY AND HYDROGEOLOGY

Based on soil borings advanced to assess the Site, subsurface soil generally consists of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs). The color of the soil ranged from brown to light brown; the consistency of the soil was moist. Groundwater was not encountered during drilling activities.

The subject site is in the Los Angeles Forebay Area, located in the northern part of the Central Basin. In general, it is a free groundwater area; however, in the course of this investigation it became evident that the Bellflower aquiclude extends into the southerly portion of the forebay area. The aquiclude extends in this area contains a high percentage of sand, and vertical percolation of water is apparently more rapid here than in other portions of the basin covered by it. Where the Bellflower aquiclude is missing within the forebay area, the aquifers are in direct hydraulic continuity with the surface.

The Los Angeles Forebay Area is overlain by parts of the La Brea, Los Angeles and Montebello Plains. The known water-bearing sediments extend to a depth of 1600 feet (1440 feet below sea level) and include recent alluvium, the Lakewood formation and the San Pedro formation. Some fresh water also may be present in the Pliocene and Miocene rocks underlying these formations in this area.

Recent alluvium in the Los Angeles Forebay Area is found on the Los Angeles Plain and in the Los Angeles Narrows. It attains a maximum thickness of 160 feet, and includes the western arm of Gaspur aquifer and the parts of the Semi-perched aquifer and Bellflower aquiclude lying west and south of the Los Angeles River.

The Semi-perched aquifer is defined as the area where sand and gravel overlying the Bellflower aquiclude is more than 20 feet in thickness. This semi-perched aquifer is also present in the Lakewood formation just south of the Repetto Hill. Although the aquifer can be defined in well logs, water levels in well indicate that it contains little or no water.

The groundwater depth in the vicinity of the subject site is a deeper than 45 feet bgs (data obtained from Geotracker from an open LUFT site, 2101 W. 8th St.). The regional groundwater flow is expected to follow the topographic gradient, which is towards the southwest.

4.0 SITE ASSESSMENT ACTIVITIES

WEECO supervised the installation of four (4) soil borings (B1 through B4) on December 10, 2015. The site assessment included pre-field activities, soil sampling, soil classification, and sample analysis. The following sections describe each of these elements.

4.1 PRE-FIELD ACTIVITIES

Prior to initiating drilling operations, a notification was provided to the clients.

WEECO prepared a comprehensive Health and Safety Plan (HASP) for this project based on the scope of work and the potential hazards present. The HASP was the primary mechanism to ensure employee, environmental, and public safety during field activities. The HASP was implemented and enforced on-site by the WEECO Site Health and Safety Officer.

In accordance with California State Law, WEECO contacted Underground Service Alert (USA) prior to commencing drilling activities to identify any public utility alignments that may have been in potential conflict with the proposed boring locations.

4.2 DRILLING, SOIL AND GROUNDWATER SAMPLING PROCEDURES

4.2.1 Drilling Operations

On December 10, 2015, WEECO supervised the advancement of 4 soil borings (B1 through B4) at the locations illustrated on Figure 2. Drilling was conducted by Kehoe Testing & Engineering, Inc. using a GeoProbe direct push drill rig down to 30 feet below ground surface (bgs). Four (4) soil boring locations were selected in order to further define the vertical and lateral extent of the contamination plume at the subject site.

4.2.2 Subsurface Soil and Groundwater Sampling

During drill advancement at borings B1 through B4, sampling of encountered subsurface soils was performed using a standard 2-foot long by 1-inch inner-diameter, rod steel sampler, sleeved with 18-inch long acetate sampling tubes. Soil samples were collected at every ten-feet intervals or less using the sampler. At each sampling interval, the sampler was hydraulically driven into undisturbed soil until 24 inches of penetration was achieved. Upon advancement of the sampler to the full 24-inch length or refusal depth the sampler was extracted and brought to the surface. The sampling and drilling sequence was then repeated for the entire depth of each boring.

The sample sleeves were sealed with TeflonTM sheets, plastic caps, non-VOC tape, properly labeled, and placed in an ice-filled cooler pending delivery under Chain-of-Custody (COC) to a laboratory for potential chemical analysis. The soils in the remaining acetate tube were visually examined by WEECO field personnel who then classified the soils in accordance with the Unified Soil Classification System (USCS). A summary of the USCS classifications are presented in the boring logs included as Appendix A. The COC records and chemical analyses for the soil samples collected from the borings are presented in Appendix B, respectively.

4.2.3 Laboratory Testing Program

All soil samples collected during this investigation were delivered under COC to Chemtek Environmental Laboratories Inc (Chemtek) located at 13554 Larwin Circle, Santa Fe Springs, California. Chemtek is certified to perform hazardous waste testing by the State of California Environmental Laboratory Accreditation Program (ELAP), ELAP No. 1435.

All soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) for carbon chains by EPA Method 8015 (m) and Volatile Organic Compounds (VOCs) by EPA Method 8260B.

4.2.4 Equipment Cleaning Procedures/Containment of Materials

All sampling equipment and sampling tubes were decontaminated prior to each sampling by repeated washing using a brush and Liquinox solution, a tap water rinse, and finally a deionized water rinse. The sampler and sampling tubes were either air-dried or dried with a clean towel. Clean augers were used for each boring.

5.0 DISCUSSION OF RESULTS

5.1 SITE HYDROGEOLOGIC CONDITIONS

Based on soil borings advanced to assess the Site, subsurface soil generally consists of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs). The color of the soil ranged from brown to light brown; the consistency of the soil was moist. Groundwater was not encountered during drilling activities.

5.2 ANALYTICAL RESULTS

5.2.1 Soil Chemical

In accordance with the laboratory results, the highest concentration of MTBE were found a 0.001 mg/kg boring locations B2-10' and B3-30'. Other carbon chains and VOCs were not detected in any soil gas samples.

The results of carbon chain and Volatile Organic Compounds (VOCs) analyses are presented in Table 1.

5.3 SOIL SCREENING LEVELS

The laboratory analytical results were compared to the "Maximum Soil Screening Levels (MSSLs) for TPH, BTEX and MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996.

In accordance with the laboratory results, the highest concentration of MTBE were measured at 0.001 mg/kg boring locations B2-10' and B3-30', which are lower than the Maximum Soil Screening Levels (MSSLs) for MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996 of 0.013 mg/kg.

The measured concentrations were found to be extremely low and well within the maximum soil screening levels (MSSLs) limits of TPH and VOCs. These concentrations can be considered as clean, based on the State of California Water Resources Control Board "Maximum Soil Screening Levels for TPH and BTEX above Drinking Water Aquifers & Average Attenuation Factor for Different Distance above Groundwater and Lithology in the Distance for VOCs."

Although not confirmed during this preliminary site characterization, groundwater contamination beneath the subject site appears extremely unlikely.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The site assessment has led to the following conclusions, which are subject to the standard limitations discussed in Section 7.0:

- General lithologies consist of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs).
- We did not encountered groundwater during our soil boring activity.
- In accordance with the laboratory results, the highest concentration of MTBE were measured at 0.001 mg/kg boring locations B2-10' and B3-30', which are lower than the Maximum Soil Screening Levels (MSSLs) for TPH, BTEX and MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996 of 0.013 mg/kg. The measured concentrations were found to be extremely low and well within the maximum soil screening levels (MSSLs) limits of TPH and VOCs. These concentrations can be considered as clean, based on the State of California Water Resources Control Board "Maximum Soil Screening Levels for TPH and BTEX above Drinking Water Aquifers & Average Attenuation Factor for Different Distance above Groundwater and Lithology in the Distance for VOCs."

6.2 Recommendations

Based on these analytical results, WEECO concludes that no further subsurface investigation is necessary at this time based on the conditions revealed by the four borings. WEECO does not recommend any further action regarding the soil contaminant concentrations based on the results of the four on-site borings.

7.0 STANDARD LIMITATIONS

WEECO has prepared this report for the exclusive use of *Divine Hotels Group Inc./Da-Yuh Development Inc.* as it pertains to the former service station site, located at 857 S. Westlake Avenue, Los Angeles, California. WEECO's investigation has been performed with the degree of skill generally exercised by practicing engineers and professional civil engineer in the environmental field. WEECO makes no other warranty, either expressed or implied, concerning the conclusions and professional advice, which is contained within the body of this report. Any use of or reliance on this report by a third party shall be at such a party's sole risk.

Inherent in most projects performed in a heterogeneous subsurface environment, excavation or continuing assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may alter with time; consequently, the findings presented herein are subject to change.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of WEECO to conduct appropriate notifications as specified by current county and state regulations.

WEECO can offer no assurances and assumes no responsibility for site conditions or activities that were outside the scope of the inquiry requested by *Divine Hotels Group Inc./Da-Yuh Development Inc.* as outlined in this document. It should be understood by *Divine Hotels Group Inc./Da-Yuh Development Inc.* that WEECO has relied on the accuracy of documents, oral information, and other material and information provided by *Divine Hotels Group Inc./Da-Yuh Development Inc.* and other associated parties. It is recognized that regulatory requirements may change, including the revision of accepted action levels, which could necessitate a review of the discussion, findings, recommendations or conclusions of this report. Any subsequent modification, revision or verification of this report must be provided in writing by WEECO.

TABLES

TABLE 1 Summary of Laboratory Results

(unit: mg/kg) Constituents **B1-10** B1-20 B1-30 **B2-10 B2-20 B2-30** TPH-GRO (C4-C12) < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 TPH-DRO (C12-C22) <5 <5 <5 < 5 < 5 < 5 TPH-HRO (C23-36) <10 <10 <10 <10 <10 <10 Benzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromochloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromodichloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromoform < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromomethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 n-Butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 sec-Butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 tert-butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Carbon Tetrachloride < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloroform < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2-chlorotoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 4-chlorotoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2-chloroethyl vinyl ether < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dibromochloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dibromo-3-chloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dibromoethane (EDB) < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dibromomethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1.2-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,3-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,4-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dichlorodifluoromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1.1-Dichloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dichloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 cis-1,2-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 trans-1,2-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,3-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2,2-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 cis-1,3-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 trans-1,3-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Ethylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Hexachlorobutadiene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Isopropylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 4-isopropyltoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Methylene Chloride < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 Naphthalene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 n-propylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Styrene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1,1,2-Tetrachloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001

Constituents	B1-10	B1-20	B1-30	B2-10	B2-20	B2-30
1,1,2,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene (PCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene (TCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl Chloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Xylenes	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ethanol	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Methyl Tert. Butyl Ether (MTBE)	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001
Ethyl tertiary butyl ether (ETBE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Di-isopropyl ether (DIPE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary amyl methyl ether (TAME)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary butyl alcohol (TBA)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Butanone (MEK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone (MIBK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

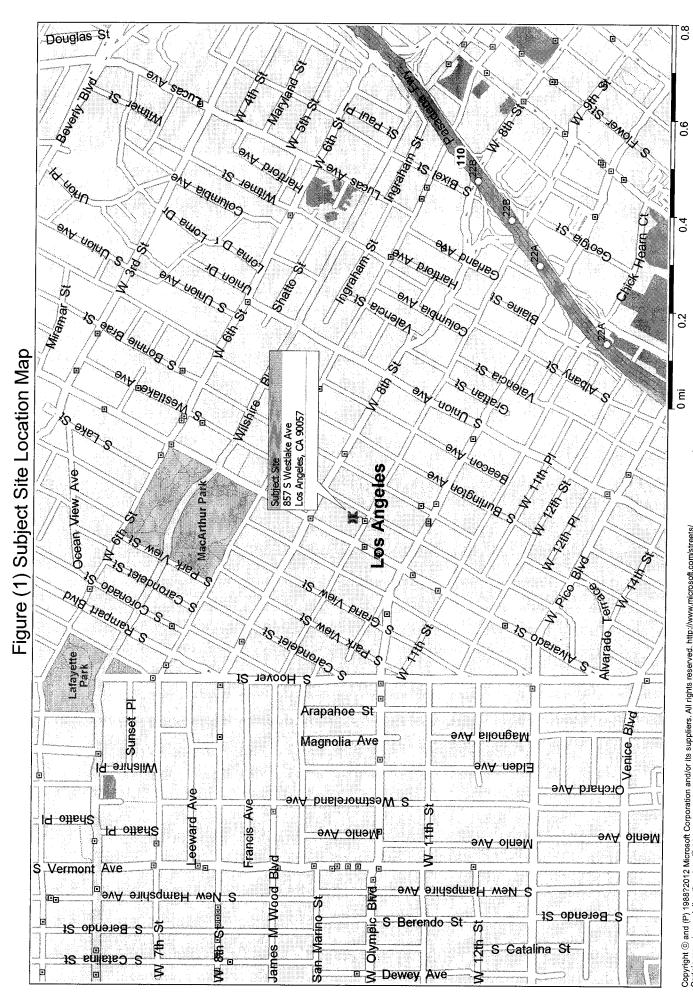
Constituents	B3-10	B3-20	B3-30	B4-10	B4-20	B4-30
TPH-GRO (C4-C12)	<0.2	< 0.2	<0.2	< 0.2	< 0.2	< 0.2
TPH-DRO (C12-C22)	<5	<5	<5	<5	<5	<5
TPH-HRO (C23-36)	<10	<10	<10	<10	<10	<10
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
n-Butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
sec-Butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
tert-butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-chlorotoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
4-chlorotoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-chloroethyl vinyl ether	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001
Dibromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (EDB)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Constituents	B3-10	B3-20	B3-30	B4-10	B4-20	B4-30
1,3-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2,2-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Hexachlorobutadiene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
4-isopropyltoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methylene Chloride	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
n-propylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene (PCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene (TCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl Chloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Xylenes	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ethanol	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Methyl Tert. Butyl Ether (MTBE)	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001
Ethyl tertiary butyl ether (ETBE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Di-isopropyl ether (DIPE)	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary amyl methyl ether (TAME)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary butyl alcohol (TBA)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Butanone (MEK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone (MIBK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Note: GRO = gasoline range organic (C4-C	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

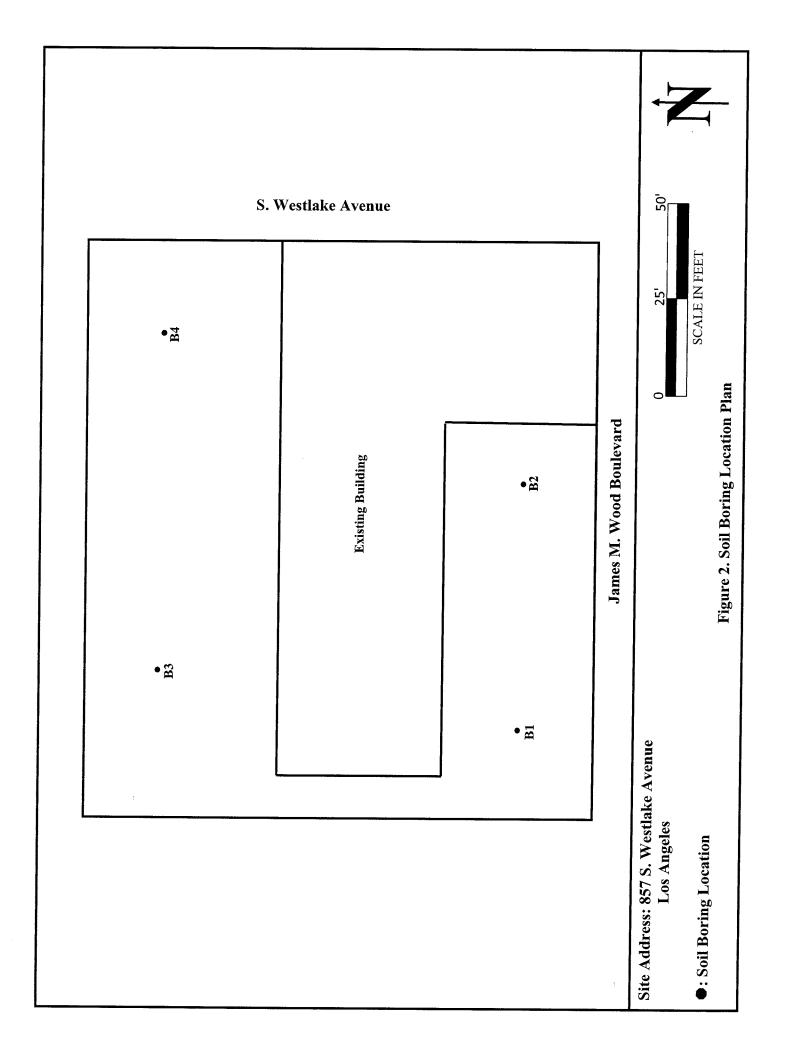
Note:

GRO = gasoline range organic (C4-C12) by EPA Method 8015M DRO = diesel range organic (C13-C22) by EPA Method 8015M HRO = heavy oil range organic (C23-C32) by EPA Method 8015M Other VOCs analyzed by EPA Methods 8260B

FIGURES



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APPENDIX A.

Boring Logs

]	LOG (OF BORI	ING			
Drill Ri	ig: 6600	Truck Mo	ounted	GeoProl	pe	Boring Dia	meter: 1.3/8	inches	Boring Number : B1		
Drilling 12/10/20)15	Logger: JY	Civil Engir	neer: SK	drilling. To changes in	he passage conditions.	of time or other	locations may	the time and place of y cause consequential		
BULK	TUBE	VAPO READI (ppm	NGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS			
								2" Asphal	t Paving		
						5					
	37			7.20	D: .	10	CI	27 10 FG			
	X 7:2		7:29	Direct Push	10	CL	plasticity,	F: Medium brown clay, low to medium moist.			
						15					
	X			7:39	Direct Push	20	CL	10 FT – 20 plasticity,	FT: Brown clay, low to medium moist.	<i>:</i>	
						25					
	X .			7:55	Direct Push	30	CL	20 FT - 30 , moist.	FT: Brown clay, low to medium plastici	ıty	
						35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.		
						40:					
WEE					al Engine	ers Co.	PROJECT N	-	se II Environmental Site		
		E. Wilsl anta Ana		•	ite #905) 92705		Assessment. ADDRESS: 857 S. Westlake Avenue Los Angeles, CA 90057				
							Project Numl				

					LOG (OF BOR	ING			
Drill R	ig: 6600	Truck M	ounted GeoPi	obe	Boring Dia	meter: 1.3/8	inches		Boring Number : B2	
Drilling 12/10/2	015	Logger: JY	Registered Civil Engineer: Sk	drilling. T	og is a representation of subsurface conditions at the time and place of g. The passage of time or other locations may cause consequential es in conditions.					
BULK	TUBE	VAP READ (ppn	INGS	E BLOW COUNTS	DEPTH, FEET	H, USCS DESCRIPTION AND REMARK				
							2" Asphal	t Paving		
					5					
	X		8:19	Direct Push	10	CL	2" – 10 F plasticity	Γ: Dark brown clay, low, moist.	to medium	
					15					
	X		8:28	Direct Push	20	CL	10 FT – 20 plasticity,) FT: Medium brown cl moist.	ay, low to medium	
					25					
	X		8:43	Direct Push	30	CL	20 FT - 30 , moist.	FT: Brown clay, low to	medium plasticity	
					35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.		
					40					
WEE				ntal Engine	ers Co.	PROJECT N		se II Environmental	Site	
			hire Ave. (S , California	,		Assessment. ADDRESS: 857 S. Westlake Avenue Los Angeles, CA 90057				
						Project Num			nber	

				1	LOG (OF BORI	ING			
Drill R	ig: 6600	Truck M	ounted GeoP	obe	Boring Dia	nmeter: 1.3/8 i	inches		Boring Number : B3	
Drilling 12/10/2		Logger: JY	Registered Civil Engineer: SI	drilling. Th	he passage	ation of subsurfac of time or other	e conditions at the locations may ca	e time and place of ause consequential	Number : B3	
BULK	TUBE	VAP READ (ppn	OR TIM		DEPTH, FEET	USCS	DES	SCRIPTION AND R	EMARKS	
	E						2" Asphalt Pa	ving		
					5					
	X		9:04	Direct Push	10	CL	2" – 10 FT: M plasticity, mo	dedium brown clay, in the state of the state	low to medium	
					15					
	X		9:10	Direct Push	20	SP	10 FT – 20 FT	Γ:Light brown sand,	moist.	
					25					
	X		9:23	Direct Push	30	CL	20 FT - 30 FT plasticity, mor	: Medium brown cla ist.	y, low to medium	
					35		TD: 30 Feet Backfilled with 2" asphalt rep	h bentonite chips. aving.		
3					40					
WEE				ntal Engine	ers Co.					
			hire Ave. (S , California			Assessment. ADDRESS: 857 S. Westlake Avenue Los Angeles, CA 90057				
****							per: 2015-5152		nber	

					I	OG	OF BORI	NG			
Drill R	ig: 6600	Truck M	lounted	GeoProl	be 1	Boring Di	ameter: 1.3/8 i	nches		Boring	
Drilling 12/10/2		Logger: JY	Regis Civil Engir		This log is a drilling. The changes in c	e passage	Number : I stress training of subsurface conditions at the time and place of ssage of time or other locations may cause consequential tions.				
BULK	TUBE	VAF READ (ppr	INGS	TIME	BLOW COUNTS	DEPTH FEET	, USCS		DESCRIPTION AND R	EMARKS	
								2" Asphal	t Paving		
						5					
							-				
	X			9:43	Direct Push	10	CL	2" – 10 FT plasticity,	T: Medium brown clay, I moist.	low to medium	
						15					
	X			9:49	Direct Push	20	SP	10 FT – 20	FT:Light brown sand,	moist.	
						25					
	X			10.02	D :		GD.	00 PF 00			
	Λ			10:03	Direct Push	30	SP	20 F1 - 30	FT: Light brown sand, 1	moist.	
						35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.		
						40				:	
WEE	CO <u>v</u>	Western	Envir	onment	al Enginee	rs Co.	PROJECT NA		se II Environmental	Site_	
		E. Wils anta Ana		`	ite #905) 92705		ADDRESS: 8	357 S. Wes			
							Project Numb		es, CA 90057 152 Figure Num	ıber	

APPENDIX B.

Chain of Custody Forms and Laboratory Certificates of Analysis

ELAP: 1435 LACSD: 10167 13554 Larwin Cir., Santa Fe Springs, CA 90670 T 562.926.9848 F 562.926.8324

Certificate of Analysis

Client: WEECO

Attention:

1815 E. Wilshire Ave #905 Santa Ana, CA Project No.

Project Site: 857 S. Westlake Ave

LA, CA 90057

Job No: 512052

Page 1

Report Date: 12/18/15 Date Received: 12/10/15

Number of Samples: 12 Sample Matrix: Soil

This is the Certificate of Analysis for the following samples:

SAMPLE IDENTIFICATION	DATE OF SAMPLE	LABORATORY IDENTIFICATION
B1-10	12/10/15	512052-01A
B1-20	12/10/15	512052-02A
B1-30	12/10/15	512052-03A
B2-10	12/10/15	512052-04A
B2-20	12/10/15	512052-05A
B2-30	12/10/15	512052-06A
B3-10	12/10/15	512052-07A
B3-20	12/10/15	512052-08A
B3-30	12/10/15	512052-09A
B4-10	12/10/15	512052-10A
B4-20	12/10/15	512052-11A
B4-30	12/10/15	512052-12A

Reviewed and Approved:

- car

Michael C.C. Lu

For Laboratory Director





1815 E. Wilshire Ave #905

Certificate of Analysis

Project No.

Project Site: 857 S. Westlake Ave

LA, CA 90057

Job No: 512052 Report Date: 12/18/15 Page 2

Date of Sample: 12/10/15
Date Received: 12/10/15

Sample Matrix: Soil

Santa Ana, CA EPA Method: 8260B

Client: WEECO

Attention:

Units: ppb or µg/kg

Client Sample I Dilution Factor		B1-20	B1-30	B2-10 1	B2-20	B2-30	B3-10	B3-20	B3-30	B4-10	
Difficult 4 dete	(ppb)	(ppb)	(ppb)	(dqq)	(dqq)	(dqq)	(dqq)	(dqq)	(ppb)	(ppb)	Limi (ppb
Benzene	ND	ND	ND	ND	ND	ND	ND	ND			(ppc
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	;
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	i
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	· i
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND			•
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND				ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND ND	ND	ND ND	ND	ND	1
1.2-Dichlorobenzene	ND	ND	ND	ND ND	ND ND	ND ND	ND		ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND ND				ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND		ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND ND	ND ND	ND	ND	ND	ND	ND	1
	ND	ND				ND	ND	ND	ND	ND	1
1,1-Dichloroethene cis-1,2 Dichloroethene	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	1
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane				ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-isopropyitoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	1	ND	ND	ND	ND	1	ND	1
ETBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	i
DIPE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
MEK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK 2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	10
z-nexanone Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50

DF: Dilution Factor





Santa Ana, CA

1815 E. Wilshire Ave #905

Certificate of Analysis

Project No.

Project Site: 857 S. Westlake Ave

Job No: 512052 Report Date: 12/18/15 Page 3

LA, CA 90057

Date of Sample: 12/10/15
Date Received: 12/10/15

Sample Matrix: Soil

EPA Method: 8260B Attention:

Client: WEECO

Units: ppb or µg/kg

011-16		bhn oi hi	
Client Samp Dilution Fa		B4-30	Detection Limit
10000	(dqq)	(ppb)	(ppb)
Benzene	ND	ND	1
Bromobenzene	ND	ND	1
Bromochloromethane	ND	ND	1
Bromoform Bromomethane	ND ND	ND ND	1
n-Butylbenzene	ND	ND	1
sec-Butylbenzene	ND	ND	1
tert-Butylbenzene	ND	ND	i
Carbon Tetrachloride	ND	ND	1
Chlorobenzene Chloroethane	ND ND	ND ND	1
Chloroform	ND	ND	1
Chloromethane	ND	ND	1
2-Chlorotoluene	ND	ND	1
4-Chlorotoluene	ND	ND	1
2-Chloroethyl vinyl ether Dibromochloromethane	ND ND	ND ND	2 1
1,2-Dibromo-3-chloropropane	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	i
Dibromomethane	ND	ND	1
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND ND	ND ND	1
1,4-Dichlorobenzene	ND	ND	1
Dichlorodifluoromethane	ND	ND	1
1,1-Dichloroethane	ND	ND	1
1,2-Dichloroethane	ND	ND	. 1
1,1-Dichloroethene cis-1,2 Dichloroethene	ND ND	ND ND	1
Trans-1,2-Dichloroethene	ND	ND	1
1,2-Dichloropropane	ND	ND	i
1,3-Dichloropropane	ND	ND	1
2,2-Dichloropropane	ND ND	ND	1
1,1-Dichloropropene Cis-1,3-Dichloropropene	ND ND	ND ND	1
trans-1,3-Dichloropropene	ND	ND	1
Ethylbenzene	ND	ND	i
Hexachlorobutadiene	ND	ND	1
isopropyibenzene 4-isopropyitoluene	ND ND	ND ND	1
Methylene Chloride	ND	ND	1 5
Naphthalene	ND	ND	1
n-propylbenzene	ND	ND	1
Styrene	ND	ND	1
1,1,1,2-Tetrachioroethane 1,1,2,2-Tetrachioroethane	ND ND	ND ND	1
Tetrachioroethene(PCE)	ND	ND	1
Toluene	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	1
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	ND ND	ND ND	1
1,1,2-Trichloroethane	ND	ND	1
Trichloroethene(TCE)	ND	ND	i
Trichlorofluoromethane	ND	ND	1
1,2,3-Trichloropropane	ND ND	ND ND	1
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	ND	ND	1 1
Vinyl Chloride	ND	ND	1
Total Xylenes	ND	ND	2
Ethanol	ND	ND	250
MTBE ETBE	ND ND	ND ND	1
DIPE	ND	ND	1 1
TAME	ND	ND	1
ТВА	ND	ND	20
MEK	ND ND	ND	10
MIBK 2-Hexanone	ND ND	ND ND	10 10
Acetone	ND	ND	50
	ate: 12/16/15		

Analysis Date: 12/16/15
ND: Not Detected Below (DF x Detection Limit)

12/16/15

DF: Dilution Factor



13554 Larwin Cir., Santa Fε Springs, CA 90670 Τ 562.926.9848

F 562.926.8324

Certificate of Analysis

Page 4

Client: WEECO

Project Site: 857 S. Westlake Ave LA, CA 90057

Project No:

EPA Method: 8015M

units: mg/kg or ppm

Job No: 512052

Report Date: 12/18/15
Date of Sample: 12/10/15

Date Received: 12/10/15

Sample Matrix: Soil

		Gas Range			Diesel Rang	ge		Oil Range			
Sample ID	UNITS	(C4-C12)	DF	DLR	(C13-C22)	DF	DLR	(C23-36)	DF	DLR	
B1-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B1-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B1-30	mg/kg	ND	1	0.2	- ND	1	5.0	ND	1	10	
B2-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B2-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B2-30	mg/kg	ND	1	0.2	ND 1	1	5.0	ND	1	10	
B3-10	mg/kg	ND.	1	0.2	ND	1	5.0	ND	1	10	
B3-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B3-30	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B4-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B4-20	mg/kg	. ND	1	0.2	ND	1	5.0	ND	1	10	
B4-30	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
Method Blank	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	

12/10/15

12/14/15

12/10/15

ND : Not detected at or above DLR

Sample Date:

Analysis Date:

12/10/15

12/15/15

DLR: Detection Limit for Reporting Purposes



Certificate of Analysis

Page 5

QC Analysis Date: 12/16/15 QC Lab ID: 512052-11A Units: ppb		Job N	io: 512052
and specific and an experience of the second	QUALITY CONTROL DATA	A second of the second of	
	EPA METHOD: 8260B(VOC	'5)	

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
1,1-Dichloroethene	ND	25	93.2	97.8	4.8%	30	70-130
Benzene	ND	25	86.5	88.6	2.4%	30	70-130
Trichloroethylene	ND	25	82.0	85.6	4.3%	30	70-130
Toluene	ND	25	82.4	85.7	3.9%	30	70-130
Chlorobenzene	ND	25	73.8	76.6	3.7%	30	70-130

QC Analysis Date: 12/16/15 QC Lab ID: 512052-11A Units: ppm		ing Tanggan Tanggan Tanggan	
	QUALITY CONT EPA METHOD: 8260B (TPH		

			MS	MSD		70 NPU	% NEU
ANALYTE	BLANK RESULT	SPIKE CONC.	% REC	% REC	% RPD	ACCEPT LIMITS	ACCEPT LIMITS
GRO (TPH)	ND	0.5	86.3	91.8	% RPD	30	70-13

CHEMTEK Environmental Laboratories Inc.

CHAIN OF CUSTODY RECORD

13554 Larwin Circle, Santa Fe Springs, CA 90670

512052 Job No.:

) O

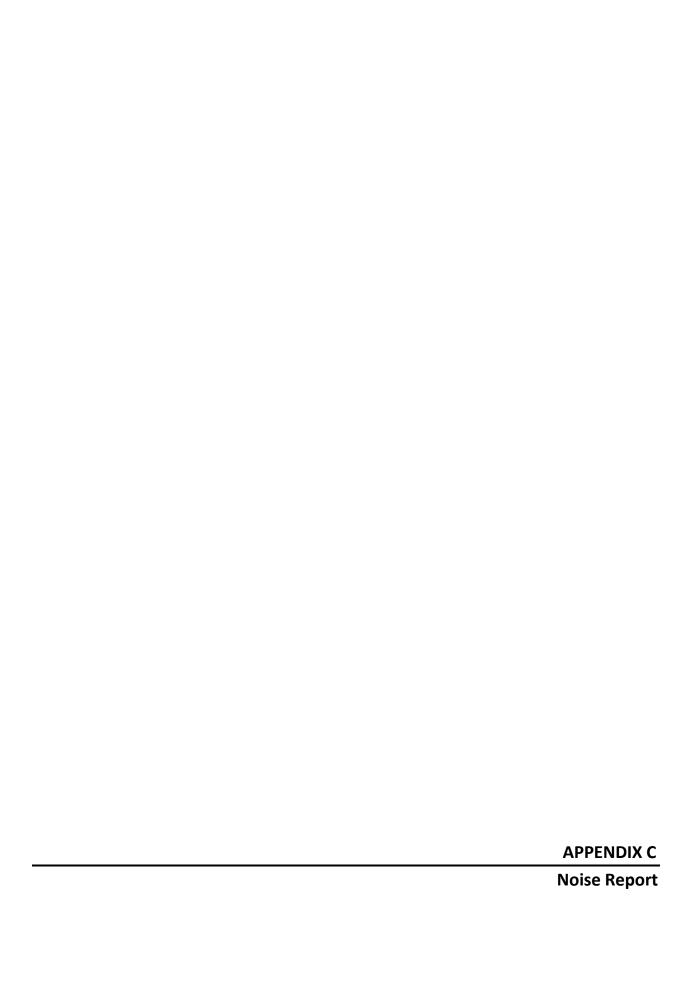
Page:

Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com

CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629)

					ANALYSIS REQUIRED	REQUIRE			
COMPANY NAME: W ZZ (3				RT					
PROJECT. JANES YOUR Email:				OH:	Yłił	elisti sulas prevesso			
ADDRESS: 1815 & W.15hin An # 9-F	Sut by Mrst	****	and the respective section of the se	s (a	-	9 *			
PHONE: . FAX:		TWO STREET, THE	77(SPANIKARI KARI	daen oderation	3O		3	
PROJECT INFORMATION		EURO PAS	atandemisio	Part Calonia de la	en and the second	'əp	Sį	e ensoquencia do	
PROJECT NAME	P.O. No.	NOTICE (NOTES)	ninemage(gave	Western Charles	n hands are not rept	inp	eta	ner arrecta	
SITE ADDRESS: 857 S. Werthale Am. L.	A. 14 9257	MICHIGAN COMPANIA	MANAGEMENT OF THE PARTY OF THE P	i MOLTTONITAN	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	ςλ	W A	. (61-25-64)	
TAN EDF	Turn Around Time NOKM 24 hr 48 hr Other	FOLGREDISCH IN	SAULANDERS S	CTRACTORY)	ede Trafacciono	ʻəp	<u> </u>	Silvi Jimahic I	
SAMPLE D SAMPLED SAMPLED TYPE * DH/TIME		108 108	CAR	λXO	bH'	iilu	CAN	da per ancer a representativa de la constanta d	
		>	1	-	-				
7,2%									
1-200		>							
<u>ر</u> ا			1						
, 11									
6 12 -21 1 8:UK 11						+			
1 32-10 1 9.4 "									
8 183-20° 11 9:10 11						\dagger			
9 83-30' " 9:23 "									
10 R4-10' 11 9:113 "			6						
11 134-21 " 4.48 "			7						
12 124-30 (1 15-69 11			\ \ \ \						
41									
51									
						-			
SIGNATURE "A	PRINT NAME			COMPA	COMPANY NAME			DATE	TIME
RELINQUISHED BY:	The Year		\ \!\!	2 /2/2V				P/.114	2.4t
RECEIVED BY:									2
RELINQUISHED BY:									
RECEIVED FOR LABORATORY BY:	M + 1 1. b.		3	Chwid				31/01/1	1450F
NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made.	ther arrangements are made.	Distribution	Distribution: WHITE with report / YELLOW to CHEMTEK / PINK to courier	report /	(ELLOW to	CHEMT	K / PINK to	o courier	

*Type: so-soil GW-Ground Water WW-Waste Water AQ-Aqueous A-Air OT-Other



Draft

2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Noise and Vibration Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017



Draft

2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Noise and Vibration Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017

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EXECUTIVE SUMMARY

The purpose of this Noise and Vibration Technical Report is to assess and discuss the impacts of potential noise and vibration impacts that may occur with the implementation of the proposed 2005 James M Wood Boulevard Hotel Project located in the City of Los Angeles. The Project site is located on the northwest corner of the intersection of James M Wood Boulevard and Westlake Avenue. The Project would remove existing commercial/retail uses on the Project site and develop a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report).

The analysis describes the existing noise environment in the Project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. Noise worksheets and technical data used in this analysis are provided in the Appendices. The report summarizes the potential for the Project to conflict with applicable noise and vibration regulations, standards, and thresholds. The findings of the analyses are as follows:

 Construction activities would potentially result in short-term and temporary noise impacts to nearby noise-sensitive receptors due to on-site construction equipment and activities.
 Implementation of Mitigation Measure NOISE-1, listed below, would reduce this impact to less than significant.

Mitigation Measure NOISE-1: The Project shall provide a temporary 15-foot tall construction noise barrier (i.e., wood, sound blanket) between the Project construction site and off-site noise sensitive uses along the entire north and east boundaries of the Project site, with a performance standard of achieving a 20 dBA noise level reduction along the north boundary and a 15 dBA noise level reduction along the east boundary. The temporary noise barriers shall be used during early Project construction phases (up through building framing) when the use of heavy equipment is prevalent. The Project shall also avoid locating or using stationary construction equipment near off-site noise sensitive uses.

- Operation of the Project would generate noise from Project-related traffic or from on-site sources (parking structure, loading dock area, refuse collection area, mechanical equipment) that would not exceed the significance thresholds and operational noise impacts would be less than significant.
- Construction of the Project would general sporadic, temporary vibration effects adjacent to the Project area, but would not be expected to exceed the significance thresholds. Thus, construction vibration impacts would be less than significant.

- Project operation would not generate excessive vibration levels at nearby sensitive receptor locations. Thus, long-term vibration impacts would be less than significant.
- Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual project and compliance with locally adopted and enforced noise ordinances. As construction activities would be required to comply with the City's allowable hours as described above and would be temporary, construction-related noise would result in a less than significant cumulative noise impact.
- Noise associated with cumulative operational sources would be less than the significance threshold. Therefore, Project operations would result in a less than significant cumulative noise impact.
- Due to the rapid attenuation characteristics of ground-borne vibration and distance of the cumulative projects to the Project site, there is no potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration. Therefore, impacts would be less than significant.

1.0

Introduction

1.1 Project Description

The Project Applicant proposes to redevelop an approximately 20,256 net square foot (22,500 gross square foot) parcel located at 2005 James M Wood Boulevard in the City of Los Angeles with a hotel use ("the Project"). The location of the Project site and nearby vicinity is shown in **Figure 1**, *Regional and Vicinity Location Map*.

The Project would consist of a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report) consisting of studio units and suites, and hotel amenities including meeting rooms, kitchen and breakfast area, lobby and reception area, office space, and a luggage room. Vehicle loading would occur in an enclosed area on the ground floor. The refuse collection area would be located in an enclosed area on the ground floor on the northeast end of the building. The proposed building would be six floors totaling approximately 60,631 square feet with two basement levels totally approximately 37,020 square feet. The floor-to-area ratio would be 2.99 (60,631 square feet / 20,256 net square feet = 2.99). The Project would provide 100 parking spaces in an enclosed structure on the ground floor and basement levels, which would exceed the City of Los Angeles parking requirement. Short-term and long-term bicycle parking would also be provided. The Project site plan is shown in **Figure 2**, *Project Site Plans*.

1.2 Existing Site Uses

The Project site is developed with approximately 8,228 square feet of commercial/retail uses and surface parking areas. The Project would remove existing commercial/retail uses on the Project site and the existing surface parking areas.

Figure 1 Regional and Vicinity Location Map

Figure 2 Project Site Plan

Regulatory and Environmental Setting

2.1 Noise and Vibration Fundamentals

2.1.1 Noise

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility of sound is subjective and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The A-weighted sound level (dBA) de-emphasizes low frequencies to which human hearing is less sensitive and focuses on mid- to high-range frequencies. The range of human hearing is approximately 3 to 140 dBA, with 110 dBA considered intolerable or painful to the human ear. Another commonly used scale is the Cweighted sound level (dBC), which includes low-frequency noise. In a non-controlled environment, a change in sound level of 3 dB is considered "just perceptible," a change in sound level of 5 dB is considered "clearly noticeable," and a change in 10 dB is perceived as a doubling of sound volume (Bies & Hansen 1988). A comparison of types of commonly experienced environmental noise is provided in **Figure 3**, Common Noise Levels.

Although the A-weighted scale accounts for the range of people's response, and is therefore commonly used to quantify individual event or general community sound levels, the degree of annoyance or other response effects also depends on several other factors. These factors include:

- Ambient (background) sound level;
- Magnitude of sound event with respect to the background noise level;
- Duration of the sound event;
- Number of event occurrences and their repetitiveness; and
- Time of day that the event occurs.

Figure 3 Common Noise Levels

In an outdoor environment, sound levels attenuate with distance. Such attenuation is called "distance loss" or "geometric spreading" and is influenced by the noise source configuration (i.e., point source or line source). For a point source, such as stationary equipment, the rate of sound attenuation is usually 6 dB per doubling of distance from the noise source at urban, acoustically "hard" sites, or highly acoustically reflective settings that preserve sound energy (water, asphalt, and concrete). Within such environments, a sound level of 50 dBA at a distance of 25 feet from the noise source would attenuate to 44 dBA at a distance of 50 feet. The equation presented below (FHWA 2011).

$$NR_P = 20 \log (d2 / d1)$$
 (**Equation 1**)

Where: NR_P = noise reduction for point source.

d1= distance from sound source at one location.

d2 = distance from sound source at a different location.

For a line source within an acoustically hard environment, such as a roadway with a constant flow of traffic, the rate of sound attenuation is 3 dB per doubling of distance. The equation presented below (FHWA 2011; Caltrans 2013).

$$NR_L = 10 \log (d2 / d1)$$
 (**Equation 2**)

Where: NR_L = noise reduction for line source.

d1= distance from sound source at one location.

d2 = distance from sound source at a different location.

In addition, structures (e.g., buildings and solid walls) and natural topography (e.g., hills) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the "shadow" of the obstruction, such as behind a sound wall. This type of sound attenuation is known as "barrier insertion loss." If a receptor is located behind the wall but still has a view of the source (i.e., line-of-sight not fully blocked), some barrier insertion loss would still occur, but to a lesser extent. A receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and receiver) up to 20 dBA with a more substantial barrier (Caltrans 2013a).

Community noise levels usually change continuously during the day. The equivalent sound level (L_{eq}) is normally used to describe community noise. The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. For intermittent noise sources, the maximum noise level (L_{max}) is normally used to represent the maximum noise level measured during the measurement. Maximum and minimum noise levels, as compared to the L_{eq} , are a function of the

characteristics of the noise source. As an example, sources such as generators have maximum and minimum noise levels that are similar to L_{eq} since noise levels for steady-state noise sources do not substantially fluctuate. However, as another example, vehicular noise levels along local roadways result in substantially different minimum and maximum noise levels when compared to the L_{eq} since noise levels fluctuate during pass-by events. The City of Los Angeles Noise Ordinance typically uses the L_{eq} metric for the evaluation of noise levels.

To assess noise levels over a given 24-hour time period, the Community Noise Equivalent Level (CNEL) descriptor is used in land use planning. CNEL is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels that occur at night (10:00 P.M. to 7:00 A.M.) and a 5 dBA adjustment (upward) added to the sound levels that occur in the evening (7:00 P.M. to 10:00 P.M.). A similar metric, the Day-Night Noise Level (L_{dn}), is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels that occur at night (10:00 P.M. to 7:00 A.M.); L_{dn} does not include the evening adjustment. In practice, the CNEL and L_{dn} metrics are often used interchangeably and typically differ by only 1 dBA or less. The noise adjustments, or "penalties," account for increased human sensitivity to noise during the quieter nighttime periods when sleep is the most probable human activity. The CNEL metric has been adopted by the State of California to define the community noise environment for development of a community noise element of a General Plan and is also used by the City of Los Angeles for land use planning in the City's Noise Element of the General Plan.

Sound Transmission Class (STC) is an integer rating of how well a building partition attenuates airborne sound. In the United States, it is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating figure very roughly reflects the decibel reduction in noise that a partition can provide.

2.1.2 Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration. (FTA 2006) Vibration amplitudes are usually described in terms of peak levels, as in peak particle velocity (PPV). The peak level represents the maximum instantaneous peak of the vibration signal. In addition, vibrations can be measured in the vertical, horizontal longitudinal, or horizontal transverse directions. Ground vibrations are most often greatest, and can damage buildings, when they propagate in the vertical direction (Caltrans 2002, pg. 4). Therefore, the analysis of ground-borne vibration associated with the Project was evaluated in the vertical direction. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances from the source (i.e., 50 feet or less). The vibration attenuation equation is presented below (FTA 2006).

 $PPV_{equip} = PPV_{ref} (25 / D)^{n}$ (**Equation 3**)

Where: PPV_{ref} = reference source vibration

D = distance

n = factor for soil attenuation (default value is 1.5).

2.2 Regulatory Setting

2.2.1 Federal

Noise Control Act

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, the USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor Ldn of 55 dBA and an indoor Ldn of 45 dBA (USEPA 1974). These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project.

Occupational Safety and Health Act

Under the Occupational Safety and Health Act of 1970 (29 U.S.C. §1910 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. Feasible administrative or engineering controls or personal protective equipment is required for employees subjected to sound exceeding those listed in § 1910.95. For an 8-hour duration per day, the sound level is 90 dBA. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

2.2.2 State

California Noise Standards

The State of California does not have statewide standards for environmental noise, but the California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land

use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be "clearly unacceptable." In addition, California Government Code Section 65302(f) requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Division of Occupational Health and Safety

The California Division of Occupational Health and Safety (CalOSHA) provides guidelines to ensure people employed in the State of California are not exposed to noise levels greater than 85 dBA. An employer would be required to administer a continuing effective hearing conservation program whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level of 85 dBA (referred to as the "action level"), or equivalently, a dose of 50 percent. The following procedures shall be implemented as part of the hearing conservation program when the action level is exceeded: personal or area noise monitoring, implementation of an audiometric testing program, an evaluation of an audiogram, audiometric test requirements, and audiometric calibration. Furthermore, if the action level is exceeded, the employer shall institute a training program for all employees who are exposed to noise at or above an 8-hour time-weighted average of 85 dBA, and shall ensure employee participation in the program. The training program shall be repeated annually for each employee included in the hearing conservation program, and information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes.

California Vibration Standards

There are no state vibration standards. Moreover, according to the California Department of Transportation's (Caltrans) *Transportation and Construction Vibration Guidance Manual*, there are no official Caltrans standards for vibration. However, this Caltrans manual provides guidance that can be used as screening tools for assessing the potential for adverse vibration effects related to structural damage and human perception (Caltrans 2013b). The manual is meant to provide

practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects.

2.2.3 Local

In California, local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans, and noise ordinances set forth the specific standards and procedures for addressing particular noise sources and activities. General plans recognize that different types of land uses have different sensitivities toward their noise environment; residential areas are considered to be the most sensitive type of land use to noise and industrial/commercial areas are considered to be the least sensitive.

City of Los Angeles General Plan Noise Element

The overall purpose of the City of Los Angeles Noise Element of the General Plan is to protect citizens from the harmful and annoying effects of exposure to excessive noise. City of Los Angeles Noise Element policies that relate to the proposed Project include the following:

- Policy 2.2—Enforce and/or implement applicable city, state and federal regulations intended
 to mitigate proposed noise producing activities, reduce intrusive noise, and alleviate noise
 that is deemed a public nuisance.
- Policy 3.1—Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

Los Angeles Municipal Code

The City's Noise Regulation is provided in Chapter XI of the Los Angeles Municipal Code (LAMC). Section 111.02 of the LAMC provides procedures and criteria for the measurement of the sound level of "offending" noise sources. In accordance with the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. To account for people's increased tolerance for short-duration noise events, the Noise Regulation provides a 5 dBA allowance for noise occurring more than five but less than fifteen minutes in any one-hour period and an additional 5 dBA allowance (total of 10 dBA) for noise occurring five minutes or less in any one-hour period.

The LAMC indicates that in cases where the actual ambient conditions are not known, the City's presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) minimum ambient noise levels as defined in Section 111.02 of the LAMC should be used. The presumed ambient noise levels for these areas as set forth in the LAMC Sections 111.02 and 112.05 are provided in **Table 1**, *City of Los Angeles Presumed Ambient Noise Levels*. For residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime. Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied

property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than five (5) decibels.

Section 112.05 of the LAMC sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is required where "technically feasible." Chapter VI, Section 41.40 of the LAMC prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 A.M. to 9:00 P.M.; and Saturdays and National Holidays between 8:00 A.M. to 6:00 P.M.). In general, the City's Department of Building and Safety enforces noise ordinance provisions relative to equipment and the Los Angeles Police Department enforces provisions relative to noise generated by people.

TABLE 1
CITY OF LOS ANGELES PRESUMED AMBIENT NOISE LEVELS

Zone	Daytime Hours (7 A.M. to 10 P.M.) dBA (L _{eq})	Nighttime Hours (10 P.M. to 7 A.M.) dBA (L_{eq})
Residential	50	40
Commercial	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

Source: LAMC. Section 111.03.

Section 113.01 of LAMC prohibits collecting or disposing of rubbish or garbage, to operate any refuse disposal truck, or to collect, load, pick up, transfer, unload, dump, discard, or dispose of any rubbish or garbage, as such terms are defined in Section 66.00 of LAMC, within 200 feet of any residential building between the hours of 9:00 P.M. and 6:00 A.M. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

Guidelines for Noise-Compatible Land Uses

The City has adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the *City of L.A. CEQA Thresholds Guide* in terms of the CNEL (City of L.A. 2006). CNEL guidelines for specific land uses are classified into four categories: (1) "normally acceptable," (2) "conditionally acceptable," (3) "normally unacceptable," and (4) "clearly unacceptable." As shown in **Table 2**, *City of Los Angeles Land Use Compatibility for Community Noise*, a CNEL value of 70 dBA is the upper limit of what is considered a "conditionally acceptable" noise environment for hotel uses, although the upper limit of what is considered "normally acceptable"

for hotel uses is set at 65 dBA CNEL. New development should generally be discouraged within the "normally unacceptable" or "clearly unacceptable" categories. However, if new development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

TABLE 2
CITY OF LOS ANGELES LAND USE COMPATIBILITY FOR COMMUNITY NOISE

	Community Noise Exposure CNEL (dBA)			
Land Use	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	_	50 to 70	_	Above 65
Sports Arena, Outdoor Spectator Sports	_	50 to 75	_	Above 70
Playgrounds, Neighborhood Parks	50 to 70	_	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	_	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	_
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	_

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.

Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: City of L.A. CEQA Thresholds Guide, 2006.

2.3 Environmental Setting

2.3.1 Noise Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure and the types of activities typically involved at the receptor location. The City of Los Angeles CEQA Thresholds Guide states that residences, schools, motels and hotels, libraries, religious institutions, hospitals, nursing homes, and parks are generally more sensitive to noise

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

than commercial and industrial land uses. The nearest existing noise sensitive uses in close proximity to the Project site include the following:

- Multi-Family Residential Dwellings: A two-story multi-family residential building is located adjacent to the Project site property to the north. Two- and three story multi-family residential buildings are located further to the north (approximately 80 feet and greater from the Project site) and to the east across Westlake Avenue (approximately 60 feet and greater from the Project site). Residential uses are also located to the south of James M Wood Boulevard (approximately 180 feet and greater from the Project site), but are located further away from the Project site and generally have intervening commercial uses on the south side of James M Wood Boulevard that would mask, shield, or partially shield noise from the Project site.
- Religious Facility: A Christian fellowship land use is located on Westlake Avenue to the east of the Project site (approximately 60 feet from the Project site) with a building setback of approximately 40 to 50 feet from Westlake Avenue (for a total of approximately 100 to 110 feet between the Project site and the building).

All other noise-sensitive uses are located at greater distances from the Project site and would experience lower noise levels associated with the Project. Therefore additional sensitive receptors beyond those identified above are not required to be evaluated.

2.3.2 Vibration Sensitive Receptors

Typically, ground-borne vibration generated by man-made activities (i.e., rail and roadway traffic, mechanical equipment and typical construction equipment) diminishes rapidly as the distance from the source of the vibration become greater. The Federal Transportation Association (FTA) uses a screening distance of 100 feet for high vibration sensitive buildings (e.g., hospital with vibration sensitive equipment) and 50 feet for residential uses (FTA 2006). When vibration sensitive uses are located within those distances from a project site, vibration impact analysis is required. With respect to structures, vibration-sensitive receptors generally include historic buildings with construction susceptible to damage, buildings in poor structural condition, and uses that require precision instruments (e.g., hospital operating rooms or scientific research laboratories). The residential uses located adjacent to the north of the Project site would be within the screening distance (less than 50 feet) with the potential for perceptible vibration due to short-term Project construction and long-term Project operations. Therefore, vibration impacts will be quantified and evaluated for the nearby residential uses.

2.3.3 Ambient Noise Levels

The predominant existing noise source surrounding the Project site is traffic noise from James M Wood Boulevard to the south of the Project site, Westlake Avenue to the east of the Project site, and from Alvarado Street to the west of the Project site. Secondary noise sources include general commercial and residential-related activities, such as heating, ventilation, and air conditioning (HVAC) units, periodic landscape maintenance, residential and commercial delivery trucks, and refuse service activities.

Ambient noise measurements were conducted at three locations, representing the nearby land uses in the vicinity of the Project site to establish the ambient noise levels. The measurement locations along with surrounding land uses are shown on **Figure 4**, *Noise Measurement Locations*. Short-term (15-minute) measurements were conducted at locations R1, R2, and R3. Ambient sound measurements were conducted on Wednesday, February 15, 2017, to characterize the existing noise environment in the Project vicinity. Ambient noise monitoring printouts are provided in **Appendix A** of this Technical Report.

The ambient noise measurements were conducted using the Larson-Davis Sound Track LxT1 Sound Level Meter (SLM). The Larson-Davis LxT1 is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade, at the following locations as shown in **Figure 4**:

- Measurement Location R1: This location represents the existing noise environment of the Project vicinity along James M Wood Boulevard. The SLM was placed on the southern boundary of the Project site along James M Wood Boulevard.
- Measurement Location R2: This location represents the existing noise environment of the
 Project vicinity along Westlake Avenue, and is considered representative of the noise
 environment of the existing off-site multi-family residential uses to the north of the Project
 site and on the east side of Westlake Avenue as well as the religious facility to the east of the
 Project site. The SLM was placed on the eastern boundary of the Project site along Westlake
 Avenue.
- Measurement Location R3: This location represents the existing noise environment of the Project vicinity north of James M Wood Boulevard and east of Alvarado Street, and is considered representative of the existing off-site multi-family residential uses to the north and east of the Project site. The SLM was placed on the western boundary of the Project site adjacent to a commercial land use.

A summary of noise measurement data is provided in **Table 3**, *Summary of Ambient Noise Measurements*. As shown in **Table 3**, the existing ambient noise level in the vicinity of the Project site currently exceed the City's presumed ambient noise levels for residential areas of 50 dBA during the measurement period. The ambient noise levels in the immediate Project vicinity are representative of an urban area with a mix of commercial uses.

Figure 4 Noise Measurement Locations

TABLE 3
SUMMARY OF AMBIENT NOISE MEASUREMENTS

	Measured Ambient Noise Levels (dBA, L_{eq})		
Location, Duration, Existing Land Uses, and Date of Measurements	Equivalent Noise Level, L_{eq}	Maximum Noise Level, L_{max}	Minimum Noise Level, L _{min}
R1 Wednesday 2/15/17 (10:40 a.m. to 10:55 a.m.)	67.2	87.4	51.0
R2 Wednesday 2/15/17 (10:57 a.m. to 11:12 a.m.)	63.2	82.2	51.8
R3 Wednesday 2/15/17 (11:13 a.m. to 11:28 a.m.)	61.0	76.5	52.4

SOURCE: ESA 2017.

To further characterize the Project area's ambient noise environment, the noise levels attributed to existing traffic on local roadways were calculated using a noise prediction model which was developed based on calculation methodologies provided in the California Department of Transportation (Caltrans) Technical Noise Supplement (TeNS) document and traffic data provided in the Project traffic impact analysis prepared by Linscott, Law & Greenspan Engineers (LLG) for the Project (LLG 2017). This methodology, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

A traffic model calibration test was performed to establish the noise prediction model's accuracy. The road segments included in the calibration test were along James M Wood Boulevard, between Alvarado Street and Westlake Avenue, and along Westlake Avenue, between James M Wood Boulevard and 8th Street. At the locations identified above (R1 and R2), a 15-minute noise recording was made concurrent with logging of actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in **Table 4**, *Traffic Noise Model Validation Results*. As indicated, the noise model results are within 2 dBA of the measured noise levels, which is within the industry standard tolerance of the noise prediction model. Therefore, the Project-specific traffic noise prediction model is considered accurate and reflective of the Project's physical setting.

TABLE 4
TRAFFIC NOISE MODEL VALIDATION RESULTS

Measurement Location	Measured Noise Level (dBA, L_{eq})	Calculated Noise Level (dBA, L _{eq})	Net Difference (dBA, L _{eq})
R1	67.2	68.1	0.9
R2	63.2	61.6 ^a	1.6

R2 is located on Westlake Avenue and had very few vehicles during the short-term measurement time resulting in a calculated value of 51.5 dBA L_{eq} (based solely on the relatively few vehicles on Westlake Avenue during the measurement time). However, R2 is located approximately 125 feet north of James M Wood Boulevard. Therefore, the calculated noise level at R2, taking into account the higher traffic noise level from James M Wood Boulevard (R1) is expected to result in a calculated value of approximately 61.6 dBA, L_{eq}.

SOURCE: ESA 2017.

Because the monitoring data validates the use of a project-specific traffic noise prediction model, the ambient noise environment of the Project vicinity can be characterized by the levels attributable to existing traffic on local roadways. As indicated in **Table 3** and **Table 4**, the off-site multi-family residential uses at location R2 and R3 are within the "normally acceptable" community noise category (refer to **Table 2**), which is an exterior noise level of up to 65 dBA for multi-family homes. As indicated in **Table 3** and **Table 4**, the off-site religious facility at location R2 is within the "normally acceptable" community noise category (refer to **Table 2**), which is an exterior noise level of up to 70 dBA for churches.

Environmental Impacts

3.1 Significance Thresholds

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to noise and vibration. These questions are as follows:

Would a project result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Impact Threshold NOISE-1);
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (Impact Threshold NOISE-2);
- c. A substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project (Impact Threshold NOISE-3);
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (Impact Threshold NOISE-4);
- 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
- 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

The Project is not located within an airport land use plan and is not located within two miles of a public airport or public use airport or within the vicinity of a private airstrip, as discussed in items "e" and "f" above. As such, the Project would result in no impacts to these screening criteria and no further analyses of these topics are necessary.

With respect to items "a" through "d" above, the quantitative thresholds described below are used to evaluate the potential for the Project to result in noise and vibration impacts.

3.1.1 Construction

Noise and Vibration Technical Report

The City of L.A. CEQA Thresholds Guide defines the following significance thresholds for construction activities lasting more than 10 days in a three month period or occurring during the

hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or anytime on Sunday:

- On-site Project construction activities cause the exterior ambient noise level to increase by 5 dBA or more at a noise-sensitive use, as measured at the property line of any sensitive use (evaluated under Impact Thresholds NOISE-1 and NOISE-4).
- Off-site Project construction traffic causes the exterior ambient noise level to increase by 5 dBA CNEL or more at a noise-sensitive use, as measured at the property line of any sensitive use (evaluated under Impact Thresholds NOISE-1 and NOISE-4).

3.1.2 Operation

Operational noise impacts are evaluated for Project-related off-site roadway traffic noise impacts and on-site stationary source noise from on-site activities and equipment.

- The Project would cause any ambient noise levels to increase by 5 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally acceptable" or "conditionally acceptable" (see **Table 2** for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally unacceptable" or "clearly unacceptable" (evaluated under Impact Thresholds NOISE-1 and NOISE-3).
- Project-related operational (i.e., non-roadway) noise sources such as outdoor activities, building mechanical/electrical equipment, etc., increase ambient noise level by 5 dBA, causing a violation of the City Noise Ordinance (evaluated under Impact Thresholds NOISE-1 and NOISE-3).
- The maximum noise level (L_{max}) generated from the operation of the loading dock, refuse collection area, or parking structure (i.e., car alarm) exceeds the average (L_{eq}) ambient noise level by 10 dBA (evaluated under Impact Thresholds NOISE-1 and NOISE-3).

3.1.3 Ground-Borne Vibration

The City of Los Angeles has not adopted a significance threshold to assess vibration impacts during construction. Thus, the Caltrans *Transportation and Construction Vibration Guidance Manual* is used as screening tools to assess the potential for adverse vibration effects related to structural damage and human perception (Caltrans 2013b).

- Potential Building Damage Project construction activities cause ground-borne vibration levels to exceed 0.5-inch-per second PPV at the nearest off-site residential buildings (evaluated under Impact Threshold NOISE-2).
- Potential Human Annoyance Project construction and operation activities cause ground-borne vibration levels to exceed 0.035-inch-per-second PPV at nearby residential uses (evaluated under Impact Threshold NOISE-2).

3.2 Methodology

The evaluation of potential noise and vibration impacts that may result from the construction and long-term operation of the Project is conducted as follows.

3.2.1 Construction Noise

On-Site Construction Noise

On-site construction noise impacts were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise levels at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors. More, specifically, the following steps were undertaken to assess construction-period noise impacts.

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see **Table 3**, above)
- Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model;
- Distances between construction site locations (noise sources) and surrounding sensitive receptors were estimated using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth);
- The construction noise level was then estimated, in terms of hourly L_{eq}, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance; and
- Construction noise levels were then compared to the construction noise significance thresholds.

Off-Site Roadway Construction Noise

Roadway noise impacts were evaluated using the Caltrans TeNS method based on the roadway traffic volume data provided in the traffic impact analysis prepared by LLG for the Project (LLG 2017). This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was quantified and compared to baseline noise levels that would occur under the "Without Project" condition.

3.2.2 Operational Noise

Off-Site Roadway Traffic Noise

Similar to off-site roadway construction noise, roadway traffic noise impacts were evaluated using the Caltrans TeNS method based on the roadway traffic volume data provided in the traffic impact analysis prepared by LLG for the Project (LLG 2017). This method allows for the

definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was quantified and compared to baseline noise levels that would occur under the "Without Project" condition.

Stationary Point-Source Noise

Stationary point-source noise impacts were evaluated by identifying the noise levels generated by outdoor stationary noise sources, such as rooftop mechanical equipment and loading area activity, estimating the hourly L_{eq} noise level from each noise source at sensitive receptors, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 3);
- Distances between stationary noise sources and surrounding sensitive receptor locations were estimated using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth);
- Stationary-source noise levels were then estimated for each sensitive receptor location based
 on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of
 distance and incorporating noise attenuating features and design standards such as outdoor
 mechanical equipment enclosures or noise mufflers; and
- Noise level increases were compared to the stationary source noise significance thresholds.

3.2.3 Groundborne Vibration

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, estimating the distance between vibration sources and surrounding structure locations and vibration sensitive receptors using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth), and making a significance determination based on the significance thresholds.

3.2.4 Project Characteristics

The Project would replace the existing retail uses on the site with a new hotel use. As a result sound levels could increase on the Project site and in the vicinity due to activity associated with occupants, visitors, consumers, and the operation of mechanical equipment and automobiles. Applicable regulations with which the Project must comply that would minimize Project-related noise sources include the following:

• Chapter VI, Section 41.40 of the LAMC limits construction hours for exterior construction and hauling activities to between the hours of 7:00 A.M. and 9:00 P.M., Monday through Friday, and 8:00 A.M. and 6:00 P.M. on Saturday.

All building outdoor mounted mechanical and electrical equipment would be designed to
meet the requirements of LAMC, Chapter XI, Section 112.02, which limits the noise output
from such equipment to no more than a five decibel increase over the ambient noise level.

3.2.5 Project Design Features

In addition to compliance with regulatory requirements, contractors are expected to implement industry-wide best management practices to ensure equipment are operating in accordance with industry standards. The analysis of construction noise incorporates—and the analysis assumes implementation of—the following industry-wide best management practice, referred to as a Project Design Feature (PDF) that would minimize construction-related noise and vibration levels:

PDF-NOISE-1: Equipment Noise Control: The Project contractor(s) shall equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards and specifications.

3.3 Project Impacts

Impact Threshold NOISE-1: A significant impact would occur if the Project would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Statement: Noise from on-site construction equipment and activities would potentially increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds and would result in a potentially significant impact. Implementation of Mitigation Measure NOISE-1 would reduce this impact to less than significant. Noise from off-site construction truck trips would not be expected to increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds and this impact would be less than significant. Operational noise impacts from Project-related traffic would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds and this impact would be less than significant. Operational noise from the on-site Project parking structure, loading dock area, refuse collection area, and mechanical equipment would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds and this impact would be less than significant.

On-Site Construction Noise

Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction of the Project would involve the following phases of activity: (1) demolition; (2) site preparation; (3) grading and excavation; (4) building construction and architectural coatings; and (5) paving. Each phase involves the use of different types of construction equipment and, therefore, has its own distinct noise characteristics. Demolition would typically include equipment such as a concrete saw, dozer, and

tractors/loaders/backhoes. Site preparation would typically include equipment such as a dozer and tractors/loaders/backhoes. Grading and excavation would typically include equipment such as an excavator, tractors/loaders/backhoes, dozer, and drill rig. An estimate of up to approximately 16,500 cubic yards of earth would be excavated for the two basement levels beneath the hotel. Building construction and architectural coatings would typically include equipment such as a crane, forklift, generator set, tractor/loader/backhoe, and air compressor. Paving would typically include equipment such as a paver, roller, and mixer. The Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required. Project construction could begin as early as mid-2017 with completion anticipated in 2018.

As would be the case for construction of most land use development projects, construction of the proposed Project would require the use of heavy-duty equipment with the potential to generate audible noise above the ambient background noise level. Even with implementation of PDF NOISE-1, individual pieces of construction equipment anticipated during Project construction could produce maximum noise levels of 75 dBA to 90 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 5**, *Construction Equipment Noise Levels*. These maximum noise levels would occur when equipment is operating under full power conditions. The estimated usage factor for the equipment is also shown in **Table 5**. The usage factors are based on the FHWA Roadway Construction Noise Model User's Guide (FHWA 2006). To more accurately characterize construction-period noise levels, the average (Hourly L_{eq}) noise level associated with each construction phase is estimated based on the quantity, type, and usage factors for each type of equipment used during each construction phase and are typically attributable to multiple pieces of equipment operating simultaneously.

TABLE 5
CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Estimated Usage Factor (%)	Reference Noise Level at 50 feet (dBA, L_{max})
Air Compressor	50%	78
Bore/Drill Rig	20%	79
Cement and Mortar Mixer	40%	79
Concrete Saw	20%	90
Crane	40%	81
Dozer	40%	82
Excavator	40%	81
Forklift	10%	75
Generator Set	50%	81
Paver	50%	77
Paving Equipment	20%	90
Roller	20%	80
Tractor / Loader / Backhoe	25%	80

SOURCE: FHWA 2006; and ESA 2017.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity).

Over the course of a construction day, the highest noise levels would be generated when multiple pieces of construction equipment are operated concurrently. The Project's estimated construction noise levels were calculated for a scenario in which a reasonably number of construction equipment was assumed to be operating simultaneously, given the physical size of the site and logistical limitations, and with the noisiest equipment located at the construction area nearest to the affected receptors to present a conservative impact analysis. This is considered a considered a worst-case evaluation because the Project would typically use fewer overall equipment simultaneously at any given time, and as such would likely generate lower noise levels than reported herein. The estimated noise levels at the off-site sensitive receptors were calculated using the FHWA's Roadway Construction Noise Model. **Table 6**, *Estimated Construction Noise levels* (L_{eq}) at Existing Off-Site Sensitive Receptor Locations, shows the estimated construction noise levels that would occur at the nearest off-site sensitive uses during a peak day of construction activity at the Project Site. Detailed noise calculations for construction activities are provided in **Appendix B** of this Technical Report.

Table 6
Estimated Construction Noise Levels (L_{EQ}) at Off-Site Sensitive Receiver Locations

Offsite Sensitive Receptor Location	Location	Distance from Closest Edge of Construction Activity to Noise Receptor (ft.) ^a	Estimated Maximum Construction Noise Levels (dBA L _{eq})	Significance Threshold ^b	Exceed Significance Threshold?
R1	Multi-family residential uses south of the Project site across James M Wood Boulevard	180	72	72	No
R2	Multi-family residential uses and religious facility to the west of the Project site across Westlake Avenue	60	79	68	Yes
R3	Multi-family residential uses adjacent to the north of the Project site	25	85	66	Yes

The distance represents the nearest construction area on the Project site to the property line of the offsite receptor.

SOURCE: ESA 2017.

As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Mitigation measures are therefore prescribed to reduce construction noise impacts to these sensitive noise receptors.

The significance threshold is the daytime ambient equivalent noise levels (L_{eq}) as shown in **Table 3** plus 5 dBA.

Off-Site Construction Noise

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. Trucks traveling to and from the Project site would be required to travel along a haul route approved by the City of Los Angeles. Approximately 10 haul truck trips per hour would occur during a workday. Haul truck traffic would take the most direct route to the appropriate freeway ramp.

Noise associated with construction truck trips were estimated using the Caltrans TeNS method based on the maximum number of truck trips in a day. The noise calculation worksheets for construction truck trips are provided in **Appendix B** of this Technical Report. The results of the analysis indicate that the Project truck trips would generate noise levels of approximately 59 dBA, measured at a distance of 25 feet along James M Wood Boulevard. As shown in **Table 3**, the existing noise level along James M Wood Boulevard is approximately 67 dBA. Construction traffic noise levels generated by truck trips would increase traffic noise levels along James M Wood Boulevard by up to approximately 68 dBA (59 dBA + 67 dBA = 68 dBA). The noise level increases by truck trips would be below the significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

Operational Off-Site Roadway Traffic Noise

Existing roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). Roadway noise attributable to Project development was calculated using the Caltrans TeNS methodology previously described and was compared to baseline noise levels that would occur under the "Without Project" condition.

Project impacts are shown in **Table 7**, *Operational Off-Site Traffic Noise – Existing Conditions*. As shown in **Table 7**, there would be no increase in Project-related traffic noise levels over existing traffic noise levels. This increase in sound level would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. The increase in noise levels would be lower at the remaining roadway segments analyzed. As a result, the Project-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

TABLE 7
OPERATIONAL OFF-SITE TRAFFIC NOISE – EXISTING CONDITIONS

Calculated Traffic Noise Levels Measured at 25 Feet from the Roadway (dBA, Peak Hour $L_{\rm eq}$; Equivalent to CNEL)

Roadway Segment	Existing (A)	Existing with Project (B)	Project Increment (B-A)	Exceed Threshold?
James M Wood				
Between Hoover Street and Alvarado Street	68.4	68.5	0.1	No
Between Alvarado Street and Union Avenue	68.7	68.7	0.0	No
Hoover Street				
Between James M Wood Boulevard and Olympic Boulevard	71.8	71.8	0.0	No
Alvarado Street				
Between Olympic Boulevard and James M Wood Boulevard	71.7	71.7	0.0	No
Between James M Wood Boulevard and 8th Street	71.6	71.6	0.0	No
Between 8th Street and 7th Street	71.6	71.6	0.0	No

SOURCE: ESA 2017.

Operational Parking Structure Noise

Vehicle access to structured parking on the Project site would be accommodated via an entrance driveway on the existing alley from James M Wood Boulevard. Parking stalls would be located in the interior of the building and in subterranean floors and would be screened from public view and shielded from surrounding off-site development by the Project building itself. Automobile movements within parking structures represent the most continuous noise source and can in certain circumstances generate noise levels with the potential to adversely impact adjacent land uses. However, due to the slow speeds of the vehicles in the garage, and because views of the parking levels would be visually screened (enclosed) by the Project building, blocking the line of sight between the noise source and sensitive receptors, parking-related noise would be shielded and would not increase the ambient noise levels at the nearest off-site future sensitive receptor locations. As such, parking structure noise would not increase the exterior noise level above the City's thresholds of significant and impacts would be less than significant and no mitigation would be required.

Operational Loading Dock Area Noise

Loading dock activities such as truck movements/idling and loading/unloading operations generate noise levels that have the potential to adversely impact adjacent land uses during long-term Project operations. The Project's loading area would be located in the interior of the building and would be screened from public view and shielded from surrounding off-site development by the Project building itself. Therefore, operational loading dock area noise would not increase exterior ambient noise levels and would not exceed the City's thresholds of significance. Impacts would be less than significant.

Operational Refuse Collection Area Noise

The Project's refuse and recycling collection bins would be stored in a dedicated area at the southwest portion of the Project Site. This area would be fully enclosed by permanent walls and access doors. In addition, collecting or disposing of rubbish or garbage would not occur between the hours of 9:00 p.m. and 6:00 a.m. of the following day to comply with Section 113.01 of the LAMC. Therefore, operational refuse collection area noise would not increase exterior ambient noise levels and would not exceed the City's thresholds of significance. Impacts would be less than significant.

Operational Fixed Mechanical Equipment Noise

The operation of mechanical equipment typically installed for developments like the Project, such as HVAC systems and related equipment, may generate audible noise levels. Project mechanical equipment including air conditioning condensers would be installed on the building rooftop, with other equipment contained within the building. The Project's HVAC units would either be minisplit systems or conventional system mounted on the roof and screened from view. As stated in Section 3.2.4, Project Characteristics, all Project mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02, which prohibits the noise from such equipment from causing an increase in the ambient noise level of more than 5 dB. Therefore, operation of mechanical equipment on the Project building would not exceed the City's thresholds of significance and impacts would be less than significant.

Composite Noise Level Impacts from Project Operations

An evaluation of the combined noise levels from the Project's various operational noise sources (i.e., composite noise level) was conducted to conservatively ascertain the potential maximum Project-related noise level increase that may occur at the noise-sensitive receptors considered in this analysis. Noise sources associated with the Project include traffic on nearby roadways, the parking structure, the loading dock and refuse collection areas, and on-site mechanical equipment.

As discussed above, the Project would generate an increase in traffic-related noise that would be substantially below the "clearly noticeable" increase of 5.0 dBA and also well below a "just perceptible" increase of 3.0 dBA. Furthermore, the parking structure and loading dock and refuse collection areas would be located in the interior of the building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase would not exceed the City's thresholds of significance and impacts would be less than significant.

Mitigation Measure

Construction-related noise has the potential to result in a significant noise impact at sensitive receptor locations to the north and east of the Project site. Thus, the following mitigation measure is prescribed to minimize construction-related noise impacts.

Mitigation Measure NOISE-1: The Project shall provide a temporary 15-foot tall construction noise barrier (i.e., wood, sound blanket) between the Project construction site and off-site noise sensitive uses along the entire north and east boundaries of the Project site, with a performance standard of achieving a 20 dBA noise level reduction along the north boundary and a 15 dBA noise level reduction along the east boundary. The temporary noise barriers shall be used during early Project construction phases (up through building framing) when the use of heavy equipment is prevalent. The Project shall also avoid locating or using stationary construction equipment near off-site noise sensitive uses.

Mitigation Measure NOISE-1 provides for noise barriers that would achieve a noise reduction of up to 20 dBA along the north boundary and 15 dBA along the east boundary between Project construction and off-site receptor locations north and east of the Project site. The noise reduction provided by the noise barrier would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, construction noise impacts would be mitigated to less than significant.

Impact Threshold NOISE-2: A significant impact would occur if the Project would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Impact Statement: Construction equipment and activities would not be expected to result in vibration levels at off-site vibration sensitive receptors in excess of the structural or human annoyance significance thresholds. Construction-related vibration impacts would be less than significant. Operational equipment and activities would not be expected to result in vibration levels at off-site vibration sensitive receptors in excess of the structural or human annoyance significance thresholds. Operational-related vibration impacts would be less than significant.

Structural Vibration Impacts

Construction machinery and operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible

vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibration from construction activities rarely reaches the levels that damage structures. The FTA has published standard vibration velocities, in terms of PPV, for construction equipment operations. The typical vibration PPV levels for construction equipment pieces anticipated to be used during Project construction are listed in **Table 8**, *Typical Vibration Velocities for Potential Project Construction Equipment*.

TABLE 8
TYPICAL VIBRATION VELOCITIES FOR POTENTIAL PROJECT CONSTRUCTION EQUIPMENT

	Reference Vibration	Reference Vibration Source Levels, PPV (inch/second)				
Equipment	25 feet	50 feet	100 feet	200 feet		
Large bulldozer	0.089	0.031	0.011	0.004		
Loaded trucks	0.076	0.027	0.010	0.003		
Small bulldozer	0.003	0.001	0.0004	0.0001		

SOURCE: USDOT Federal Transit Administration 2006.

With regard to the proposed Project, ground-borne vibration would be generated primarily during site clearing and grading activities and by off-site haul-truck traveling on surface streets. Ground-borne vibration impacts are confined to short distances (i.e., 50 feet or less) from the vibration source and decrease rapidly with distance. As indicated in **Table 8**, vibration velocities from the operation of construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the equipment. As indicated in **Table 8**, the vibration velocity of 0.089 inches per second PPV at a distance of 25 feet from construction equipment would be reduced to 0.031 inches per second PPV at 50 feet distance and reduced to 0.011 inches per second PPV at 100 feet distance.

The nearest off-site residential building is located to the north of the Project site. The existing building on the Project site is located approximately 50 feet away from the nearest off-site residential building. Therefore, bulldozers and loaded trucks would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of 0.5 inches per second PPV. Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

The Project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which could produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the parking structure area. Ground-borne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold of 0.5 inches per second PPV for structural damage. As such, operational vibration impacts associated with operation of the Project would be

below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

Human Annoyance Vibration Impacts

As discussed in the preceding section, construction of the Project would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of 0.035 inches per second PPV. Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

Ground-borne vibration generated by commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold of 0.035 inches per second PPV for perceptibility. As such, operational vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

Impact Threshold NOISE-3: A significant impact would occur if the Project would result in a substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project.

Impact Statement: Operational noise impacts from Project-related traffic would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds. Operational noise from the on-site Project parking structure, loading dock area, refuse collection area, and mechanical equipment would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds. Therefore, the Project would not be expected to result in a substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project and impacts would be less than significant.

As discussed under Impact Threshold NOISE-1, existing roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). As shown in **Table 7**, the maximum increase in Project-related traffic noise levels over existing traffic noise levels would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. As a result, the Project-related traffic noise increases would be less than the threshold.

In addition, as discussed under Impact Threshold NOISE-1, operational noise from the Project's parking structure, loading dock, and refuse collection areas would be located in the interior of the

building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase from on-site noise sources would not exceed the City's thresholds of significance.

Based on the results of the analysis, the Project would not be expected to result in a substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project and impacts would be less than significant and mitigation measures would not be required.

Impact Threshold NOISE-4: A significant impact would occur if the Project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Statement: Short-term and temporary noise from on-site construction equipment and activities would potentially increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds. Short-term and temporary noise from off-site construction truck trips would not be expected to increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds. Short-term and temporary noise from on-site construction equipment and activities could result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. This impact would be potentially significant. Implementation of Mitigation Measure NOISE-1 would reduce this impact to less than significant.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity).

As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Implementation of **Mitigation Measure NOISE-1** would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, the short-term and temporary construction noise impact from on-site equipment and activities would be mitigated to less than significant.

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. Trucks traveling to and from the Project site would be required to travel along a haul route approved by the City of Los Angeles. As discussed under Impact Threshold NOISE-1, the noise level increases by truck trips would be below the

significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

3.4 Cumulative Impacts

3.4.1 Construction Noise

Noise from construction of the Project plus related projects would be localized, thereby potentially affecting areas immediately within 500 feet from each projects' construction site. Due to distance attenuation (more than 500 feet away) and intervening structures, construction noise from one site would not result in a noticeable increase in noise at sensitive receptors near another site, precluding a cumulative noise impact. In addition, all related projects would be required to implement noise mitigation measures as required by the California Environmental Quality Act (CEQA), if necessary to reduce significant impacts. Therefore, the Project's contribution to cumulative construction noise impacts would not be expected to be cumulatively considerable. As such, cumulative impacts would be less than significant.

3.4.2 Operational Noise

The Project site and surrounding area would generate noise that may contribute to cumulative noise from a number of community noise sources including vehicle travel, mechanical equipment (e.g., HVAC systems), and other noise typical of an urban environment. Due to City's provisions that limit on-site stationary-source mechanical equipment noise such as outdoor air-conditioning equipment, noise levels would be less than significant at the property line for each related project. As the Project's stationary-source impacts would be less than significant, stationary-source noise impacts attributable to cumulative development would also be less than significant.

However, the proposed Project and other developments in the Project area could produce traffic volumes that are capable of generating a roadway noise impacts. Cumulative noise impacts due to roadway traffic have been assessed based on the difference between noise generated by existing traffic volumes and traffic volumes projected under "Future With Project" conditions, based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). The traffic noise levels are provided in **Table 9**, *Operational Off-Site Traffic Noise – Future Conditions*. As indicated in **Table 9**, there would be no cumulative noise increase from the Project on future noise conditions. This increase in sound level would be attributed to other related projects and not to the proposed Project and would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. The increase in noise levels would be lower at the remaining roadway segments analyzed. As a result, the Project-related cumulative noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 9
OPERATIONAL OFF-SITE TRAFFIC NOISE – FUTURE CONDITIONS

Calculated Traffic Noise Levels Measured at 25 Feet from the Roadway (dBA, Peak Hour $L_{\rm eq}$; Equivalent to CNEL)

Roadway Segment	Existing (A)	Future with Project (B)	Cumulative Increment (B-A)	Exceed Threshold?
James M Wood				
Between Hoover Street and Alvarado Street	68.4	69.6	1.2	No
Between Alvarado Street and Union Avenue	68.7	69.8	1.1	No
Hoover Street				
Between James M Wood Boulevard and Olympic Boulevard	71.8	72.5	0.7	No
Alvarado Street				
Between Olympic Boulevard and James M Wood Boulevard	71.7	72.7	1.0	No
Between James M Wood Boulevard and 8th Street	71.6	72.8	1.2	No
Between 8th Street and 7th Street	71.6	72.7	1.1	No

SOURCE: ESA 2017.

3.4.3 Groundborne Vibration

Due to the rapid attenuation characteristics of ground-borne vibration and distance of the cumulative projects to the Project site, there is no potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration. Therefore, impacts would be less than significant.

4.0

Summary of Results

The Project would replace the existing retail uses on the site with a new hotel use. As a result sound levels could increase on the Project site and in the vicinity due to activity associated with occupants, visitors, consumers, and the operation of mechanical equipment and automobiles. The following is a summary of the Project's construction and operational noise impacts.

4.1 Construction Noise

As would be the case for construction of most land use development projects, construction of the proposed Project would require the use of heavy-duty equipment with the potential to generate audible noise above the ambient background noise level. Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction of the Project must comply with applicable regulations that would minimize Project-related noise sources. These regulations include Chapter VI, Section 41.40 of the LAMC (permissible construction hours) and Chapter XI, Section 112.02 of the LAMC (noise limits for all building outdoor mounted mechanical and electrical equipment). In addition, contractors are expected to implement industry-wide best management practices to ensure equipment are operating in accordance with industry standards, which includes equipping all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards and specifications.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity). As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Implementation of **Mitigation Measure NOISE-1** would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, the short-term and temporary construction noise impact from on-site equipment and activities would be mitigated to less than significant.

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. The noise level increases by truck trips would be below the significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

4.2 Operational Noise

The Project would generate operational noise from Project-related vehicle travel, mechanical equipment (e.g., HVAC systems), the on-site parking structure, loading dock area, and refuse collection area. Roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). As shown in **Table 7**, the increase in traffic noise level would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. As a result, the Project's traffic-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

The Project's parking structure and loading dock and refuse collection areas would be located in the interior of the building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase from on-site noise sources would not exceed the City's thresholds of significance and impacts would be less than significant.

4.3 Groundborne Vibration

Construction machinery and operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. With regard to the proposed Project, ground-borne vibration would be generated primarily during site clearing and grading activities and by off-site haul-truck traveling on surface streets. Ground-borne vibration impacts are confined to short distances (i.e., 50 feet or less) from the vibration source and decrease rapidly with distance.

The nearest off-site residential building is located to the north of the Project site. The existing building on the Project site is located approximately 50 feet away from the nearest off-site residential building. Therefore, bulldozers and loaded trucks would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of the significance threshold for structural damage (0.5 inches per second PPV) or the significance threshold for human annoyance (0.035 inches per second PPV). Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

The Project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which could produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the parking structure area. Ground-borne vibration generated

by each of the above-mentioned activities would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold for structural damage (0.5 inches per second PPV) or the significance threshold for human annoyance (0.035 inches per second PPV). As such, operational vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

5.0

References

- Bies & Hansen, 1988. Bies, D.A. and C.H. Hansen, Engineering Noise Control, (1988).
- California Department of Transportation (Caltrans), (2002). Transportation Related Earthborne Vibrations, (2002). Available: http://www.dot.ca.gov/hq/env/noise/pub/TRANSPORTATION_RELATED_EARTHBOR NE_VIBRATIONS.pdf. Accessed February 2017.
- Caltrans, 2013a. Technical Noise Supplement (TeNS) to the Traffic Noise Analysis Protocol, (2013). Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf. Accessed February 2017.
- Caltrans, 2013b. Transportation and Construction Vibration Guidance Manual, (2013). Available: http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf. Accessed February 2017.
- City of Los Angeles (City of L.A.), 2006. City of L.A. CEQA Thresholds Guide, Section I.2, (2006).
- Federal Highway Administration (FHWA), 2006. Roadway Construction Noise Model RCNM and User Guide, (2006). Available: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/. Accessed February 2017.
- FHWA, 2011. Highway Traffic Noise, Measurement of Highway-Related Noise, (2011). Available: https://www.fhwa.dot.gov/Environment/noise/measurement/mhrn02.cfm. Accessed February 2017.
- Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment, (2006). Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual .pdf. Accessed February 2017.
- Linscott, Law & Greenspan Engineers (LLG), 2017. Traffic Impact Study, 2005 James M Wood Blvd Hotel Project, (2017).
- United States Environmental Protection Agency (USEPA), 1974. EPA Identifies Noise Levels Affecting Health and Welfare (April 1974). Available: https://archive.epa.gov/epa/aboutepa/epa-identifies-noise-levels-affecting-health-and-welfare.html. Accessed February 2017.







TRAFFIC IMPACT STUDY

2005 JAMES M. WOOD BOULEVARD HOTEL PROJECT

City of Los Angeles, California February 17, 2017

Prepared for:

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LLG Ref. 5-17-0316-1

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APPENDIX

- A. Manual Traffic Count Data
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TRAFFIC IMPACT STUDY

2005 JAMES M. WOOD BOULEVARD HOTEL PROJECT

City of Los Angeles, California February 17, 2017

1.0 Introduction

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts generated by the proposed hotel project (the "Project") located at 2005 James M. Wood Boulevard in the Westlake area of the City of Los Angeles. The Project proposes the construction of a hotel that will provide up to 100 guestrooms. The proposed Project site is located at the northwest corner of the Westlake Avenue and James M. Wood Boulevard intersection. The Project site location and general vicinity are shown in *Figure 1–1*.

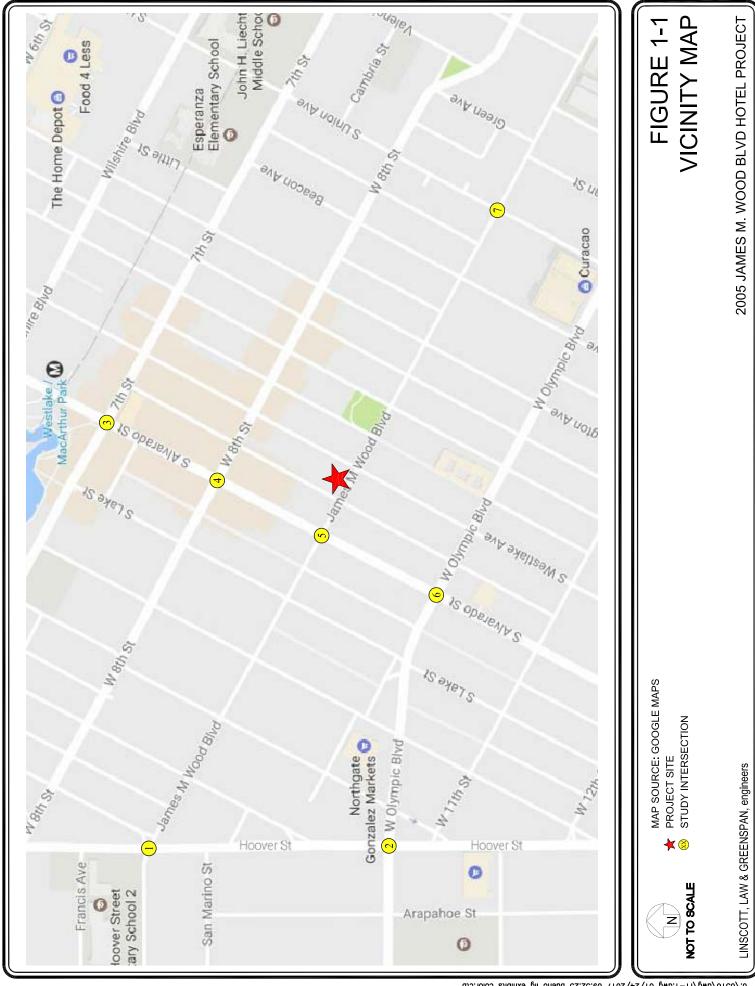
The traffic analysis follows City of Los Angeles traffic study guidelines¹ and is consistent with traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program². This traffic analysis evaluates potential Project-related impacts at seven key intersections in the vicinity of the Project site. The study intersections were determined in consultation with City of Los Angeles Department of Transportation (LADOT) staff. The Critical Movement Analysis method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for all seven study intersections. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the Project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast net new traffic volumes from the Project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the Project, (vi) determines future forecast with Project-related impacts, and (vii) recommends mitigation measures, where necessary.

-

¹ Traffic Study Policies and Procedures, City of Los Angeles Department of Transportation, August 2014.

² 2010 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, 2010.



1.1 Study Area

Upon coordination with LADOT staff, seven study intersections have been identified for evaluation. All of the intersections were analyzed during both the weekday morning and afternoon peak hours. The seven study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided in Section 3.0.

The general location of the Project in relation to the study locations and surrounding street system is presented in $Figure\ 1-1$. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

- a. Immediately adjacent or in close proximity to the Project site;
- b. In the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and
- c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, the proposed Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The site of the Project is located at 2005 James M. Wood Boulevard and is within the Westlake Community Plan Area of the City of Los Angeles, California. The Project site is located at the northwest corner of the Westlake Avenue and James M. Wood Boulevard intersection. The Project site location and general vicinity are shown in *Figure 1–1*.

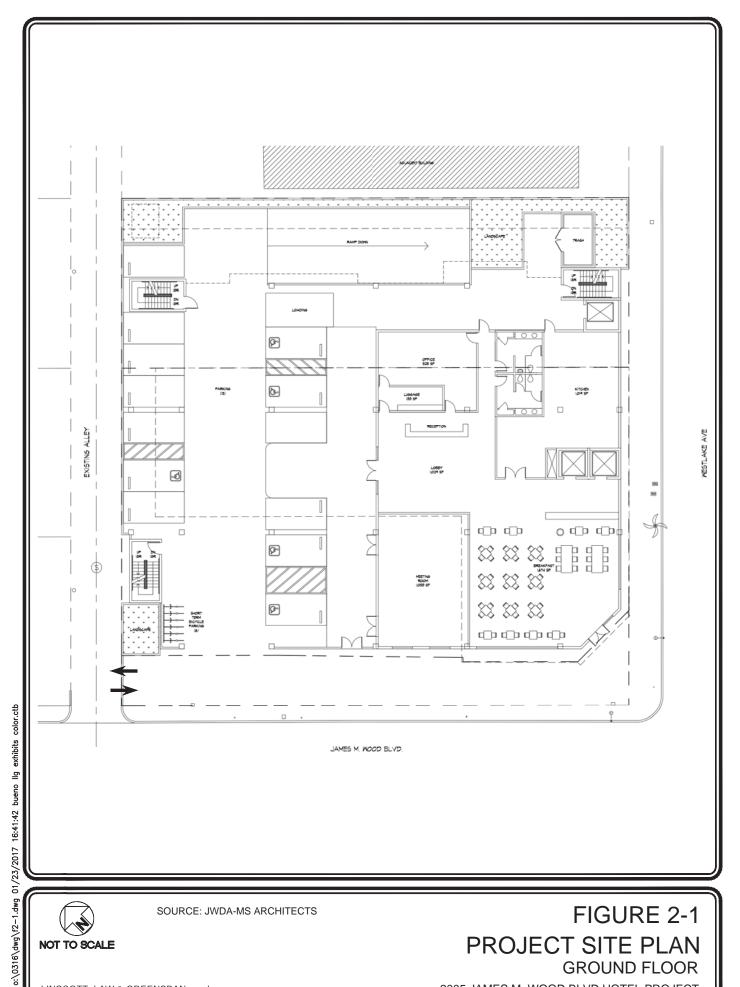
2.2 Existing Project Site

The existing Project site is currently occupied by retail space. The building area of the retail space is 8,228 square feet. Vehicular access to the existing Project site is provided via two driveways located off James M. Wood Boulevard and Westlake Avenue. Additionally, vehicular access is provided via the existing north-south alley located along the property's westerly frontage.

2.3 Proposed Project Description

The Project applicant proposes to construct a hotel that will provide up to 100 guestrooms. Parking for the Project will be provided on-site within a subterranean parking garage. A small number of at-grade parking will also be provided. Construction and occupancy of the Project is planned to be completed by the year 2019. The site plan for the Project is illustrated in *Figure* 2–1.

Vehicular access to the site will be provided via the existing north-south alley. Further discussion of the Project site access and circulation schemes is provided in Section 3.0.





SOURCE: JWDA-MS ARCHITECTS

FIGURE 2-1 PROJECT SITE PLAN **GROUND FLOOR**

2005 JAMES M. WOOD BLVD HOTEL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the Project is displayed in *Figure 2–1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the existing site is provided via one driveway located off the north side of James M. Wood Boulevard and one driveway located off the west side of Westlake Avenue. Additionally, vehicular access is available via the existing alley that is adjacent to the property's westerly frontage.

3.2 Vehicular Project Site Access

Vehicular access to the Project site will be provided via the north-south alley located along the Project site's westerly frontage. The north-south alley will provide access to both the ground floor parking and loading area, as well as the subterranean parking levels of the on-site parking garage.

The north-south alley intersects 8th Street to the north and James M. Wood Boulevard to the south. Traffic movements at the alley intersections with 8th Street and James M. Wood Boulevard are assumed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project site is provided by the I-10 (Santa Monica) Freeway, US-101 (Hollywood) Freeway, and I-110 (Pasadena/Harbor) Freeway. Brief descriptions of the I-10, US-101, and I-110 Freeways are provided in the following paragraphs.

I-10 (Santa Monica) Freeway is an east-west freeway connecting the City of Santa Monica with the City of Los Angeles and the municipalities of the San Gabriel Valley and San Bernardino County to the east. In the Project vicinity, three to four mixed-flow freeway lanes are generally provided in each direction on the I-10 Freeway with auxiliary merge/weave lanes provided between some interchanges. Eastbound and westbound ramps are provided at Hoover Street on the I-10 Freeway in the Project area.

US-101 (Hollywood) Freeway is a north-south freeway that extends across northern and southern California. In the Project vicinity, four mixed-flow freeway lanes are provided in each direction on the US-101 Freeway. Northbound and southbound ramps are provided at Alvarado Street on the US-101 Freeway in the Project area.

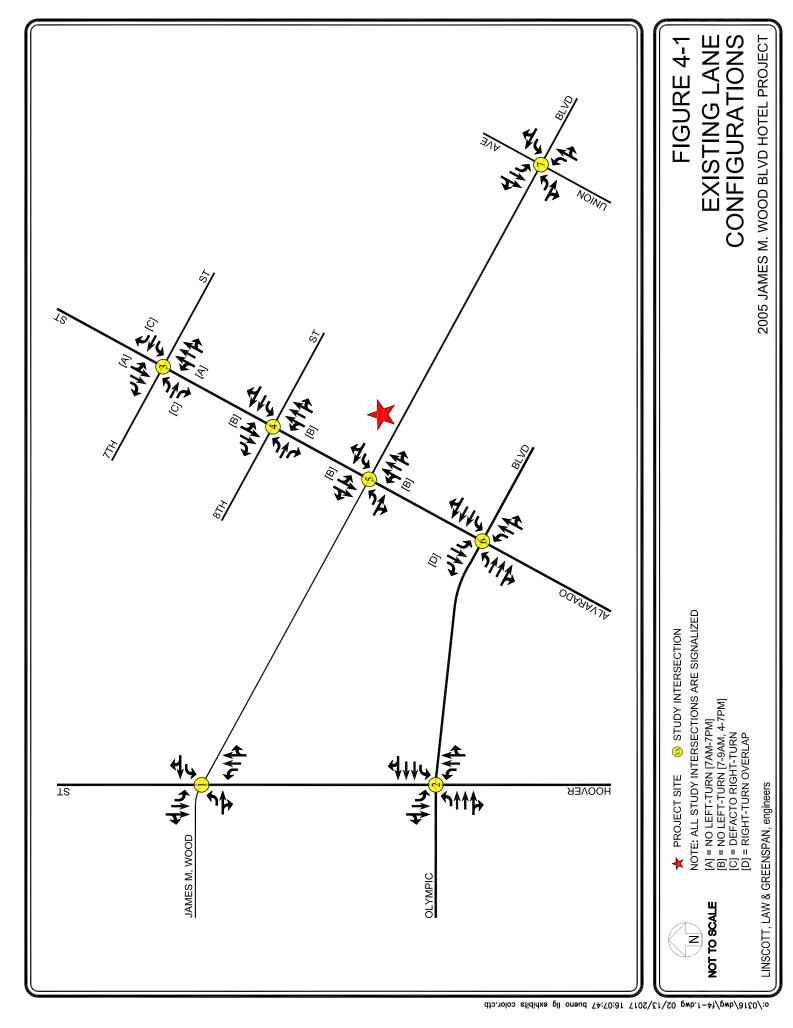
I-110 (Pasadena/Harbor) Freeway is a north-south oriented freeway connecting the San Gabriel area to the north with the San Pedro area to the south. In the Project vicinity, three to four mixed-flow freeway lanes are generally provided in each direction on the I-110 Freeway with auxiliary merge/weave lanes provided between some interchanges. Northbound and southbound ramps are provided at 8th Street on the I-110 Freeway in the Project area.

4.2 Local Roadway System

Immediate access to the Project site is provided via James M. Wood Boulevard and the existing north-south alley. The following study intersections were selected in consultation with LADOT staff for analysis of potential impacts due to the Project:

- 1. Hoover Street / James M. Wood Boulevard
- 2. Hoover Street / Olympic Boulevard
- 3. Alvarado Street / 7th Street
- 4. Alvarado Street / 8th Street
- 5. Alvarado Street / James M. Wood Boulevard
- 6. Alvarado Street / Olympic Boulevard
- 7. Union Avenue / James M. Wood Boulevard

All seven study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in *Figure 4–1*.



4.3 Roadway Descriptions

A brief description³ of the important roadways in the Project vicinity is provided in the following paragraphs.

Hoover Street is a north-south oriented roadway located west of the Project Site. Within the Project study area, Hoover Street is designated as a Major Highway Class II/Avenue II north of Alvarado Street and as a Major Highway Class II/Boulevard II south of Alvarado Street by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Hoover Street in the Project study area. Separate exclusive left-turn lanes are provided on Hoover Street at major intersections. Hoover Street is posted for a 35 miles per hour speed limit in the Project vicinity.

Alvarado Street is a north-south oriented roadway located west of the Project Site. Within the Project study area, Alvarado Street is designated as a Major Highway Class II/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in the southbound direction and three through travel lanes are generally provided in the northbound direction on Alvarado Street in the Project study area. Separate exclusive left-turn lanes are provided on Alvarado Street at the Olympic Boulevard intersection. Separate southbound right-turn only lanes are provided on Alvarado Street at major intersections. Alvarado Street is posted for a 35 miles per hour speed limit in the Project vicinity.

Westlake Avenue is a north-south oriented roadway that borders the Project site to the east. Within the Project study area, Westlake Avenue is designated as a Local Street by the City of Los Angeles. One through travel lane is generally provided in both directions on Westlake Avenue in the Project study area. There is no speed limit posted on Westlake Avenue in the Project vicinity, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.

Union Avenue is a north-south oriented roadway located east of the Project site. Within the Project study area, Union Avenue is designated as a Secondary Highway /Avenue III by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on Union Avenue within the Project study area. Separate exclusive left-turn lanes are provided on Union Avenue at the James M. Wood Boulevard intersection. There is no speed limit posted on Union Avenue in the Project vicinity, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.

7th Street is an east-west oriented roadway that is located north of the Project site. Within the Project study area, 7th Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. One through travel lane is generally provided in both directions on 7th Street within the Project study area. Separate exclusive left-turn lanes are provided on 7th Street at the Alvarado Street intersection. 7th Street is posted for a 30 miles per hour speed limit in the Project vicinity.

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³ For reference, the street descriptions provided include both the designations under the prior City Transportation Element (e.g., Major Highway, Secondary Highway, etc.) and Mobility Plan 2035 (e.g., Boulevard, Avenue, etc.) adopted by the Los Angeles City Council in August 2015).

8th Street is an east-west oriented roadway that is located north of the Project site. Within the Project study area, 8th Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on 8th Street within the Project study area. Separate exclusive left-turn lanes are provided on 8th Street at the Alvarado Street intersection. A separate eastbound right-turn only lane is provided on 8th Street at the Alvarado Street intersection. 8th Street is posted for a 35 miles per hour speed limit in the Project vicinity.

James M. Wood Boulevard is an east-west oriented roadway that borders the Project site to the south. Within the Project study area, James M. Wood Boulevard is designated as a Collector Street west of Alvarado Street and as a Secondary Highway/Avenue III east of Alvarado Street by the City of Los Angeles. One through travel lane is generally provided in both directions on James M. Wood Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on James M. Wood Boulevard at the Alvarado Street intersection. James M. Wood Boulevard is posted for a 25 miles per hour speed limit in the Project vicinity.

Olympic Boulevard is an east-west oriented roadway that is located south of the Project site. Within the Project study area, Olympic Boulevard is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. Three through travel lanes are generally provided in both directions on Olympic Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on Olympic Boulevard at the Alvarado Street intersection. Olympic Boulevard is posted for a 35 miles per hour speed limit in the Project vicinity.

4.4 Public Bus Transit Services

Public bus/rail transit service within the Project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro) and LADOT Transit (DASH). A summary of the existing transit service, including the transit route, destinations, and peak hour headways is presented in *Table 4–1*. The existing public transit routes in the Project site vicinity are illustrated in *Figure 4–2*. The Project site is located within one-quarter a mile of a Metro RapidBus stop.

Table 4-1 EXISTING PUBLIC TRANSIT ROUTES [1]

					16-Feb-17
		ROADWAY(S)	NO. O DURI	NO. OF BUSES/TRAINS DURING PEAK HOUR	AINS JUR
ROUTE	DESTINATIONS	NEAR SITE	DIR	$\mathbf{A}\mathbf{M}$	PM
Меtro 28	Downtown LA/Eagle Rock to Downtown LA/Century City (via Olympic Boulevard & Eagle Rock Boulevard)	Olympic Boulevard	EB WB	5	א א
Metro 51/52/351	Wilshire Center to M.L. King Jr. Transit Center (via Avalon Boulevard)	7th Street	NB SB	15	8 13
Меtro 66	Downtown LA/Montebello to Downtown LA/Wilshire Center (via 8th Street & Olympic Boulevard)	8th Street	EB WB	8 4	4 4
Metro 200	Echo Park to Exposition Park (via Alvarado Street & Hoover Street)	Alvarado Street	NB SB	× ×	8 7
Меtro 603	Glendale Galleria to Grand/LATTC Station (via San Fernando Road, Rampart Boulevard, & Hoover Street)	6th Street	NB SB	4 8	4 4
Metro Rapid 728	Downtown Los Angeles to Century City (via West Olympic Boulevard)	Olympic Boulevard	EB WB	5	\$ 4
DASH Pico Union / Echo Park	Pico Union to Echo Park (via Washington Boulevard, Union Avenue & Echo Park Avenue)	Union Avenue	NB SB	4 4	5
			Total	91	81

Sources: Los Angeles County Metropolitan Transportation Authority (Metro) website, 2017.
 Los Angeles Department of Transportation (DASH) website, 2017.





SOURCE: METROPOLITAN TRANSPORTATION AUTHORITY

★ PROJECT SITE

FIGURE 4-2 **EXISTING PUBLIC** TRANSIT ROUTES

LINSCOTT, LAW & GREENSPAN, engineers

2005 JAMES M. WOOD BLVD HOTEL PROJECT

5.0 TRAFFIC COUNTS

Manual traffic counts of vehicular turning movements were conducted at each of the seven study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours.

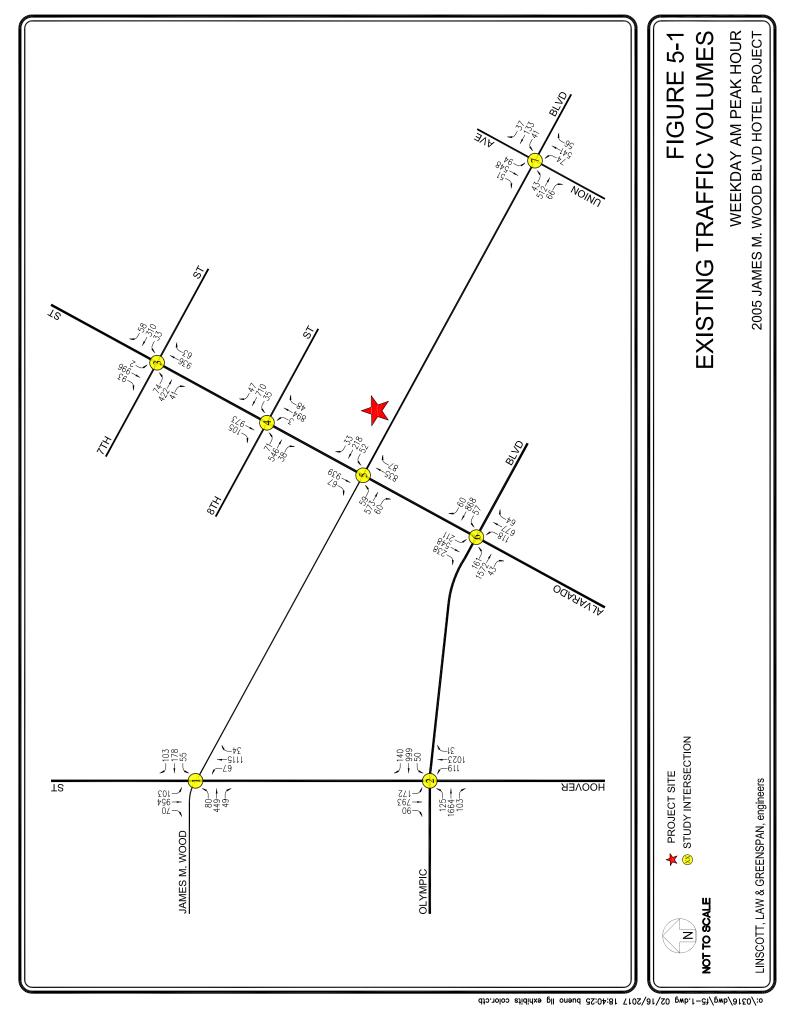
The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in *Table 5-1*. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in *Figures 5-1* and *5-2*, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in *Appendix A*.

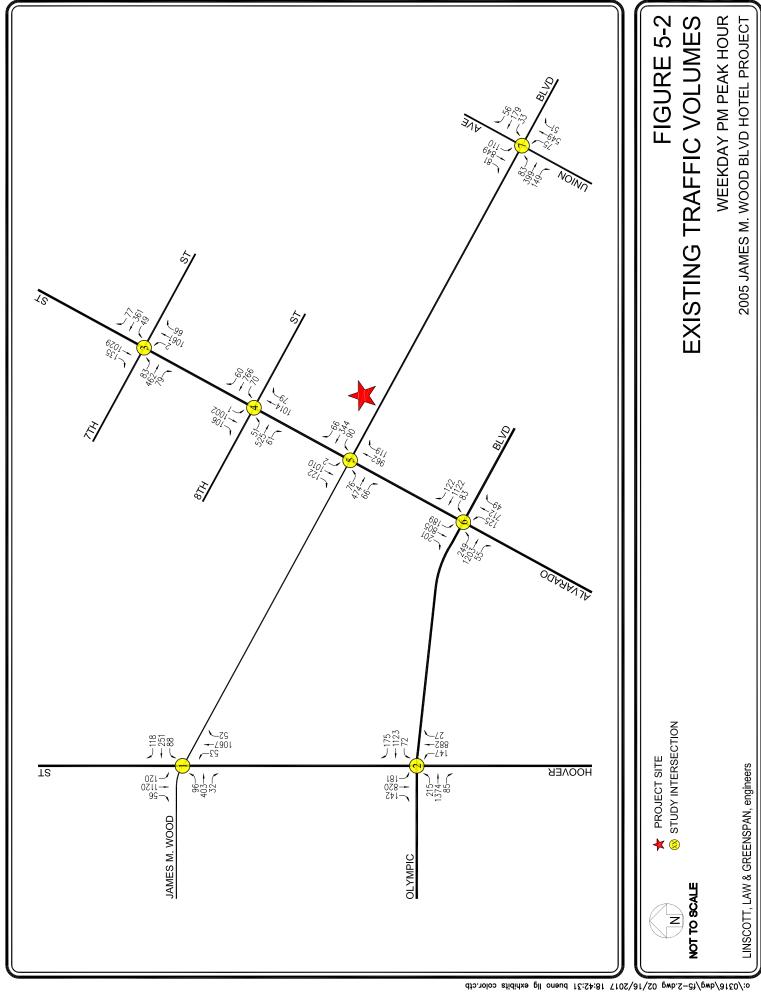
Table 5-1 EXISTING TRAFFIC VOLUMES [1]

16-Feb-17

				AM PE	AK HOUR	PM PE	AK HOUR
NO.	INTERSECTION	DATE	DIR	BEGAN	VOLUME	BEGAN	VOLUME
1	Hoover Street / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	1,216 1,127 578 336	4:45	1,172 1,296 531 457
2	Hoover Street / Olympic Boulevard	02/08/2017	NB SB EB WB	8:00	1,173 1,055 1,892 1,189	4:45	1,056 1,143 1,674 1,370
3	Alvarado Street / 7th Street	02/08/2017	NB SB EB WB	7:15	999 1,091 537 401	4:45	1,129 1,164 624 487
4	Alvarado Street / 8th Street	02/08/2017	NB SB EB WB	7:15	945 1,078 655 792	5:00	1,093 1,109 637 896
5	Alvarado Street / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	922 1,006 692 303	5:00	1,081 1,134 616 500
6	Alvarado Street / Olympic Boulevard	02/08/2017	NB SB EB WB	7:45	859 997 1,776 985	5:00	886 1,195 1,507 1,327
7	Union Avenue / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	671 693 621 211	4:45	675 1,040 631 268

^[1] National Data & Surveying Services





6.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-Project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

- "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
- (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in CEQA Guidelines for purposes of developing the forecast.

6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Los Angeles Departments of Transportation and Planning. The list of related projects in the project site area is presented in *Table 6-1*. The location of the related projects is shown in *Figure 6-1*.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual⁴. The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 6–1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in *Figures 6–2* and *6–3*, respectively.

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⁴ Institute of Transportation Engineers *Trip Generation* manual, 9th Edition, Washington, D.C., 2012.

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MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM VC	AM PEAK HOUR VOLUMES [2]	22 22	PM 2	PM PEAK HOUR VOLUMES [2]	Z 2
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	(±)	VOLUMES	N	OUT	TOTAL	NI	OUT	TOTAL
	LA Trade Tech College 5 Year Master Plan 400 W. Washington Boulevard	Construction	School	21,300 GSF		nom.	336	127	463	574	268	842
7	Wilshire Coronado 2525 Wilshire Boulevard	Construction	Condominium Retail	160 DU 7,500 GSF		1,160	16	09	9/	61	36	76
ю	Tenten Wilshire Expansion (The Icon, 1027 W. Wilshire Boulevard	Proposed	Condominium Retail	402 DU 4,728 GSF		1,498	21	92	113	83	53	136
4	3060 W. Olympic Boulevard	Construction	Retail	109,006 GSF		4,134	09	26	98	169	191	360
25	Northeast Tower Mixed-Use 215 W. 9th Street	Proposed	Condominium Retail	210 DU 9,000 GSF		1,140	14	99	70	49	38	102
9	Amacon Project 1133 S. Hope Street	Proposed	Apartment Retail	208 DU 5,029 GSF		1,543	20	74	94	91	50	141
7	5th & Olive 437 S. Hill Street	Proposed	Apartment Quality Restaurant	600 DU 13,872 GSF		3,088	44	122	166	162	76	259
∞	805 S. Catalina Street	Proposed	Condominium Retail	300 DU 5,000 GSF		1,935	24	119	143	110	57	167
6	3200 W. Beverly Boulevard	Proposed	Apartment Retail	32 DU 5,867 GSF		632	4	16	20	39	32	71
10	11th & Hill Project 1115 S. Hill Street	Proposed	Condominium Restaurant	172 DU 6,850 GSF	[3]	543	(45)	40	(5)	50	(-)	43
=	Bixel & Lucas Project 1102 W. 6th Street	Construction	Apartment Retail	725 DU 39,999 GSF	[4]	3,800	26	204	230	227	114	341
12	8th / Hope / Grand Project 609 W. 8th Street	Proposed	Condominium Hotel Retail Restaurant	225 DU 200 Rooms 30,000 GSF 32,000 GSF		4,908	06	104	194	242	159	401
13	820 S. Hoover Street	Proposed	Condominium Retail	32 DU 4,500 GSF		414	7	15	22	18	14	32
41	Norse Mixed Use Development 1924 W. Temple Street	Proposed	Retail High-Rise Condominiun Apartment	18,460 GSF 202 DU 46 DU	[5]	1,187	(18)	74	56	78	13	91
15	1130 W. Wilshire Boulevarc	Proposed	Office Day Care High-Turnover Restaurant Quality Restaurant	88,224 GSF 20 Students 248 GSF 5,375 GSF		964	92	12	104	28	61	68
16	Embassy Tower 848 S. Grand Avenue	Proposed	Condominiur: Retail	420 DU 38,500 GSF		3,882	99	144	210	212	165	377

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM	AM PEAK HOUR VOLUMES [2]	UR 21	PM	PM PEAK HOUR VOLUMES [2]	UR 21
NO.		STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	NI	OUT	TOTAL
17	Beverly + Lucas Project 1430 W. Beverly Boulevard	Proposed	Apartment	144 DU		780	13	49	62	47	25	72
18	Oak Village Residences Project 902 W. Washington Boulevard	Proposed	Condominium	142 DU	[9]	482	2	25	27	35	16	51
119	Wilshire Grand Redevelopment Projec 900 W. Wilshire Boulevard	Construction	Condominiur Hotel Fitness Facility Office Retail/Restaurant	100 DU 560 Rooms 20 KSF 1,500 KSF 50 KSF	[2]	3,624	725	75	0008	94	764	858
20	2100 S. Figueroa Street	Proposed	Condominium Retail	291 DU 7,134 GSF	[3]	870	(82)	99	(16)	29	(28)	39
21	Southwestern Law School Expansion 3050 W. Wilshire Boulevar	Proposed	Apartment Administration Offiα Lecture Hall	133 DU 43,400 GSF 450 Seats	[3]	(1,337)	(35)	(16)	(51)	(45)	(52)	(64)
22	Westlake Theater Apartments Project 619 S. Westlake Avenue	Proposed	Apartment	52 DU	[8]	254	8	17	20	16	∞	24
23	1435 W. 3rd Street	Proposed	Specialty Retail Apartment	3,500 GSF 122 DU	[6]	711	11	42	53	41	25	99
24	Metropolis Mixed-Use 899 S. San Francisco Street	Construction	Condominium: Office Hotel Retail/Restaurant	836 DU 988,225 GSF 480 Rooms 46,000 GSF		8,010	307	318	625	387	512	668
25	1027 S. Olive Street	Construction	Apartment	100 DU		632	6	39	48	38	21	59
26	1300 S. Hope Street	Proposed	Apartment Retail	419 DU 42,000 GSF		4,280	88	105	193	136	102	238
27	928 S. Broadway	Construction	Apartment Condominium Retail	670 DU 17 DU 58,800 GSF		4,715	21	229	250	272	109	381
28	G12 Mixed-Use 1200 S. Grand Avenue	Proposed	Apartment Retail	640 DU 45,000 GSF		4,886	92	148	240	181	134	315
29	1329 W. 7th Street	Construction	Apartment Retail	94 DU 2,000 GSF		662	16	37	53	39	22	19
30	840 S. Olive Street		Condominium Restaurant Retail	303 DU 9,680 GSF 1,500 GSF		3,071	81	166	247	174	96	270
31	968 S. Berendo Street	Construction	Church	85,308 GSF		535	23	∞	31	3	6	12
32	1700 W. Olympic Hotel 1700 W. Olympic Boulevarc	Proposed	Hotel	160 Rooms	[10]	1,157	4	32	76	45	42	87

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM V	AM PEAK HOUR VOLUMES [2]	UR 2]	A Md	PM PEAK HOUR VOLUMES [2]	JUR [2]
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	NI	LAO	TOTAL
33	1001 S. Olive Street	Construction	Apartment Quality Restaurant	225 DU 5,000 GSF		1,581	22	79	101	94	51	145
34	Hill Street Mixed-Use 920 S. Hill Street	Proposed	Apartment Retail	239 DU 5,400 GSF		1,476	23	84	107	87	50	137
35	Broadway Mixed-Use 955 S. Broadway	Proposed	Apartment Retail	201 DU 6,000 GSF		1,275	21	72	93	74	43	117
36	801 S. Olive Street	Construction	Apartment Restaurant Retail	363 DU 7,500 GSF 2,500 GSF	[11]	2,557	33	129	162	149	83	232
37	1212 W. Flower Street	Proposed	Condominium Retail Office	730 DU 10,500 GSF 70,465 GSF		3,956	78	233	311	229	121	350
38	820 S. Olive Street	Proposed	Apartment Retail	589 DU 4,500 GSF		3,309	63	202	265	195	106	301
39	The Herald Examiner Mixed-Use Project 1111 S. Broadway	Proposed	Condominium Retail Office	587 DU 32,560 GSF 41,140 GSF	[12]	5,304	137	213	350	274	262	536
40	1148 S. Broadway	Proposed	Apartment Retail	94 DU 2,500 GSF		553	∞	30	38	32	18	50
41	2850 W. 7th Street	Proposed	Condominium Hotel Retail	160 DU 40 Rooms 3,600 GSF		1,057	20	72	92	72	42	114
42	1120 S. Grand Avenue	Proposed	High-Rise Apartment Retail	666 DU 20,690 GSF		2,730	42	127	169	136	93	229
43	1230 S. Olive Street	Proposed	Apartment Retail	362 DU 4,000 GSF		2,114	31	126	157	127	69	196
4	2929 W. Leeward Avenue	Proposed	Condominium	NO 08		476	7	33	40	4	21	65
45	1247 S. Grand Avenue	Proposed	Apartment Retail	118 DU 5,125 GSF		763	10	41	51	42	25	29
46	1400 S. Figueroa Street Residential Project 1400 S. Figueroa Street	Proposed	Apartment Retail	106 DU 4,834 GSF	[13]	647	10	38	48	39	22	61
47	6th & Virgil 2968 W. 6th Sreet	Proposed	Apartment High-Turnover Restaurant Health Club	399 DU 12,000 GSF 8,000 GSF	[14]	2,943	73	154	227	168	93	261
48	Legal Aid Foundation of LA 1550 W. 8th Street	Construction	Office	33,957 GSF		230	29	4	33	9	26	32

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM	AM PEAK HOUR VOLUMES [2]	UR 21	MA V	PM PEAK HOUR VOLUMES [2]	UR 21
NO.		STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	NI	LOO	TOTAL
49	Variety Arts Mixed-Use 940 S. Figueroa Street	Proposed	Theatre Restaurant Bar	1,942 Seats 10,056 GSF 5,119 GSF		2,237	2	4	6	66	35	134
50	1036 S. Grand Avenue	Proposed	Restaurant	7,149 GSF		492	2	3	5	27	14	41
51	1335 W. 1st Street	Proposed	Apartment Retail	101 DU 3,514 GSF		714	10	40	50	42	24	99
52	1150 W. Wilshire Boulevard	Proposed	Apartment Restaurant	80 DU 4,589 GSF	[3]	511	(22)	26	4	39	(5)	34
53	1218 W. Ingraham Street	Proposed	Apartment	90 DU		532	∞	33	41	33	17	50
54	742 S. Hartford Avenue	Construction	Apartment	58 DU		333	5	21	26	20	111	31
55	1728 W. 7th Street	Proposed	Restaurant Bar	9,600 GSF 3,500 GSF	[3]	362	(30)	(40)	(70)	50	14	49
56	1145 W. 7th Street	Proposed	Condominium Apartment Retail	126 DU 100 DU 7,200 GSF		1,084	4	99	70	<i>L</i> 9	35	102
57	3076 W. Olympic Boulevard	Proposed	Apartment Retail	226 DU 16,907 GSF		1,567	25	78	103	06	99	146
58	3350 W. Wilshire Boulevard	Proposed	Apartment	121 DU		728	111	43	54	47	25	72
59	1011 S. Park View Street	Proposed	Apartment	108 DU		594	6	38	47	38	19	57
09	2965 W. 6th Street	Proposed	Hotel	99 Rooms		889	26	18	4	25	25	50
61	422 S. Lake Street	Construction	Apartment	90 DU		532	∞	33	41	33	17	50
62	1302 W. Washington Boulevard	Proposed	Pharmacy/Drug Store	16,572 GSF	[3]	414	(33)	(18)	(51)	21	12	33
63	1929 W. Pico Boulevard	Proposed	Charter High School	480 Students	[15]	821	140	99	206	29	33	62
49	2789 W. Olympic Boulevard	Proposed	Office Retail	2,781 GSF 20,607 GSF		612	16	∞	24	25	29	54
65	1255 E. Elden Avenue	Proposed	Apartment	93 DU		376	0	32	32	28	10	38
99	3100 W. 8th Street	Proposed	Apartment	100 DU		100	10	41	51	10	41	51
29	3330 W. Beverly Boulevard	Proposed	Apartment Child Care	40 DU 4,237 GSF		495	26	34	09	35	32	<i>L</i> 9
89	326 S. Reno Street	Proposed	Apartment	05 DU		326	S	20	25	20	111	31
69	2335 W. Temple Street	Proposed	Apartment	71 DU		554	∞	31	39	37	20	57
70	1017 S. Mariposa Avenue	Proposed	Apartment	79 DU		373	5	23	28	23	12	35

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Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

JUR 121	TOTAL	184	27	27	25	53	36	120	123	79	53	48	99	95	300	44	218	36	154
PM PEAK HOUR	OUT	<i>L</i> 9	10	(15)	∞	26	5	48	09	37	(51)	18	37	33	116	15	81	ĸ	54
P.	ZI	117	17	42	17	27	31	72	63	42	104	30	29	62	184	29	137	31	100
OUR	TOTAL	137	22	28	20	47	35	76	50	99	46	39	352	82	247	37	216	31	118
AM PEAK HOUR	OUT	108	17	48	16	19	28	77	4	39	117	32	158	62	173	30	135	30	95
	Z	29	S	(20)	4	28	7	20	9	17	(71)	7	194	23	74	7	81	-	23
DAILY TP IP ENDS [2]	VOLUMES	1,998	288	333	267	727	492	1,365	1,674	755	587	521	026	1,116	3,461	479	3,482	446	1,725
PROJECT	SOURCE	[16]		[3]				[17]			[3]		[18]						
DATA	SIZE	305 DU 3,499 GSF 3,500 GSF	85 DU	144 DU 4,406 GSF	43 DU	89 Rooms	81 DU	341 DU 11,687 GSF	241 Rooms	103 DU 30,937 GSF	369 DU 18,600 GSF 2,200 GSF 1,200 GSF	DO DO	460 Students	161 DU 3,000 GSF	425 DU 126 Rooms 4,874 GSF	90 DU	10,000 GSF 5,500 GSF 644 DU	77 DU 745 GSF 2,360 GSF	303 DU 5,960 GSF
LAND USE DATA	LAND-USE	Apartment Retail Restaurant	Apartment	Apartment Retail	Apartment	Hotel	Apartment	Condominiur: Retail	Hotel	Apartment Museum	Apartment Shopping Center Quality Restaurant Coffee Shop	Apartment	Charter School (K-5)	Condominiur: Restaurant	Apartment Hotel Retail	Apartment	Retail Fast-Food Restaurant High-Rise Apartment	Apartment Retail Restaurant	Condominium Retail
TO TO CT	STATUS	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed
a a de la company de la compan	ADDRESS/LOCATION	The Alexan Project 850 S. Hill Street	427 S. Berendo Street	2405 W. 8th St	340 N. Patton Street	1625 W. Palo Alto Street	2859 W. Francis Avenue	Apex II Mixed-Use 700 W. 9th Street	649 S. Olive Street	605 S. Vermont Avenue	Sapphire Mixed-Use 1111 W. 6th Street	815 S. Kingsley Drive	1633 W. 11th Street Charter Project 1633 W. 11th Street	Grand Residence 1229 S. Grand Avenue	675 S. Bixel Street	740 S. Hartford Avenue	2900 W. Wilshire Boulevare	616 S. Westmoreland Avenue	Lifan Tower Mixed-Use 1235 W. 7th Street
MAD	NO.	71	72	73	74	75	92	77	78	79	80	81	82	83	28	85	98	87	88

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Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROTECT NAME/NITMBER	PROTECT	LAND USE DATA	DATA	PROJECT	DAILY TRIP FNDS [2]	AM	AM PEAK HOUR	UR	PM	PM PEAK HOUR	UR 1
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	IN	OUT	TOTAL
68	940 S. Hill Street	Proposed	Apartment Restaurant	232 DU 14,000 GSF		1,881	20	08	100	115	53	168
06	2649 W. San Marino Avenue	Proposed	Apartment	45 DU		246	4	15	19	15	∞	23
91	1322 Linwood Apartments 1322 W. Linwood Avenue	Proposed	Apartment	84 DU		449	S	30	35	28	14	42
92	14th & Olive Mixed-Use 1340 S. Olive Street	Proposed	Apartment Retail High-Turnover Restaurant	156 DU 5,000 GSF 10,000 GSF		1,700	51	82	133	68	57	146
93	1334 S. Flower Street Residential Project 1334 S. Flower Street	Proposed	Apartment Retail/Restaurant	188 DU 10,096 GSF	[19]	1,038	(3)	63	09	29	22	68
94	1020 S. Figueroa Street 1020 S. Figueroa Street	Proposed	High-Rise Condominiun Hotel Retail Restaurant	650 DU 300 Rooms 40 KSF 40 KSF	[20]	6,583	204	274	478	312	227	539
95	Zion Market 888 S. Vermont Avenue	Proposed	Office Retail	4,400 GSF 47,208 GSF		2,526	45	19	26	171	169	340
96	2972 W. 7th Street	Proposed	Apartment Retail	304 DU 9,735 GSF		1,018	17	66	116	76	23	66
26	720 W. Washington Boulevard	Proposed	Senior Apartment	105 DU		350	7	12	19	13	12	25
86	1400 S. Flower Street Residential Project 1400 S. Flower Street	Proposed	Apartment Retail	147 DU 6,921 GSF	[3]	801	(1)	49	84	51	17	89
66	3240 W. Wilshire Boulevard	Proposed	Hotel Apartment Retail	162 Rooms 545 DU 5,222 GSF		1,353	15	173	188	68	23	112
100	1930 W. Wilshire Boulevard		Apartment Theater Classroom Hotel	478 DU 850 Seats 50 Students 220 Rooms	[3]	1,355	(44)	128	8	103	(41)	62
101	1000 S. Vermont Avenue	Proposed	Apartment Retail	236 DU 60,300 GSF		2,655	39	94	133	137	102	239
102	2870 W. Olympic Boulevarc	Proposed	Hotel Retail	121 Rooms 17,850 GSF		1,178	34	23	57	4	40	84
103	Beaudry Ave & 2nd St Mixed-Use 130 S. Beaudry Avenue	Proposed	Apartment Retail/Restaurant	230 DU 9,000 GSF		1,159	∞	76	8	76	29	105
104	Urban View Lofts Project 495 S. Hartford Avenue	Proposed	Apartment	220 DU		1,033	16	63	79	62	34	96

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Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

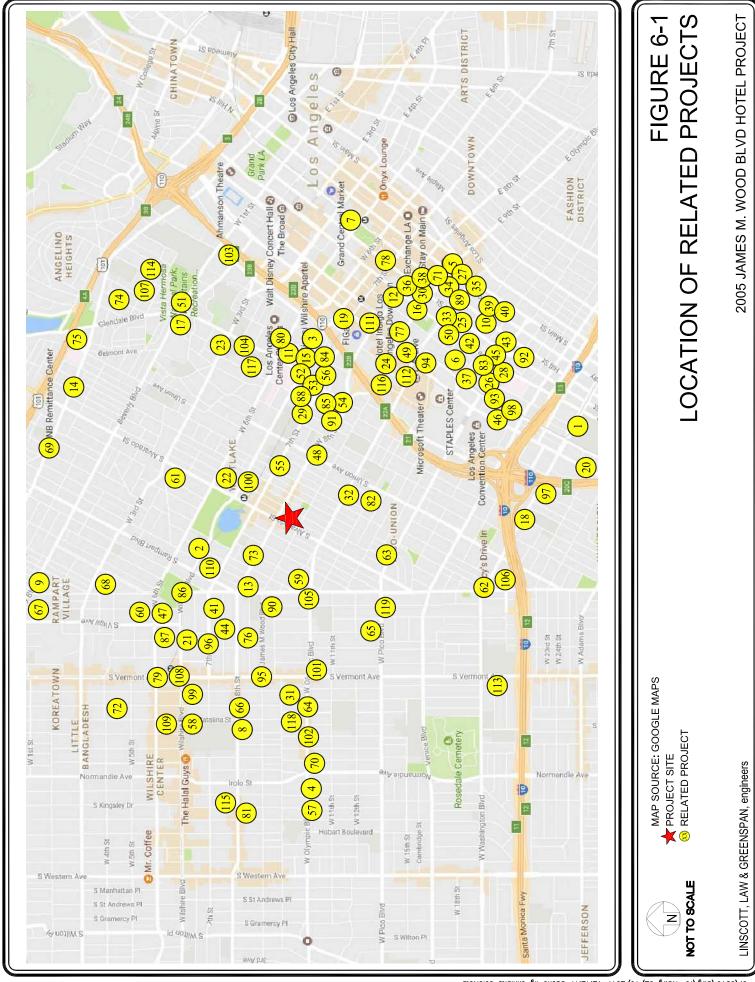
MAP	PROJECT NAME/NIMBER	PROTECT	LAND USE DATA	DATA	PROJECT	DAILY TRIP FUDS [2]	AM	AM PEAK HOUR	UR	PM	PM PEAK HOUR	UR 21
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	N	OUT	TOTAL
105	Olympic & Hoover Mixed-Use 2501 W. Olympic Boulevard	Proposed	Apartment Retail	173 DU 36,180 GSF		1,911	27	72	66	100	73	173
106	1122 W. Washington Boulevard	Proposed	Medical Office	60,000 GSF		2,060	107	29	136	57	146	203
107	1316 Court & 1323 Colton Apartments 1316 W. Court Street	Proposed	Apartment	122 DU		745	11	46	57	45	24	69
108	Wilshire Gate Project 631 S. Vermont Avenue	Proposed	Hotel Condominium Office Retail/Restaurant	200 Rooms 250 DU 49,227 GSF 21,230 GSF	[21]	2,599	95	95	190	115	120	235
109	The Nest on Catalina 621 S. Catalina Street	Proposed	Apartment Retail Lounge/Restaurant Banquet Hall	165 DU 8,500 GSF 15,000 GSF 15,000 GSF		2,776	26	55	81	180	95	275
110	668 S. Coronado Street	Proposed	Apartment Retail	122 DU 1,182 GSF		947	14	84	62	99	34	06
111	8th & Figueroa Mixed-Use 744 S. Figueroa Street	Proposed	Apartment Retail	438 DU 10,156 GSF		2,972	38	148	186	176	94	270
112	Olympic Tower Project 815 W. Olympic Boulevard	Proposed	Hotel Retail Office	346 Rooms 61,149 GSF 36,256 GSF		3,915	137	133	270	167	165	332
113	1620 W. Cordova Street Charter School Project 1620 W. Cordova Street	Proposed	Charter Middle School	400 Students	[22]	527	105	99	171	16	20	36
114	1300 W. Court Street	Proposed	Apartment	43 DU		286	4	18	22	17	10	27
115	748 S. Kingsley Drive	Proposed	Apartment	NG 19		406	9	25	31	24	14	38
116	926 W. James M. Wood Boulevard	Proposed	Hotel	225 Rooms		1,562	59	42	101	59	99	115
1117	459 S. Hartford Avenue	Proposed	Apartment	101 DU		361	15	15	30	22	22	4
118	966 S. Dewey Avenue	Proposed	Hotel	99 Rooms		229	28	15	43	24	24	48
119	2250-2270 W. Pico Blvd Hotel Project 2250 W. Pico Blvd	Proposed	Hotel	125 Rooms	[23]	409	26	19	45	10	6	19
						177,740	4,470	8,196	12,666	9,994	7,007	17,001

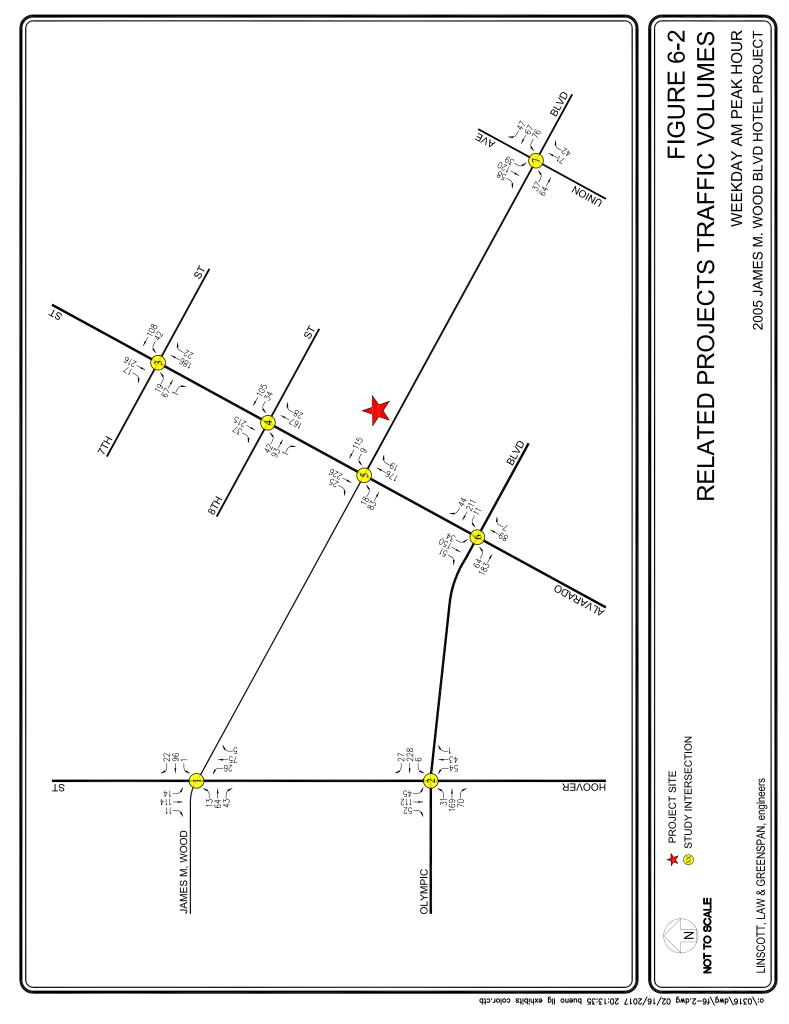
nom. = nominal
[1] Source: City of Los Angeles Department of Transportation, unless otherwise noted in the Project Data Source column.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Negative trip generation values provided by City of Los Angeles Department of Transportation Related Projects List. It is assumed that the trip generation potential of the existing/prior uses exceeds the trip generation potential of the proposed use.

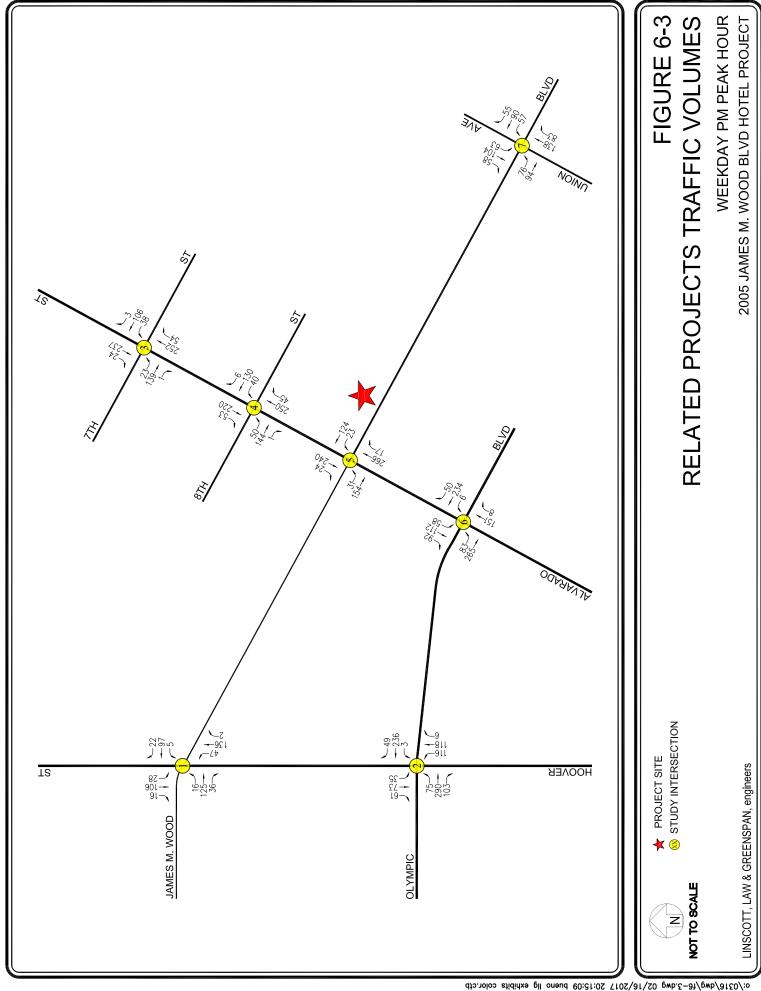
- [4] Source: Traffic Analysis for The Good Sanaritan Mixed-Use Development, Crain & Associates, October 2008.
- [5] Source: Traffic Impact Analysis for a Proposed Mixed Use Development Temple Street and Bornie Brae Street, Overland Traffic Consultants, Inc., May 2008.
 - [6] Source: Traffic Impact Study for the Oak Village Residences Project, LLG Engineers, July 2009.
- [7] Source: Transportation Study for the Wilshire Grand Redevelopment Project, Gibson Transportation Consulting Inc., April 2010.
 [8] Source: Technical Memorandum Potential Traffic Impacts for the Proposed Residential / Public Parking Development, 619 to 633 S. Westlake Avenue, Arthur L. Kassan, P.E., March 2011.
 [9] Source: Traffic Impact Study for 1435 W. Third Street, Overland Traffic Consultants, Inc., May 2008.
 [10] Source: Traffic Impact Study for 1700 W. Olympic, LLG Engineers, August 2013.

- Source: Traffic Review for 801 South Olive Street Project, The Mobility Group, Revised September 2013.
 Source: Traffic Industrial Project The Herald Examiner Mixed-Use Project, Crain & Associates, Revised July 2006.
 Source: Traffic Impact Study for 1400 S. Figueron Project, LLG Engineers, March 2014.
 Source: Traffic Impact Study for 1400 S. Figueron Project, LLG Engineers, April 2014.
 Source: Traffic Impact Study for 1920 W. Pico Boulevard Charter School, KOA Corporation, May 2015.
 Source: Supplemental Traffic Review Momorandum for 820. S. Hill Street Project, The Mobility Group, January 2016.
 Source: Traffic Review for Apex Phase II (9th & Figueroa) Project, The Mobility Group, Revised November 2015.
- [18] Source: Traffic Impact Study for 1633 W. 11th Street Charter School Project, LLG Engineers, January 2016.
- [19] Source: Traffic Impact Study for 1334 S. Flower Street Residential Project, LLG Engineers, June 2016.
- [20] Source: Traffic Study for the 1020 S. Figueroa Street Project, Gibson Transportation Consulting Inc., May 2016.
- [21] Source: Traffic Impact Study for Wilshire Gate Project, LLG Engineers, September 2016.
 [22] Source: Traffic Impact Study for 1620 W. Cordova Street Charter School Project, LLG Engineers, November 2016.
 [23] Source: Traffic Impact Study for 2250-2270 W. Pico Blvd Hotel Project, LLG Engineers, 2017.

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6.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%) per year to the year 2019 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the 2010 Congestion Management Program for Los Angeles County (the "CMP manual") and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the Downtown L.A. area, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 0.2% per year between the years 2015 and 2020. Thus, application of an annual growth factor of 1.0% allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Therefore, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

7.0 Traffic Forecasting Methodology

In order to estimate the traffic impact characteristics of the Project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts identified.

7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project:

• Hotel: ITE Land Use Code 310 (Hotel) trip generation average rates were used to forecast the traffic volumes expected to be generated by the hotel component of the Project. Note that this analysis assumes that any external vehicle trips related to the site's ancillary uses such as the restaurant and meeting room within the hotel are accounted for within the ITE hotel trip rate as these uses are expected to primarily support the hotel guests. Therefore, a separate and additive trip forecast related to the hotel's on-site restaurant and meeting room is not required in the trip generation calculation.⁵

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⁵ The ITE *Trip Generation* manual description of a Hotel (Land Use Code 310) is as follows: "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." The trip generation rates provided by ITE are based on traffic counts conducted at existing land uses, including hotels. Thus, while the independent variable provided in the ITE hotel trip rate is the number of guestrooms, the ITE trip rate is intended to account for all vehicle trips generated by the hotel building, including trips by hotel guests, staff, service vehicles, any "external" visitors to the on-site food and beverage facilities, etc.

In addition to the trip generation forecasts for the Project land use components (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the site access points), a forecast was made of transit trips. The transit reduction is based on the site's proximity to the various bus and rail lines, as well as the land use characteristics of the Project. As shown in *Table 4–1* and *Figure 4–2*, the Project site is well served by public transit, including a Metro RapidBus stop at the intersection of Alvarado Street and Olympic Boulevard. A transit adjustment of 15% has been utilized.

An adjustment was also made to the trip generation forecast based on the Project site's existing land use. The existing retail center (8,228 square feet of building area) would be removed as part of the Project. The ITE Land Use Code 820 (Shopping Center) trip generation average rates were used to estimate the trip reduction related to the removal of the existing use from the Project site.

Lastly, a forecast was made of likely pass-by trips. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. In this instance, the adjacent roadways to the Project site include James M. Wood Boulevard, Westlake Avenue, and the existing north-south alley. Based on the *LADOT Policy on Pass-By Trips*, a 50% pass-by reduction adjustment was applied to the existing retail land use.

The trip generation forecast for the Project was submitted for review and approval by LADOT staff. As presented in *Table 7–1*, the Project is expected to generate 42 net new vehicle trips (24 inbound trips and 18 outbound trips) during the AM peak hour. During the PM peak hour, the Project is expected to generate 38 net new vehicle trips (20 inbound trips and 18 outbound trips). Over a 24-hour period, the Project is forecast to generate a net increase of 545 daily trip ends (approximately 273 inbound trips and 272 outbound trips) during a typical weekday.

7.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e. Hoover Street, Alvarado Street, Olympic Boulevard, I-10 Freeway, US-101 Freeway, I-110 Freeway etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project site assuming the site access and circulation scheme described in Section 3.0;

Accordingly, it is not required or appropriate to separately and additively estimate trip generation related to the hotel's ancillary uses such as the on-site restaurant and meeting room facilities as this would result in a substantial overstatement of the hotel's trip generation potential.

23-Jan-17

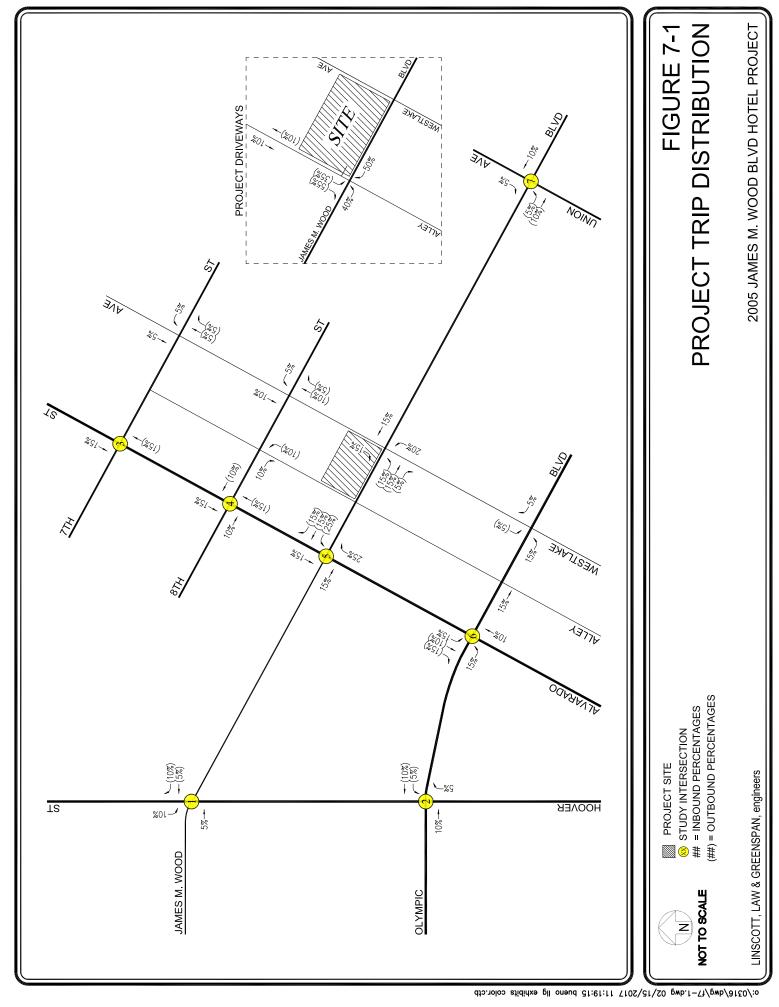
		DAILY	MA	AM PEAK HOUR	OUR	PM	PM PEAK HOUR	UR
		TRIP ENDS [2]	Λ	VOLUMES [2]	[2]	V(VOLUMES [2]	[2]
LAND USE	SIZE	VOLUMES	IN	OUT	OUT TOTAL	IN	OUT	TOTAL
Proposed Project Hotel [3]	100 Rooms	817	31	22	53	31	29	09
Proposed Transit Trips [4] Hotel (15%)		(123)	(5)	(3)	(8)	(5)	(4)	6)
Existing Site Retail [5]	(8,228) GLSF	(351)	(5)	(3)	(8)	(15)	(16)	(31)
Existing Transit Trips [4] Retail (15%)		53	1	0	1	2	2	4
Net Project Driveway Subtotal		396	22	16	38	13	11	42
Existing Pass-By Trips [6] Retail (50%)		149	2	2	4	7	7	14
NET PROJECT TRIPS		545	24	18	42	20	18	38

- [1] Source: ITE "Trip Generation", 9th Edition, 2012.
 [2] Trips are one-way traffic movements, entering or leaving.
 [3] ITE Land Use Code 310 (Hotel) trip generation average rates.
- Daily Trip Rate: 8.17 trips/Rooms; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.53 trips/Rooms; 59% inbound/41% outbound
- PM Peak Hour Trip Rate: 0.60 trips/Rooms; 51% inbound/49% outbound
- [4] The Project site is located within 1/4 mile of a Metro Rapid bus stop. The trip reduction for transit trips has been applied to the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments within a 1/4 mile walking distance of a transit station or a RapidBus stop.
 - [5] ITE Land Use Code 820 (Shopping Center) trip generation average rates. Daily Trip Rate: 42.70 trips/1000 GLSF; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF; 62% inbound/38% outbound - PM Peak Hour Trip Rate: 3.71 trips/1000 GLSF; 48% inbound/52% outbound
- Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site.

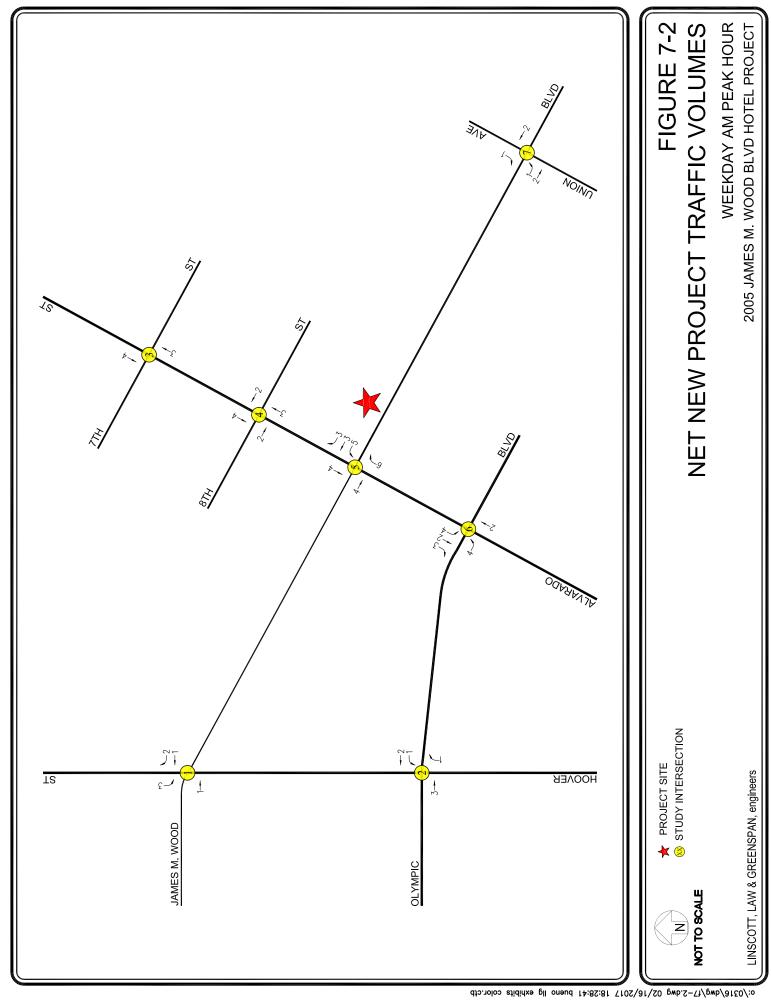
 The trip reduction for pass-by trips has been applied to the commercial component of the Project based on the "LADOT Traffic Study [6] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Policies and Procedures", August 2014 for Shopping Center less than 50,000 sf.

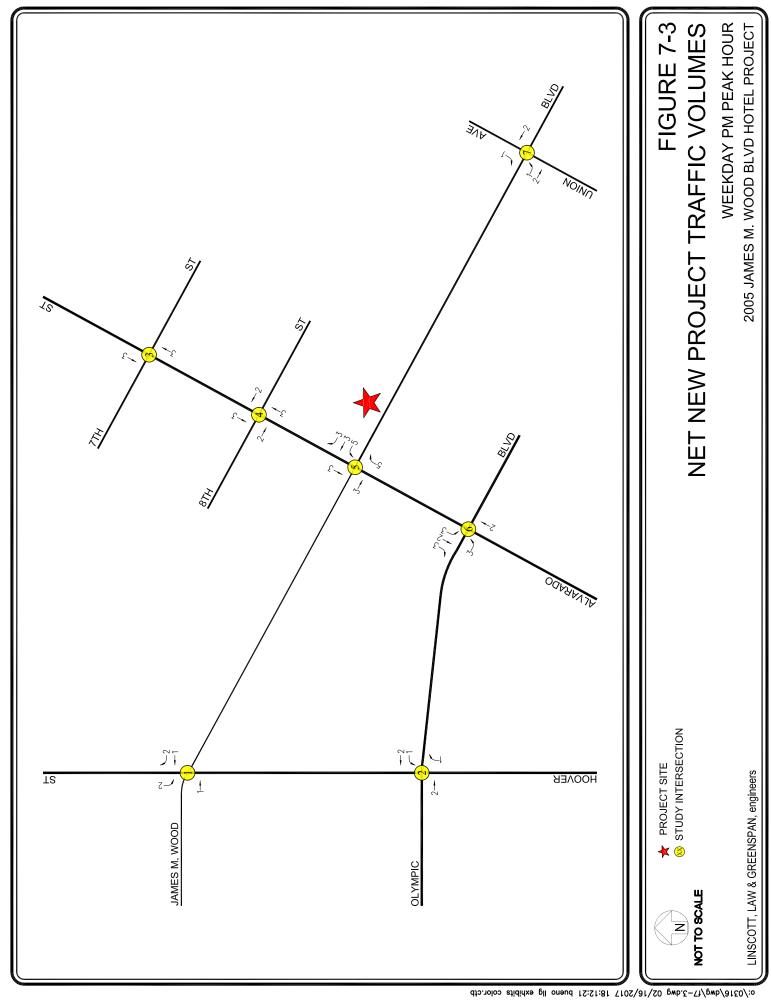
- The location of existing and proposed parking areas;
- Nearby population and employment centers as well as adjacent residential neighborhoods;
- Input from LADOT staff.

The general, directional traffic distribution patterns for the Project are presented in *Figure 7–1*. The forecast net new weekday AM and PM peak hour Project traffic volumes at the study intersections associated with the Project are presented in *Figures 7–2* and *7–3*, respectively. The traffic volume assignments presented in *Figures 7–2* and *7–3* reflect the traffic distribution characteristics shown in *Figure 7–1* and the Project traffic generation forecast presented in *Table 7–1*.



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8.0 Traffic Impact Analysis Methodology

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (v/c) ratios on a critical lane basis. The overall intersection v/c ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the CMA method and corresponding Level of Service is provided in *Appendix B*.

8.1 Impact Criteria and Thresholds

The relative impact of the added traffic volumes to be generated by the Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the study intersections, without and with the Project. The previously discussed capacity analysis procedures were utilized to evaluate the future v/c relationships and service level characteristics at each study intersection.

The significance of the potential impacts of Project generated traffic was identified using the traffic impact criteria set forth in LADOT's *Traffic Study Policies and Procedures*, August 2014. According to the City's published traffic study guidelines, the impact is considered significant if the Project-related increase in the v/c ratio is equal to or exceeds the thresholds presented in *Table 8–1*.

	Table 8-1	
	CITY OF LOS ANGELES	S
INTER	SECTION IMPACT THRESHO	LD CRITERIA
Final v/c	Level of Service	Project Related Increase in v/c
> 0.701 - 0.800	С	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection v/c ratio by an amount equal to or greater than the values shown above.

8.2 LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical v/c ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical v/c ratios by three percent (0.03) for a total of 10 percent (0.10). According to the City of Los Angeles, ATSAC/ATCS system upgrades for all seven study intersections have been implemented. As such, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated.

8.3 Traffic Impact Analysis Scenarios

Pursuant to LADOT's traffic study, Level of Service calculations have been prepared for the following scenarios for the study intersections:

- (a) Existing (2017) conditions;
- (b) Condition (a) with completion and occupancy of the Project;
- (c) Condition (b) with implementation of Project mitigation measures, where necessary;
- (d) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2019 and with completion and occupancy of the related projects (i.e., future cumulative baseline);
- (e) Condition (d) with completion and occupancy of the Project;
- (f) Condition (e) with implementation of Project mitigation measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

9.0 TRAFFIC ANALYSIS

The traffic impact analysis prepared for the seven study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria is summarized in *Table 9–1*. The CMA data worksheets for the seven analyzed intersections are contained in *Appendix B*.

9.1 Existing Conditions

9.1.1 Existing Conditions

As indicated in column [1] of *Table 9–1*, all seven study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5–1* and *5–2*, respectively.

9.1.2 Existing With Project Conditions

As shown in column [2] of *Table 9–1*, application of the City's threshold criteria to the "Existing With Project" scenario indicates that the Project is not expected to create a significant impact at any of the seven study intersections. Incremental, but not significant, impacts are noted at the study intersections due to the Project. The existing with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9–1* and *9–2*, respectively.

9.2 Future Conditions

9.2.1 Future Cumulative Baseline Conditions

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in Table 6-1.

As presented in column [3] of *Table 9–1*, three of the seven study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline condition. The following intersections are expected to operate at LOS E or worse during the peak hours shown below under future cumulative baseline conditions:

 Int. No. 2: Hoover Street / Olympic Boulevard AM Peak Hour: v/c = 1.003, LOS F PM Peak Hour: v/c = 1.104, LOS F

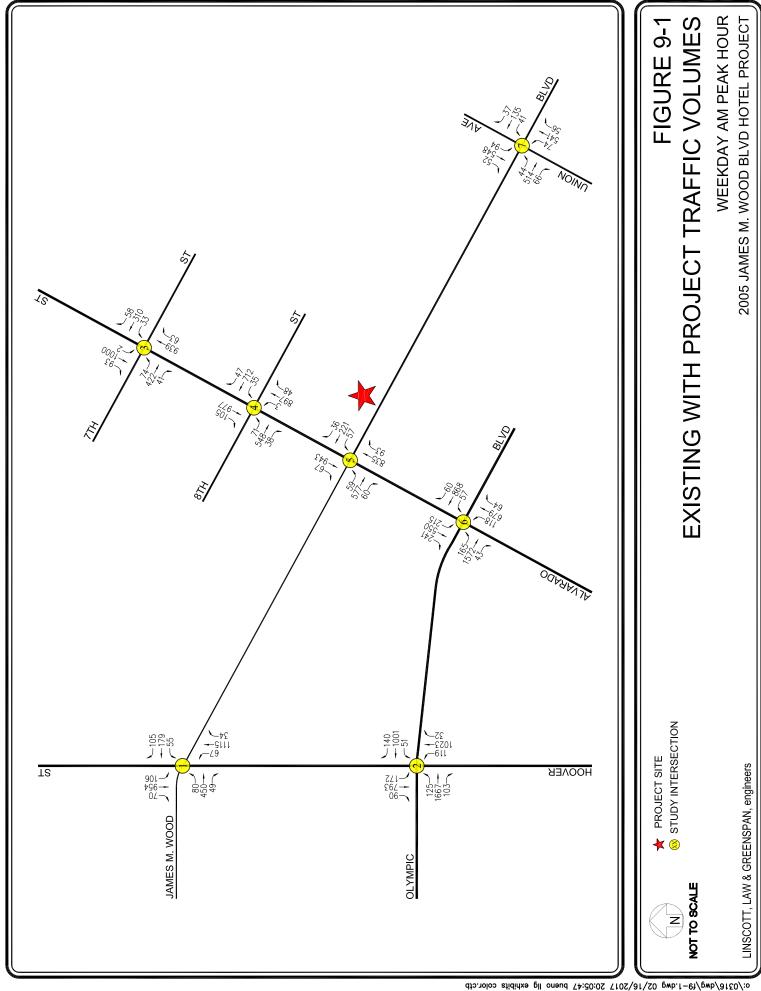
 Int. No. 5: Alvarado Street / James M. Wood Boulevard PM Peak Hour: v/c = 0.923, LOS E

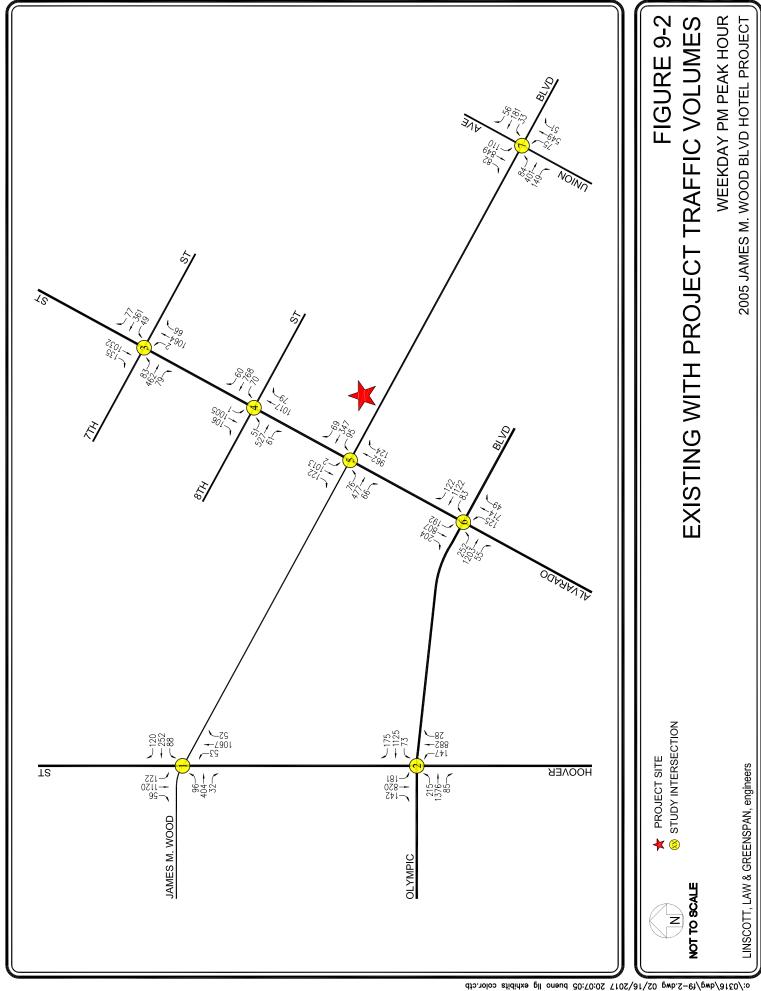
Table 9-1 SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE AM AND PM PEAK HOURS

Hower Street				[1]	H			[2]		[3]				[4]	10-ren-1/
Hover Street AM O.721 C O.723 C O.002 NO O.845 D O.895 D O.805 D O.895 D O.895				YEAR 2017		YEAR 201 EXISTING	רז ב	CHANGE	SIGNIF.	YEAR 2 FUTURE	2019 PRE-	YEAR 2 FUTUR	3019 RE	CHANGE	SIGNIF.
Hoover Street / AM	NO.	INTERSECTION	PEAK HOUR	NITSE	SO.	ROJE	CT		IMPACT [a]	PROJE V/C	CT	W/ PROJ V/C	ECT LOS	V/C [(4)-(3)]	IMPACT [a]
Hover Street / Olympic Boulevard AM 0.873 D 0.875 D 0.000 NO 1.104 F 1.104 F 0.000 Alvarado Street / Olympic Boulevard AM 0.534 D 0.874 D 0.000 NO 0.697 B 0.000 F 0.000 Alvarado Street / Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.614 B 0.657 B 0.000 0.785 C 0.797 C 0.001 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.652 B 0.699 B 0.007 NO 0.883 D 0.846 D 0.003 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.756 C 0.769 C 0.009 NO 0.883 D 0.885 D 0.003 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.775 C 0.776 C 0.004 NO 0.885 D 0.885 D 0.003	1	Hoover Street / James M. Wood Boulevard	AM PM		υυ	0.723	ပ	0.002	NO	0.845	D	0.847	О	0.002	NO NO
Alvarado Street	2	Hoover Street / Olympic Boulevard	AM PM		Q Q	0.875	D	0.002	NO NO	1.003	ਸ਼ਸ਼	1.005	ъ ъ	0.002	NO NO
Alvarado Street / Street AM 0.614 B 0.617 B 0.003 NO 0.785 C 0.787 C 0.002 8th Street PM 0.633 B 0.635 B 0.007 NO 0.843 D 0.846 D 0.003 Alvarado Street / James M. Wood Boulevard AM 0.701 C 0.708 C 0.007 NO 0.883 D 0.888 D 0.008 Alvarado Street / James M. Wood Boulevard AM 0.775 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.005 Union Avenue / James M. Wood Boulevard PM 0.773 C 0.775 C 0.001 NO 0.985 E 0.987 E 0.002	3	Alvarado Street / 7th Street	AM PM		A A	0.541	A A	0.003	NO NO	0.697	ВС	0.698	B	0.001	NO NO
Alvarado Street / AM	4	Alvarado Street / 8th Street	AM PM		B	0.617	В	0.003	NO NO	0.785	C D	0.787	C	0.002	NO
Alvarado Street / AM 0.756 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.003 Olympic Boulevard PM 0.797 C 0.803 D 0.006 NO 1.045 F 1.050 F 0.005 Union Avenue / AM 0.773 C 0.775 C 0.001 NO 1.068 F 1.069 F 0.001	5	Alvarado Street / James M. Wood Boulevard	AM PM		C	0.699	В	0.007	NO NO	0.853	D	0.861	D	0.008	NO NO
Union Avenue / AM 0.773 C 0.775 C 0.002 NO 0.985 E 0.987 E 0.002 James M. Wood Boulevard PM 0.761 C 0.762 C 0.001 NO 1.068 F 1.069 F 0.001	9	Alvarado Street / Olympic Boulevard	AM PM		υυ	0.760	C	0.004	NO NO	0.885	D	0.888	D	0.003	NO
	7	Union Avenue / James M. Wood Boulevard	AM PM		טט	0.775	υυ	0.002	NO NO	0.985	<u>а</u> н	0.987	五正	0.002	NO NO

According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table: <u>a</u>

Project Related Increase in v/c	equal to or greater than 0.040	equal to or greater than 0.020	equal to or greater than 0.010
SOT	C	О	Е, F
Final v/c	0.701 - 0.800	0.801 - 0.900	> 0.901





• Int. No. 6: Alvarado Street / Olympic Boulevard

PM Peak Hour: v/c = 1.045, LOS F

• Int. No. 5: Union Avenue / AM Peak Hour: v/c = 0.985, LOS E James M. Wood Boulevard PM Peak Hour: v/c = 1.068, LOS F

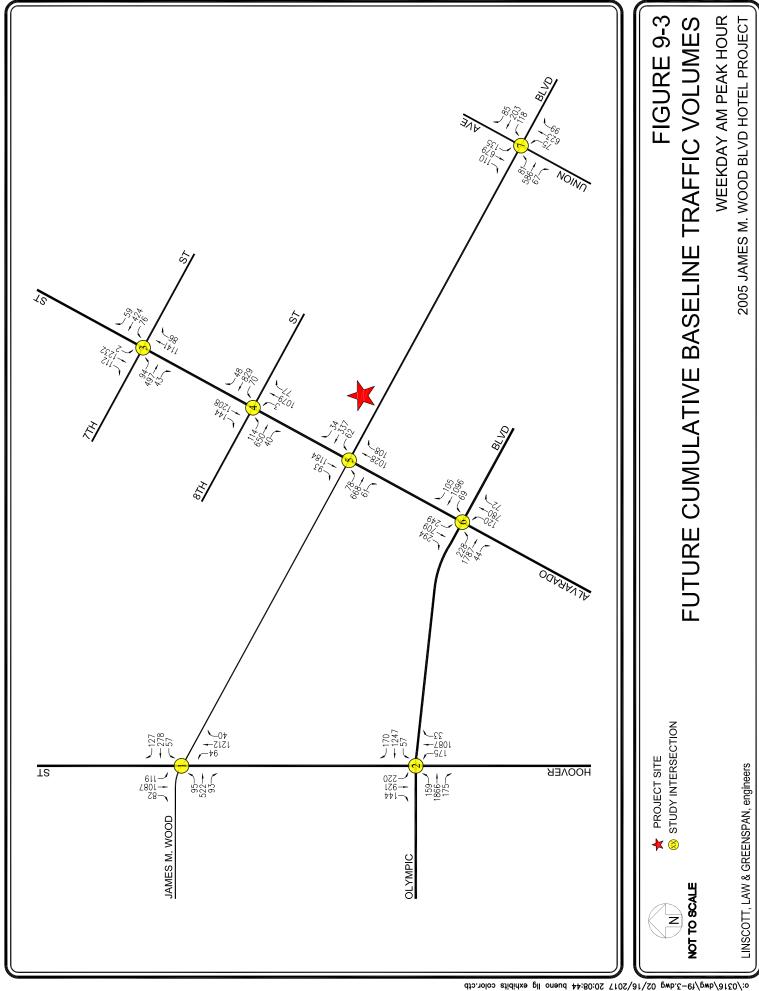
The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in *Figures 9–3* and *9–4*, respectively.

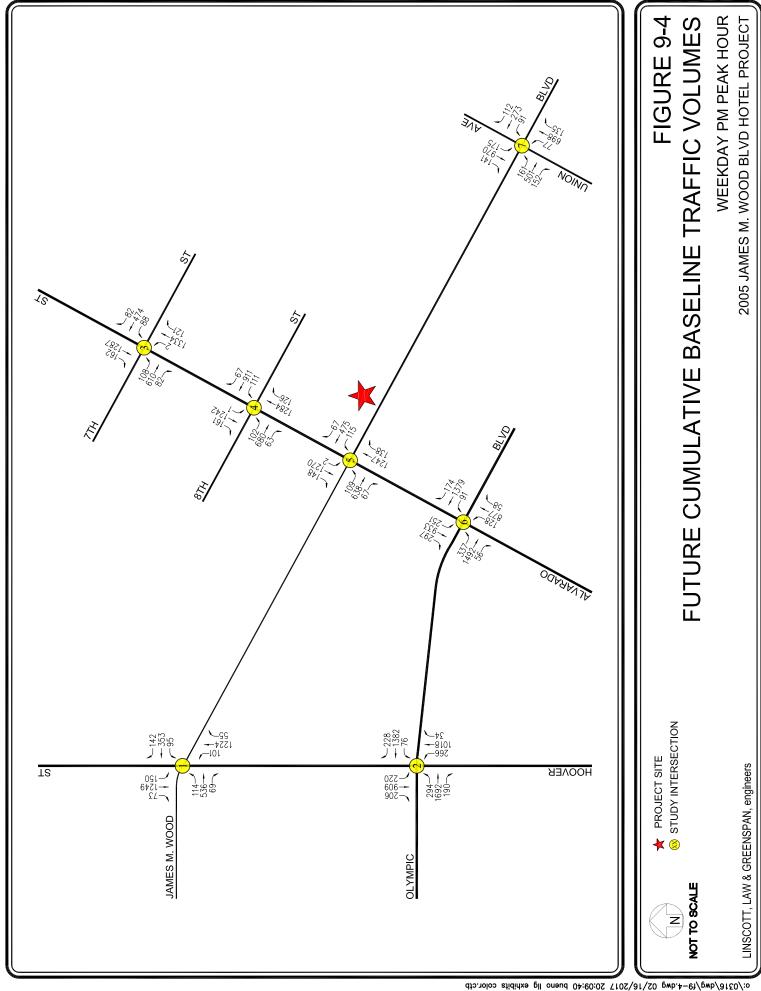
9.2.2 Future Cumulative With Project Conditions

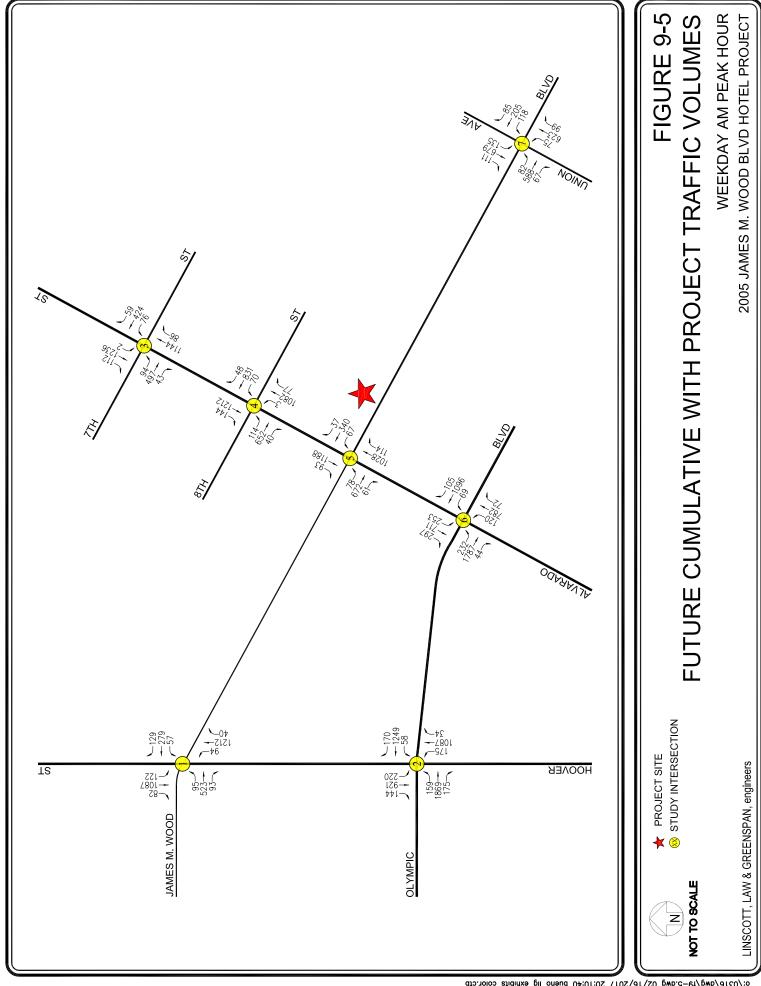
The future cumulative with Project conditions were forecast based on the addition of traffic generated by the Project plus completion and occupancy of related projects. As shown in column [4] of *Table 9–1*, application of the City's threshold criteria to the "Future With Project" scenario indicates that the Project is not expected to create a significant impact at any of the seven study intersections.

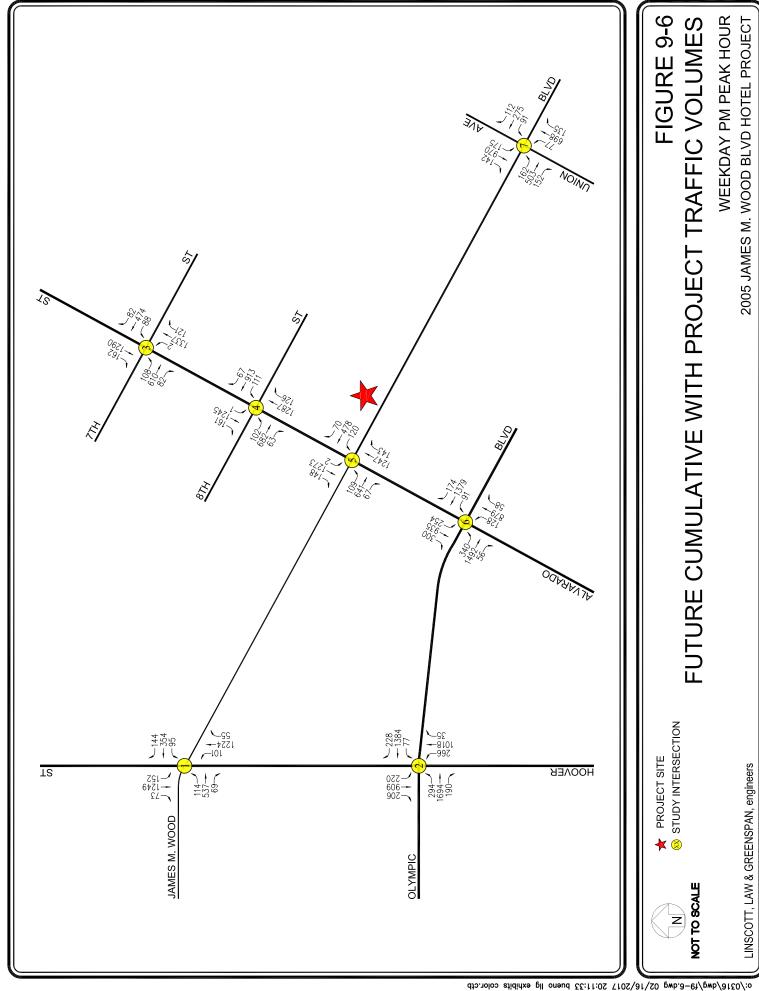
As indicated in column [4] of *Table 9–1*, incremental, but not significant, impacts are noted at all seven study intersections during the weekday AM and PM peak hours with the addition of ambient growth in traffic, related project traffic, and Project traffic, as presented in *Table 9–1*. As no significant impacts are expected due to the Project, no traffic mitigation measures are required or recommended for the study intersections.

The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9–5* and *9–6*, respectively.









10.0 Congestion Management Program Traffic Impact Assessment

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the 2010 Congestion Management Program for Los Angeles County, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

"A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C \geq 0.02), causing or worsening LOS F (V/C > 1.00)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

10.1 Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified:

• <u>CMP Station</u> <u>Intersection</u>

No. 85 Wilshire Boulevard / Alvarado Boulevard

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Project will add 50 or more trips during either the AM or PM weekday peak hours. As shown in *Figure 7–2* and *Figure 7–3*, the proposed Project would not add 50 or more trips during the AM or PM peak hours at the CMP monitoring location. Specifically, the proposed Project is expected to add only 7 AM peak hour trips and 6 PM peak hour trips to the Wilshire Boulevard / Alvarado Boulevard intersection. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

10.2 Freeways

The following CMP freeway monitoring locations have been identified in the Project vicinity:

•	CMP Station	Location
	No. 1013	I-10 Freeway at Budlong Avenue
	No. 1048	I-110 Freeway south of SR-101 Freeway

The CMP TIA guidelines require that freeway monitoring locations must be examined if the Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The Project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

10.3 Transit Impact Review

As required by the 2010 Congestion Management Program for Los Angeles County, a review has been made of the potential impacts of the Project on transit service. As discussed in Subsection 4.5 herein, existing transit service is provided in the vicinity of the proposed Project.

The Project trip generation, as shown in *Table 7–1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 10 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the Project is forecast to generate demand for 6 transit trips during the AM peak hour and 6 transit trips during the PM peak hour. Over a 24-hour period, the Project is forecast to generate demand for 77 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour = $42 \times 1.4 \times 0.1 = 6$ Transit Trips
- PM Peak Hour = $38 \times 1.4 \times 0.1 = 6$ Transit Trips
- Daily Trips = $545 \times 1.4 \times 0.1 = 77$ Transit Trips

As shown in *Table 4–1*, 7 transit lines are provided adjacent to or in close proximity the Project site. As outlined in *Table 4–1*, under the "No. of Buses/Trains During Peak Hour" column, these 7 transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) generally 91 buses/trains during the AM peak hour and 81 buses/trains during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond to an insignificant number of additional Project-generated transit trips per bus/train. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips.

11.0 CONCLUSIONS

This traffic impact analysis has been prepared to evaluate the potential impacts to the local street system due to the proposed hotel project at 2005 James M. Wood Boulevard. Seven (7) intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the Project. Application of the impact threshold criteria from the City of Los Angeles to the "With Proposed Project" scenarios indicates that the seven study intersections are not anticipated to be significantly impacted by the Project. Incremental, but not significant, impacts are noted at the seven study intersections evaluated in this analysis. As no significant impacts are expected due to the Project, no traffic mitigation measures are required or recommended for the study intersections.

Appendix A
MANUAL TRAFFIC COUNT DATA



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Hoover St

East/West James M Wood Blvd

N/B

150

1187

16.30

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

S/B

137

BIKES BUSES	19 37		24 34		19 0		16 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	309	8.45	294	8.15	158	8.15	94	7.45
PM PK 15 MIN	303	17.15	339	16.45	142	17.30	149	17.45
AM PK HOUR	1218	7.15	1127	7.30	577	7.30	326	7.15

1307 16.15

NORTHBOUND Approach			SOUTHBO	OUND Appr	oach		TOTAL	XING S/L	XING N/L		
II	Τ.4	TTL	D4	Total	II	Τ.	TL	Dt Total	NI C	D-1 C-1	D- 4 C-1

E/B

69

15.15

528

Hours	Lt	Th	Rt	Total
7-8	65	1112	21	1198
8-9	42	1107	39	1188
9-10	60	991	31	1082
15-16	52	958	36	1046
16-17	47	1068	33	1148
17-18	55	1044	49	1148
TOTAL	321	6280	209	6810

52	750	50	1040	13-10	70	702	77	112/
47	1068	33	1148	16-17	124	1119	45	1288
55	1044	49	1148	17-18	114	1088	56	1258
321	6280	209	6810	TOTAL	594	5771	295	6660

WESTBOUND Approach

7-8 8-9 9-10

Lt	Th	Rt	Total		N-S	_	Ped	Sch	Ped	Sch
84	885	57	1026		2224		56	27	51	43
100	927	53	1080		2268		18	2	23	3
76	770	35	881		1963	Ī	20	2	16	1
96	982	49	1127		2173	Ī	40	11	12	12
124	1119	45	1288		2436		33	5	15	11
114	1088	56	1258		2406		33	3	33	9
				•'		-				
594	5771	295	6660		13470		200	50	150	79
				•		-				

476 17.00

W/B

67

EASTBOUND Approach

Hours

7-8

8-9 9-10

15-16

16-17 17-18

TOTAL

	Lt	Th	Rt	Total
	58	318	51	427
	67	427	41	535
	51	283	43	377
	69	368	65	502
	82	372	41	495
	99	383	33	515
•				
	426	2151	274	2851

Hours	Lt	Th	Rt	Total
7-8	63	149	104	316
8-9	41	138	89	268
9-10	51	139	73	263
15-16	69	154	83	306
16-17	87	187	102	376
17-18	80	264	132	476
TOTAL	391	1031	583	2005

TOTAL	XING W/L	XING E/L
E-W	Ped Sch	Ped Sch
743	142 103	56 44
803	34 4	22 2
640	24 0	12 1
808	86 43	40 5
871	57 34	30 1
991	52 26	35 0
4856	395 210	195 53

Project ID: 17-5070-001 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	AM										•		
NS/EW Streets:		Hoover St			Hoover St		Jame	s M Wood B	lvd	Jame	s M Wood B	llvd	
	N	ORTHBOUND)	SC	DUTHBOUND)	E	ASTBOUND		V	VESTBOUNE)	
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM 9:30 AM	11 13 22 19 13 13 9 7 16 20 13 11	267 285 285 275 280 275 259 293 241 276 234 240	6 4 1 10 11 11 8 9 5 8 10 8	17 20 26 21 26 30 20 24 18 25 22 11	197 215 231 242 235 246 223 223 183 179 214	9 12 18 18 16 18 12 7 9 5 11	10 11 20 17 20 23 11 13 20 7	40 66 105 107 111 125 95 96 84 60 65 74	7 13 14 17 8 10 10 13 13 12 10 8	15 15 19 14 8 12 6 15 17 14 7	28 29 33 59 41 36 28 33 23 42 39 35	24 29 30 21 28 24 18 19 18 18 14 23	631 712 804 820 797 823 699 752 647 666 652 638
TOTAL VOLUMES : APPROACH %'s : PEAK HR START TIME :	NL 167 4.82%	NT 3210 92.56%	NR 91 2.62%	SL 260 8.70%	ST 2582 86.44%	SR 145 4.85%	EL 176 13.14%	ET 1028 76.77%	ER 135 10.08%	WL 155 18.30%	WT 426 50.30%	WR 266 31.40%	TOTAL 8641
PEAK HR VOL : PEAK HR FACTOR :	67	1115 0.986	33	103	954 0.958	70	80	448 0.913	49	53	169 0.864	103	3244 0.985

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-001 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles РМ

_	PIVI									i			
NS/EW Streets:	: Hoover St			I	Hoover St		Jame	s M Wood B	lvd	Jame	s M Wood B	lvd	
	N	ORTHBOUND)	SC	OUTHBOUND)	E	ASTBOUND	•	V	/ESTBOUND)	
LANES:	NL 1	NT 2	NR 0	SL	ST 2	SR 0	EL	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
LAINES:	1	2	U	•	2	U	·	1	U		1	U	
3:00 PM	10	250	8	13	240	11	15	69	15	16	34	28	709
3:15 PM	13	231	8	26	213	3	18	97	25	16	40	24	714
3:30 PM	15	233	8	23	271	18	19	96	14	23	41	17	778
3:45 PM	14	244	12	34	258	17	17	106	11	14	39	14	780
4:00 PM	8	261	6	32	271	9	17	95	13	22	46	21	801
4:15 PM	13	263	10	32	281	15	18	102	10	18	39	26	827
4:30 PM	16	274	7	26	275	8	23	78	10	21	51	26	815
4:45 PM	10	270	10	34	292	13	24	97	8	26	51	29	864
5:00 PM	17	270	10	21	293	17	22	93	6	23	55	25	852
5:15 PM	17	274	12	30	280	15	17	107	10	16	50	33	861
5:30 PM	9	253	17	35	255	11	33	101	8	20	74	31	847
5:45 PM	12	247	10	28	260	13	27	82	9	21	85	43	837
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	154	3070	118	334	3189	150	250	1123	139	236	605	317	9685
APPROACH %'s:	4.61%	91.86%	3.53%	9.09%	86.82%	4.08%	16.53%	74.27%	9.19%	20.38%	52.25%	27.37%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL:	53	1067	49	120	1120	56	96	398	32	85	230	118	3424
PEAK HR FACTOR:		0.965			0.956			0.926			0.866		0.991



TOTAL

0

0

STREET: North/South Hoover St/Coronado St East/West James M Wood Blvd Wednesday February 8, 2017 Weather: SUNNY Day: Date: 7-10 & 3-6 Chekrs: Hours: NDS YES School Day: I/S CODE District: N/B E/B W/B S/B DUAL-WHEELED 0 0 2 3 BIKES 0 5 6 1 BUSES 0 0 0 0 N/B TIME S/B TIME E/B TIME W/B TIME AM PK 15 MIN 8.00 7.30 8.00 9.00 1 3 PM PK 15 MIN 15.00 17.00 1 17.00 3 15.30 AM PK HOUR 8.00 11 7.30 2 8.00 7.30 PM PK HOUR 3 16.00 24 16.30 17.00 26 15.30 NORTHBOUND Approach SOUTHBOUND Approach TOTAL XING S/L XING N/L Hours Total Hours Total Th Rt Rt N-S Ped Sch Ped Sch 7-8 7-8 0 0 0 8-9 8-9 0 10 0 0 0 0 9-10 0 0 0 9-10 0 6 0 0 0 0 0 15-16 0 15-16 0 0 0 16-17 16-17 17 0 21 17-18 17-18 TOTAL 0 0 TOTAL 0 9 59 68 75 0 0 **EASTBOUND Approach** WESTBOUND Approach TOTAL XING W/L XING E/L Hours Th Rt Total Hours Rt Total E-W Ped Sch Ped Sch 7-8 7-8 8-9 0 0 8-9 0 0 14 14 16 0 0 0 0 0 0 0 9-10 0 0 9-10 0 17 17 18 0 0 15-16 0 15-16 0 0 0 20 20 20 0 0 0 21 0 16-17 0 16-17 21 21 0 17-18 0 19 19 24 0 0 0 17-18

TOTAL

0

0

105

105

113

0

0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5070-101

Day: Wednesday

TOTALS

City: Los Angeles Date: 2/8/2017 AM NS/EW Streets Hoover St/Coronado St Hoover St/Coronado St James M Wood Blvd James M Wood Blvd NORTHBOUND SOUTHBOUND EASTBOUND WESTBOUND NL NT NR ST EL ЕΤ ER WL WT WR TOTAL SL SR LANES: 7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 0 0 0 9:15 AM 9:30 AM 9:45 AM SR WT WR TOTAL NL NT NR SL ST EL ΕT ER WL TOTAL VOLUMES: APPROACH %'s: 0.00% 100.00% 0.00% 0.00% 17.39% 82.61% 100.00% 0.00% 0.00% 0.00% 0.00% 100.00% PEAK HR START TIME : 730 AM TOTAL PEAK HR VOL:

0.917

0.250

0.792

0.889

CONTROL: Signalized

0.250

PEAK HR FACTOR:

Project ID: 17-5070-101 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΡМ

_	PM												
NS/EW Streets:	Hoove	r St/Coronad	o St	Hoover	St/Coronac	do St	James	s M Wood Bl	lvd	James	M Wood E	Blvd	
	N	ORTHBOUND)	SC	OUTHBOUNI	D	E	ASTBOUND		W	/ESTBOUNI	D	
LANES:	NL 1	NT 2	NR 0	SL 0	ST 0	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:30 PM 5:45 PM	0 0 0 0 0 0 0 0 0	1 0 0 0 1 1 1 0 1 1 1	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 1 0 0 3 0	2 0 4 1 3 2 5 6 5 5 1 6	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	3 3 7 7 7 5 4 5 4 6 4 5	6 3 11 8 11 9 9 12 16 14 6
TOTAL VOLUMES : APPROACH %'s : PEAK HR START TIME :	NL 0 0.00%	NT 6 100.00%	NR 0 0.00%	SL 0 0.00%	ST 5 11.11%	SR 40 88.89%	EL 5 100.00%	ET 0 0.00%	ER 0 0.00%	WL 0 0.00%	WT 0 0.00%	WR 60 100.00%	TOTAL 116
PEAK HR VOL : PEAK HR FACTOR :	0	3 0.750	0	0	3 0.750	21	5	0.417	0	0	0 0.792	19	51 0.797



N/B

172

1125 16.30

STREET:

DUAL-WHEELED

PM PK HOUR

North/South Hoover St

East/West Olympic Blvd

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day:	YES	District:	I/S CODE	
			 •	

S/B

145

BIKES	29		28		49		62		
BUSES	38		33		58		54		
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME	
AM PK 15 MIN	320	7.30	282	7.30	489	8.15	322	7.15	
PM PK 15 MIN	314	16.30	313	16.30	461	16.15	394	17.15	
AM PK HOUR	1215	7.15	1086	7.30	1892	8.00	1221	7.00	

1201 16.15

NORTHBOUND Approach	SOUTHBOUND Approach	TOTAL	XING S/L	XING N/L

E/B

179

1689 17.00

W/B

235

1385 17.00

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	_	Ped	Sch
7-8	118	1055	17	1190	7-8	165	767	94	1026	2216	64	27		62	7
8-9	119	1023	31	1173	8-9	172	793	90	1055	2228	77	5		47	0
9-10	112	910	30	1052	9-10	114	653	104	871	1923	70	2		38	1
15-16	111	814	34	959	15-16	172	828	108	1108	2067	112	26		78	9
16-17	128	936	33	1097	16-17	175	881	114	1170	2267	118	34		90	14
17-18	148	858	25	1031	17-18	185	771	154	1110	2141	116	17		95	7
TOTAL	736	5596	170	6502	TOTAL	983	4693	664	6340	12842	557	111		410	38

EASTBOUND Approach	WESTBOUND Approach	TOTAL	XING W/L	XING E/L

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	F	ed	Sch		Ped	Sch
7-8	146	1200	94	1440	7-8	35	1070	116	1221	2661		64	9		43	7
8-9	125	1664	103	1892	8-9	50	999	140	1189	3081		45	1		59	0
9-10	108	1269	109	1486	9-10	48	954	97	1099	2585		30	0		52	1
15-16	154	1219	90	1463	15-16	51	898	159	1108	2571		85	11		71	13
16-17	173	1363	109	1645	16-17	73	942	153	1168	2813		89	23		88	29
17-18	232	1381	76	1689	17-18	67	1153	165	1385	3074		78	7	Ī	111	16
				<u>_</u>												
TOTAL	938	8096	581	9615	TOTAL	324	6016	830	7170	16785	3	91	51		424	66

Project ID: 17-5070-002 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	- AM									•			
NS/EW Streets:		Hoover St		1	Hoover St		0	lympic Blvd		0	lympic Blvd		
	N	ORTHBOUNE)	SOUTHBOUND		EASTBOUND			WESTBOUND				
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM 9:30 AM	27 23 36 32 33 30 24 32 24 26 34 28	261 281 280 233 276 236 250 261 229 235 242	6 3 4 4 10 7 6 8 9 3 5	38 31 52 44 47 50 43 32 31 21 32 30	185 189 206 187 212 194 194 193 177 151 175	24 19 24 27 22 21 21 26 25 15 36 28	38 30 33 45 34 33 24 34 28 26 26 26	206 272 340 382 392 428 425 419 328 348 283 310	22 23 22 27 30 28 26 19 28 26 28 26 28 27	6 8 9 12 14 11 11 11 14 12 17 9	268 278 258 266 241 275 237 246 221 272 214 247	25 36 22 33 26 36 30 48 24 30 26 17	1106 1193 1286 1292 1337 1349 1291 1332 1136 1170 1110
TOTAL VOLUMES : APPROACH %'S : PEAK HR START TIME :	NL 349 10.22%	NT 2988 87.50%	NR 78 2.28%	SL 451 15.28%	ST 2213 74.97%	SR 288 9.76%	EL 379 7.87%	ET 4133 85.78%	ER 306 6.35%	WL 133 3.79%	WT 3023 86.15%	WR 353 10.06%	TOTAL 14694
PEAK HR VOL :	119	1023 0.919	31	172	793 0.939	90	125	1664 0.967	103	50	999 0.923	140	5309 0.984

Project ID: 17-5070-002 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_		PM											
NS/EW Streets:	1	Hoover St			Hoover St		0	lympic Blvd		0	lympic Blvd		
	NO	ORTHBOUND)	SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
2.1125.	•	_	· ·	•	_		•	· ·	· ·	•			
3:00 PM	32	220	9	39	211	34	42	298	22	14	207	40	1168
3:15 PM	30	184	7	44	177	23	34	289	20	9	221	45	1083
3:30 PM	23	212	7	41	236	27	39	303	25	14	214	35	1176
3:45 PM	26	198	11	48	204	24	39	329	23	14	256	39	1211
4:00 PM	43	237	5	41	205	32	44	340	24	14	207	34	1226
4:15 PM	18	203	10	45	219	32	50	377	34	21	246	40	1295
4:30 PM	28	276	10	44	247	22	38	274	26	16	219	30	1230
4:45 PM	39	220	8	45	210	28	41	372	25	22	270	49	1329
5:00 PM	40	253	7	44	234	31	46	324	22	10	220	37	1268
5:15 PM	37	201	6	45	190	38	65	358	23	19	327	48	1357
5:30 PM	31	208	6	47	186	45	63	320	15	21	306	41	1289
5:45 PM	40	196	6	49	161	40	58	379	16	17	300	39	1301
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	387	2608	92	532	2480	376	559	3963	275	191	2993	477	14933
APPROACH %'s:	12.54%	84.48%	2.98%	15.70%	73.20%	11.10%	11.65%	82.61%	5.73%	5.22%	81.75%	13.03%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL :	147	882	27	181	820	142	215	1374	85	72	1123	175	5243
PEAK HR FACTOR :		0.880			0.925			0.938			0.869		0.966



STREET:

School Day:

North/South Alvarado St

East/West 7th St

YES

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

District:

	N/B	S/B	E/B	W/B
DUAL-		<u> </u>		
WHEELED	181	206	78	53
BIKES	53	40	115	102
BUSES	44	78	83	57

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	267	7.15	295	7.30	161	7.45	106	7.45
PM PK 15 MIN	293	17.45	303	16.45	183	17.00	133	17.15
AM PK HOUR	999	7.15	1091	7.15	578	7.30	401	7.15
PM PK HOUR	1131	17.00	1164	16.30	662	16.15	494	17.00

NORTHBOUND Approach	
---------------------	--

_	Lt	Th	Rt	Total
	0	917	67	984
	1	869	63	933
	1	789	45	835
	2	968	67	1037
	0	1022	81	1103
Ī	2	1068	61	1131
Γ	6	5633	384	6023

Hours
7-8
8-9
9-10
15-16
16-17
17-18
TOTAL

Lt	Th	Rt	Total
3	988	93	1084
0	878	104	982
3	902	86	991
10	909	98	1017
1	992	122	1115
0	1010	131	1141
17	5679	634	6330

I/S CODE

N-S		Pe
2068		25
1915		20
1826		20
2054		44
2218	Γ	49
2272		48
	_	

TOTAL

XING S/L

XING W/L

Ped	Sch	Ped	Sch
259	42	172	16
202	2	199	4
208	7	217	4
447	39	388	38
495	8	444	24
489	38	479	20
2100	136	1899	106

XING N/L

XING E/L

EASTBOUND	Annroach

Hours

TOTAL

Hours

7-8

8-9

9-10

15-16

16-17

17-18

TOTAL

7-8 8-9 9-10 15-16 16-17 17-18

Lt	Th	Rt	Total
73	377	30	480
40	421	43	504
45	281	32	358
84	395	62	541
71	487	79	637
83	448	72	603
396	2409	318	3123

SOUTHBOUND Approach

TT	τ.	TTI.	D.	T 1
Hours	Lt	Th	Rt	Total
7-8	36	285	57	378
8-9	13	253	48	314
9-10	29	239	44	312
15-16	55	322	66	443
16-17	34	321	64	419
17-18	40	380	74	494
TOTAL	207	1800	353	2360

E-W
858
818
670
984
1056
1097

5483

12353

TOTAL

Ped	Sch	Ped	Sch
171	4	321	2
167	0	347	0
205	6	319	0
351	2	527	0
380	3	586	6
465	17	817	23
1739	32	2917	31

Project ID: 17-5070-003 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles AM

	AM									i			
NS/EW Streets:	s: Alvarado St			А	Ivarado St		7th St			7th St			
•	No	ORTHBOUNI)	SC	OUTHBOUND)	E	EASTBOUND		V	VESTBOUND)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
LAINES.	U	3	U	U	2	'	'	2	U	·	2	U	
7:00 AM	0	197	14	1	248	24	10	61	3	9	47	10	624
7:15 AM	0	252	15	0	237	18	13	77	6	9	80	15	722
7:30 AM	0	239	19	2	265	28	21	119	9	9	76	17	804
7:45 AM	0	229	19	0	238	23	29	120	12	9	82	15	776
8:00 AM	0	216	10	0	256	24	11	106	14	6	72	11	726
8:15 AM	0	191	20	0	224	23	12	115	10	2	68	9	674
8:30 AM	0	223	18	0	193	30	10	108	10	2	56	15	665
8:45 AM	1	239	15	0	205	27	7	92	9	3	57	13	668
9:00 AM	0	199	11	1	217	24	14	65	6	4	58	8	607
9:15 AM	0	205	9	2	239	20	10	62	5	6	69	9	636
9:30 AM	1	191	7	0	245	26	10	74	11	9	46	13	633
9:45 AM	0	194	18	0	201	16	11	80	10	10	66	14	620
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	2	2575	175	6	2768	283	158	1079	105	78	777	149	8155
APPROACH %'s:	0.07%	93.57%	6.36%	0.20%	90.55%	9.26%	11.77%	80.40%	7.82%	7.77%	77.39%	14.84%	
PEAK HR START TIME :	715 <i>F</i>	MA											TOTAL
PEAK HR VOL :	0	936	63	2	996	93	74	422	41	33	310	58	3028
PEAK HR FACTOR:		0.935			0.925			0.834			0.946		0.942

Project ID: 17-5070-003 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

	- PM											•	
NS/EW Streets:	Alvarado St			А	Ivarado St	St 7th St							
	N	ORTHBOUNI	D	SC	OUTHBOUN	D	E	ASTBOUND		V	VESTBOUNE)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM	1 0 1 0 0 0 0 0 0	226 259 222 261 252 239 258 273 246 275 267 280	13 17 20 17 28 19 16 18 15 14 19 13	2 4 0 4 1 0 0 0 0 0	203 222 236 248 237 235 255 265 248 249 267 246	18 20 26 34 22 16 46 38 36 27 34 34	30 18 13 23 18 17 16 20 27 20 16 20	98 86 95 116 119 122 132 114 132 110 106	9 17 17 19 21 17 24 17 24 16 22 10	12 19 15 9 3 9 10 12 15 12	79 85 83 75 102 66 67 86 81 99 95 105	15 19 20 12 17 11 20 16 19 22 20 13	706 766 748 818 820 751 844 859 844 844 857
TOTAL VOLUMES : APPROACH %'s :	NL 4 0.12%	NT 3058 93.49%	NR 209 6.39%	SL 11 0.34%	ST 2911 88.94%	SR 351 10.72%	EL 238 13.36%	ET 1330 74.68%	ER 213 11.96%	WL 129 9.51%	WT 1023 75.44%	WR 204 15.04%	TOTAL 9681
PEAK HR START TIME : PEAK HR VOL : PEAK HR FACTOR :	445 F 2	1061 0.970	66	0	1029 0.960	135	83	462 0.852	79	49	361 0.915	77	3404 0.991



STREET: North/South

Alvarado St

East/West

8th St

Day:

Wednesday Date: February 8, 2017

Chekrs:

SUNNY

W/B

91

51

34

896

7-10 & 3-6 Hours:

> YES District:

I/S CODE

E/B

83

50

39

668

16.15

Weather:

NDS

School	Day:
--------	------

BIKES

BUSES

	N/B	S/B
DUAL-		
WHEELED	179	207

63

44

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	253	8.45	278	8.00	176	7.45	218	7.30
PM PK 15 MIN	292	17.45	297	17.30	176	17.00	264	17.45
AM PK HOUR	945	7.15	1078	7.15	682	7.45	792	7.15

16.45

Hours

63

48

1136

NOR	THROI	UND /	Approach

PM PK HOUR

Hours

7-8

8-9

9-10

15-16

16-17

17-18

TOTAL

Hours

7-8

8-9

9-10

15-16

16-17

17-18

TOTAL

Lt	Th	Rt	Total
4	885	42	931
0	857	77	934
27	746	61	834
33	896	64	993
2	981	73	1056
0	1014	79	1093

5379

396

5841

1093

17.00

500	THRC	UND	Appr	oacn

Hours	Lt	Th	Rt	Total
7-8	0	941	105	1046
8-9	1	840	98	939
9-10	35	809	104	948
15-16	26	854	117	997
16-17	3	1015	75	1093
17-18	1	1002	106	1109
TOTAL	66	5461	605	6132

TOTAL

11973

17.00

N-S		Ped	Sch	Ped
1977		150	77	203
1873		106	34	133
1782		101	5	113
1990		173	54	186
2149		182	9	186
2202		284	15	296
	•			

996 194

XING S/L

EASTBOUND Approach

66

Lt	Th	Rt	Total
77	481	35	593
48	570	28	646
47	416	21	484
91	462	55	608
66	516	59	641
51	525	61	637
380	2970	259	3609

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	36	699	44	779
8-9	36	613	36	685
9-10	42	539	47	628
15-16	49	538	75	662
16-17	52	551	73	676
17-18	70	766	60	896
TOTAL	285	3706	335	4326

TOTAL XING W/L

E-W	Ped	Sch	
1372	199	65	
1331	133	10	
1112	113	3	
1270	190	34	
1317	198	43	
1533	311	26	
7935	1144	181	

Ped	Sch
231	77
154	27
158	11
326	46
360	19
448	12

XING N/L

1117

XING E/L

Sch

61

25

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-004 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

ΑM NS/EW Streets Alvarado St Alvarado St 8th St 8th St NORTHBOUND SOUTHBOUND EASTBOUND WESTBOUND NT ЕΤ ER WL WT WR TOTAL NL NR SL ST SR EL LANES: 7:00 AM 33 7:15 AM 7:30 AM 23 24 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 25 33 13 9:00 AM 9:15 AM 9:30 AM 9:45 AM SR WT WR NL NT NR SL ST EL ΕT ER WL TOTAL TOTAL VOLUMES: APPROACH %'s: 1.15% 92.18% 6.67% 1.23% 88.31% 10.47% 9.98% 85.14% 4.88% 5.45% 88.48% 6.07% PEAK HR START TIME : 715 AM TOTAL PEAK HR VOL: PEAK HR FACTOR: 0.953 0.969 0.930 0.908 0.956

Project ID: 17-5070-004 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_						PI	Л						•
NS/EW Streets:	A	Alvarado St		Α	Ivarado St			8th St			8th St		
	N	ORTHBOUND)	SO	DUTHBOUNI	D	E	ASTBOUND	•	V	VESTBOUND		
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM	8 7 11 7 1 0 0 1 0 0	206 242 194 254 232 231 251 267 237 260 247 270	12 17 14 21 22 19 18 14 17 20 20 22	12 5 3 6 0 0 3 0 0	180 226 221 227 250 226 259 280 248 244 269 241	28 23 35 31 16 24 22 13 30 24 28 24	20 26 26 19 17 16 18 15 14 11 9	97 104 130 131 123 141 129 123 136 143 123	15 15 10 15 9 15 15 20 26 16 7	10 8 17 14 12 13 14 13 17 20 20	128 125 134 151 134 125 119 173 150 191 194 231	15 21 21 18 26 18 13 16 16 10 14 20	731 819 816 894 842 828 861 935 891 939 931
TOTAL VOLUMES : APPROACH %'s :	NL 35 1.11%	NT 2891 92.01%	NR 216 6.87%	SL 30 0.94%	ST 2871 89.75%	SR 298 9.32%	EL 208 11.03%	ET 1503 79.69%	ER 175 9.28%	WL 171	WT 1855 83.03%	WR 208 9.31%	TOTAL 10461
PEAK HR START TIME : PEAK HR VOL : PEAK HR FACTOR :	0	1014	79	1	1002 0.934	106	51	525 0.905	61	70	766 0.848	60	3735 0.959



STREET:

DUAL-WHEELED

PM PK HOUR

EASTBOUND Approach

TOTAL

North/South Alvarado St

East/West James M Wood Blvd

N/B

169

1081

17.00

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

S/B

203

BIKES BUSES	71 44		71 48		43		42 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	259	8.45	273	8.00	181	7.45	83	8.00
PM PK 15 MIN	282	17.45	300	16.45	166	17.15	150	17.45
AM PK HOUR	938	7.15	1033	7.15	692	7.30	308	7.15

1153 16.45

NORTHBOU	ND Appro	ach			SOUTHBOU	ND Appro	oach			TOTAL	XING	S/L	XING	N/L
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	1	826	83	910	7-8	1	934	68	1003	1913	55	5	77	9

WESTBOUND Approach

E/B

80

616 16.45

Hours	Lt	Th	Rt	Total
7-8	1	826	83	910
8-9	0	854	80	934
9-10	22	753	73	848
15-16	17	845	84	946
16-17	0	943	103	1046
17-18	0	962	119	1081
TOTAL	40	5183	542	5765

0	943	103	1046	16-17	2	1018	101	1121
0	962	119	1081	17-18	2	1010	122	1134
				•				
40	5183	542	5765	TOTAL	83	5411	470	5964
				!				

8-9 9-10 15-16

1	934	68	1003		1913	55	5	77	9
1	845	62	908		1842	29	0	55	0
58	755	54	867		1715	24	0	37	1
19	849	63	931		1877	56	16	98	15
2	1018	101	1121		2167	63	4	83	11
2	1010	122	1134		2215	72	19	112	4
				_					
83	5411	470	5964		11729	299	44	462	40
				-					

17.00

500

W/B

50

Hours	Lt	Th	Rt	Total
7-8	67	453	62	582
8-9	51	533	53	637
9-10	60	343	45	448
15-16	76	389	62	527
16-17	65	427	73	565
17-18	76	474	66	616

2619

3375

395

7-8 67 196 36 299 8-9 46 195 52 293 9-10 35 155 46 236 15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500 TOTAL 372 1350 343 2065	Hours	Lt	Th	Rt	Total
9-10 35 155 46 236 15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500	7-8	67	196	36	299
15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500	8-9	46	195	52	293
16-17 72 250 77 399 17-18 90 344 66 500	9-10	35	155	46	236
17-18 90 344 66 500	15-16	62	210	66	338
	16-17	72	250	77	399
TOTAL 372 1350 343 2065	17-18	90	344	66	500
TOTAL 372 1350 343 2065					
	TOTAL	372	1350	343	2065

TOTAL	XING	W/L	XING	E/L
E-W	Ped	Sch	Ped	Sch
881	81	11	114	14
930	56	1	78	3
684	52	7	60	14
865	98	9	171	13
964	145	9	184	15
1116	164	8	213	19
' <u></u>				
5440	596	45	820	78

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-005 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_						AI	/1						
NS/EW Streets:	А	Ivarado St		А	Ivarado St		Jame	s M Wood B	lvd	Jame	s M Wood B	lvd	
	NO	ORTHBOUND)	SC	OUTHBOUND)	E	ASTBOUND		V	/ESTBOUND		
LANES:	NL O	NT 3	NR 0	SL 0	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM	1	186	21	1	221	21	17	74	11	21	40	13	627
7:15 AM	0	206	16	0	234	12	17	92	19	18	50	9	673
7:30 AM	0	221	27	0	253	10	20	141	10	17	43	8	750
7:45 AM	0	213	19	0	226	25	13	146	22	11	63	6	744
8:00 AM	0	213	23	0	257	16	12	139	12	11	66	6	755
8:15 AM	0	188	18	0	203	16	14	147	16	13	46	13	674
8:30 AM	0	214	19	1	201	14	14	132	11	10	38	18	672
8:45 AM	0	239	20	0	184	16	11	115	14	12	45	15	671
9:00 AM	7	197	24	14	190	15	13	94	7	7	36	10	614
9:15 AM	3	185	27	12	190	16	19	87	6	6	41	13	605
9:30 AM	5	191	9	21	196	13	16	81	17	12	40	9	610
9:45 AM	7	180	13	11	179	10	12	81	15	10	38	14	570
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	23	2433	236	60	2534	184	178	1329	160	148	546	134	7965
APPROACH %'s:	0.85%	90.38%	8.77%	2.16%	91.22%	6.62%	10.68%	79.72%	9.60%	17.87%	65.94%	16.18%	l
PEAK HR START TIME :	730 <i>F</i>	M											TOTAL
PEAK HR VOL:	0	835	87	0	939	67	59	573	60	52	218	33	2923
PEAK HR FACTOR:		0.929			0.921			0.956			0.913		0.968

Project ID: 17-5070-005 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles РМ

_						PI	/1						
NS/EW Streets:	А	Ivarado St		А	Ivarado St		Jame	s M Wood B	llvd	Jame	s M Wood B	lvd	
	NO	ORTHBOUNI)	SC	DUTHBOUND)	E	ASTBOUND	1	٧	VESTBOUND)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM	7	199	20	7	184	19	18	89	13	23	54	25	658
3:15 PM	2	216	23	5	216	17	17	90	15	13	54	13	681
3:30 PM	7	191	19	4	224	12	19	93	15	9	53	16	662
3:45 PM	1	239	22	3	225	15	22	117	19	17	49	12	741
4:00 PM	0	225	29	0	258	30	17	104	21	18	46	11	759
4:15 PM	0	218	25	1	221	20	19	120	17	20	58	19	738
4:30 PM	0	241	27	0	263	28	11	98	20	20	70	29	807
4:45 PM	0	259	22	1	276	23	18	105	15	14	76	18	827
5:00 PM	0	242	18	2	267	27	19	116	12	23	59	17	802
5:15 PM	0	227	40	0	245	17	19	131	16	23	91	8	817
5:30 PM	0	238	34	0	263	32	19	123	23	23	86	20	861
5:45 PM	0	255	27	0	235	46	19	104	15	21	108	21	851
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	17	2750	306	23	2877	286	217	1290	201	224	804	209	9204
APPROACH %'s:	0.55%	89.49%	9.96%	0.72%	90.30%	8.98%	12.70%	75.53%	11.77%	18.11%	65.00%	16.90%	
PEAK HR START TIME :	500 F	PM											TOTAL
PEAK HR VOL :	0	962	119	2	1010	122	76	474	66	90	344	66	3331
PEAK HR FACTOR:		0.958			0.958			0.928			0.833		0.967



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Alvarado St

East/West Olympic Blvd

N/B

162

906 15.45

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

S/B

191

BIKES	62		64		66		67	
BUSES	46		48		58		54	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
	2.42	5.00	250	7.0 0	504	0.00	25.5	= 00
AM PK 15 MIN	242	7.30	279	7.30	501	8.30	275	7.00
PM PK 15 MIN	234	15.45	317	17.00	406	17.45	388	17.15
AM PK HOUR	897	7.15	1072	7.15	1802	8.00	1010	8.30

1217 16.45

NORTHBOUND Approach			so	SOUTHBOUND Approach						TOTAL	XING	XING S/L		XING N/L			
Hours	Ιt	Th	Rt	Total	Но	ure	Ιt	-	Гh	Rt	Total	N-S	Ped	Sch	Per	d \$	i.c

Hours	Lt	Th	Rt	Total
7-8	125	684	67	876
8-9	120	696	53	869
9-10	85	651	70	806
15-16	106	679	72	857
16-17	132	727	43	902
17-18	125	712	49	886
TOTAL	693	4149	354	5196

Hours	Lt	ın	Κt	1 otai	
7-8	201	618	234	1053	
8-9	192	502	236	930	
9-10	142	503	190	835	
15-16	170	624	179	973	
16-17	213	765	191	1169	
17-18	189	805	201	1195	
TOTAL	1107	3817	1231	6155	

E/B

174

1507 17.00

W/B

196

1327 17.00

TOTAL

N-S	Ped	Sch	Ped	Sch
1929	70	11	52	0
1799	83	7	61	0
1641	70	2	50	0
1830	125	21	61	2
2071	141	20	76	1
2081	118	8	77	4
11351	607	69	377	7

XING W/L

Hours	Lt	Th	Rt	Total
7-8	145	1166	39	1350
8-9	162	1598	42	1802
9-10	129	1160	32	1321
15-16	190	1109	51	1350
16-17	214	1194	56	1464

1089

1203

7430

275

8794

EASTBOUND Approach

17-18

TOTAL

Hours	Lt
7-8	56
8-9	55
9-10	59
15-16	69
16-17	84
17-18	83
TOTAL	406

WESTBOUND Approach

Lt	Th	Rt	Total
56	878	62	996
55	872	71	998
59	822	68	949
69	817	78	964
84	851	90	1025
83	1122	122	1327
406	5362	491	6259

E-W	Ped	Sch	Ped	Sch
2346	50	4	92	9
2800	47	1	99	3
2270	64	1	96	0
2314	90	9	149	22
2489	120	5	157	12
2834	110	9	165	8
5053	481	29	758	54
			•	

XING E/L

Project ID: 17-5070-006 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΔМ

_	AM .										1		
NS/EW Streets:	ts: Alvarado St			А	Ivarado St		O	lympic Blvd		Ol	lympic Blvd		
	NORTHBOUND		SOUTHBOUND		EASTBOUND			WESTBOUND					
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM	31 32 28 34 23 29 32 36 18 18 24	150 172 196 166 179 167 165 185 194 155 149	13 13 18 23 13 15 13 12 19 11 24	47 44 56 54 56 51 50 35 36 30 42	135 165 162 156 137 129 126 110 128 117	68 53 61 52 76 60 50 50 37 59 48	34 35 33 43 42 30 46 44 26 36 38	209 258 348 351 407 370 444 377 316 303 274	8 10 10 11 4 17 11 10 5 7 8	15 9 16 16 16 16 16 9 14 11 17	242 205 225 206 218 216 228 210 217 225 201	18 10 22 12 15 13 20 23 16 20 17	970 1006 1175 1124 1186 1113 1194 1106 1023 998 975
9:45 AM	25	153	16	34	127	46	29	267	12	12	179	15	915
TOTAL VOLUMES : APPROACH %'s :	NL 330 12.94%	NT 2031 79.62%	NR 190 7.45%	SL 535 18.99%	ST 1623 57.59%	SR 660 23.42%	EL 436 9.75%	ET 3924 87.73%	ER 113 2.53%	WL 170 5.78%	WT 2572 87.39%	WR 201 6.83%	TOTAL 12785
PEAK HR START TIME :	745 <i>F</i>	M											TOTAL
PEAK HR VOL:	118	677	64	211	548	238	161	1572	43	57	868	60	4617
PEAK HR FACTOR :		0.963			0.927			0.886			0.958		0.967

Project ID: 17-5070-006 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΡМ

_						PN	//						
NS/EW Streets:	А	Ivarado St		А	Ivarado St		0	lympic Blvd		Olympic Blvd			
	N	ORTHBOUND)	SC	OUTHBOUNI	D	E	ASTBOUND		V	VESTBOUND)	<u> </u>
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:30 PM	27 33 23 23 33 39 26 34 28 37 32 28	143 177 164 195 183 174 181 189 183 186 168	17 18 21 16 15 13 8 7 13 10 14	37 46 40 47 57 48 54 54 49 41 47 52	139 159 160 166 194 178 199 194 225 194 214	33 45 46 55 51 40 47 53 43 48 55 55	51 46 34 59 56 53 48 57 58 51 67 73	277 257 276 299 294 318 287 295 317 285 280 321	10 16 13 12 17 15 14 10 14 12 17	15 22 14 18 15 25 23 21 18 31 18	208 178 216 215 198 213 222 218 250 330 268 274	20 23 20 15 17 15 28 30 26 27 31 38	977 1020 1027 1120 1130 1131 1137 1162 1224 1252 1211 1228
TOTAL VOLUMES : APPROACH %'s :	NL 363 13.72%	NT 2118 80.08%	NR 164 6.20%	SL 572 17.14%	ST 2194 65.75%	SR 571 17.11%	EL 653 15.11%	ET 3506 81.14%	ER 162 3.75%	WL 236 7.12%	WT 2790 84.14%	WR 290 8.75%	
PEAK HR START TIME : PEAK HR VOL :	500 F	712	49	189	805	201	249	1203	55	83	1122	122	4915
PEAK HR FACTOR :		0.951			0.942			0.928			0.855		0.981



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Union Ave

East/West James M Wood Blvd

N/B

96

707 16.15

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day:	YES	District:	I/S CODE

S/B

85

BIKES BUSES	41 29		55 31		74 0		48 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	182	8.45	194	7.45	170	7.45	62	7.15
PM PK 15 MIN	179	17.00	273	16.45	171	17.30	85	17.45
AM PK HOUR	700	8.00	693	7.30	625	7.45	231	7.15

1040 16.45

NORTHBOUND Approach	SOUTHBOUND Approach	TOTAL	XING S/L	XING N/L
---------------------	---------------------	-------	----------	----------

E/B

58

631 16.45

W/B

37

307 17.00

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	i Sch	1	Ped	Sch
7-8	76	531	42	649	7-8	69	476	33	578	1227	50	17	'	55	34
8-9	78	563	59	700	8-9	66	478	61	605	1305	3	1 5	i	33	2
9-10	49	514	40	603	9-10	41	448	60	549	1152	14	1 0)	16	2
15-16	59	521	47	627	15-16	49	632	67	748	1375	40	5 9		33	8
16-17	72	573	52	697	16-17	88	749	63	900	1597	34	1 8	3	32	0
17-18	83	530	48	661	17-18	113	799	87	999	1660	43	9		55	7
					•										
TOTAL	417	3232	288	3937	TOTAL	426	3582	371	4379	8316	213	3 48		224	53

EASTBOUND Approach WESTBOUND Approach TOTAL XING W/L XING E/L

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	F	ed	Sch		Ped	Sch
7-8	44	422	61	527	7-8	34	138	42	214	741	1	08	35	ſ	113	55
8-9	36	509	57	602	8-9	30	119	32	181	783		86	0		52	13
9-10	38	343	68	449	9-10	18	83	27	128	577		67	1		26	0
15-16	51	376	120	547	15-16	34	102	20	156	703	1	25	34		83	62
16-17	57	371	145	573	16-17	15	134	35	184	757	1	13	7		42	9
17-18	85	382	152	619	17-18	37	215	55	307	926	1	78	24		58	21
														-		
TOTAL	311	2403	603	3317	TOTAL	168	791	211	1170	4487	6	77	101		374	160

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-007 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΔМ

_						AN	/						
NS/EW Streets:	ι	Union Ave		ι	Jnion Ave		Jame	s M Wood E	Blvd	Jame	s M Wood B	lvd	
	No	ORTHBOUNI)	SC	DUTHBOUND)	E	EASTBOUND)	V	VESTBOUND)	
LANES:	NL 1	NT 1	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM	26	111	8	13	100	8	7	73	17	2	29	7	401
7:15 AM	17	149	13	8	100	6	10	73 94	10	12	39	11	471
7:30 AM	13	145	11	12	125	10	12	112	22	12	33	13	520
7:45 AM	20	126	10	36	149	9	15	143	12	8	37	11	576
8:00 AM	20	130	20	26	140	12	8	123	18	9	37	9	552
8:15 AM	21	140	15	20	134	20	8	134	14	12	26	4	548
8:30 AM	15	145	12	12	101	17	8	130	12	5	24	8	489
8:45 AM	22	148	12	8	103	12	12	122	13	4	32	11	499
9:00 AM	9	141	10	10	114	12	7	89	19	3	20	8	442
9:15 AM	11	120	5	10	104	18	13	82	15	4	27	7	416
9:30 AM	13	123	10	14	112	12	5	81	21	6	19	6	422
9:45 AM	16	130	15	7	118	18	13	91	13	5	17	6	449
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	203	1608	141	176	1402	154	118	1274	186	82	340	101	5785
APPROACH %'s:	10.40%	82.38%	7.22%	10.16%	80.95%	8.89%	7.48%	80.74%	11.79%	15.68%	65.01%	19.31%	
PEAK HR START TIME :	730 <i>F</i>	MA											TOTAL
PEAK HR VOL :	74	541	56	94	548	51	43	512	66	41	133	37	2196
PEAK HR FACTOR :		0.953			0.893			0.913			0.909		0.953

Project ID: 17-5070-007 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_						P۱	1						
NS/EW Streets:	l	Union Ave		ι	Jnion Ave		Jame	s M Wood B	lvd	Jame	s M Wood B	lvd	
	N	ORTHBOUND)	SC	DUTHBOUND)	E	ASTBOUND		V	/ESTBOUNE)	
LANES:	NL 1	NT 1	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM	13	117	7	11	151	17	11	82	27	8	30	10	484
3:15 PM	13	128	13	14	162	19	9	94	30	7	31	3	523
3:30 PM	18	130	20	9	154	15	13	98	30	11	21	4	523
3:45 PM	15	146	7	15	165	16	18	102	33	8	20	3	548
4:00 PM	16	145	8	18	158	17	12	96	41	5	32	6	554
4:15 PM	20	140	16	14	179	15	12	94	36	4	32	8	570
4:30 PM	21	141	13	29	183	14	17	81	30	2	40	9	580
4:45 PM	15	147	15	27	229	17	16	100	38	4	30	12	650
5:00 PM	23	141	15	29	204	27	23	95	39	5	45	17	663
5:15 PM	24	140	9	31	207	14	17	96	36	14	53	15	656
5:30 PM	13	121	12	23	209	23	27	108	36	10	51	12	645
5:45 PM	23	128	12	30	179	23	18	83	41	8	66	11	622
T	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	214	1624	147	250	2180	217	193	1129	417	86	451	110	7018
APPROACH %'s:	10.78%	81.81%	7.41%	9.44%	82.36%	8.20%	11.10%	64.92%	23.98%	13.29%	69.71%	17.00%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL :	75	549	51	110	849	81	83	399	149	33	179	56	2614
PEAK HR FACTOR:		0.943			0.952			0.923			0.817		0.986

Appendix B
CMA AND LEVELS OF SERVICE EXPLANATION CMA DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Critical Mo	vement Analysis Characte	ristics
Level of Service	Load Factor	Equivalent CMA
A (free flow)	0.0	0.00 - 0.60
B (rural design)	0.0 - 0.1	0.61 - 0.70
C (urban design)	0.1 - 0.3	0.71 - 0.80
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90
E (capacity)	0.7 - 1.0	0.91 - 1.00
F (force flow)	Not Applicable	Not Applicable

SERVICE LEVEL A

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C

At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E

This represents near capacity and capacity operation. At capacity (CMA = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F

Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.







:#S/I	North-South Street:	Hoover Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
	Foot Woot Street.	M Wood Bou	Pacarol		- Cicio	Decision Vocasi			Load		V			MD		1 1 1	1 000		
CMA01	East-West Street: James	James M. Wood Boulevard	levard		Projec	tion rear.	20.		rea	Реак поиг:	AM	Reviewed by:	ed by:	MID		Project: 5-17-0316-1 2005 James M. Woo	-17-0316-1	2005 James	M. Wood
ď	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0			0 0				0 0				0 0				0 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?	, NB- 0 EB- 0	SB- WB-	0 0	NB EB	0 SB- 0 WB-		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB EB	0 0	SB WB	0 0
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	~ · ·		0 0			0 0				0 0				0 0				0 0
			EXISTING CONDITION	NOI.	EXISTIN	EXISTING PLUS PROJECT	OJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane	Added Volume	Total Volume	No. of Lanes	Lane Volume V	Added Volume V	Total Volume	No. of Lanes V	Lane Volume V	Added Volume	Total Volume	No. of Lanes	Lane Volume
aı	Left	29	- 0	29	0	29	29	26	94	- 0	94	0	94	- c	94	0	94	← 0	94
NUOS	↑ Through	1115) -	575	0	1115	575	75	1212) -	979	0	1212	o —	979	0	1212	o -	626
ІНТЯ	↑ Through-Right ↑ Right	34	- 0	8	0	34	8	2	40	- 0	40	0	40	- 0	40	0	40	- 0	40
ON	← Left-Through-Right ← Left-Right		0 0							0 0				0 0				0 0	
C	ret ∫.	103	-	103	က	106	106	4	119	-	119	က	122	-	122	0	122	-	122
ואנ	Left-Through		0							0				0				0	
BOL	← Through ↑ Through-Right	954		512	0	954	512	114	1087		585	0	1087		585	0	1087		585
нти		20	. 0 (70	0	20	70	7	82	. 0	82	0	82	. 0 (82	0	82	0 0	82
os	← Left-Through-Right ∠ Left-Right		0 0							0 0				0 0				0 0	
aı	J Left J Left:Through	80	- 0	80	0	80	80	13	92	- 0	92	0	92	- 0	92	0	32	← 0	92
NUO	→ Through	449	0 7	498	-	450	499	64	522	0 7	615	-	523	0 7	616	0	523	0 4	616
атс,	↓ Inrougn-Right → Right	49	- 0	0	0	49	0	43	93	- 0	0	0	93	- 0	0	0	93	- 0	0
/3	★ Left-Through-Right → Left-Right		00							00				0 0				0 0	
	· Left	22	_	22	0	22	22	-	22	-	22	0	27	-	22	0	27	-	57
anr	← Left-Through	ļ	0 (Č	•	į	,	Č	1	0 0	L		1	0 0	0	Ó	1	0 0	0
108	← Through ← Through-Right	1/8	o -	281	-	1/9	284	96	2/8	o -	405	_	279	o -	408	0	279	o -	408
ITSE	ト Right	103	- 0	0	2	105	0	22	127	. 0	0	2	129	. 0	0	0	129	- 0	0
ıM	← Left-Through-Right ← Left-Right		00							00				00				00	
		Ň	North-South:	678	Nor	North-South:	681		Norti	North-South:	745		North	North-South:	748		North	North-South:	748
	CRITICAL VOLUMES		East-West: SUM:	553 1231	Ea	ast-West: SUM:	554 1235		Ea	East-West: SUM:	672 1417		Ea	East-West: SUM:	673 1421		Ëä	East-West: SUM:	673 1421
	VOLUME/CAPACITY (V/C) RATIO:			0.821			0.823				0.945				0.947				0.947
%	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.721			0.723				0.845				0.847				0.847
	LEVEL OF SERVICE (LOS):			င			C				D				D				D
	REMARKS:																		

Version: 1i Beta; 8/4/2011

2/16/2017-8:00 PM

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A



Level of Service Workheet





I/S #:	North-South Street:	Hoover Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
	East West Street:	o M Wood Bo	Paravoli		Droio	Droioction Voor			Jeog	Doak Hour	DM	0		MB			1 0000	1000	
CMA01	East-West Street: Jame	James M. Wood Boulevard	nievaru		Projec	tion rear:	20.		Lea	N Flour.	E	Reviewed by:	ed by:	MD		Project: 5-17-0316-1 2005 James M. Woo	-17-0316-1	2005 James	M. Wood
ď	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0							0 0				0 0				0 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?	1? NB- 0 EB- 0	SB- WB-	0 0	NB EB	0 SB 0 WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB- EB	0 0	SB WB	00
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	£ 55		0 0			0 0				0 0				0 0				0 0
			EXISTING CONDITION	NOI	EXISTIR	EXISTING PLUS PROJECT	OJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume V	Total Volume	No. of Lanes V	Lane Volume V	Added Volume	Total Volume	No. of Lanes	Lane Volume
aı	C Left	23	- 0	53	0	53	23	47	101	- 0	101	0	101	← ¢	101	0	101	← ¢	101
NUOS	↑ Through	1067	-	260	0	1067	260	136	1224	o –	640	0	1224	-	640	0	1224	o –	640
нтя	↑ Through-Right ↑ Right	52	- 0	52	0	52	52	2	22	- 0	22	0	22	- 0	22	0	22	- 0	22
ON	← Left-Through-Right ← Left-Right	_	00							0 0				0 0				0 0	
(120	_	120	8	122	122	28	150	-	150	2	152	-	152	0	152	-	152
ואנ	← Left-Through		0							0				0				0	
вог	→ Through Through-Right	1120		288	0	1120	588	106	1249		661	0	1249		199	0	1249		661
HTU		99	0	99	0	99	99	16	73	- 0	73	0	73	0	73	0	73	- 0	73
os	← Left-Through-Right ← Left-Right		00							0 0				0 0				00	
al	J Left J Left-Through	96	- 0	96	0	96	96	16	114	- 0	114	0	114	- 0	114	0	114	- 0	114
NUO	Through	403	0 0	435	-	404	436	125	536	0 0	909	-	537	00	909	0	237	0 0	909
ats	↓ Inrougn-Right ↓ Right	32	- 0	0	0	32	0	36	69	- 0	0	0	69	- 0	0	0	69	- 0	0
4 3	★ Left-Through-Right ✓ Left-Right		00							00				0 0				00	
	# a	88	-	8	c	88	8	ĸ	95	-	å	c	95	-	å	c	S R	-	95
ΝD	← Left-Through	3	- 0	3	•	3	3		8	- 0	3)	8	. 0	3)	}	. 0	3
nos	← Through	251	0 +	369	-	252	372	26	353	0 -	495	-	354	0 -	498	0	354	0 -	498
ITS:	Right	118	- 0	0	8	120	0	22	142	- 0	0	8	144	- 0	0	0	4	- 0	0
M	← Left-Through-Right ← Left-Right		00							00				00				00	
		ž	North-South:	089	Nor	North-South:	682		Nort	North-South:	790		North	North-South:	792		North	North-South:	792
	CRITICAL VOLUMES		East-West: SUM:	523 1203	Ea	ast-West: SUM:	524 1206		Ea	East-West: SUM:	700 1490		Eas	East-West: SUM:	701 1493		Eas	East-West: SUM:	701 1493
	VOLUME/CAPACITY (V/C) RATIO:	:c		0.802			0.804				0.993				0.995				0.995
×	V/C LESS ATSAC/ATCS ADJUSTMENT	Ë		0.702			0.704				0.893				0.895				0.895
	LEVEL OF SERVICE (LOS):	:(:		С			C				D				D				D
	REMARKS:	:5																	

Version: 1i Beta; 8/4/2011

2/16/2017-8:00 PM

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







NB-	:# S/I	North-South Street:	Hoover Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by: N	NDS		Date:	2	2/16/2017	
No. of 1.00	CMA02	East-West Street:	Olympic	Boulevard			Projec	tion Year:	2019		Peal	k Hour:	AM	Review	/ed by:	MB			1-17-0316-1	2005 James	s M. Wood
National Supplies Nati	ő	No. posed Ø'ing: N/S-1, E/W-2 o	of Phases or Both-3?			4 0			4 0				4 0								
Table Control of C	Right	t Turns: FREE-1, NRTOR-2 c	or OLA-3?		SB- WB-	0 0	NB EB			NB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB EB	0 0	SB WB	0 0
MOVEMENT Control Con		ATSAC-1 or ATSAC	:+ATCS-2? e Capacity			0 0 0							0 0				0 0				0 0
NOVEMBENT NOVE				EXISTIN	4G CONDIT	NO.	EXISTIN		JJECT	FUTURE	: CONDITIO	N W/O PRO	JECT	FUTUR	CONDITIC	N W/ PROJ	IECT	FUTURE	W/ PROJEC	T W/ MITIG	SATION
Through Holy Holy Holy Holy Holy Holy Holy Holy		MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume				-				Total Volume		Lane Volume
Through Right	aı	Left		119	- 0	119	0	119	119	54	175	← 0	175	0	175	← ¢	175	0	175	- 0	175
Figure F	NUOE	↑ Through		1023) - -	527	0	1023	528	43	1087	o – •	260	0	1087	o – •	561	0	1087) - -	561
	ІНТЯ(↑ Inrough-Right ↑ Right		31	- 0	31	-	32	32	-	33	- 0	33	-	34	- 0	8	0	34	- 0	34
Left Humogh Right	ON				0 0							0 0				0 0				0 0	
Trinciples Tri	aı			172	- 0	172	0	172	172	45	220	- 0	220	0	220	- 0	220	0	220	- 0	220
Timough-regint 1	NUOE	← Lert-Inrougn ← Through		793	o – 4	442	0	793	442	112	921	⊃ -	533	0	921	⊃ -	533	0	921	o – •	533
	IHTU			06	- 0	6	0	06	06	52	144	- 0	144	0	144	- 0	144	0	144	- 0	144
Left Through 125 1 125 1 125 1 125 1 159 1 <th>os</th> <th></th> <th></th> <th></th> <th>00</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>0 0</th> <th></th> <th></th> <th></th> <th>0 0</th> <th></th> <th></th> <th></th> <th>00</th> <th></th>	os				00							0 0				0 0				00	
J. Left Through 125 1 125 1 125 1 159 1 1 1 1 1 1 1																					
Through Right 1664 2 589 3 1667 590 1686 2 680 3 1869 2 681 0 1869 2 Through Right 103 0 103 0 103 1	αn	✓ Left → Left-Through		125	- 0	125	0	125	125	31	159	- 0	159	0	159	- 0	159	0	159	- 0	159
Right Spirite Spirit	NUO	Through Through		1664	N +	589	က	1667	290	169	1866	N +	089	က	1869	N +	681	0	1869	7 7	681
Left-Right	TSA:	Right		103	- 0 0	103	0	103	103	20	175	- 0 0	175	0	175	- 0 0	175	0	175	- 0 0	175
F Left 50 1 51 51 51 51 51 51 51 52 1 56 1 58 1 58 0 58 1 T Left-Through Through-Right 140 0 140 0 140 0 140 228 1247 2 1249 2 473 0 1249 2 Through-Right 140 0 140 0 140 0 140 0 170	3	Left-Right			0 0							0 0				0 0				0 0	
T Left-Through 999 2 1001 380 228 1247 2 472 2 1249 2 473 0 170 0 ↑ Through	•	t Leff		20	-	20	-	51	51	9	57	-	22	-	28	-	28	0	28	-	58
Through-Right	חחב	← Left-Through ← Through		666	0 0	380	8	1001	380	228	1247	0 0	472	2	1249	0 0	473	0	1249	0 0	473
The Left-Through-Right	BTS:	← Through-Right で Right		140	- 0	140	0	140	140	27	170	- 0	170	0	170	- 0	170	0	170	- 0	170
North-South: 699 North-South: 700 North-South: 780 North-South: 781 North-South: East-West: 639 East-West: 641 East-West: 737 East-West: 739 East-West: SUM: 1341 SUM: 1517 SUM: 1520 SUM: 0.973 0.975 1.103 1.105 1.005 D D D F F	ME.	← Left-Through-Right			00							00				00				00	
0.973 0.875 1.003 1.005		CRITICAL \	VOLUMES	Nort Ea	th-South:	639	Nor	th-South:	700 641		Norti Ea:	h-South: st-West:	780		North Eas	-South: st-West:	781 739		Nortl Ea	h-South: st-West:	781 739
0.873 0.875 1.003 1.005 1.005 D F F		VOLUME/CAPACITY (V/	C) RATIO:			0.973			0.975				1.103				1.105			Š	1.105
D P F	Š	C LESS ATSAC/ATCS ADJU	USTMENT:			0.873			0.875				1.003				1.005				1.005
		LEVEL OF SERVI	ICE (LOS):			D			D				ш				F				ш

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







NB- 0	:# S/I	North-South Street:	Hoover Street	treet			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by: N	NDS		Date:	2	2/16/2017	
NB 0 SB- 0 0 0	CMA02		Olympic	Boulevard			Projec	tion Year:	2019	Ī	Peal	Peak Hour:	PM	Review	Reviewed by:	MB	3	Project:	Project: 5-17-0316-1 2005 James M.	2005 Jame	s M. Woo
NB 0 NB 0 EXISTING CONDITION NO. of Lane Pr. Nolume Tr. Nolume Tr. Nolume Tr. Nolume Tr. North-South: 636 East-West: 648 SUM: 1284 SUM: 1284 SUM: 1284 SUM: 1284 SUM: 1284 SUM: 1284 O.934 O.9	o	No. o pposed Ø'ing: N/S-1, E/W-2 or				4 0							4 0				4 0				4
MOVEMENT MOVEMENT	Right	tt Turns: FREE-1, NRTOR-2 or ATSAC+1 or ATSAC+			SB- WB	000	NB EB	0 SB 0 WB		NB EB	0 0	SB WB	000	NB EB	0 0	SB- WB	000	NB- EB	0	SB WB	000
MOVEMENT MOVEMENT		Override	Capacity						0				0				0				0
MOVEMENT No. of Lane Project				EXISTIN	4G CONDIT	NOI	EXISTIN	IG PLUS PRC	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/O PROJECT	VECT	FUTUR	E CONDITIC	FUTURE CONDITION W/ PROJECT	JECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	ST W/ MITIC	SATION
Left		MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
Through Right 27 0 27 1	а	↑ Left		147	- 0	147	0	147	147	116	266	- (266	0	266	~ (266	0	266	- 0	266
↑ Through-Right	NNO	← Left-I hrough ↑ Through		882	o –	455	0	882	455	118	1018	o -	526	0	1018	o –	527	0	1018	o –	527
	ВНТ <i>Я</i>	↑ Through-Right		27	- 0	27	-	78	28	9	34	- 0	8	_	35	- 0	35	0	35	- 0	35
Left—	ION				0 0							0 0				0 0				00	
Left-Through																					
Through-Right	αN	Left - off-Through		181	- 0	181	0	181	181	35	220	- c	220	0	220	- 0	220	0	220	- ⊂	220
↑ Right 142 0 142 0 ↑ Left-Through-Right 215 1 215 0 ↑ Left-Through 1374 2 486 2 ↑ Through 1374 2 486 2 ↑ Through 1374 2 486 2 ↑ Through 85 0 85 0 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 175 0 175 0 ↑ Left-Through 175 0 175 0 ↑ Left-Through 175 0 175 0 ↑ Left-Through-Right 0	INOS	Through		820	·	481	0	820	481	73	606) -	228	0	606	·	258	0	606	· — •	228
← Left-Through-Right 0 ∠ Left-Right 215 1 215 0 → Left-Through 1374 2 486 2 → Through-Right 85 0 85 0 ← Right Right 72 1 72 1 ← Left-Through-Right 1123 2 433 2 ← Through-Right 175 0 175 0 ← Through-Right 175 0 175 0 ← Left-Through-Right 175 0 175 0 ← Left-Right North-South: 636 North-South: 638 North-South: 638 CRITICAL VOLUMES East-West: 648 East-West: 648 East-West: 648 VOLUME/CAPACITY (WC) RATIO: 0.934 0.934 0.934 0.934	IHTU			142	- 0	142	0	142	142	61	206	- 0	206	0	206	- 0	206	0	206	- 0	206
	os				00							00				00				00	
Left 215 1 215 0 Left-Through 1374 2 486 2 Through-Right 85 0 85 0 Fight 0 85 0 Left-Through-Right 72 1 72 1 Through 1123 2 433 2 Through 1123 2 433 2 Through 175 0 175 0 Right 1 175 0 175 0 Right 1 175 0 175 0 Right 1 175 0 175 0 Left-Through-Right 0 0 1284 East-West East-West 648 VOLUME/CAPACITC W/																					
Through-Right 1374 2 486 2 Through-Right 85 0 85 0 Left-Through 72 1 72 1 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 175 0 175 0 ↑ Left-Right 175 0 175 0 175 0 ↑ Left-Right 175 0 175 0 175 0 ↑ Left-Right 175 0 175 0 175 0 175 0 ↑	a	✓ Left ✓ Left-Through		215	- c	215	0	215	215	75	294	- c	294	0	294	← C	294	0	294	- ⊂	294
Fight Right S	NUO	Through		1374	0 77 7	486	2	1376	487	290	1692	0 7 7	627	2	1694	0 7 7	628	0	1694	, CI -	628
↑ Left-Through-Right 0 ↑ Left-Right 0 ↑ Left-Right 72 1 ↑ Left-Through 1123 2 ↑ Through-Right 175 0 ↑ Left-Right 0 175 0 ↑ Left-Right North-South: 636 North-South: 636 North-South: 1284 CRITICAL VOLUMES East-West: 648 East-West: 648 East-West: 648 VOLUME/CAPACITY (W/C) RATIO: 0.934 WC LESS ATSAC/ATCS ADJUSTMENT: 0.834	ате	Fight Right		85	- 0	85	0	85	85	103	190	- 0	190	0	190	- 0	190	0	190	- 0	190
← Left 72 1 72 1 ← Left-Through 1123 2 433 2 ← Through-Right 175 0 175 0 ← Left-Through-Right 0 175 0 175 0 ← Left-Right North-South: 636 North-South: 636 North-South: East-West: 648 East-World VOLUME/CAPACITY (WC) RATIO: 0.934 0.934 0.834 0.834	Ε¥	★ Left-Through-Right ★ Left-Right			0 0							0 0				0 0				0 0	
↑ Left-Through 0 433 2 ↑ Through Right 175 0 175 0 ↑ Left-Through-Right 0 175 0 Left-Right North-South: 636 North-South: East-West: 648 Fa CRITICAL VOLUMES East-West: 648 Fa Fa North-South: 609 North-South: 648 Fa VOLUME/CAPACITY (V/C) RATIO: 0.934 0.934 0.934 No 834 0.834 0.834		. Left		72	_	72	-	73	73	က	92	_	92	-	77	_	12	0	1	_	12
↑ Through-Right ↑ Right ↑ Left-Through-Right ↑ Left-Right CRITICAL VOLUMES VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: 1123 7 433 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	αи∩	← Left-Through		7	0 0	,	C	7		C	000	0 0	į	c	200	0 (C	200	0 0	1
↑ Right	BO	Through-Right		6711	v -	554	V	671	55	230	1307	٧ -	/26	N	1001	٧ -	/56	0	1304	v -	3
Y Left-Right 0 North-South: 636 North-South: CRITICAL VOLUMES East-West: 648 Ea SUM: 1284 VOLUME/CAPACITY (V/C) RATIO: 0.934 W/C LESS ATSAC/ATCS ADJUSTMENT: 0.834 0.834	MEST	← Right ← Left-Through-Right		175	00	175	0	175	175	49	228	0 0	228	0	228	00	228	0	228	00	228
North-South: 636 North East-West: 648 Ea SUM: 1284 0.934	ı	个 Left-Right		;	0		:	,			:	0			:	0			:	0	
0.934		CRITICAL V	OLUMES	Nort	n-South: Ist-West: SUM:	648 1284	NO E	th-South: ast-West: SUM:	648 1284		Norti Ea:	North-South: East-West: SUM:	824 831 1655		Norti Ea:	North-South: East-West: SUM:	824 831 1655		Nort Ea	North-South: East-West: SUM:	824 831 1655
		VOLUME/CAPACITY (V/C	;) RATIO:			0.934			0.934				1.204				1.204				1.204
	Š	/C LESS ATSAC/ATCS ADJU⊱	STMENT:			0.834			0.834				1.104				1.104				1.104
LEVEL OF SERVICE (LOS):		LEVEL OF SERVIC	CE (LOS):			۵			۵				ш				ш				ш

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.000
Significant impacted? NO

∆w/c after mitigation: 0.000 Fully mitigated? N/A





1/S #:	North-South Street:	Alvarado Street	Street			Year	Year of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by: NDS	DS		Date:	2	2/16/2017	
	East West Street:	7th Ctroot				Droio	tion Voor			Jeog	- LO	A M	-		MB		.,,	1 0000		
CMA03	East-West Street:	eane III				Project	tion rear.	2019		Lea	reak nour.	AIN	Keview	Keviewed by:	M		Project: 5	5-17-0316-1 2005 James M. Woo	2005 Jame	s M. Wood
do	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0 2							0 0				0 0				0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB- 0 WB-		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?	-ATCS-2? Capacity			0 0			2 0				0 5				0 0				2
			EXISTIN	EXISTING CONDITION	lon	EXISTI	EXISTING PLUS PROJECT	OJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIC	FUTURE CONDITION W/ PROJECT		FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	SATION
	MOVEMENT	ı	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane	Added	Total Volume	No. of Lanes	Lane Volume
a	↑ Left ↑		0	0 7	0	0		0	0	0	0 7	0	0	0	0 4	0	0	0	0 7	0
NUO	↑ Lert-Inrougn ↑ Through		936		333	က	939	334	186	1141		409	က	1144		410	0	1144		410
ВНТ Я	↑ Through-Right ↑ Right		63	- 0	333	0	63	334	22	86	- 0	409	0	98	- 0	410	0	98	- 0	410
HON	Left-Through-Right			00							00				00				00	
																ĺ				
ИD	Left Togical		2	0 +	2	0	7	2	0	7	0 7	2	0	2	0 +	2	0	2	0 -	2
INO	Through		966		502	4	1000	206	216	1232		622	4	1236		624	0	1236		624
LHB	★ Through-Right ★ Through ★ Through-Right ★ Through-Righ ★ Through-Right ★ Through-Righ ★ Through-Right ★ Through-Right ★ Thr		ć	0 7	Ĺ	c	S	Ĺ	1	2	0 7	Č	c		0 7	Ĺ	c	2	0 7	Ĺ
LNO	✓ Kignt → Left-Through-Right		99 25	- 0	oc C	0	9 5	oc C)	71.1	- 0	ဂ္ဂ	0	71.1	- 0	Ω Θ	0	71.1	- 0	62
s	∠ Left-Right			0							0				0				0	
	,																			
a	J Left → Left.Through		74	- c	74	0	74	74	19	94	- ⊂	8	0	94	- c	94	0	96	- c	94
NUC	→ Through		422	· -	422	0	422	422	29	497	· -	497	0	497	· -	497	0	497	· -	497
)BT	Through-Right		77	0 -	77	c	7	77	_	73	0 -	73	c	73	0 +	73	C	73	0 +	43
SA3	← Left-Through-Right		F	- 0	F	o		F	-	2	- 0	?	ò	?	- 0	?)	P	- 0	P
	Left-Right			0							0				0				0	ı
d	Left		33	_	33	0	33	33	42	92	-	9/	0	92	_	9/	0	92	-	9/
INNO	← Left-Through ← Through		310	o –	310	0	310	310	108	424	o –	424	0	424	o ←	424	0	424	o -	424
DBT	Through-Right		1	0	İ			İ	_	1	0		,	1	0			1	0	1
۸ES	← Right ← Left-Through-Right		28	- 0	86	0	28	89	0	69	- 0	69	0	69	- 0	69	0	69	- 0	29
٨	∱ Left-Right ຶ			0							0				0				0	
	CRITICAL VOLUMES	OLUMES	Nort Ea	North-South: East-West:	502 455	North Eas	orth-South: East-West:	506 455		Norti Ea	North-South: East-West:	622 573		North Eas	North-South: East-West:	624 573		Norti Ea	North-South: East-West:	624 573
				SUM:	957		SUM:	961			SUM:	1195			SUM:	1197			SUM:	1197
	VOLUME/CAPACITY (V/C) RATIO:	;) RATIO:			0.638			0.641	_			0.797				0.798				0.798
×	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.538			0.541				269.0				0.698				0.698
	LEVEL OF SERVICE (LOS):	CE (LOS):			A			A				В				В				В
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A







:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	:h: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA03	East-West Street:	7th Street				Projec	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed by:	MB		Project: 5	Project: 5-17-0316-1 2005 James M. Woo	2005 Jame	s M. Wood
ŏ	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0				0 0				0				2 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2?		NB 0 EB 0	SB- WB-	000	NB EB	0 SB 0 WB		NB EB	0	SB WB	0 0 0	NB EB	0 0	SB- WB	0 0 0	NB- EB	0	SB WB	0 0 0
	Override	Override Capacity						0				0								0
	MOVEMENT	l	EXISTIN	EXISTING CONDITION No. of La	rion	EXISTIN Project	ጅ —	DJECT Lane	FUTURE	CONDITION	ጅ ├─	_	FUTURE	CONDITIO	ଛ ⊢	ø	FUTURE \	FUTURE W/ PROJECT W/ MITIGATION Added Total No. of Lane	T W/ MITIC	Lane
	; ;		Volume	Lanes	Volume	Traffic	_	Volume	_	_	Se	_	_	_	es	_	_	Volume	Lanes	Volume
αD	Left 		7	o +	7	0	7	7	0	7	o -	7	0	7	o +	7	0	7	o -	7
NO:	Through		1061		380	3	1064	381	252	1334		489	3	1337		490	0	1337		490
8HT;	Through-Right り Right		99	← ⊂	380	c	99	384	54	121	← C	489	C	121	- c	490	C	121	- c	490
НОИ			3	0 0)		3		į	0 0	3	•	į	0		•	į	0 0	2
	→ Left-Right		ı	0							0	j			0	j			0	
a	: : اولا : ا		0	0 -	0	0	0	0	0	0	0 -	0	0	0	0 .	0	0	0	0 -	0
NNC	√ Left-Through Thro⊔gh		1029		515	ď	1032	516	237	1287	- -	644	ď	1290		645	c	1290		645
нвс	Through-Right		6701	- 0	2	ר	700	2	107	707	- 0	ţ	ס	067	- 0	2	0	230	- 0	Š
łΤU			135	- 0	94	0	135	94	24	162	- 0	108	0	162	- 0	108	0	162	- 0	108
os	← Left-Through-Right ∠ Left-Right			00							00				00				00	
aı	✓ Left ✓ Left-Through		83	← 0	83	0	83	83	23	108	- 0	108	0	108	- ○	108	0	108	- c	108
NNO	Through		462	· -	462	0	462	462	139	610) -	610	0	610	· -	610	0	610	· —	610
ата	↓ Through-Right → Right		62	o -	62	C	62	62	-	82	0 -	82	C	82	o -	82	C	82	o -	82
EA3	← Left-Through-Right			00				!			00				00				00	
	רפונ-אופווו																			
а	← Left ← Left		49	← 0	49	0	49	49	38	88	← 0	88	0	88	← 0	88	0	88	← 0	88
NNO	← Leit-IIII ougii ← Through		361	→	361	0	361	361	106	474	→	474	0	474	o -	474	0	474	> —	474
ата	← Through-Right		12	0 +	7	c	12	1	٣	22	0 +	82	c	82	0 +	82	C	83	0 -	8
ME	← Left-Through-Right			- 0	:	•			,	20	- 0	2	ò	2	- 0	2		8	- 0	4
	↑ Left-Right		, or	0	E47	No.N	t. Co.:44.	0140		Month	0	6.46		Monde	0	6.47		Mond	0	277
	CRITICAL VOLUMES	OLUMES	NOT E	East-West: SUM:	517 511 1028	ğ W	East-West: SUM:	511 1029		NOTE Eas	East-West: SUM:	698 1344		Fas	East-West: SUM:	698 1345		Fa:	East-West: SUM:	698 1345
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.685			0.686				0.896				768.0				0.897
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.585			0.586				962.0				762.0				0.797
	LEVEL OF SERVICE (LOS):	CE (LOS):			A			Α				ပ				C				C
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A





						ישמו כו כסתוור.														
CMA04	East-West Street:	8th Street				Projecti	tion Year:	2019		Pea	Peak Hour:	AM	Reviev	Reviewed by:	MB		Project: 5	5-17-0316-1	2005 James M.	s M. Wood
OddO	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	No. of Phases V-2 or Both-3?			2			2 0				2 0				2 0				2
Right Tu	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB 0 WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB	0 0	NB EB	00	SB WB	00
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity				0 0				_			0 2				0 2				0 0
			EXISTIN	EXISTING CONDITION	NO.	EXISTIN	EXISTING PLUS PROJECT	OJECT	FUTURE	E CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTUR	E CONDITIC	FUTURE CONDITION W/ PROJECT	JECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT	<u>I</u>	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
a	↑ Left ↑ . g.=.		3	0 ,	က	0	3	3	0	က	0 1	က	0	က	0	က	0	က	0 ,	က
NNO	← Leπ-Inrough ↑ Through		894		320	က	897	321	167	1079		391	က	1082		392	0	1082		392
ВНЈ	Through-Right		,	- 0	Ö	C	ç	5	8	1	- (2	C	1	- (C	d	1	- (Ö
raon	← Right ← Left-Through-Right		84	0 0	320	0	84	321	78	`	00	391	0	`	00	392	0	`	0 0	392
-1	ال Left-Right			0							0				0				0	
αN	Fet Total		0	0 +	0	0	0	0	0	0	0 +	0	0	0	0 +	0	0	0	0 +	0
NUOS	Through		973		487	4	977	489	215	1208		604	4	1212		909	0	1212	- 🕶	909
ЭНТ	↓ Through-Right ↓ Right		105	o -	20	0	105	70	37	144	o -	87	0	144	o -	87	0	<u>4</u>	o -	87
	← Left-Through-Right Left-Right			00							00				0 0				0 0	
a	Left		71	← ¢	71	0	7.1	7.1	42	114	← ¢	114	0	114	← C	114	0	114	← c	114
NUO	Through		546	o ←	546	2	548	548	93	029	-	650	2	652	-	652	0	652	o ←	652
ата	Through-Right Right		38	o -	æ	0	38	38	τ-	40	o -	9	0	40	o -	9	0	40	o -	40
:A3	★ Left-Through-Right ✓ Left-Right			00							00				0 0				0 0	
) #d - \		35	-	ř	c	35	z,	34	02	-	5	c	02	-	5	c	02	-	6
anr	← Left-Through		3	0	3 6) () (,	. (0 ,) (0		, (0	
юв	← I hrough ← Through-Right		017		3/8	N	717	380	105	878		439	N	283		440	o	831		440
ITS∃	Right		47	0	47	0	47	47	0	48	. 0	48	0	48	. 0	48	0	48	0	48
M	↓ Left-Through-Right ├─ Left-Right			0 0							0 0				0 0				0	
	CRITICAL VOLUMES	LUMES	Nort	North-South:	490	North	orth-South: Fast-West	492 583		Nort	North-South: Fast-West	607		Nort	North-South: Fast-West	609		North	North-South: Fast-West	609
			i	SUM:	1071	ı	SUM:	1075		i	SUM:	1327		3	SUM:	1331		Í	SUM:	1331
	VOLUME/CAPACITY (V/C) RATIO:	RATIO:			0.714			0.717				0.885				0.887				0.887
1 //C	V/C LESS ATSAC/ATCS ADJUSTMENT:	: ENENT			0.614			0.617				0.785				0.787				0.787
	LEVEL OF SERVICE (LOS):	: (FOS):			m			ď				C				•				ر

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







I/S #:	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2,	2/16/2017	
CMA04	East-West Street:	8th Street				Project	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed bv:	MB			5-17-0316-1 2005 James M. Woo	2005 James	M. Wood
	No. o	No. of Phases			2			2				2				1				2
ď	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			į	0 0				!	•	ļ	0 (!	(į	0 0	!	•	ļ	0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	O NB-		NB	0	SB WB-	0 0	NB EB	0	SB- WB-	0 0	NB-	0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?				0.0			N				00				000				2.0
	Override	Override Capacity	MITOIAE	NOITIGNOO ONITSIXE		INITOINE	TOSI OGG SI IG S	O TOSI	HILDE	CITIONO	TOSI OBBO INVIORIDATION OF THE PROPERTY OF THE	O 1	JOILL	OI FIGNOS:	TOSI COO W NOITIGNOO SOLITIES		CITIBE	NOITE SITIM /W TOSI COM /W SOITIS	DITIM WY T	OUTV
			EXISTIF	IG CONDII	20	≅ þ	G PLUS PR) EC	FUIURE	O LIGNOD :	N W/O PRO	1	FUIUR	CONDITION	W PRO	2	FULUKE	W/ PROJEC	M MILIE	AIION
	MOVEMEN		Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume \	Added Volume V	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
a) Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INN	← Left-Through		1017		364	ď	1017	365	250	1287		770	٣	1287		724	c	1287	- -	474
IBC	↑ Through-Right		2		t S)		3	007	107		ì	ס	107		- F	0	2021		- ì
ΗТЯ	_ Right		62	0	364	0	62	365	45	126	0	470	0	126	0	471	0	126	0	471
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
αı	Left T		-	0 +	-	0	-	-	0	_	0 7	-	0	-	0 7	-	0	-	0 +	-
NNC	↓ Leit-Inrough		1002	·	504	m	1005	506	220	1242		624	e	1245		626	C	1245		626
ВС	Through-Right Thr		1	- 0	5)	2	3	3	1	. 0	5)	2	. 0	3	•	2	- 0	3
łΤU			106	← (81	0	106	81	23	161	— (110	0	161	- 0	110	0	161	- 0	110
os				00							0 0				00				00	
а	Left		21	← ⊂	21	0	21	51	20	102	← ⊂	102	0	102	← C	102	0	102	← ⊂	102
NNC	Through		525	- c	525	8	527	527	144	089	→	680	8	682	-	682	0	682	→	682
BT:	Through-Right		ĕ	o -	8	c	ű	ŭ	•	83	0 +	83	c	83	0 +	83	c	83	0 +	63
EAS	← Left-Through-Right		5	- 0	5	o	5	5	-	3	- 0	3	o	3	- 0	3	0	3	- 0	3
	✓ Left-Right			0	I			Ī			0				0	j			0	ı
	, reft		20	-	02	0	20	02	40	111	-	11	0	111	_	111	0	111	-	111
חמנ	← Through		222	0 +	27	c	760	777	100	2	0 +	700	c	6.50	0 +	00	c	6,50	0 +	400
ВО	↑ Through-Right		8	- ,-	<u>}</u>	٧	3	<u>†</u>	2	-		n P	٧	2	_	5	0	2		5
TSE	Right		09	0	09	0	09	09	9	29	0	29	0	29	0	29	0	29	0	67
ıM	/ Left-Through-Right 个 Left-Right			00							00				00				00	
			Nort	North-South:	504	Nort	h-South:	909		North	North-South:	624		North	North-South:	626		North	North-South:	626
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	595 1099	Ë	East-West: SUM:	597 1103		Ea	East-West: SUM:	791 1415		Ea	East-West: SUM:	793 1419		Ea	East-West: SUM:	793 1419
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.733			0.735				0.943				0.946				0.946
×	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.633			0.635				0.843				0.846				0.846
	LEVEL OF SERVICE (LOS):	CE (LOS):			В			В				D				D				D
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.003
Significant impacted? NO

∆w/c after mitigation: 0.003 Fully mitigated? N/A





1/S #:	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	IDS		Date:	2	2/16/2017	
CMA05	East-West Street:	James M.	James M. Wood Boulevard	levard		Project	Projection Year:	2019		Peak	Peak Hour:	AM	Review	Reviewed by:	MB			5-17-0316-1 2005 James M. Woo	2005 James	M. Wood
(No. O	No. of Phases			2			2				2								2
ő	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			ç	0 0	9			9	c	ę	0 0	9	c	5	0 0	9	c	ç	0 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB EB 0	NB-	0 0	NB	- 9R-1		NB	0	NB-	0 0	NB	0	NB-	0 0	NB-	0	NB-	0
	ATSAC-1 or ATSAC+ATCS-2?	+ATCS-2?			0.0			0.0				0.0				N C				2.0
	Overnae	Overnde Capacity	EXICTIA	NOITION CO SNITSIXE		EXICTIN	TO DE DECT		HITIBE	OITIONOS	TO DE CONDITION W/O BBO EDE	LUE TO E	BUITIB	OITIONO :	FILTIDE CONDITION W/ DDO IECT		FIITIBE	EITIIDE W, BBO IECT W, MITIGATION	DITIM /W T	NOITA
	HALMENCE		EVIOLE	id collabil	2 .	EXIST		200	3		N W/O PRO		י יי		N PRO	ָּבֶּן.	יים אים יי	ייי דאי	on in in in	NO.
	MOVEMEN		Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume \	Added Volume V	Total Volume	No. of Lanes	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume
a) Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INN	← Left-Through		835		307	c	835	300	176	400A		370	c	1028	- -	284	C	10.28	. .	381
IBC	↑ Through-Right		2		ò	0	3	8	2	020		5	•	070	_	5	0	020		3
ΗТЯ	Right		87	0	307	9	93	309	19	108	0	379	9	114	0	381	0	114	0	381
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
ИВ	Left Through		0	0 +	0	0	0	0	0	0	0 -	0	0	0	0 +	0	0	0	0 +	0
INC	Through		626	- 0	503	4	943	505	226	1184	- 0	639	4	1188	- 0	641	C	1188	- 0	641
НВС	← Through-Right			-	}	•		}			-	}			-	:)	3	-	;
ΙΤΟ			29	0 (503	0	29	202	25	93	0 (639	0	93	0 (641	0	93	0 (641
os				00							00				00				00	
a	J Left ∠ Left Left-Through		29	← ⊂	29	0	26	29	18	78	← ⊂	78	0	78	← ⊂	78	0	78	← ⊂	78
NNC	→ Through		573	00	633	4	277	637	83	899	00	729	4	672	00	733	0	672	00	733
BT	Through-Right		8	- (((G	((č	- 0	Ó	Ó	č	- ((ď	3	← ((
SA	← Kight ← Left-Through-Right		09	0)	5	09	0	0	L9	0)	0	L 9	0	0	0	.0	0	>
3	Left-Right			0							0				0				0	
	↓ Left		52	-	52	2	22	57	6	62	-	62	2	29	-	67	0	29	-	67
aиг	← Left-Through —		Č	0 0	i	C		[1	0	į	Ó		0 0	ļ	ď	,	0 0	1
108	↑ Inrough ↑ Through-Right		218	⊃ -	722	n	777	797	115	33/	o +	3/1	n	340	⊃ -	377	0	340	o +	377
ITS	ر Right		33	- 0	0	3	36	0	0	34	- 0	0	က	37	- 0	0	0	37	- 0	0
M	← Left-Through-Right ← Left-Right			00							00				00				00	
			Nort	North-South:	503	Nort	th-South:	202		North	North-South:	629		North	North-South:	641		North	North-South:	641
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	685 1188	Щ	East-West: SUM:	1199		Ea	East-West: SUM:	791 1430		Ea	East-West: SUM:	800 1441		Eas	East-West: SUM:	800 1441
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.792			0.799				0.953				0.961				0.961
×	V/C LESS ATSAC/ATCS ADJUSTMENT:	ISTMENT:			0.692			669.0				0.853				0.861				0.861
	LEVEL OF SERVICE (LOS):	CE (LOS):			ω			m				۵				۵				۵
	RE	REMARKS:						ľ												

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.008
Significant impacted? NO

∆w/c after mitigation: 0.008 Fully mitigated? N/A







10 10 10 10 10 10 10 10	:# S/I	. North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conducted by:		NDS		Date:	2	2/16/2017	
Mail	CMA05		James M.	Wood Bou	levard		Project	ion Year:	2019		Peak	k Hour:	PM	Review	red by:	MB				2005 James	s M. Wood
Mail	ŏ	No. (pposed Ø'ing: N/S-1, E/W-2 o	of Phases or Both-3?			0							2 0				2 0				0
Through Right Through Righ	Righ	ıt Turns: FREE-1, NRTOR-2 o			SB- WB-	00	NB EB			NB EB	00	SB WB	0 0	NB EB	0 0	SB- WB	0 0	NB EB	0 0	SB WB	0 0
NOVEMENT NOVEMBER	ATSAC-1 or ATSAC+	+ATCS-2?			0 0			0 0	ı			0 0				0 0				0 0	
NOVEMBRY NOVEMBRY				EXISTIN	IG CONDIT	NO	EXISTIN	G PLUS PRC	JECT	FUTURE	: CONDITIO!	N W/O PRO	JECT	FUTURE	CONDITIC	N W/ PRO.	JECT	FUTURE \	W/ PROJEC	T W/ MITIG	ATION
Through Thro		MOVEMENT		Volume			Project Traffic				Total Volume										Lane Volume
Through Agint Through Agin	an	Left		0	0 +	0	0	0	0	0	0	0 +	0	0	0	0 +	0	0	0	0 +	0
Finduck-Right	NOS	Through		962		360	0	396	362	266	1247		462	0	1247	- —	463	0	1247	. .	463
	нтя	↑ Through-Right ↑ Right		119	- 0	360	2	124	362	17	138	- 0	462	2	143	- 0	463	0	143	- 0	463
Left Humble Left Humble	ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
Left-Through 1010 1572 3 1013 574 240 1270 0 715 0 148 0 717 0 1273 0 1717 1 148 0 718 1 148 0 718 0 718 0 717 0 1273 0 1717 0 1717		# 		C	c	0	C	C	C	C	0	c	0	c	0		C		0	c	0
Through High Hough Right 100 0 572 3 1013 674 240 1270 0 715 1 103 1 1 103 1 103 1 1	αмι	← Left-Through		1	· -	1	•	1	1		1	· –	1	o	1	-	1	•	1) -	1
Fight Figh	пов	↑ Through Through-Right		1010	0 -	572	က	1013	574	240	1270	0 -	715	က	1273	0 -	717	0	1273	0 +	717
The Charles of the Case Area of the Ca	нти			122	- 0	572	0	122	574	24	148	0	715	0	148	- 0	717	0	148	0	717
Left-Through	os				0 0							0 0				0 0				0 0	
Left-Through																					
Through Right	a			92	- c	92	0	92	9/	31	109	← C	109	0	109	- c	109	0	109	- c	109
Fight High High High High High High High High	NNO	Through		474	00	540	3	477	543	154	638	00.	202	က	641	0 0	208	0	641	00	708
CLENT LONGUIARIGN CHRT. Through Right CRITICAL VOLUMES CAPACITY (V/C) RATIO. CASA TS ACIACIS ADJUSTMENT: 115 1 115 1 115 1 115 1 115 1 115 1 115 1 115 1 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0	атг	↓ Through-Right → Right		99	- 0	0	0	99	0	0	29	- 0	0	0	29	- 0	0	0	29	- 0	0
C Left C Left C Left C Left C Left C Left C Left C Left C Left C Left C Left-Through C Left-Right C Left-Right <th< td=""><th>EA</th><td>↓ Left-Through-Right ↓ Left-Right</td><td></td><td></td><td>00</td><td></td><td></td><td></td><td></td><td></td><td></td><td>0 0</td><td></td><td></td><td></td><td>0 0</td><td></td><td></td><td></td><td>0 0</td><td></td></th<>	E A	↓ Left-Through-Right ↓ Left-Right			00							0 0				0 0				0 0	
T Left-Through		#		G		8	u	90	8	23	777		115	u	120		120		120		420
← Through Through Light 344 0 410 3 347 416 124 475 0 542 3 478 0 548 0 478 0 ↑ Through-Right 66 0 0 0 67 0 0 3 70 0 70 0 70 0 ↑ Left-Through-Right 0 66 0 67 0 67 0 0 70 0 70 0 ↑ Left-Through-Right North-South: 572 North-South: 574 North-South: 715 North-South: 717 North-South: 80 638 East-West: 820 East-West: 828 East-West: 828 East-West: 828 East-West: 828 East-West: 820 Sum: \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$103 <th>ИD</th> <td>← Left-Through</td> <td></td> <td>8</td> <td>0</td> <td>3</td> <td>)</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>0</td> <td>2</td> <td>)</td> <td>2</td> <td>0</td> <td>}</td> <td>)</td> <td>2</td> <td>0</td> <td>1</td>	ИD	← Left-Through		8	0	3)	3	3	2	2	0	2)	2	0	})	2	0	1
Fight Fight Fight	noa	← Through ← Through-Right		344	o -	410	က	347	416	124	475	0 +	542	က	478	0 -	548	0	478	0 +	548
CRITICAL VOLUME/CAPACITY (V/C) RATIO: C C C C C	ITS3	ト Right		99	0	0	ဇ	69	0	0	29	0	0	8	70	. 0	0	0	70	0	0
North-South: 572 North-South: 574 North-South: 715 North-South: 717 North-South: East-West: 630 East-West: 638 East-West: 820 East-West: 828 East-West: SUIN: 1202 SUIN: 1212 SUIN: 1535 SUIN: 1545 East-West: 0.801 0.701 0.808 0.708 0.903 1.030 0.930 C C C E E E E	M	Left-Through-Right ├── Left-Right			0 0							0 0				0 0				0 0	
0.801 0.808 1.023 1.030 0.701 0.708 0.923 0.930 C C E E		CRITICAL V	VOLUMES	Norti Ea	h-South: st-West: SUM:	572 630 1202	Nori	h-South: st-West: SUM:	574 638 1212		Nortf Ea	h-South: st-West: SUM:	715 820 1535		North Eas	-South: t-West: SUM:	717 828 1545		North Eas	-South: t-West: SUM:	717 828 1545
0.701 0.708 0.923 0.930 C E		VOLUME/CAPACITY (V/C	C) RATIO:			0.801			0.808				1.023				1.030				1.030
C C E	>	/C LESS ATSAC/ATCS ADJU	JSTMENT:			0.701			0.708				0.923				0.930				0.930
		LEVEL OF SERVIC	CE (LOS):			ပ			ပ				ш				ш				ш

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.007
Significant impacted? NO

∆w/c after mitigation: 0.007 Fully mitigated? N/A



Level of Service Workheet (Circular 212 Method)



:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conducted by:	ed by:	NDS		Date:	2	2/16/2017	
CMADE	East-West Street:	Olympic I	Olympic Boulevard			Projec	Projection Year:	2019		Peal	Peak Hour:	AM	Reviewed by:	ed by:	MB			5-17-0316-1 2005 James M Woo	2005 James	M Wood
	No. o	No. of Phases			4			4				4								4
ď	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			ļ	0							0				0				0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB- 0	SB WB	m O	NB EB	0 SB		NB EB	0 0	SB WB	m 0	NB EB	0	SB WB	m 0	NB EB	0 0	SB WB	e 0
	ATSAC-1 or ATSAC+ATCS-2?				0 0			N C				00				00				. W C
		Capacity	EXISTIN	EXISTING CONDITION		EXISTIN	IG PLUS PROJECT		FUTURE	CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	FUTURE CONDITION W/ PROJECT	N W/ PROJ		FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total	No. of Lanes V	Lane	Added	Total Volume	No. of Lanes	Lane
а	Feff		118	- 0	118	0	118	118	0	120	- 0	120	0	120		120	0	120	- 0	120
NUO	← Left-Through ↑ Through		229	o –	371	2	629	372	88	780	o –	426	7	782	o –	427	0	782	o –	427
ВНТЯ	↑ Through-Right ↑ Right		64	- 0	64	0	64	49	7	72	- 0	72	0	72	- 0	72	0	72	← 0	72
ON	← Left-Through-Right ← Left-Right			00							00				0 0				0 0	
•	ر اور		211	-	211	4	215	215	34	249	-	249	4	253	-	253	0	253	-	253
חאם	Left-Through			0				Ì			0	!			0				0	
IBOI	↓ Through ↓ Through-Right		548	0 0	274	8	220	275	150	402	0 0	355	7	711	0 0	356	0	711	0 0	356
нти			238	- (77	ဧ	241	92	51	294	· - (99	က	297	· - (65	0	297	· — (65
os				00							00				00				00	
a	J Left → Left-Through		161	- ⊂	161	4	165	165	64	228	- ⊂	228	4	232	← 0	232	0	232	← C	232
NUO	→ Through		1572	. 2	538	0	1572	538	183	1787	, N	610	0	1787	0 01 -	610	0	1787	0 0 -	610
атѕ	↓ Inrougn-Right ↓ Right		43	- 0	43	0	43	43	0	44	- 0	4	0	44	- 0	4	0	4	- 0	44
∀ ∃	★ Left-Through-Right ★ Left-Right			00							00				0 0				00	
	to I		57	-	12	c	57	12	+	69	-	g	c	09	-	g	c	9	-	9
ПИD	← Left-Through		5	0	5)	5	5		3	0	3)	3	0	3		3	0	3
าดย	← Through ← Through-Right		898	ο -	309	0	898	309	211	1096	0 +	400	0	1096	O +	400	0	1096	ν -	400
ITSE	ト Right		09	0	09	0	09	09	44	105	0	105	0	105	. 0	105	0	105	. 0	105
ıM	← Left-Through-Right ← Left-Right			00							00				00				00	
	SENTICA INTER	SHMILION	Nort	North-South:	582	Nort	orth-South:	587		Nort	North-South:	675		North	North-South:	089		Nort	North-South:	680
			Ea	SUM:	1177	ű	SUM:	1182		La	SUM:	1354		E	SUM:	1359		Ea	SUM:	1359
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.856			0.860				0.985				0.988				0.988
<u>\$</u>	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.756			092'0				0.885				0.888				0.888
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			ဝ				D				D				O
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.003
Significant impacted? NO

∆w/c after mitigation: 0.003 Fully mitigated? N/A



Level of Service Workheet (Circular 212 Method)



:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA06	East-West Street:	Olympic F	Olympic Boulevard			Project	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed by:	MB		Project: 5	Project: 5-17-0316-1 2005 James M. Woo	2005 James	s M. Wood
ő	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	No. of Phases N-2 or Both-3?			4 0			4 0				4 0								4
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB WB	e C	NB EB	O SB	e C	NB	00	SB WB	e C	NB	0 0	SB WB	е С	NB FB	0 0	SB WB	3
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity				0 0							0 0				0 0				0
			EXISTIN	EXISTING CONDITION		EXISTIN	EXISTING PLUS PROJECT	JJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	SATION
	MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume V	Added Volume V	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
d) rett		125	-	125	0	125	125	0	128	-	128	0	128	-	128	0	128	-	128
INNC	← Left-Through Through		712	0 -	384	8	714	382	151	877	0 +	468	2	879	0 -	469	0	879	o -	469
нвс	Through-Right		!	-		I		}			-		I	;	-)	;	-	}
тяс	Right		49	0 0	49	0	49	49	œ	28	0 0	28	0	28	0 0	28	0	28	0 0	28
N	← Left-Right			0 0							0 0				0 0				0 0	
	و - در		180	-	180	c	102	102	84	254	-	254	c	25.4		254	c	25.4	,	254
ПD			80	- 0	881	າ	781	761	000	- C7	- 0	1.67	າ	7 24	- 0	407	5	70 4	- 0	724
noa	Through		805	~ <	403	8	807	404	112	933	0 0	467	7	935	2 0	468	0	935	0 0	468
HTL	Right		201	-	0	3	204	0	92	297	o -	0	3	300	o -	0	0	300	o ←	0
os	★ Left-Through-Right ∠ Left-Right			00							00				00				00	
aı	J Left → Left-Through		249	- c	249	င	252	252	83	337	← 0	337	င	340	- c	340	0	340	- ⊂	340
NUO	Through		1203	o 64 ·	419	0	1203	419	265	1492	o (4)	516	0	1492) (N ·	516	0	1492	o 8 ·	516
ата	Through-Right Right		22	- 0	22	0	22	55	0	26	- 0	26	0	26	- 0	26	0	26	- 0	56
A3	★ Left-Through-Right ✓ Left-Right			00							0 0				0 0				0 0	
	# T		83		83	c	83	83	ď	20	-	2	c	5		5	c	6		5
ΔN	Ç Left-Through		8	- 0	3	>	200	3	o	<u>_</u>	- 0	<u></u>	>	<u>_</u>	- 0	<u>_</u>	>	<u>_</u>	- 0	6
INOS	← Through		1122	۲ م	415	0	1122	415	234	1379	0 +	518	0	1379	7 7	518	0	1379	۲ م	518
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			Nort	North-South:	220	Nor	North-South:	574		North	North-South:	719		North	North-South:	723		North	North-South:	723
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	1234	ũ	East-West: SUM:	667 1241		Ea	East-West: SUM:	855 1574		Eas	East-West: SUM:	858 1581		Ea	East-West: SUM:	858 1581
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.897			0.903				1.145				1.150				1.150
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	ISTMENT:			0.797			0.803				1.045				1.050				1.050
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			D				L				L				F
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.005
Significant impacted? NO

∆w/c after mitigation: 0.005 Fully mitigated? N/A



Level of Service Workheet (Circular 212 Method)





:# S/I	North-South Street:	Union Avenue	venue			Year	of Count:	2017	Ambic	Ambient Growth: (%):	h: (%):	1.0	Conducted by:	ed by: NDS	SC		Date:	2	2/16/2017	
CMA07	East-West Street:	James M	James M. Wood Boulevard	levard		Project	Projection Year:	2019		Peak	Peak Hour:	AM	Reviewed by:	ed by:	MB	4	roject: 5	Project: 5-17-0316-1 2005 James M.	2005 James	s M. Wood
o	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2 0							2 0				0				2 0
Righ	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB 0 WB		NB EB	0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB- EB	0 0	SB WB	0 0
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	- ATSAC+ATCS-2? Override Capacity			0			0				0				0				2 0
			EXISTIP	EXISTING CONDITION	NOI	EXISTIN	IG PLUS PROJECT	JECT	FUTURE	CONDITION	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE V	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes V	Lane /	Added Volume V	Total	No. of Lanes V	Lane /	Added Volume V	Total Volume	No. of Lanes	Lane Volume
a) Left		74	-	74	0	74	74	0	75	-	75	0	75	-	75	0	75	-	75
INNC	← Left-Through		541	0 0	297	C	541	597	71	623	0 0	722	C	623	0 0	722	c	623	0 0	722
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ITA	Right		99	0	0	0	26	0	42	66	0	0	0	66	0	0	0	66	0	0
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
ND	√ Left √ Left-Through		94	- 0	96	0	94	94	39	135	- 0	135	0	135	- 0	135	0	135	- 0	135
noe	↓ Through		548	-	300	0	548	300	120	629	-	395	0	629	- -	395	0	629	- -	395
ЭНТ	↑ Inrougn-Right		5.1	- 0	5.1	-	52	52	22	110	- 0	110	-	1,	- 0	11	C	11	- 0	111
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3	∴ Left-Right			0	I			j			0	j			0				0	
			43	-	43	-	44	4	37	81	-	84	-	82	-	82	0	82	_	82
ПD				0							0				0				0	
nos	Through		512	0 +	218	7	514	280	64	286	0 +	653	7	288	0 +	655	0	288	0 +	655
BTS	Right		99	- 0	0	0	99	0	0	29	- 0	0	0	29	- 0	0	0	29	- 0	0
ΑЭ	← Left-Through-Right			00							00				00				0 0	
a	← Left ← Left		41	← 0	4	0	41	4	92	118	← (118	0	118	← 0	118	0	118	← 0	118
ΝПО	← Leit-Illiougii ← Through		133	00	170	2	135	172	29	203	00	288	2	205	00	290	0	205	00	290
ata	↑ Through-Right ↑ Right		37	- c	c	c	37	C	47	አ	- c	c	c	8	← ⊂	C	c	አ	- c	C
ME	Left-Through-Right		5	000)		5)	i	3	000)		3	000)		3	000)
	Ç Leit-Rignt		Nort	North-South:	691	Nort	th-South:	691		North	North-South:	857		North-	North-South:	857		North	North-South:	857
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	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.873			0.875				1.085				1.087				1.087
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.773			0.775				0.985				0.987				0.987
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			ပ				ш				ш				ш
	A B	RFWARKS																		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A



Level of Service Workheet



(Circular 212 Method)

1/S #:	North-South Street:	Union Avenue			X	Year of Count:	t: 2017	Amb	Ambient Growth: (%):	rth: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	21	2/16/2017	
)						;			•								i		
CMA07	East-West Street: Jan	James M. Wood Boulevard	Boulevard		Pro	Projection Year:	ar: 2019		Pes	Peak Hour:	PM	Reviewed by:	red by:	MB		Project: 5	-17-0316-1	Project : 5-17-0316-1 2005 James M. Woo	M. Wood
ď	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			,, 0							0 0				0 0				0 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?	A-3? NB EB	O SB-		0 NB	00	SB 0 WB 0	NB EB-	00	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	S-2?		(40	01.0		0 7				0 0				0 0				0 0
			EXISTING CONDITION	DITION	EXIS	EXISTING PLUS PROJECT	PROJECT	FUTUR	E CONDITIC	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	N/ PROJEC	FUTURE W/ PROJECT W/ MITIGATION	ATION
	MOVEMENT	Volume	No. of ne Lanes	f Lane s Volume	Project	t Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes V	Lane Volume	Added Volume	Total Volume	No. of Lanes V	Lane Volume
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C	. C	<u>+</u>	110 1	110	0	110	110	63	175	-	175	0	175	-	175	0	175	-	175
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нти			81 0	81		82	82	28	141	0 (141	-	142	0 (142	0	142	. 0	142
os	← Left-Through-Right ✓ Left-Right		0 0							0 0				0 0				0 0	
aı	J Left J Left-Through		83 1	83		84	84	92	161	← 0	161	_	162	- 0	162	0	162	- 0	162
NUO	→ Through	<u></u>	399 0	548	2	401	250	94	501	0 0 1	653	2	503	0 0 1	655	0	503	0 0	655
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			North-South:			North-South:			Non	North-South:	1008		North	North-South:	1008		North	North-South:	1008
	CRITICAL VOLUMES	MES	East-West: SUM:	st: 581 M: 1291	_ =	East-West: SUM:	: 583 : 1293		Ë	East-West: SUM:	744 1752		Eat	East-West: SUM:	746 1754		Eas	East-West: SUM:	746 1754
	VOLUME/CAPACITY (V/C) RATIO:	TIO:		0.861	_		0.862				1.168				1.169				1.169
×	V/C LESS ATSAC/ATCS ADJUSTMENT	:N:		0.761	_		0.762				1.068				1.069				1.069
	LEVEL OF SERVICE (LOS):	os):		ပ			ပ				ш				ш				ш
	REMARKS	KS:																	

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A



Draft

2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Air Quality Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017



Draft

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EXECUTIVE SUMMARY

The purpose of this Air Quality Technical Report is to assess and discuss the impacts of potential air quality impacts that may occur with the implementation of the proposed 2005 James M Wood Boulevard Hotel Project located in the City of Los Angeles. Emissions of greenhouse gases (GHGs) are also quantified and evaluated in this Technical Report. The Project site is located on the northwest corner of the intersection of James M Wood Boulevard and Westlake Avenue. The Project would remove existing commercial/retail uses on the Project site and develop a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report).

The analysis describes the existing buildings' operational impacts in the project area, estimates future emission levels at surrounding land uses resulting from construction and operation of the project, and identifies the potential for significant impacts. An evaluation of the project's contribution to potential cumulative air quality impacts is also provided. Air quality worksheets and technical data used in this analysis are provided in the Appendices.

This report summarizes the potential for the Project to conflict with an applicable air quality plan, to violate an air quality standard or threshold, to result in a cumulatively net increase of criteria pollutant emissions, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people. The findings of the analyses are as follows:

- The Project would be consistent with air quality policies set forth by the City of Los Angeles, the South Coast Air Quality Management District (SCAQMD), and the Southern California Association of Governments (SCAG).
- The incremental increase in emissions from construction and operation of the Project would not exceed the regional daily emission thresholds set forth by the SCAQMD. Thus, the Project would not result in a regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in the South Coast Air Basin (the Air Basin).
- The incremental increase in onsite emissions from construction and operation of the Project
 would not exceed the localized significance thresholds set forth by the SCAQMD. Thus, the
 Project would not result in a localized violation of applicable air quality standards or expose
 offsite receptors to substantial levels of regulated air contaminants resulting in a less than
 significant impact.
- Emissions from the increase in traffic due to operation of the Project would not have a significant impact upon 1-hour or 8-hour local carbon monoxide (CO) concentrations due to mobile source emissions.

The Project could potentially result in substantial emissions of toxic air contaminants (TACs) during construction affecting adjacent sensitive receptors. Implementation of **Mitigation** Measure AIR-1, listed below, would be expected to reduce this impact to less than significant.

Mitigation Measure AIR-1: Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

- Project construction and operations would not result in significant levels of odors.
- The Project would result in a less than significant cumulative air quality impacts during construction and operation of the Project.

1.0

Introduction

1.1 Project Description

The Project Applicant proposes to redevelop an approximately 20,256 net square foot (22,500 gross square foot) parcel located at 2005 James M Wood Boulevard in the City of Los Angeles with a hotel use ("the Project"). The location of the Project site and nearby vicinity is shown in **Figure 1, Regional and Vicinity Location Map**.

The Project would consist of a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report) consisting of studio units and suites, and hotel amenities including meeting rooms, kitchen and breakfast area, lobby and reception area, office space, and a luggage room. Vehicle loading would occur in an enclosed area on the ground floor. The refuse collection area would be located in an enclosed area on the ground floor on the northeast end of the building. The proposed building would be six floors totaling approximately 60,631 square feet with two basement levels totally approximately 37,020 square feet. The floor-to-area ratio would be 2.99 (60,631 square feet / 20,256 net square feet = 2.99). The Project would provide 100 parking spaces in an enclosed structure on the ground floor and basement levels, which would exceed the City of Los Angeles parking requirement. Short-term and long-term bicycle parking would also be provided. The Project site plan is shown in **Figure 2**, *Project Site Plans*.

1.2 Existing Site Uses

The Project site is developed with approximately 8,228 square feet of commercial/retail uses and surface parking areas. The Project would remove existing commercial/retail uses on the Project site and the existing surface parking areas.

Figure 1 Regional and Vicinity Location Map

Figure 2 Project Site Plan

Regulatory and Environmental Setting

2.1 Regulatory Setting

2.1.1 Air Quality

A number of statutes, regulations, plans and policies have been adopted which address air quality concerns. The Project site and vicinity is subject to air quality regulations developed and implemented at the federal, State, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the federal Clean Air Act. Some portions of the Clean Air Act (e.g., certain mobile source requirements and other requirements) are implemented directly by the USEPA. Other portions of the Clean Air Act (e.g., stationary source requirements) are implemented through delegation of authority to State and local agencies. At the state and regional levels, the California Air Resources Board (CARB) and South Coast Air Quality Management District (SCAQMD) are responsible for air quality planning and regulation. A number of plans, policies, and regulations have been adopted by various agencies that address air quality concerns. Those plans, policies, and regulations that are relevant to the Project are discussed below.

Federal

The federal Clean Air Act of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the federal level, the USEPA is responsible for implementation of certain portions of the Clean Air Act including mobile source requirements. Other portions of the Clean Air Act, such as stationary source requirements, are implemented by state and local agencies.

The Clean Air Act establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The 1990 Amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) of the Clean Air Act are most applicable to the development and operations of the Project. Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: ozone (O₃); nitrogen dioxide (NO₂); carbon monoxide (CO); sulfur dioxide (SO₂); fine particulate

matter (PM10); and lead (Pb). Later, the NAAQS were amended to include an 8-hour standard for O₃ and to adopt a NAAQS for fine particulate matter (PM2.5). **Table 1**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

Table 1
Ambient Air Quality Standards

		California Standa	rds ^a	National Star	ıdards ^b	
Pollutant	Average Time	Concentration ^c	Method ^d	Primary ^{c, e}	Secondary ^{c,f}	Method ^g
O ₃ h	1 Hour	0.09 ppm (180 μg/m³)	Ultraviolet Photometry	_	Same as Primary	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 μg/m³)		0.070 ppm (137 µg/m³)	Standard	
NO ₂ i	1 Hour	0.18 ppm (339 μg/m³)	Gas Phase Chemi-	100 ppb (188 μg/m³)	None	Gas Phase Chemi- luminescence
	Annual	0.030 ppm	luminescence	53 ppb	Same as	
	Arithmetic Mean	(57 μg/m³)		(100 μg/m ³)	Primary Standard	
CO	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared
	8 Hour	9.0 ppm (10mg/m³)	Photometry (NDIR)	9 ppm (10 mg/m³)		Photometry (NDIR)
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		_	_	
SO ₂ j	1 Hour	0.25 ppm (655 μg/m³)	Ultraviolet Fluorescence	75 ppb (196 μg/m³)	_	Ultraviolet Fluorescence;
	3 Hour	_		_	0.5 ppm (1300 μg/m³)	Spectrophotometry (Pararosaniline Method)9
	24 Hour	0.04 ppm (105 μg/m³)		0.14 ppm (for certain areas) ^j	_	
	Annual Arithmetic Mean	_		0.030 ppm (for certain areas) ^j	_	
PM ₁₀ k	24 Hour	50 μg/m³	Gravimetric or	150 μg/m ³	Same as	Inertial Separation
	Annual Arithmetic Mean	20 μg/m³	Beta Attenuation	_	Primary Standard	and Gravimetric Analysis
PM _{2.5} ^k	24 Hour	No Separate State	Standard	35 μg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 μg/m³	Gravimetric or Beta Attenuation	12.0 μg/m ^{3 k}	15 μg/m³	
Lead I,m	30 Day Average	1.5 μg/m³	Atomic Absorption	_	_	High Volume Sampler and
	Calendar Quarter	_		1.5 µg/m³ (for certain areas)m	Same as Primary Standard	Atomic Absorption

		California Standar	ds ^a	National Stan	dards ^b	
Pollutant	Average Time	Concentration ^c	Method ^d	Primary ^{c, e}	Secondary ^{c,f}	Method ^g
	Rolling 3- Month Average ^m	-		0.15 μg/m ³		
Visibility Reducing Particles	8 Hour	Extinction coefficier kilometer — visibilit more (0.07 — 30 m Lake Tahoe) due to relative humidity is percent. Method: Brand Transmittance Tape.	y of 10 miles or iles or more for particles when less than 70 eta Attenuation		No Federal	
Sulfates (SO ₄)	24 Hour	25 μg/m³	lon Chromatography		Standards	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 μg/m³)	Gas Chromatography			

NOTES:

- a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (μg/m³) is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- d Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health
- f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- g Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- h On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- i To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.
- j On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- k On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 μ g/m³ to 12.0 μ g/m³.
- 1 The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- m The national standard for lead was revised on October 15, 2008 to a rolling three-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: California Air Resources Board, Ambient Air Quality Standards (10/1/15), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed January 2016.

The Project is located within the South Coast Air Basin (Air Basin), which is an area designated as non-attainment because it does not currently meet NAAQS for certain pollutants regulated under the Clean Air Act. The Air Basin previously exceeded the NAAQS for PM10, but has met effective July 26, 2013. The Air Basin does not meet the NAAQS for O₃ and PM2.5 and is classified as being in non-attainment for these pollutants. The Los Angeles County portion of the Air Basin is designated as non-attainment for the lead NAAQS; however, this was due to localized emissions from two previously operating lead-acid battery recycling facilities located in the City of Vernon and the City of Industry (SCAQMD 2012a). These facilities are no longer operating and would not affect the Project site. **Table 2**, *South Coast Air Basin Attainment Status (Los Angeles County)*, lists the criteria pollutants and their relative attainment status.

TABLE 2
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A ^a	Non-attainment
Ozone (8-hour standard)	Non-attainment – Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment (Maintenance)	Attainment
Sulfur Dioxide	Attainment	Attainment
PM10	Attainment (Maintenance)	Non-attainment
PM2.5	Non-attainment – Serious	Non-attainment
Lead	Non-attainment (Partial) b	Attainment
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Attainment
Vinyl Chloride	N/A	N/A °

NOTES: N/A = not applicable

SOURCE: South Coast Air Quality Management District, February, 2016. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2. Accessed February 2017.

The Clean Air Act also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a

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The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

Partial Nonattainment designation – Los Angeles County portion of the Air Basin only for near-source monitors. Expect to remain in attainment based on current monitoring data.

In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

¹ Federal Register, Vol. 78, No. 123, June 26, 2013, 38223-38226.

demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

Title II of the Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

State

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include State-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal Clean Air Act planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state. **Table 1** shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the State. As shown, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 2** provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the state standards.

California Air Resources Board Air Quality and Land Use Handbook

The CARB published the *Air Quality and Land Use Handbook* in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions (CARB 2005a). The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other Toxic Air Contaminants (TACs) (13 CCR, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM10, and PM2.5 emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection [h]). The requirements were amended in December 2010 and apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. Under the regulation newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to meet the emissions standards for 2010 model year engines or equivalent.

In addition to limiting exhaust emissions from trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) (e.g., bulldozers, loaders, backhoes, forklifts, etc.). The regulation adopted by the CARB on July 26, 2007 (13 CCR, Section 2449) reduces emissions by the installation of diesel particulate matter filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models. Fleets must demonstrate compliance through one of two methods. The first option is to calculate and maintain declining fleet average emissions targets. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with large fleets beginning compliance in 2014, medium fleets in 2017, and small fleets in 2019. The compliance schedule requires that BACT turn overs or retrofits (VDECS installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Regional

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, and the western, Coachella Valley, and San Gorgonio Pass portions of Riverside County. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

Air Quality Management Plan

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. SCAQMD and CARB have adopted the 2012 AQMP which incorporates the latest scientific and technological information and planning assumptions, including the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and updated emission inventory methodologies for various source categories (SCAQMD 2012b). The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour $PM_{2.5}$ standard. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O_3 standard deadline with new measures designed to reduce reliance on the federal Clean Air Act Section 182(e)(5) long-term measures for NO_X and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: (1) Basin-wide and Episodic Short-term PM_{2.5} Measures; (2) Contingency Measures; (3) 8-hour Ozone Implementation Measures; and (4) Transportation and Control Measures provided by SCAG. The Plan includes eight short-term PM2.5 control measures, 16 stationary source 8-hour ozone measures, 10 early action measures for mobile sources and seven early action measures are proposed to accelerate near-zero and zero emission technologies for goods movement related sources, and five on-road and five off-road mobile source control measures. In general, the SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities associated with the Project include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment. Descriptions of measures ONRD-04 and OFFRD-01 are provided below:

ONRD-04 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles: This proposed measure seeks to replace up to 1,000 heavy-duty vehicles per year with newer or new vehicles that at a minimum, meet the 2010 on-road heavy-duty NO_X exhaust emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr). Given that exceedances of the 24-hour $PM_{2.5}$ air quality standard occur in the state, priority will be placed on replacing older diesel trucks that operate primarily at the warehouse and distribution centers. Funding assistance of up to \$35,000 per vehicle is proposed and the level of funding will depend upon the NO_X emissions certification level of the replacement vehicle. In addition, a provision similar to the Surplus Off-Road Option for NO_X (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation will be sought to ensure that additional NO_X emission reduction benefits are achieved.

OFFRD-01 – **Extension of the SOON Provision for Construction/Industrial Equipment:** This measure seeks to continue the Surplus Off-Road Option for NO_X (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation beyond 2014 through the 2023 timeframe. In order to implement the SOON program in this timeframe, funding of up to \$30 million per year would be sought to help fund the repower or replacement of older Tier 0 and Tier 1 equipment, with reductions that are considered surplus to the statewide regulation with Tier 4 or cleaner engines.

The SCAQMD released the Draft 2016 AQMP on June 30, 2016 for public review and comment (SCAQMD 2016a). A Draft Final 2016 AQMP was released in December 2016 and public hearings were scheduled for February 3, 2017, which was continued to March 3, 2017 (SCAQMD 2016b). The purpose of the hearings is for the SCAQMD Governing Board to consider approving the AQMP (SCAQMD 2016c). Key elements of the Revised Draft 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts. The strategies included in the Draft Final 2016 AQMP are intended to demonstrate attainment of the NAAQS for the federal non-attainment pollutants O₃ and PM2.5.

Air Quality Guidance Documents

The SCAQMD published the *California Environmental Quality Act (CEQA) Air Quality Handbook* to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts (SCAQMD 1993). The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) and the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L as they are outdated. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software, initially released in 2011 and updated in 2013 and again in 2016.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* that is intended to provide guidance in evaluating localized effects from mass emissions during construction (SCAQMD 2008a). The SCAQMD adopted additional guidance regarding PM2.5 in a document called *Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds* (SCAQMD 2006). This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

Rules and Regulations

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction or operation of the Project. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which may apply to the Project:

- **Rule 402 Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter (μg/m³) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

- Rule 1113 Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- Rule 1186 PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).
- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in April 2016, which addresses regional development and growth forecasts and forms the basis for the land use and transportation control portions of the AQMP (SCAG 2016). The growth forecasts are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP/SCS and AQMP are based on projections originating within local jurisdictions.

SCAG is required to adopt an SCS pursuant to Senate Bill (SB) 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional greenhouse gas (GHG) reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. In February 2011, CARB adopted the final GHG emissions reduction targets for the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization for the region in which the City of Los Angeles is located. The target is a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline. The 2016-2040 RTP/SCS meets or exceeds these targets, lowering greenhouse gas lowering greenhouse gas emissions (below 2005 levels) by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the low carbon fuel standard regulations. Compliance with and implementation of 2016-2040 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita VMT.

SCAG's SCS provides specific strategies for successful implementation. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and education, recreation, cultures, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles.

Local

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its land use decision-making authority. Specifically, the City is

responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan includes City wide goals, objectives, and policies related to air quality resources. Several goals, objectives, and policies are relevant to the project and are related to stationary source, mobile source, transportation and land use control, and energy conservation measures.

The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The City of Los Angeles has incorporated the California Green Building (CALGreen) Standards Code, with amendments in Article 9 in its Municipal Code. The City's ordinance requires applicable projects to comply with specified provisions to reduce energy consumption.

2.1.2 Greenhouse Gases

California Greenhouse Gas Reduction Targets

The Governor announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

CARB subsequently expressed its intention to initiate the second update to the Climate Change Scoping Plan update during 2015 and 2016 with adoption scheduled thereafter in the second quarter of 2017.

California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. Under the original projections, the State must reduce its 2020 business as usual (BAU) emissions by 28.4 percent in order to meet the 1990 GHG emissions target level. In 2014, CARB revised the target using the global warming potential values (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 million metric tons of carbon dioxide equivalents (MMTCO₂e). CARB also updated the State's 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's revised 2020 BAU emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO₂e. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO₂e would be 78.4 MMTCO₂e, or a reduction of GHG emissions by approximately 15.4 percent.

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities. CARB is in the process of preparing the second update to the Scoping Plan to reflect the 2030 target established in Executive Order B-30-15 and SB 32.

Transportation Sector

In response to the transportation sector accounting for a large percentage of California's CO₂ emissions, AB 1493 (HSC Section 42823 and 43018.5), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal Clean Air Act waiver from the USEPA. In June 2009, the USEPA granted California the waiver.

The USEPA and United States Department of Transportation (USDOT) adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the USEPA and USDOT standards, California – and states adopting the California emissions standards (referred to as the Pavley standards) – agreed to defer to the national standard through model year 2016. The state standards require additional reductions in CO₂ emissions beyond model year 2016 (referred to as the Pavley Phase II standards). The USEPA and USDOT also adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the Pavley Phase II standards, but the State of California has agreed not to contest these standards, in part due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally and is stringent enough to meet state GHG emission reduction goals. In 2012, CARB adopted regulations that allow manufacturers to comply with the 2017-2025 national standards to meet state law.

In January 2007, Governor Brown enacted Executive Order S-01-07, which mandates the following: (1) establish a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. CARB identified the LCFS as one (1) of the nine (9) discrete early actions in the Climate Change Scoping Plan. The LCFS regulations were approved by CARB in 2009 and established a reduction in the carbon intensity of transportation fuels by 10 percent by 2020 with implementation beginning on January 1, 2011. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted.

As discussed previously, SCAG is required to adopt an SCS pursuant to SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. The 2016-2040 RTP/SCS demonstrates a reduction in per capita transportation GHG emissions by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040.

Energy Sector

The California Energy Commission (CEC) first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2)

Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality" (CBSC 2010). The CALGreen Code is mandatory for all new buildings constructed in the state and establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017 (CBSC 2016).

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Portfolio Standard to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the Renewables Portfolio Standard with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statues of 2015), signed into law on October 7, 2015, further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027.

The City of Los Angeles has adopted a Green Building Code in Los Angeles Municipal Code (LAMC) Chapter IX, Section 99.01.101 et seq. The Green Building Code adopts the CALGreen Code, as well as more stringent City-specific requirements to improve energy, water, and waste efficiency and reduce building-related criteria pollutant and GHG emissions.

2.2 Environmental Setting

2.2.1 Air Quality Sensitive Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. The nearest existing air quality sensitive uses in close proximity to the Project site include the following:

• Multi-Family Residential Dwellings: A two-story multi-family residential building is located adjacent to the Project site property to the north. Two- and three story multi-family residential buildings are located further to the north (approximately 80 feet and greater from the Project site) and to the east across Westlake Avenue (approximately 60 feet and greater from the Project site). Residential uses are also located to the south of James M Wood Boulevard (approximately 180 feet and greater from the Project site).

All other air quality sensitive receptors are located at greater distances from the Project site, and would be less impacted by Project emissions. Impacts are quantified for the above sensitive receptors.

2.2.2 Regional Air Quality

Criteria Air Pollutants

The distinctive climate of the Air Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Air Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Air Basin vary with location, season and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Air Basin and adjacent desert.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_X) under favorable meteorological conditions such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency (CARB 2015).

Volatile Organic Compounds (VOCs): VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as TACs. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NO_X to form O₃ and are regulated as O₃ precursor emissions.

Nitrogen Dioxide (NO₂) and Nitrogen Oxides (NO_X): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO₂ and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO₂. Ambient air quality standards have been promulgated for NO₂, which is a reddish-brown, reactive gas. The principle form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO₂, creating the mixture of NO and NO₂ referred to as NO_X. Major sources of NO_x emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_X are a precursor to the formation of ground-level ozone. NO₂ can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the CARB, "NO₂ is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO₂ along with other trafficrelated pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children" (CARB 2011). The terms "NO_X" and "NO₂" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO₂" is primarily used when discussing ambient air quality standards. More specifically, NO₂ is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_x and NO are not. In cases where the thresholds of significance or impact analyses are discussed in the context of NO_x emissions, it is based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2 .

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations (CARB 2009a).

Sulfur Dioxide (**SO**₂): Major sources of SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness (CARB 2009b).

Particulate Matter (PM10 and PM2.5): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than 10 microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate

existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM₁₀ and PM_{2.5}. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids (CARB 2005b).

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body. The Project would not include sources of lead emissions and would not generate emissions of lead; therefore, lead is not discussed further in this Technical Report.

Toxic Air Contaminants

TACs are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, emission of TACs does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity; how it is released into the air; the weather; and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as particulate matter or as vapors (gases).

Between July 2012 and June 2013, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES IV), which is a follow-up to previous air toxics studies conducted in the Air Basin. The MATES IV Final Report was issued in May 2015 (SCAQMD 2015a). The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk of approximately 418 in 1,000,000 primarily due to diesel exhaust, which is about 65 percent lower than the previous MATES III cancer risk (SCAQMD 2015a). Subsequent to the SCAQMD's risk calculations estimates performed for MATES IV, the California Office of Environmental Health Hazard Assessment (OEHHA) updated the methods for estimating cancer risks (OEHHA 2015). The updated method utilizes higher estimates of cancer potency during early life exposures and uses different assumptions for breathing rates and length of residential exposures. When combined together, SCAQMD staff estimates that risks for the same inhalation exposure level will be about 2.5 to 2.7 times higher using the updated methods. This would be reflected in the average

lifetime air toxics risk estimated from the monitoring sites data going from 418 per million to 1,023 per million (SCAQMD 2015a). Under the updated OEHHA methodology, adopted in March of 2015, the relative reduction in risk from the MATES IV results compared to MATES III would be the same (about 65 percent reduction in risk). Approximately 68 percent of the airborne carcinogenic risk in the Air Basin is attributed to emissions of diesel particulate matter.

2.2.3 Local Air Quality

Existing Ambient Air Quality in the Surrounding Area

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the Project Site is the Central Los Angeles Monitoring Station, located at 1630 North Main Street, Los Angeles, CA 90012. Criteria pollutants monitored at this station include O₃, NO₂, CO, SO₂, PM10, and PM2.5. The most recent data available from the SCAQMD for these monitoring stations are from years 2011 to 2015 (SCAQMD 2011-2015). The pollutant concentration data for these years are summarized in **Table 3**, *Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations*.

Table 3

Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations

Pollutant/Standard	2011	2012	2013	2014	2015 ^a
O ₃ (1-hour)					
Maximum Concentration (ppm)	0.120	0.117	0.011	0.091	0.119
Days > CAAQS (0.09 ppm)	8	8	4	0	11
O ₃ (8-hour)					
Maximum Concentration (ppm)	0.084	0.088	0.083	0.079	0.094
4th High 8-hour Concentration (ppm)	0.081	0.081	0.079	0.069	0.087
Days > CAAQS (0.070 ppm)	10	15	17	2	34
Days > NAAQS (0.075 ppm)	6	8	6	1	15
NO ₂ (1-hour)					
Maximum Concentration (ppm)	0.068	0.080	0.073	0.073	0.073
98th Percentile Concentration (ppm)	0.056	0.057	0.060	0.065	0.052
NO ₂ (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.022	0.022	0.020	0.022	0.014
CO (1-hour)					
Maximum Concentration (ppm)				3	3.0
CO (8-hour)					
Maximum Concentration (ppm)	2.4	2.4	2.4	3	2.5

Pollutant/Standard	2011	2012	2013	2014	2015 ^a
SO ₂ (1-hour)					
Maximum Concentration (ppm)	0.009	0.007	0.011	0.005	0.013
99th Percentile Concentration (ppm)	0.005	0.003	0.004	0.004	0.006
PM ₁₀ (24-hour)					
Maximum Concentration (μg/m³)	61	55	52	68	88
Samples > CAAQS (50 µg/m³)	2	1	1	2	26
Samples > NAAQS (150 μg/m³)	0	0	0	0	0
PM ₁₀ (Annual Average)					
Annual Arithmetic Mean (20 µg/m³)	28.4	26.4	28.5	31.2	33.1
PM _{2.5} (24-hour)					
Maximum Concentration (µg/m³)	47.8	54.2	45.1	64.6	36.8
98th Percentile Concentration (μg/m³)	33.5	28.2	30.4	29	28.4
Samples > NAAQS (35 μg/m³)	5	2	4	2	1
PM _{2.5} (Annual)					
Annual Arithmetic Mean (12 µg/m³)	13.2	12.2	12.2	12.1	8.84

NOTES:

ppm = parts per million; µg/m³ = micrograms per cubic meter.

SOURCE: South Coast Air Quality Management District, Historical Data by Year, http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed December 2016.

Existing Toxic Air Contaminant Risk Levels

As part of the MATES IV, the SCAQMD prepared maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The grid in which the Project site is located has an estimated background potential cancer risk per million people using the update OEHHA methodology of 1,554 to 1,610 per million (compared to an overall South Coast Air Basin-wide risk of 1,023 per million) based on the SCAQMD analyzed grid-specific data from 2012-2013 in MATES IV, which is graphically displayed in the Carcinogenic Risk Interactive Map available on the SCAQMD website.² Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near diesel sources (e.g., freeways, airports, and ports).

Background inhalation cancer risk value was obtained from detailed map data found at: South Coast Air Quality Management District, Multiple Air Toxics Exposure Study, MATES IV Carcinogenic Risk Interactive Map, http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b. Accessed February 2017.

2.2.4 Greenhouse Gases and Climate

Worldwide man-made emissions of GHGs were approximately 49,000 MMTCO₂e annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (IPCC AR5). Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total while CO₂ emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and N₂O emissions for 6.2 percent. In 2013, the United States was the world's second largest emitter of carbon dioxide at 5,300 MMT (China was the largest emitter of carbon dioxide at 10,300 MMT) (PBL 2014).

CARB compiles GHG inventories for the State of California. Based on the 2014 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 441.5 MMTCO₂e including emissions resulting from imported electrical power and 405 MMTCO₂e excluding emissions related to imported power (CARB 2016). The transportation sector is the largest contributor to statewide GHG emissions at 36 percent in 2014.

2.2.5 Existing Site Emissions

Criteria Air Pollutants

The Project site is currently developed with a retail strip mall area. The current site usage generates existing vehicle trips and air quality emissions from operations related to retail activities at the site. **Table 4**, *Existing Site Operational Emissions*, identifies the existing emissions from the existing strip mall. The emissions were estimated using the California Emissions Estimator Model (CalEEMod), which is an emissions inventory software program recommended by the SCAQMD. Emissions calculation worksheets are provided in **Appendix A** of this Technical Report.

TABLE 4
EXISTING SITE OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Emissions Source	voc	NO _x	со	SO ₂	PM10	PM2.5
Existing Operational						
Area (Consumer Products, Landscaping)	<1	<1	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<1	<1	<0.1	<0.1
Motor Vehicles	1	2	6	<1	1.2	0.3
Total Existing Emissions	1	2	6	<1	1.2	0.3

NOTES:

SOURCE: ESA 2017.

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

Greenhouse Gases

The existing site GHG emissions are provided in **Table 5**, *Existing Site Greenhouse Gas Emissions*, identifies the existing emissions from the existing strip mall. The emissions were estimated using CalEEMod. Emissions calculation worksheets are provided in **Appendix A** of this Technical Report.

TABLE 5
EXISTING SITE GREENHOUSE GAS EMISSIONS A

Emissions Source	CO₂e (Metric Tons per Year)
Existing Operational	
Area	<1
Electricity	73
Natural Gas	1
Motor Vehicles	262
Water Conveyance	8
Waste	1
Existing Total Emissions	345

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

SOURCE: ESA 2017.

Environmental Impacts

3.1 Significance Thresholds

3.1.1 Air Quality

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

Would a project:

- a. Conflict with or obstruct the implementation of the applicable air quality plan (Impact Threshold AIR-1);
- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation (Impact Threshold AIR-2);
- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (Impact Threshold AIR-3);
- d. Expose sensitive receptors to substantial pollutant concentrations (Impact Threshold AIR-4); or
- e. Create objectionable odors affecting a substantial number of people (Impact Threshold AIR-5).

Pursuant to the State CEQA Guidelines (Section 15064.7), a lead agency may consider using, when available, the significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The *L.A. CEQA Thresholds Guide* incorporates the Appendix G screening questions, and relies on the thresholds established by the SCAQMD. The potential air quality impacts of the Project are, therefore, evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its CEQA *Air Quality Handbook*, *Air Quality Analysis Guidance Handbook*, and

subsequent SCAQMD guidance as discussed previously.³ The Project would result in a potentially significant impact to air quality if it would exceed the thresholds described below.

Air Quality Plan

The Project would have a significant impact if it would substantially conflict with or obstruct implementation of relevant air quality policies in the adopted SCAQMD AQMP (evaluated under Impact Thresholds AIR-1).

Regional Construction

Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-2 and AIR-3):

- 75 pounds a day for VOC;
- 100 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO₂;
- 150 pounds per day for PM10; or
- 55 pounds per day for PM2.5.

Localized Construction

The SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur (SCAQMD 2008a) (evaluated under Impact Threshold AIR-4):

- Maximum daily localized emissions of NO_X and/or CO during construction are greater than
 the applicable localized significance thresholds, resulting in predicted ambient concentrations
 in the vicinity of the Project Site greater than the most stringent ambient air quality standards
 for NO₂ and/or CO.
- Maximum daily localized emissions of PM10 and/or PM2.5 during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 10.4 micrograms per cubic meter (µg/m³) over 24 hours (SCAQMD Rule 403 control requirement).

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While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects such as the Project. As a result, lead emissions are not further evaluated in this Technical Report.

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the SCAQMD screening criteria to evaluate impacts from localized emissions.

Regional Operations

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD 1993). The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the CAA which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone (SCAQMD 1993). The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year \times 2,000 pounds per ton \div 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on federal stationary source significance levels. The Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-2 and AIR-3):

- 55 pounds a day for VOC;
- 55 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO₂;
- 150 pounds per day for PM10; or
- 55 pounds per day for PM2.5.

Localized Operations

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur (SCAQMD 2008a) (evaluated under Impact Threshold AIR-4):

Maximum daily localized emissions of NO_X and/or CO during operation are greater than the
applicable localized significance thresholds, resulting in predicted ambient concentrations in
the vicinity of the project site greater than the most stringent ambient air quality standards for
NO₂ and/or CO.

Maximum daily localized emissions of PM10 and/or PM2.5 during operation are greater than
the applicable localized significance thresholds, resulting in predicted ambient concentrations
in the vicinity of the project site to exceed 2.5 μg/m³ over 24 hours (SCAQMD Rule 1303
allowable change in concentration).

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the SCAQMD screening criteria to evaluate impacts from localized emissions.

Carbon Monoxide Hotspots

The Project would be considered significant if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-4):

• The Project would cause or contribute to an exceedance of the CAAQS one-hour or eighthour CO standards of 20 or 9.0 parts per million (ppm), respectively, at a Project-impacted intersection or roadway.

Toxic Air Contaminants

Based on the City of Los Angeles CEQA Thresholds Guide and criteria set forth by the SCAQMD, the Project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-4):

• The Project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

Odors

The Project would be considered significant if the following would occur (SCAQMD 2015b) (evaluated under Impact Thresholds AIR-5):

• The Project would create objectionable odors affecting a substantial number of people.

3.1.2 Greenhouse Gases

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

Would a project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (Impact Threshold GHG-1)?

b. Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Impact Threshold GHG-2)?

Greenhouse Gas Emissions

The City of Los Angeles has not yet adopted a numerical significance threshold for assessing impacts related to GHG emissions. When no guidance exists under CEQA, the lead agency may look to and assess general compliance with comparable regulatory schemes.⁴

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds. The Working Group released draft guidance regarding interim CEQA GHG indicators of significance in October 2008, proposing a tiered approach. Under Tier 1, projects that are exempt from CEQA would be less than significant. Under Tier 2, projects that are consistent with an adopted GHG reduction plan would be less than significant. Under Tier 3, non-industrial projects with 3,000 metric tons of CO₂e per year or less would be less than significant. Tier 4 uses performance standards, which requires projects to demonstrate a percent emission reduction target below BAU or an efficiency-based threshold such as GHG emissions on a per service population basis. The aforementioned Working Group has been inactive since 2011 and has not formally submitted thresholds to the Governing Board for approval.

Given the lack of a formally adopted numerical significance threshold or a formally adopted local plan for reducing GHG emission applicable to this project, the significance of the project is evaluated consistent with CEQA, California Air Pollution Control Officers Association (CAPCOA), and Office of Planning and Research (OPR) guidelines and advisories. The significance of the project will be based on an assessment of the project's GHG emissions sources for general compliance with comparable regulatory schemes. "Tier 3," the primary tier by which SCAQMD currently determines the significance of stationary emission sources, relies on Executive Order S-3-05 as the basis for a screening level, and was established at a level that captures 90 percent of Air Basin-wide land use GHG emissions. The SCAQMD proposed a screening level of 3,000 metric tons of carbon dioxide equivalents (MTCO₂e) per year for commercial or mixed-use residential projects under which project impacts are considered less than significant, "to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential/commercial sectors" (SCAQMD

⁴ See Protect Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal. App. 4th 1099, 1107 ["[A] lead agency's use of existing environmental standards in determining the significance of a project's environmental impacts is an effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other environmental program planning and resolution.""] Lead agencies can, and often do, use regulatory agencies' performance standards. A project's compliance with these standards usually is presumed to provide an adequate level of protection for environmental resources. See, e.g., *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal. App. 4th 74, 99 (upholding use of regulatory agency performance standard).

2008b). In CAPCOA's January 2008 CEQA and Climate Change white paper, CAPCOA suggested a possible quantitative threshold option that would capture 90 percent of GHG emissions from future discretionary development projects. According to CAPCOA, the "objective was to set the emission threshold low enough to capture a substantial fraction of future residential and nonresidential development that will be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions" (CAPCOA 2008, pg. 42-43). A 90 percent capture rate would "exclude the smallest proposed developments from potentially burdensome requirements ... to mitigate GHG emissions" (CAPCOA 2008, pg. 43-44). The SCAQMD's proposed screening level of 3,000 MTCO₂e per year is a South Coast Air Basin-specific level that would meet CAPCOA's intent for the suggested quantitative threshold option. It should be noted that the SCAQMD has formally adopted a GHG significance thresholds of 10,000 MTCO₂e per year for industrial/stationary source projects where the SCAQMD is the lead agency based on a 90 percent capture rate for the industrial/stationary source sector. Given the lack of a formally adopted numerical significance threshold applicable to this project, the significance of the project is evaluated based on the SCAQMD's proposed screening level of 3,000 MTCO₂e.

Greenhouse Gas Reduction Plans, Policies, or Regulations

Local and regional agencies and the State recommend general policies and measures to minimize and reduce GHG emissions from land use development projects. Thus, if the Project is designed in accordance and not in conflict with applicable policies and measures, it would result in a less than significant impact since it would be consistent with the strategies and actions to reduce GHG emissions. Therefore, a significant impact would occur if the Project would conflicts with applicable plans, policies, or regulations for the purpose of reducing the emissions of GHGs:

3.2 Methodology

The methodology to evaluate potential impacts to regional and local air quality that may result from the construction and long-term operations of the Project is conducted as follows.

3.2.1 Air Quality

Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM_{2.5}). The SCAQMD's 2012 Air Quality Management Plan contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, which provide the basis for the land use and transportation components of the Air Quality Management Plan and are used in the preparation of the air quality forecasts and the consistency analysis included in the Air

Quality Management Plan. Both the Regional Comprehensive Plan and Air Quality Management Plan are based, in part, on projections originating with county and city general plans.

The 2012 Air Quality Management Plan was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the Air Quality Management Plan do not interfere with attainment because the growth is included in the projections utilized in the formulation of the Air Quality Management Plan. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the Air Quality Management Plan would not jeopardize attainment of the air quality levels identified in the Air Quality Management Plan, even if they exceed the SCAQMD's numeric indicators.

Construction Emissions

Construction of the Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_X , would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the CalEEMod (Version 2016.3.1) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from the CARB off-road emissions model (OFFROAD) and the CARB on-road vehicle emissions model (EMFAC), which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis are based on conservative assumptions in CalEEMod with appropriate adjustments to be Project-specific based on equipment types and expected construction activities. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Appendix B**.

Construction of the Project is estimated to begin as early as mid-2017 with an anticipated completion in 2018. Subphases of construction would include demolition of some of the existing structures and features on-site, site clearing, grading, excavation, building construction, architectural coating, and paving. Demolition activities would generate approximately 1,316 tons of demolition debris (asphalt and general construction debris). The Project would export

approximately 16,590 cubic yards of soil during grading and excavation activities. Emissions from these activities are estimated by construction phase. It should be noted that the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators.

Operational Emissions

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project Site. In addition, emissions would result from area sources on-site such as natural gas combustion, landscaping equipment, and use of consumer products. Operational impacts were assessed for the anticipated Project buildout year (i.e., 2018).

The operational emissions are estimated using the CalEEMod software. CalEEMod was used to forecast the daily regional emissions from area sources that would occur during long-term Project operations. In calculating mobile-source emissions, the trip length values were based on the distances provided in CalEEMod. The trip distances were applied to the maximum daily trip estimates, based on the trip rates in the Project traffic impact analysis prepared by Linscott, Law & Greenspan Engineers (LLG) for the Project (LLG 2017).

Area source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission (CEC) California Commercial End Use Survey (CEUS) data set, which provides energy demand by building type and climate zone. However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for the appropriate version of the Title 24 Building Energy Efficiency Standards in effect.

Operational air quality impacts are assessed based on the incremental increase in emissions compared to baseline conditions. As discussed previously, the Project Site is currently developed with a strip mall that is currently in use and has existing emissions (refer to **Table 1**). Therefore, the analysis is based on the Project's net operational emissions by subtracting the existing site emissions from the Project emissions. The maximum daily net emissions from operation of the Project are compared to the SCAQMD daily regional numeric indicators. Detailed emissions calculations are provided in **Appendix C**.

Localized Emissions

The localized effects from the onsite portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the Project according to the SCAQMD Final Localized Significance Threshold Methodology (SCAQMD 2008a), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling, where appropriate. The localized significance thresholds are only applicable to NO_X, CO, PM10, and PM2.5. For NO_X and CO, the thresholds are based on the ambient air quality standards. For PM10 and PM2.5, the thresholds are based on requirements in SCAQMD Rule 403 (Fugitive Dust) and Rule 1303 (New Source Review Requirements). The SCAQMD provides mass emission rate screening tables that

are used for projects which are five acres or less. Projects which are larger than five acres, detailed dispersion modeling is recommended to assess air quality impacts. The Project site is less than one acre; therefore, the screening tables are used to evaluate localized emissions.

The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project site, and (3) the distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals). The SCAQMD provides screening criteria for distances of 25, 50, 100, 200, and 500 meters and allows for linear interpolation to estimate the screening criteria between these distances. The Project site is located in the Central Los Angeles County area and is approximately 0.52 acres in size. The nearest existing off-site sensitive receptor is the residential development located to the north of the Project site. Therefore, the screening criteria are linearly interpolated for a 0.52-acre site in the Central Los Angeles County area with sensitive receptors located adjacent to the site.

Carbon Monoxide Hotspots

Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause or contribute to the formation of off-site CO hotspots are evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin that has been conducted by the SCAQMD for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the Project to the intersections modeled by the SCAQMD. Project-impacted intersections with peak-hour traffic volumes that are lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations compared to the SCAQMD modeled values in its AQMP.

Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short-term in nature. The OEHHA is responsible for developing and revising guidelines for performing health risk assessments under the State's the Air Toxics Hot Spots Program Risk Assessment (AB 2588) regulation. In March 2015, OEHHA adopted revised guidelines that update the previous guidance by incorporating advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (ASF) (OEHHA 2015). The analysis of potential construction TAC impacts considers the OEHHA revised guidelines as well as the duration of construction, level of construction activity, scale of the Project, and compliance with regulations that would minimize construction TAC emissions.

During long-term operations, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to off-site sensitive receptors. As the Project consists of hotel uses, the Project would not include sources of

substantive TAC emissions identified by the SCAQMD or CARB siting recommendations. Thus a qualitative analysis is appropriate.

Odors

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis as necessary. The screening-level analysis consists of reviewing the Project's site plan and Project description to identify new or modified odor sources. If it is determined that the Project would introduce a potentially significant new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and a site-specific analysis is conducted to determine Project impacts.

3.2.2 Greenhouse Gases

Greenhouse Gas Emissions

The total GHG emissions from the Project were quantified to determine the level of the Project's estimated annual GHG emissions. Consistent with the Air Quality section calculations, in summary, construction emissions were estimated using CalEEMod by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source emissions factors. The modeling used the same input values as previously discussed under the methodology section for air quality (Section 3.2.1, Air Quality). The SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG)* Significance Threshold, recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions" (SCAQMD 2008b). The guidance recommends that construction project GHG emissions should be "amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008b). In accordance with that SCAQMD guidance, GHG emissions from construction are amortized over an assumed 30-year lifetime of the Project.

CalEEMod was also used to estimate operational GHG emissions from electricity, natural gas, solid waste, water and wastewater, fireplaces, and landscaping equipment. Building electricity and natural gas usage rates were adjusted to account for current Title 24 Building Energy Efficiency Standards. Mobile source emissions were estimated based on the CARB EMFAC model. For mobile sources, CalEEMod was used to generate the vehicle miles traveled (VMT) from the existing and Project uses based on the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Energy demand rates were estimated based on square footage and number of rooms of the hotel use, as well as predicted water supply needs for these uses. Energy demand (off-site electricity generation and on-site natural gas consumption) for the Project was calculated within CalEEMod using the CEC CEUS data set, which provides energy demand by building type and climate zone. However, since the data from

the CEUS is from 2002, correction factors are incorporated into CalEEMod to account for the current version of the Title 24 Building Energy Efficiency Standards.

Emissions of GHGs from solid waste disposal were also calculated using CalEEMod software. The emissions are based on the waste disposal rate for the land uses, the waste diversion rate, and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment. A waste diversion rate of 76 percent for municipal solid waste from the City of Los Angeles is applied to the solid waste emissions calculations (City of LA 2013).

Emissions of GHGs from water and wastewater result from the required energy to supply and distribute the water and treat the wastewater. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions are calculated using CalEEMod and are based on the water usage rate for the hotel use, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the emission factors for the wastewater treatment process.

Other sources of GHG emissions from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod software uses landscaping equipment GHG emission factors from the CARB OFFROAD model and the CARB Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003) (CARB 2003).

Consistency with Greenhouse Gas Plans, Policies, and Regulations

In the latest *CEQA Guidelines* amendments, which went into effect on March 18, 2010, the OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the *CEQA Guidelines*. However, the City has adopted the Green Building Code that encourages and requires applicable projects to implement energy efficiency measures. Thus, if the Project is designed in accordance with these policies and regulations, it would result in a less than significant impact, since it would be consistent with the overarching State regulations on GHG reduction.

3.2.3 Project Characteristics

The Project would represent an urban infill development, since it would be undertaken on a currently developed site and would be located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops, including within approximately a quarter mile of the Metro Red and Purple Line Westlake/McArthur Park Station.

Proximity to off-site destinations and public transportation would result in reduced vehicle trips and VMT, and associated air pollutant and GHG emissions compared to the statewide and Air Basin average. Vehicle trips reductions are accounted for, and supported by evidence, in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

3.2.5 Project Design Features

The Project would incorporates Project Design Features that would reduce construction emissions and target sustainable site development, water savings, energy efficiency, green-oriented materials selection, and improved indoor environmental quality. The following project design features (PDFs) would be implemented based on required compliance with regulatory measures:

- The Project would comply with SCAQMD Rule 403 (Fugitive Dust), which requires specific
 dust control measures during construction activities. Control measures include, but are not
 limited to, the following:
 - Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.
 - All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
 - Construction activity on unpaved surfaces shall be suspended when wind speed exceed
 25 miles per hour (such as instantaneous gusts).
 - Ground cover in disturbed areas shall be replaced as quickly as possible.
- The Project would be designed in accordance with applicable energy, water, and waste efficiency measures specified in the Title 24 Building Energy Efficiency Standards, CALGreen standards, and City of Los Angeles Green Building Code (LAMC Chapter IX, Section 99.01.101 et seq.

3.3 Project Impacts

Impact Threshold AIR-1: A significant impact would occur if the Project would conflict with or obstruct the implementation of the applicable air quality plan.

Impact Statement: The Project would not conflict with or obstruct implementation of relevant air quality policies in the adopted Air Quality Management Plan. Therefore, impacts would be less than significant.

Construction

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or

residential units) upon which the air quality plan are based. The Project would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Project would not conflict with implementation of these strategies. Additionally, the Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Operation

The AQMP is designed to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Project would replace existing commercial/retail uses with a hotel use. As a result, the Project would not result in a substantial change in long-term operational population or employment growth that exceeds planned growth projections. As the Project would not conflict with the growth projections in the AQMP, impacts would be less than significant.

Impact Threshold AIR-2: A significant impact would occur if the Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Statement: Construction of the Project would not exceed the applicable SCAQMD significance thresholds. Operation of the Project would not exceed the applicable SCAQMD significance thresholds. Therefore, construction and operational emission impacts would be less than significant.

Regional Construction Emissions

The maximum daily emissions were estimated for construction of the Project for each construction phase. Some individual construction phases could potentially overlap, which is taken into account in the modeling. The maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Detailed emissions calculations are provided in **Appendix B**. Results of the criteria pollutant calculations are presented in **Table 6**, *Maximum Unmitigated Regional Construction Emissions*. As shown therein, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO₂, PM10, and PM2.5) would be substantially below the SCAQMD significance thresholds. Therefore, regional construction emissions would be less than significant and mitigation measure would not be required.

TABLE 6

MAXIMUM UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY) A

Source	voc	NO _x	СО	SO ₂	PM10 ^b	PM2.5 b
Project Construction						
Demolition	3	34	18	<1	4	2
Site Preparation	2	18	9	<1	3	2
Grading and Excavation	3	52	19	<1	5	3
Building Construction, Architectural Coating, and Paving	25	32	27	<1	3	2
Maximum Regional Emissions	25	52	27	<1	5	3
SCAQMD Significance Thresholds	75	100	550	150	150	55
Over (Under)	(50)	(48)	(523)	(150)	(145)	(52)
Exceeds Indicator?	No	No	No	No	No	No

NOTES:

SOURCE: ESA, 2017.

Regional Operational Emissions

Operational emissions were assessed for mobile, area, and stationary sources. Operational criteria pollutant emissions were calculated for the estimated earliest Project buildout year (i.e., 2018). Detailed emissions calculations are provided in **Appendix C**. Results of the criteria pollutant calculations are presented in **Table 7**, *Maximum Unmitigated Regional Operational*

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Emissions. The increase in operational-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO₂, PM10, and PM2.5) would be substantially below the SCAQMD thresholds of significance. Therefore, regional operational emissions would be less than significant and mitigation measure would not be required.

TABLE 7

MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Source	VOC	NO _x	со	SO ₂	PM ₁₀	PM _{2.5}
Project Operations						
Area (Consumer Products, Landscaping)	1	<1	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<1	<1	<0.1	<0.1
Motor Vehicles	2	7	18	<1	3.9	1.1
Total Project Operational Emissions	3	7	18	<1	4.0	1.1
Existing Project Site Emissions	1	2	6	<1	1.2	0.3
Net Project Operational Emissions	2	5	12	<1	2.8	0.8
SCAQMD Significance Thresholds	55	55	550	150	150	55
Over/(Under)	(53)	(50)	(538)	(150)	(147)	(54)
Exceeds Thresholds?	No	No	No	No	No	No

NOTES:

Impact Threshold AIR-3: A significant impact would occur if the Project would 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Statement: The South Coast Air Basin is designated as non-attainment for O_3 , PM10, and PM2.5 under federal and/or state ambient air quality standards. Construction of the Project would not exceed the applicable BAAQMD significance thresholds for ozone precursor emissions (i.e., VOCs and NO_X), PM10, or PM2.5. Operation of the Project would not exceed the applicable SCAQMD significance thresholds for ozone precursor emissions (i.e., VOCs and NO_X), PM10, or PM2.5. Therefore, construction and operational emissions would be less than significant.

Construction

The Project would result in the emission of criteria pollutants for which the project area is in non-attainment during both construction and operation. A significant impact may occur if a project

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix C**. SOURCE: ESA 2017.

would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment under federal or state standards for ozone, PM10, and PM2.5.

The emissions from construction of the Project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Therefore, the project would not result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors and would result in a less than significant impact for construction emissions.

Operation

Future operations would generate ozone precursors (i.e., VOCs and NO_x), CO, PM10, and PM2.5. Operational emissions would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Since the project would not introduce any substantial stationary sources of emissions, Therefore, operation of the Project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors. As a result, the project would result in a less than significant impact for operational emissions.

Impact Threshold AIR-4: A significant impact would occur if the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact Statement: Construction and operation of the Project would not exceed the localized significance thresholds at off-site sensitive receptors. Therefore, localized impacts would be less than significant. The Project would not cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively. Therefore, CO hotspots impacts would be less than significant. Construction of the Project would generate emissions of TACs (i.e., diesel particulate matter) that could potentially result in a significant health impact to off-site sensitive receptors in the immediate vicinity of the Project site, based on the State's recently updated conservative health risk assessment guidelines that incorporate childhood exposure age sensitivity factors. Implementation of Mitigation Measure AIR-1 would be expected to reduce construction health impacts to less than significant. Operation of the Project would not include permanent sources (equipment, etc.) that would generate substantial long-term TAC emissions in excess of the health risk thresholds. Therefore, operational TAC impacts would be less than significant.

Localized Construction Emissions

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (SCAQMD 2008a). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. The maximum daily

localized emissions for each of the construction phases and localized significance thresholds are presented in **Table 8**, *Maximum Unmitigated Localized Construction Emissions*. As shown therein, maximum localized construction emissions would not exceed the localized thresholds for NO_X, CO, PM10, and PM2.5 at sensitive receptors. Therefore, with respect to localized construction emissions, impacts to existing and future sensitive receptors would be less than significant.

Localized Operational Emissions

The localized operational air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (SCAQMD 2008a). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. The maximum daily operational localized emissions and localized significance thresholds are presented in **Table 9**, *Maximum Unmitigated Localized Operational Emissions*. As shown therein, maximum localized construction emissions would not exceed the localized thresholds for NO_X, CO, PM10, and PM2.5 at sensitive receptors. Therefore, with respect to localized operational emissions, impacts to existing and future sensitive receptors would be less than significant.

TABLE 8

MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY) A

Source	NO _x	СО	PM10 ^b	PM2.5 b
Project Construction (On-Site Emissions)				
Demolition	27	16	3	2
Site Preparation	18	9	3	2
Grading and Excavation	24	13	3	2
Building Construction, Architectural Coating, and Paving	29	23	2	2
Maximum Localized Emissions	29	23	3	2
SCAQMD Significance Thresholds	58	503	4	2
Over (Under)	(29)	(480)	(1)	(0)
Exceeds Indicator?	No	No	No	No

NOTES:

SOURCE: ESA, 2017.

TABLE 9
MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) A

Source	NO _x	со	PM ₁₀	PM _{2.5}
Project Operations				
Area (Consumer Products, Landscaping)	<1	<1	<0.1	<0.1
Energy (Natural Gas)	<1	<1	<0.1	<0.1
Total Project Operational Emissions	<1	<1	<0.1	<0.1
Existing Project Site Emissions	<1	<1	<0.1	<0.1
Net Project Operational Emissions	<1	<1	<0.1	<0.1
SCAQMD Significance Thresholds	58	503	2.0	0.5
Over/(Under)	(58)	(503)	(2.0)	(0.5)
Exceeds Thresholds?	No	No	No	No

NOTES:

Carbon Monoxide Hotspots

As shown previously in **Table 3**, CO levels in the Project area are substantially below the federal and state standards. Maximum CO levels in recent years are approximately 3 ppm (one-hour

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix C**. SOURCE: ESA 2017.

average and eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 ppm (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not reasonable to expect that CO levels at Project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, the SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP CO attainment demonstration, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day (SCAQMD 2003, pg. V-4-24). The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.

Based on the Project traffic impact analysis prepared by LLG for the Project (LLG 2017), the studied roadway intersections would have much less than 100,000 ADT under future plus Project conditions. As a result, CO concentrations would be less than 7.6 ppm (one-hour average) and 6.2 (eight-hour average). Total traffic volumes at the maximum impacted intersection would likely have to more than double or triple to cause or contribute to a CO hotspot impact given that vehicles operating today have reduced CO emissions as compared to vehicles operating in year 2003 when the SCAQMD conducted the AQMP attainment demonstration modeling. This comparison demonstrates that the Project would not contribute to the formation of CO hotspots and that no further CO analysis is required. The Project would result in less than significant impacts with respect to CO hotspots.

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Diesel particulate matter poses a carcinogenic health risk that is generally measured using an exposure period of 30 years for sensitive residential receptors. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Sensitive receptors are located adjacent to the Project site. Localized diesel particulate matter emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds as presented in **Table 8**. Nonetheless, while the Project would result in generally low level of diesel particulate matter emissions, it is potentially possible that the Project could result in health impacts to sensitive receptors in the immediate vicinity of the Project site given the updated health risk assessment guideline and age sensitive factors. Therefore, the impact is conservatively considered potentially significant and mitigation measures are recommended. It is noted that the Project would comply with the CARB ATCM anti-idling

measure, which limits idling to no more than five minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area. The Project would also utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation.

Project operations would generate only minor amounts of diesel emissions from residential delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emissions from existing diesel trucks. Therefore, the Project operations would not be considered a substantial source of diesel particulates. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings and other household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed residential uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance. Therefore, operational impacts would be less than significant.

Mitigation Measure

Construction-related TAC emissions have the potential to result in a potentially significant air quality impact at sensitive receptor locations in the immediate vicinity of the Project site. Thus, the following mitigation measure is prescribed to reduce construction-related TAC impacts.

Mitigation Measure AIR-1: Off-road diesel-fueled heavy-duty construction equipment greater than 50 horsepower (hp) used for this Project and located on the Project site for a total of five (5) days or more shall meet at a minimum the United States Environmental Protection Agency (USEPA) Tier 3 emissions standards and the equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent control device.

Mitigation Measure AIR-1 requires the use of equipment that meet the USEPA Tier 3 emissions standards and are equipped with CARB certified Level 3 Diesel Particulate Filter or equivalent control device. The measure would be expected to reduce diesel particulate matter by approximately 85 percent or more. This would reduce construction-related diesel particulate matter emissions to less than one-half pound per day during the short-term and temporary construction period. According to the SCAQMD, health risk impacts from construction could potentially occur from construction of a one-acre project with one pound per day of diesel particulate matter emissions, based on the updated OEHHA guidelines and age sensitivity factors. Because Mitigation Measure AIR-1 would reduce the diesel particulate matter emissions to substantially less than one pound per day, and given the relatively short-term and temporary duration of construction, it is reasonably concluded that impacts would be mitigated to less than significant.

Impact Threshold AIR-5: A significant impact would occur if the Project would create objectionable odors affecting a substantial number of people.

Impact Statement: The Project would not locate new substantial sources of odors to the area and would not create objectionable odors affecting a substantial number of people during construction and operations. Therefore, construction and operational impacts would be less than significant.

Construction

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in the Section 2.1, Regulatory Setting, SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Project would result in less than significant impacts.

Operation

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project does not include any uses identified by the SCAQMD as being associated with substantial odors. As a result, the Project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the Project would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

Impact Threshold GHG-1: A significant impact would occur if the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact Statement: The Project would generate construction and operational GHG emissions less than the significance threshold. Therefore, construction and operational GHG emission impacts would be less than significant.

Due to the potential persistence of GHGs in the environment, impacts are based on annual emissions and, in accordance with SCAQMD methodology, construction-period impacts are not assessed independent of operational-period impacts.

The emissions of GHGs associated with construction of the Project were calculated for all phases of construction activity. The SCAQMD recommends that construction-related GHG emissions be amortized over a project's 30-year lifetime in order to include these emissions as part of a project's annualized lifetime total emissions, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. In accordance with this methodology, the estimated Project's construction GHG emissions have been amortized over a 30-year period and are included in the annualized operational GHG emissions.

The Project's maximum annual net GHG emissions resulting from motor vehicles, energy (i.e., electricity, natural gas), water conveyance, and waste sources were calculated for the expected opening year. The maximum opening year GHG emissions from operation of the Project are shown in **Table 10**, *Annual Greenhouse Gas Emissions*. Project operational-related GHG emissions would decline in future years as emissions reductions from the state regulations are realized. For example, emissions from electricity would decline as utility providers, including the Los Department of Water and Power (LADWP)—the utility provided for the Project—meet their renewable energy obligations of 33 percent renewable electricity by 2020. Future regulations would also be implemented to increase the percentage of renewable electricity to 50 percent by 2030, which would achieve additional reductions in emissions from electricity demand. Emissions from mobile sources would also decline in future year as older vehicles are replaced with newer vehicles resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017-2025 Payley Phase II standards.

As shown in **Table 10**, the Project would generate net GHG emissions much less than the significance threshold. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. GHG emission impacts would be less than significant.

TABLE 10
ANNUAL GREENHOUSE GAS EMISSIONS A

Emissions Source	CO₂e (Metric Tons per Year)
Project Construction	449
Project Operational	
Amortized Project Construction	15
Area	<1
Electricity	480
Natural Gas	88

Emissions Source	CO a (Matria Tana par Vaar)
Ellissions Source	CO₂e (Metric Tons per Year)
Motor Vehicles	850
Water Conveyance	21
Waste	7
Project Total GHG Emissions	1,461
Existing Site GHG Emissions	345
Net Project GHG Emissions	1,116
Significance Threshold	3,000
Over/(Under)	(1,884)
Exceeds Threshold?	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B and C**.

SOURCE: ESA 2017.

Impact Threshold GHG-2: A significant impact would occur if the Project would conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Statement: The Project would not would conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, construction and operational GHG impacts would be less than significant.

In support of HSC Division 25.5, the State has promulgated specific laws aimed at GHG reductions that are applicable to the Project. The Project is committed to meeting and exceeding the requirements of the CALGreen Code by incorporating strategies such as low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. The Project would comply with the Green Building Standards, which are more stringent that the CALGreen code, to maximize energy efficiency.

Furthermore, the Project site is located in an established residential and commercial area with nearby access to public transportation and off-site destinations, which minimizes trips and trip lengths reducing mobile source emissions. Therefore, the Project would be consistent with State efforts to reduce motor vehicle emissions and congestion, including SB 375 and the SCAG 2016-2040 RTP/SCS. The SCAG RTP/SCS seeks improved "mobility and access by placing destinations closer together and decreasing the time and cost of traveling between them" (SCAG 2012). According to SCAG, incorporating "smart land use strategies encourages walking, biking, and transit use, and therefore reduces vehicular demand" and associated pollutants (SCAG 2012). Additionally, the SCAG RTP/SCS seeks better "placemaking," defined as "the process of developing options for locations where [people] can live and work that include a pleasant and

convenient walking environment that reduces their reliance on their car" (SCAG 2012). As discussed previously, the Project would represent an urban infill development, since it would be undertaken on a currently developed site and would be located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops, including within approximately a quarter mile of the Metro Red and Purple Line Westlake/McArthur Park Station. Proximity to off-site destinations and public transportation would result in reduced vehicle trips and VMT, and associated air pollutant and GHG emissions compared to the statewide and Air Basin average. Vehicle trips reductions are accounted for, and supported by evidence, in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017).

At the state level, Executive Orders S-3-05 and B-30-15 are orders from the State's Executive Branch for the purpose of reducing GHG emissions. Executive Order S-3-05's goal is to reduce GHG emissions to 1990 levels by 2020. The Executive Orders also establish the goals to reduce GHG emissions to 40 below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Studies have shown that, in order to meet the 2030 and 2050 targets, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its Climate Change Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 goal are too far in the future to define in detail" (CARB 2008). In the First Update, however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately" (CARB 2014). Due to the technological shifts required and the unknown parameters of the regulatory framework in 2030 and 2050, quantitatively analyzing the Project's impacts further relative to the 2030 and 2050 goals currently is speculative for purposes of CEQA. Moreover, CARB has formally adopted the BAU emissions projections for 2030 or 2050, which are necessary data points for quantitatively analyzing a CEQA Project's consistency with these targets.

Although the Project's emissions levels in 2030 and 2050 cannot yet be reliably quantified, statewide efforts are underway to facilitate the State's achievement of those goals and it is reasonable to expect the Project's emissions level to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the Project's emissions total at build-out represents the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would be consistent with the Executive Orders' goals.

The Climate Change Scoping Plan recognizes that HC Division 25.5 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the state on a path to meet the long-term 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate"

(CARB 2008). Also, CARB's First Update provides that it "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2020 emissions level to the extent applicable by law (CARB 2014):

- **Energy Sector:** Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the Project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the Project's emissions level.
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the Project's emissions level.
- **Water Sector:** The Project's emissions level will be reduced as a result of further enhancements to water conservation technologies.
- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the Project's emissions level.

In addition to CARB's First Update, in January 2015, during his inaugural address, Governor Jerry Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions: (1) increasing the State's Renewables Portfolio Standard from 33 percent in 2020 to 50 percent in 2030; (2) cutting the petroleum use in cars and trucks in half; and (3) doubling the efficiency of existing buildings and making heating fuels cleaner (CARB 2014). These expressions of Executive Branch policy may be manifested in adopted legislative or regulatory action through the state agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change. As discussed previously, the Governor has already signed into law SB 350 (Chapter 547, Statues of 2015), which increased the Renewables Portfolio Standard to 50 percent by 2030 and included interim targets of 40 percent by 2024 and 45 percent by 2027.

Further, recent studies shows that the State's existing and proposed regulatory framework can allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2030 and 2050 targets (CARB 2014).

For the reasons described above, the Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the establishment of the 2030 and 2050 targets. Therefore, as the Project would be consistent with State applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding GHG reduction plans, policies, and regulations would be less than significant.

3.4 Cumulative Impacts

3.4.1 Air Quality Construction

The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As shown in **Table 6**, regional emissions calculated for Project construction would be less than the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the region in attaining the applicable state and national ambient air quality standards. Although the Project site is located in a region that is in non-attainment for O₃, PM10, and PM2.5, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. Therefore, construction of the Project would result in cumulative impacts that would be less than significant.

3.4.2 Air Quality Operations

The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As shown in **Table 7**, regional emissions calculated for Project operations would be less than the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the region in attaining the applicable state and national ambient air quality standards. Although the Project site is located in a region that is in non-attainment for O₃, PM10, and PM2.5, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. Therefore, operation of the Project would result in cumulative impacts that would be less than significant.

3.4.3 Greenhouse Gases

According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). As shown in **Table 10**, the Project would generate GHG emissions that would be less than significant. In addition, as discussed previously, the Project would be consistent with State applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions and would result in less than significant impacts regarding GHG reduction plans, policies, and regulations. Thus, as GHG impacts are exclusively cumulative in nature, cumulative impacts would be less than significant.

Summary of Results

4.1 Air Quality Construction

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project site. In addition, fugitive dust emissions would result from grading and construction activities. However, compliance with SCAQMD Rule 403 fugitive dust control requirements and CARB regulations restricting unnecessary idling and implementation of on- and off-road emissions standards, would minimize air pollutant emissions.

The Project would not conflict with implementation of applicable AQMP strategies. The Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

As shown in **Table 6**, regional construction emissions would not exceed the SCAQMD numeric indicators. Therefore, impacts related to regional construction emissions would be less than significant. As shown in **Table 8**, localized emissions would not exceed the SCAQMD numeric indicators. Therefore, impacts related to localized construction emissions would be less than significant. As a result, Project-related construction emissions impacts would be less than significant.

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. While the Project would result in generally low level of diesel particulate matter emissions, it is potentially possible that the Project could result in health impacts to sensitive receptors in the immediate vicinity of the Project site given the updated OEHHA health risk assessment guideline and age sensitive factors. Therefore, the impact is conservatively considered potentially significant and mitigation measures are recommended. **Mitigation**Measure AIR-1 would reduce the diesel particulate matter emissions to substantially less than one pound per day, and given the relatively short-term and temporary duration of construction, it is reasonably concluded that impacts would be mitigated to less than significant.

The Project would not generate construction-related odors that would affect a substantial number of people. Therefore odor impacts would be less than significant.

4.2 Air Quality Operations

The Project would replace existing commercial/retail uses with a hotel use. As a result, the Project would not result in a substantial change in long-term operational population or employment growth that exceeds planned growth projections. As the Project would not conflict with the growth projections in the AQMP, impacts would be less than significant.

Air pollutant emissions associated with Project operations would be generated by the consumption of natural gas and by the operation of on-road vehicles. As shown in **Table 7** and **Table 9**, regional and localized operational emissions associated with the Project would not exceed the SCAQMD daily significance thresholds. In addition, the Project would not result in a CO hotspot, or emit unhealthy levels of TACs and odiferous emissions. Therefore, impacts related to Project operational emissions and consistency with applicable air quality management plans, policies, or regulations would be less than significant.

4.3 Greenhouse Gases

The Project's maximum annual net GHG emissions resulting from motor vehicles, energy (i.e., electricity, natural gas), water conveyance, and waste sources were calculated for the expected opening year. As shown in **Table 10**, the Project would generate net GHG emissions much less than the significance threshold. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. GHG emission impacts would be less than significant.

In support of HSC Division 25.5, the State has promulgated specific laws aimed at GHG reductions that are applicable to the Project. The Project is committed to meeting and exceeding the requirements of the CALGreen Code by incorporating strategies such as low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. The Project would comply with the Green Building Standards, which are more stringent that the CALGreen code, to maximize energy efficiency. In addition, the Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the establishment of the 2030 and 2050 targets. Therefore, as the Project would be consistent with State applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding GHG reduction plans, policies, and regulations would be less than significant.

5.0

References

- California Air Pollution Control Officers Association (CAPCOA), 2008. CEQA and Climate Change, (2008). Available: http://capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf. Accessed February 2017.
- California Air Resources Board (CARB), 1998. Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Part A Exposure Assessment, Approved by the Scientific Review Panel, (1998).
- CARB, 2003. OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003). Available: http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and act.pdf. Accessed November 2013.
- CARB, 2005a. Air Quality and Land Use Handbook: A Community Health Perspective, (2005). Available: https://www.arb.ca.gov/ch/landuse.htm. Accessed February 2017.
- CARB, 2005b. Particulate Matter Overview, (2005). Available: https://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed February 2017.
- CARB, 2008. Climate Change Scoping Plan, (2008).
- CARB, 2009a. Carbon Monoxide, (2009). Available: https://www.arb.ca.gov/research/aaqs/caaqs/co/co.htm. Accessed February 2017.
- CARB, 2009b. History of Sulfur Dioxide Air Quality Standard, (2009). Available: https://www.arb.ca.gov/research/aaqs/caaqs/so2-1/so2-1.htm. Accessed: February 2017.
- CARB, 2011. Nitrogen Dioxide Overview, (2011). Available: http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed February 2017.
- CARB, 2014. First Update to the Climate Change Scoping Plan: Building on the Framework, (2014).
- CARB, 2015. Ozone and Ambient Air Quality Standards. Available: https://www.arb.ca.gov/research/aaqs/caaqs/ozone/ozone.htm. Accessed February 2017.
- CARB, 2016. California Greenhouse Gas Emission Inventory 2016 Edition. Available: https://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed February 2017.

- California Building Standards Commission (CBSC), 2010. 2010 California Green Building Standards Code, (2010). Available: http://www.bsc.ca.gov/Codes.aspx. Accessed February 2017.
- CBSC, 2016. 2016 California Green Building Standards Code, (2016). Available: http://www.bsc.ca.gov/Codes.aspx. Accessed February 2017.
- City of Los Angeles (City of LA), 2013. Zero Waste Program Progress Report, (March 2013). Available: http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf. Accessed February 2017.
- Intergovernmental Panel on Climate Change (IPCC), 2014. Fifth Assessment Report Synthesis Report, (2014). Available: http://ipcc.ch/report/ar5/syr/. Accessed February 2017.
- Linscott, Law & Greenspan Engineers (LLG), 2017. Traffic Impact Study, 2005 James M Wood Blvd Hotel Project, (2017).
- Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (2015). Available: http://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0. Accessed February 2017.
- PBL Netherlands Environmental Assessment Agency and the European Commission Joint Research Center (PBL), 2014. Trends in Global CO₂ Emissions 2014 Report, (2014). Accessed: http://www.pbl.nl/en/publications/trends-in-global-co2-emissions-2014-report. Accessed February 2017.
- Southern California Association of Governments (SCAG), 2012. Final 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012). Available: http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx. Accessed February 2017.
- SCAG, 2016. Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2016). Available: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. Accessed February 2017.
- South Coast Air Quality Management District (SCAQMD), 1993. California Environmental Quality Act (CEQA) Air Quality Handbook, (1993).
- SCAQMD, 2003. 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp. Accessed February 2017.
- SCAQMD, 2006. Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, (2006).
- SCAQMD, 2008a. Final Localized Significance Threshold Methodology, (2008). Available: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed February 2017.
- SCAQMD, 2008b. Board Meeting, December 5, 2008, Agenda No. 31, Interim GHG Significance Threshold Proposal Key Issues/Comments Attachment D. Available:

- http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2. Accessed February 2017.
- SCAQMD, 2011-2015. Historical Data by Year, (2011-2015). Available: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed February 2017.
- SCAQMD, 2012a. Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012. Available: http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf. Accessed February 2017.
- SCAQMD, 2012b. 2012 Air Quality Management Plan. Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan. Accessed February 2017.
- SCAQMD, 2015a. Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015). Available: http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv. Accessed February 2017.
- SCAQMD, 2015b. SCAQMD Air Quality Significance Thresholds, (March 2015). Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed February 2017.
- SCAQMD, 2016a. Draft 2016 Air Quality Management Plan, (2016). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/Draft2016AQMP. Accessed February 2017.
- SCAQMD, 2016b. Draft Final 2016 Air Quality Management Plan, (2016). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-draft-2016-aqmp. Accessed February 2017.
- SCAQMD, 2016c. Notice of Public Hearing Proposed 2016 Air Quality Management Plan for the South Coast Air Quality Management District, (2016). Available: http://www.aqmd.gov/docs/default-source/public-notices/notice-of-public-hearing/2016aqmppubhear020317.pdf?sfvrsn=4. Accessed February 2017.

Appendix A Existing Site Operational Emissions Worksheets



CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/9/2017 2:52 PM

2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Summer

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 33 **Climate Zone** 11 **Operational Year** 2018 **Utility Company** Los Angeles Department of Water & Power **CO2 Intensity** 1227.89 **CH4 Intensity** 0.029 **N2O Intensity** 0.006 (lb/MWhr) (lb/MWhr) (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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								lb/day									
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003		
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554		
Mobile	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3		
Total	0.7850	2.3454	6.2460	0.0162	1.1361	0.0196	1.1557	0.3041	0.0185	0.3226		1,647.447 3	1,647.4473	0.1070	9.0000e- 005	1,650.148 6		

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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 lb/day						
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003		
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554		
Mobile	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3		
Total	0.7850	2.3454	6.2460	0.0162	1.1361	0.0196	1.1557	0.3041	0.0185	0.3226		1,647.447 3	1,647.4473	0.1070	9.0000e- 005	1,650.148 6		

	ROG	NOx	СО	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

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	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3
Unmitigated	0.6007	2.3413	6.2418	0.0162	1.1361	0.0193	1.1554	0.3041	0.0182	0.3223		1,642.618 8	1,642.6188	0.1069		1,645.291 3

4.2 Trip Summary Information

	Avera	age Daily Trip R	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49	306.49	534,177	534,177
Total	306.49	306.49	306.49	534,177	534,177

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50	

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
	3												

5.0 Energy Detail

Historical Energy Use: Y

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/d	ay							lb/d	lay		
NaturalGas Mitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	
NaturalGas Unmitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005		4.8554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	41.0273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

Mitigated

	NaturalGa s 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/d	day							lb/e	day		
Strip Mall	0.0410273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

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/d	lay							lb/d	ay		
g	0.1839	005	8.5000e- 004	0.0000			0.0000		0.0000	0.0000		1.8000e- 003	003	0.0000		1.9200e- 003
Unmitigated	0.1839		8.5000e- 004				0.0000			0.0000		1.8000e- 003		0.0000		1.9200e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	ay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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
Beilere						

<u>Boilers</u>

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Winter

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 33 **Climate Zone** 11 **Operational Year** 2018 **Utility Company** Los Angeles Department of Water & Power **CO2 Intensity** 1227.89 **CH4 Intensity** 0.029 **N2O Intensity** 0.006 (lb/MWhr) (lb/MWhr) (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	lay		
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Mobile	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Total	0.7717	2.3904	6.1383	0.0154	1.1361	0.0199	1.1559	0.3041	0.0187	0.3228		1,564.218 6	1,564.2186	0.1079	9.0000e- 005	1,566.941 9

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	ay		
Area	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Energy	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Mobile	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Total	0.7717	2.3904	6.1383	0.0154	1.1361	0.0199	1.1559	0.3041	0.0187	0.3228		1,564.218 6	1,564.2186	0.1079	9.0000e- 005	1,566.941 9

	ROG	NOx	СО	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

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/c	lay							lb/d	lay		
Mitigated	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5
Unmitigated	0.5874	2.3863	6.1341	0.0154	1.1361	0.0195	1.1556	0.3041	0.0184	0.3225		1,559.390 1	1,559.3901	0.1078		1,562.084 5

4.2 Trip Summary Information

	Avera	age Daily Trip R	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49	306.49	534,177	534,177
Total	306.49	306.49	306.49	534,177	534,177

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
	:												

5.0 Energy Detail

Historical Energy Use: Y

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/d	ay							lb/d	ay		
NaturalGas Mitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
NaturalGas Unmitigated	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267		9.0000e- 005	9.0000e- 005	4.8554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	41.0273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

Mitigated

	NaturalGa s 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/d	day							lb/d	day		
Strip Mall	0.0410273	4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554
Total		4.4000e- 004	4.0200e- 003	3.3800e- 003	2.0000e- 005		3.1000e- 004	3.1000e- 004		3.1000e- 004	3.1000e- 004		4.8267	4.8267	9.0000e- 005	9.0000e- 005	4.8554

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/d	lay							lb/d	ay		
Mitigated	0.1839	005	8.5000e- 004			0.0000			0.0000	0.0000		1.8000e- 003	003	0.0000		1.9200e- 003
Unmitigated		1.0000e- 005		0.0000			0.0000		0.0000	0 0000		1.8000e- 003				1.9200e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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/d	ay							lb/c	lay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

Mitigated

	ROG	NOx	СО	SO2	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/d	ay							lb/c	lay		
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e- 005	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003
Total	0.1839	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8000e- 003	1.8000e- 003	0.0000		1.9200e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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
<u>Boilers</u>	-					
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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2005 James M Wood - Existing Operational - Los Angeles-South Coast County, Annual

2005 James M Wood - Existing Operational Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	8.23	1000sqft	0.19	8,228.00	0

1.2 Other Project Characteristics

 Urbanization
 Urban
 Wind Speed (m/s)
 2.2
 Precipitation Freq (Days)
 33

 Climate Zone
 11
 Operational Year
 2018

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - See Trip Generation Rates in Linscott, Law, & Greenspan Traffic Report

Energy Use -

Waste Mitigation - Based on City of LA's 2011 waste diversion rate of 76%. http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	50.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	42.04	37.25
tblVehicleTrips	SU_TR	20.43	37.25
tblVehicleTrips	WD_TR	44.32	37.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Area	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Energy	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	73.9387	73.9387	1.7400e- 003	3.7000e- 004	74.0931
Mobile	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373
Waste						0.0000	0.0000		0.0000	0.0000	1.7538	0.0000	1.7538	0.1037	0.0000	4.3451
Water						0.0000	0.0000		0.0000	0.0000	0.1934	6.7331	6.9265	0.0200	5.0000e- 004	7.5766
Total	0.1370	0.4431	1.1239	2.8400e- 003	0.2028	3.5900e- 003	0.2064	0.0544	3.3800e- 003	0.0578	1.9472	342.1678	344.1151	0.1431	8.7000e- 004	347.9523

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT/	/yr		
Area	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Energy	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	73.9387	73.9387	1.7400e- 003	3.7000e- 004	74.0931
Mobile	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.937
Waste						0.0000	0.0000		0.0000	0.0000	0.4209	0.0000	0.4209	0.0249	0.0000	1.0428
Water						0.0000	0.0000		0.0000	0.0000	0.1934	6.7331	6.9265	0.0200	5.0000e- 004	7.5766
Total	0.1370	0.4431	1.1239	2.8400e- 003	0.2028	3.5900e- 003	0.2064	0.0544	3.3800e- 003	0.0578	0.6143	342.1678	342.7822	0.0643	8.7000e- 004	344.650

	ROG	NOx	СО	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	68.45	0.00	0.39	55.06	0.00	0.95

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Mitigated	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373
Unmitigated	0.1033	0.4424	1.1232	2.8400e- 003	0.2028	3.5300e- 003	0.2063	0.0544	3.3200e- 003	0.0577	0.0000	261.4959	261.4959	0.0177	0.0000	261.9373

4.2 Trip Summary Information

	Avera	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	306.49	306.49	306.49	534,177	534,177
Total	306.49	306.49	306.49	534,177	534,177

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by		
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	0	50		

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ory tons/yr											MT	/yr			
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	73.1396	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	73.1396	73.1396	1.7300e- 003	3.6000e- 004	73.2893
NaturalGas Mitigated	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
NaturalGas Unmitigated	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	СО	SO2	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												МТ	√yr				
Strip Mall	14975	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
Total		8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

Mitigated

	NaturalGa s 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												МТ	-/yr				
Strip Mall	14975	8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039
Total		8.0000e- 005	7.3000e- 004	6.2000e- 004	0.0000		6.0000e- 005	6.0000e- 005		6.0000e- 005	6.0000e- 005	0.0000	0.7991	0.7991	2.0000e- 005	1.0000e- 005	0.8039

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Strip Mall	131319	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Total		73.1396	1.7300e- 003	3.6000e- 004	73.2893

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Strip Mall	131319	73.1396	1.7300e- 003	3.6000e- 004	73.2893
Total		73.1396	1.7300e- 003	3.6000e- 004	73.2893

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	s/yr							MT	/yr		
Mitigated	0.0336		1.1000e- 004			0.0000			0.0000	0.0000		2.0000e- 004	2.0000e- 004	0.0000		2.2000e- 004
Unmitigated	0.0336		1.1000e- 004			0.0000	0.0000		0.0000	0.0000		2.0000e- 004		0.0000		2.2000e- 004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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	3.8100e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Total	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004

<u>Mitigated</u>

	ROG	NOx	СО	SO2	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	3.8100e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004
Total	0.0336	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 004	2.0000e- 004	0.0000	0.0000	2.2000e- 004

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	6.9265	0.0200	5.0000e- 004	7.5766
Unmitigated	6.9265	0.0200	5.0000e- 004	7.5766

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Г/уг	
Strip Mall	0.609617 / 0.373636	6.9265	0.0200	5.0000e- 004	7.5766
Total		6.9265	0.0200	5.0000e- 004	7.5766

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Γ/yr	
Strip Mall	0.609617 / 0.373636		0.0200	5.0000e- 004	7.5766
Total		6.9265	0.0200	5.0000e- 004	7.5766

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	/yr	
Mitigated	0.4209	0.0249	0.0000	1.0428
Unmitigated	1.7538	0.1037	0.0000	4.3451

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Strip Mall		1.7538	0.1037	0.0000	4.3451
Total		1.7538	0.1037	0.0000	4.3451

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Strip Mall		0.4209	0.0249	0.0000	1.0428
Total		0.4209	0.0249	0.0000	1.0428

9.0 Operational Offroad

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						•
Equipment Type	Number					

11.0 Vegetation

Appendix B Project Construction Emissions Worksheets



CalEEMod Land Use Inputs

Land Use	CalEEMod Land Use Type	Units	
Existing Uses			
Retail	Strip Mall	8,228 sf	
Project			
Six-story Hotel Building	Hotel	110 rooms 66,029 sf	
1st floor		6,341 sf	
2nd floor		22 rooms 11,697 sf	
3rd floor		22 rooms 11,998 sf	
4th floor		22 rooms 11,998 sf	
5th floor		22 rooms 11,998 sf	
6th floor		22 rooms 11,998 sf	
Parking	Enclosed parking w/elevator	110 spaces 40,722 sf	
Basement Level 1		20,361 sf	
Basement Level 2		20,361 sf	
Lot Area		0.52 acres - sf	

last update: 2/14/2017

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

CalEEMod Construction Phase	Start Date	End Date		Site Prep/ Demo (CY)	Truck Capacity (CY)	Truck Total One-Way Trips	Truck Daily One-Way Trips	_	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips
Project												
Demolition	7/3/2017	7/11/2017	7	940	14	140	20					
Site Preparation	7/12/2017	7/14/2017	3									
Grading/Excavation	7/17/2017	8/25/2017	30					16,590	-	14	2,371	79
Building Construction	8/28/2017	6/1/2018	200									
Architectural Coating	5/4/2018	6/15/2018	31									
Paving	5/4/2018	6/15/2018	31									

2005 James M Wood

Work Days

Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Demolition

Description: Surface parking and two-story multi-family structure

7

Demolition Schedule		Notes
Start Date	7/3/2017	
End Date	7/11/2017	

Demolition Quantities			Notes
Land Use	Amount	Units	
Retail Strip Mall	8.2	KSF	Given sf
Hardscape Demo	9.1	KSF	Estimated from review of site plans and aerial imagery

Hardscape Demolition Volume	Notes
Total Area(KSF)	9.1
Thickness (ft)	0.5 feet
Debris Volume (CY)	170

Building Demolition Volume		Notes
Total Area (KSF)	8.2	
Floor Height (ft)	10	Assumed
Building Volume (ft3)	82,280	
Building Volume (CY)	3,050	
Debris Volume (CY)	770 (rounded, estimated)	Rounded, 1 CY building volume = 0.25 CY waste volume

Total Debris (CY)	940		
Effective Building Floor Area (KSF)	11.0	<	ENTER VALUE INTO CALEEMOD
Truck Size (CY)	14		
Total Trucks	70 total trucks		
Daily Trucks	10 trucks/day		
Total One-Way Trips	140 total trips	<	ENTER VALUE INTO CALEEMOD
Daily One-Way Trips	20 trips/day		

CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/16/2017 8:55 AM

2005 James M Wood - Construction - South Coast Air Basin, Summer

2005 James M Wood - Construction South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Departmen	t of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (lb/MWhr)	006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
			:

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
2017	3.3296	51.1469	19.0660	0.0917	6.1579	1.6858	7.5321	2.9202	1.5768	4.1843	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1
2018	24.2070	29.6937	26.1937	0.0481	0.8417	1.6538	2.4955	0.2258	1.5832	1.8091	0.0000	4,636.732 1	4,636.7321	0.8110	0.0000	4,657.007 5
Maximum	24.2070	51.1469	26.1937	0.0917	6.1579	1.6858	7.5321	2.9202	1.5832	4.1843	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1

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/d	lay							lb/d	lay		
2017	3.3296		19.0660	0.0917	3.3323	1.6858	4.7065	1.3910	1.5768	2.6606		8	9,737.1088			9,770.530 1
2018	24.2070	29.6937	26.1937	0.0481	0.8417	1.6538	2.4955	0.2258	1.5832	1.8091	0.0000	4,636.732 1	4,636.7321	0.8110	0.0000	4,657.007 5
Maximum	24.2070	51.1469	26.1937	0.0917	3.3323	1.6858	4.7065	1.3910	1.5832	2.6606	0.0000	9,737.108 8	9,737.1088	1.3369	0.0000	9,770.530 1

	ROG	NOx	СО	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	40.37	0.00	28.18	48.61	0.00	25.42	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	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00		
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	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	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785
Total	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785

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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/c	lay		
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	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785
Total	0.0481	0.0347	0.4503	1.1000e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		109.6848	109.6848	3.7500e- 003		109.7785

3.3 Building Construction - 2017

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/d	ay							lb/c	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
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	0.0881	2.3291	0.6162	4.6900e- 003	0.1152	0.0202	0.1354	0.0332	0.0193	0.0525		500.1435	500.1435	0.0362		501.0494
Worker	0.2762	0.2034	2.6139	5.8000e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		576.6923	576.6923	0.0218		577.2367
Total	0.3643	2.5325	3.2301	0.0105	0.6294	0.0245	0.6538	0.1695	0.0232	0.1928		1,076.835 8	1,076.8358	0.0580		1,078.286 1

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/d	ay							lb/d	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5

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/c	lay							lb/c	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	0.0881	2.3291	0.6162	4.6900e- 003	0.1152	0.0202	0.1354	0.0332	0.0193	0.0525		500.1435	500.1435	0.0362		501.0494
Worker	0.2762	0.2034	2.6139	5.8000e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		576.6923	576.6923	0.0218		577.2367
Total	0.3643	2.5325	3.2301	0.0105	0.6294	0.0245	0.6538	0.1695	0.0232	0.1928		1,076.835 8	1,076.8358	0.0580		1,078.286 1

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6

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/c	ay							lb/c	lay		
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	0.0774	2.1869	0.5551	4.6700e- 003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.2458	0.1772	2.3014	5.6300e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		560.6112	560.6112	0.0192		561.0903
Total	0.3232	2.3640	2.8565	0.0103	0.6294	0.0201	0.6495	0.1695	0.0191	0.1886		1,059.227 8	1,059.2278	0.0536		1,060.567 8

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0774	2.1869	0.5551	4.6700e- 003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.2458	0.1772	2.3014	5.6300e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		560.6112	560.6112	0.0192		561.0903
Total	0.3232	2.3640	2.8565	0.0103	0.6294	0.0201	0.6495	0.1695	0.0191	0.1886		1,059.227 8	1,059.2278	0.0536		1,060.567 8

3.4 **Demolition - 2017**

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Fugitive Dust					4.0230	0.0000	4.0230	0.6091	0.0000	0.6091			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404		2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	4.0230	1.6477	5.6707	0.6091	1.5404	2.1495		2,421.422 9	2,421.4229	0.6125		2,436.734 7

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Hauling	0.2088	6.7976	1.3048	0.0161	0.3493	0.0369	0.3863	0.0957	0.0353	0.1311		1,736.817 4	1,736.8174	0.1266		1,739.981 3
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.2868	6.8550	2.0435	0.0177	0.4947	0.0381	0.5328	0.1343	0.0365	0.1707		1,899.795 7	1,899.7957	0.1327		1,903.113 4

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					1.5690	0.0000	1.5690	0.2376	0.0000	0.2376			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	1.5690	1.6477	3.2166	0.2376	1.5404	1.7779	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.2088	6.7976	1.3048	0.0161	0.3493	0.0369	0.3863	0.0957	0.0353	0.1311		1,736.817 4	1,736.8174	0.1266		1,739.981 3
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.2868	6.8550	2.0435	0.0177	0.4947	0.0381	0.5328	0.1343	0.0365	0.1707		1,899.795 7	1,899.7957	0.1327		1,903.113 4

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Fugitive Dust					4.6321	0.0000	4.6321	2.4979	0.0000	2.4979			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289		2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	4.6321	1.2270	5.8591	2.4979	1.1289	3.6267		2,710.807 1	2,710.8071	0.8306		2,731.571 8

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8250	26.8617	5.1562	0.0636	1.3805	0.1460	1.5264	0.3783	0.1396	0.5179		6,863.323 4	6,863.3234	0.5001		6,875.826 2
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.9031	26.9192	5.8949	0.0652	1.5258	0.1472	1.6730	0.4168	0.1407	0.5576		7,026.301 7	7,026.3017	0.5063		7,038.958 3

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Fugitive Dust					1.8065	0.0000	1.8065	0.9742	0.0000	0.9742			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	1.8065	1.2270	3.0335	0.9742	1.1289	2.1030	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Hauling	0.8250	26.8617	5.1562	0.0636	1.3805	0.1460	1.5264	0.3783	0.1396	0.5179		6,863.323 4	6,863.3234	0.5001		6,875.826 2
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	0.0781	0.0575	0.7387	1.6400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		162.9783	162.9783	6.1500e- 003		163.1321
Total	0.9031	26.9192	5.8949	0.0652	1.5258	0.1472	1.6730	0.4168	0.1407	0.5576		7,026.301 7	7,026.3017	0.5063		7,038.958 3

3.6 Paving - 2018

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/d	ay							lb/c	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601	0.3139		1,041.508 4

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/c	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	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761
Total	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601	0.3139		1,041.508 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
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	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761
Total	0.0534	0.0385	0.5003	1.2200e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		121.8720	121.8720	4.1700e- 003		121.9761

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479		1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	5.2693	1.0303	6.2997	2.8965	0.9479	3.8444		1,401.247 9	1,401.2479	0.4293		1,411.981 4

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	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890	
Total	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890	

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	2.0550	1.0303	3.0854	1.1296	0.9479	2.0775	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890	
Total	0.0480	0.0354	0.4546	1.0100e- 003	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		100.2943	100.2943	3.7900e- 003		100.3890	

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2005 James M Wood - Construction - South Coast Air Basin, Winter

2005 James M Wood - Construction South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Depa	rtment of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
			:

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
2017	3.3597	51.5587	19.3932	0.0906	6.1579	1.6864	7.5344	2.9202	1.5774	4.1865	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9
2018	24.2439	29.7231	25.9631	0.0475	0.8417	1.6540	2.4958	0.2258	1.5835	1.8093	0.0000	4,574.416 0	4,574.4160	0.8118	0.0000	4,594.710 6
Maximum	24.2439	51.5587	25.9631	0.0906	6.1579	1.6864	7.5344	2.9202	1.5835	4.1865	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9

Mitigated Construction

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
2017	3.3597		19.3932	0.0906	3.3323	1.6864	4.7088	1.3910	1.5774	2.6628		8	9,616.7688			9,650.703 9
2018	24.2439	29.7231	25.9631	0.0475	0.8417	1.6540	2.4958	0.2258	1.5835	1.8093	0.0000	4,574.416 0	4,574.4160	0.8118	0.0000	4,594.710 6
Maximum	24.2439	51.5587	25.9631	0.0906	3.3323	1.6864	4.7088	1.3910	1.5835	2.6628	0.0000	9,616.768 8	9,616.7688	1.3574	0.0000	9,650.703 9

	ROG	NOx	СО	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	40.37	0.00	28.17	48.61	0.00	25.41	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	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00		
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
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	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808
Total	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808

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/d	ay							lb/c	lay		
Archit. Coating	20.1397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	20.4383	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/c	lay		
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	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808
Total	0.0527	0.0381	0.4103	1.0300e- 003	0.1006	8.1000e- 004	0.1014	0.0267	7.4000e- 004	0.0274		102.8927	102.8927	3.5200e- 003		102.9808

3.3 Building Construction - 2017

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/d	ay							lb/c	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.864 1	2,043.8641	0.4298		2,054.608 5

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
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	0.0917	2.3371	0.6780	4.5700e- 003	0.1152	0.0205	0.1357	0.0332	0.0196	0.0528		487.2005	487.2005	0.0387		488.1686
Worker	0.3026	0.2235	2.3936	5.4400e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		541.0702	541.0702	0.0205		541.5835
Total	0.3943	2.5606	3.0716	0.0100	0.6294	0.0248	0.6541	0.1695	0.0235	0.1931		1,028.270 6	1,028.2706	0.0593		1,029.752 0

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5
Total	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.864 1	2,043.8641	0.4298		2,054.608 5

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/c	lay							lb/d	lay		
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	0.0917	2.3371	0.6780	4.5700e- 003	0.1152	0.0205	0.1357	0.0332	0.0196	0.0528		487.2005	487.2005	0.0387		488.1686
Worker	0.3026	0.2235	2.3936	5.4400e- 003	0.5142	4.2700e- 003	0.5184	0.1364	3.9400e- 003	0.1403		541.0702	541.0702	0.0205		541.5835
Total	0.3943	2.5606	3.0716	0.0100	0.6294	0.0248	0.6541	0.1695	0.0235	0.1931		1,028.270 6	1,028.2706	0.0593		1,029.752 0

3.3 Building Construction - 2018

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/d	ay							lb/d	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.8389	0.4088		2,041.059 6

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/c	lay							lb/d	lay		
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	0.0807	2.1915	0.6130	4.5500e- 003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2695	0.1947	2.0972	5.2800e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		525.8962	525.8962	0.0180		526.3464
Total	0.3502	2.3862	2.7102	9.8300e- 003	0.6294	0.0204	0.6497	0.1695	0.0193	0.1889		1,011.250 5	1,011.2505	0.0548		1,012.621 6

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/d	ay							lb/c	lay		
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.838 9	2,030.8389	0.4088		2,041.059 6

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
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	0.0807	2.1915	0.6130	4.5500e- 003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2695	0.1947	2.0972	5.2800e- 003	0.5142	4.1200e- 003	0.5183	0.1364	3.8000e- 003	0.1402		525.8962	525.8962	0.0180		526.3464
Total	0.3502	2.3862	2.7102	9.8300e- 003	0.6294	0.0204	0.6497	0.1695	0.0193	0.1889		1,011.250 5	1,011.2505	0.0548		1,012.621 6

3.4 **Demolition - 2017**

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	ay		
Fugitive Dust					4.0230	0.0000	4.0230	0.6091	0.0000	0.6091			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404		2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	4.0230	1.6477	5.6707	0.6091	1.5404	2.1495		2,421.422 9	2,421.4229	0.6125		2,436.734 7

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Hauling	0.2141	6.9003	1.4034	0.0158	0.3493	0.0375	0.3869	0.0957	0.0359	0.1316		1,708.912 0	1,708.9120	0.1319		1,712.208 2
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.2996	6.9635	2.0798	0.0174	0.4947	0.0387	0.5334	0.1343	0.0370	0.1713		1,861.823 1	1,861.8231	0.1377		1,865.264 4

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Fugitive Dust					1.5690	0.0000	1.5690	0.2376	0.0000	0.2376			0.0000			0.0000
Off-Road	2.7625	26.7594	15.5573	0.0241		1.6477	1.6477		1.5404	1.5404	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7
Total	2.7625	26.7594	15.5573	0.0241	1.5690	1.6477	3.2166	0.2376	1.5404	1.7779	0.0000	2,421.422 9	2,421.4229	0.6125		2,436.734 7

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.2141	6.9003	1.4034	0.0158	0.3493	0.0375	0.3869	0.0957	0.0359	0.1316		1,708.912 0	1,708.9120	0.1319		1,712.208 2
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.2996	6.9635	2.0798	0.0174	0.4947	0.0387	0.5334	0.1343	0.0370	0.1713		1,861.823 1	1,861.8231	0.1377		1,865.264 4

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
Fugitive Dust					4.6321	0.0000	4.6321	2.4979	0.0000	2.4979			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289		2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	4.6321	1.2270	5.8591	2.4979	1.1289	3.6267		2,710.807 1	2,710.8071	0.8306		2,731.571 8

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8460	27.2678	5.5456	0.0625	1.3805	0.1483	1.5287	0.3783	0.1418	0.5201		6,753.050 6	6,753.0506	0.5210		6,766.075 9
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.9315	27.3310	6.2221	0.0641	1.5258	0.1495	1.6753	0.4168	0.1430	0.5598		6,905.961 7	6,905.9617	0.5268		6,919.132 1

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Fugitive Dust					1.8065	0.0000	1.8065	0.9742	0.0000	0.9742			0.0000			0.0000
Off-Road	2.1726	24.2277	13.1711	0.0265		1.2270	1.2270		1.1289	1.1289	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8
Total	2.1726	24.2277	13.1711	0.0265	1.8065	1.2270	3.0335	0.9742	1.1289	2.1030	0.0000	2,710.807 1	2,710.8071	0.8306		2,731.571 8

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Hauling	0.8460	27.2678	5.5456	0.0625	1.3805	0.1483	1.5287	0.3783	0.1418	0.5201		6,753.050 6	6,753.0506	0.5210		6,766.075 9
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	0.0855	0.0632	0.6764	1.5400e- 003	0.1453	1.2100e- 003	0.1465	0.0385	1.1100e- 003	0.0397		152.9111	152.9111	5.8000e- 003		153.0562
Total	0.9315	27.3310	6.2221	0.0641	1.5258	0.1495	1.6753	0.4168	0.1430	0.5598		6,905.961 7	6,905.9617	0.5268		6,919.132 1

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	day		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904		1,033.660 1	1,033.6601	0.3139		1,041.508 4

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/c	ay							lb/c	lay		
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	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231
Total	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231

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/c	lay							lb/c	lay		
Off-Road	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601			1,041.508 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7521	7.8228	6.6559	0.0104		0.4234	0.4234		0.3904	0.3904	0.0000	1,033.660 1	1,033.6601	0.3139		1,041.508 4

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/c	ay							lb/c	lay		
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	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231
Total	0.0586	0.0423	0.4559	1.1500e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		114.3253	114.3253	3.9200e- 003		114.4231

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479		1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	5.2693	1.0303	6.2997	2.8965	0.9479	3.8444		1,401.247 9	1,401.2479	0.4293		1,411.981 4

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
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	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884
Total	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	ay		
Fugitive Dust					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.7109	17.7835	8.8360	0.0137		1.0303	1.0303		0.9479	0.9479	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4
Total	1.7109	17.7835	8.8360	0.0137	2.0550	1.0303	3.0854	1.1296	0.9479	2.0775	0.0000	1,401.247 9	1,401.2479	0.4293		1,411.981 4

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	lay		
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	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884
Total	0.0526	0.0389	0.4163	9.5000e- 004	0.0894	7.4000e- 004	0.0902	0.0237	6.8000e- 004	0.0244		94.0992	94.0992	3.5700e- 003		94.1884

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2005 James M Wood - Construction - South Coast Air Basin, Annual

2005 James M Wood - Construction South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.39	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)31

Climate Zone 11 Operational Year 2019

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client given square footage. Acreage determined by lot size (0.52) x project lot coverage (75%)

Construction Phase - Construction schedule is best estimate based on CalEEMod defaults and similar previous projects.

Off-road Equipment - Best estimate based on scale of excavation for basement levels.

Off-road Equipment - Paving overlaps with building construction; no additional tractors needed

Off-road Equipment - No graders needed; additional tractor needed.

Off-road Equipment -

Grading - Grading of area and excavation for basement levels.

Demolition -

Trips and VMT - Assumed 14 cubic yard truck capacity for haul trucks

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	4.00	30.00
tblConstructionPhase	NumDays	10.00	31.00
tblConstructionPhase	NumDays	2.00	3.00
	PhaseEndDate		6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/11/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/2/2017	6/15/2018
tblConstructionPhase	PhaseEndDate	7/2/2017	7/14/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	PhaseStartDate	7/3/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	7/17/2017
tblConstructionPhase	PhaseStartDate	7/3/2017	5/4/2018
tblConstructionPhase	:	7/3/2017	7/12/2017
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	16,590.00
tblLandUse		159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.39
tblOffRoadEquipment	:	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment			Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	130.00	140.00
tblTripsAndVMT	HaulingTripNumber	2,074.00	2,371.00

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	s/yr							MT	/yr		
2017	0.2094	1.9097	1.1489	2.9900e- 003	0.1436	0.0846	0.2282	0.0581	0.0805	0.1386	0.0000	273.5303	273.5303	0.0412	0.0000	274.5603
2018	0.4903	1.2460	1.0593	2.0000e- 003	0.0372	0.0682	0.1055	0.0100	0.0657	0.0757	0.0000	174.1777	174.1777	0.0280	0.0000	174.8772
Maximum	0.4903	1.9097	1.1489	2.9900e- 003	0.1436	0.0846	0.2282	0.0581	0.0805	0.1386	0.0000	273.5303	273.5303	0.0412	0.0000	274.5603

Mitigated Construction

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
2017	0.2094	1.9097	1.1489	2.9900e- 003	0.0878	0.0846	0.1724	0.0313	0.0805	0.1118	0.0000	273.5302	273.5302			274.5601
2018	0.4903	1.2460	1.0593	2.0000e- 003	0.0372	0.0682	0.1055	0.0100	0.0657	0.0757	0.0000	174.1775	174.1775	0.0280	0.0000	174.8770
Maximum	0.4903	1.9097	1.1489	2.9900e- 003	0.0878	0.0846	0.1724	0.0313	0.0805	0.1118	0.0000	273.5302	273.5302	0.0412	0.0000	274.5601

	ROG	NOx	СО	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	30.85	0.00	16.72	39.35	0.00	12.51	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	7-3-2017	10-2-2017	1.2362	1.2362
2	10-3-2017	1-2-2018	0.8249	0.8249
3	1-3-2018	4-2-2018	0.7314	0.7314
4	4-3-2018	7-2-2018	0.9656	0.9656
		Highest	1.2362	1.2362

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/4/2018	6/15/2018	5	31	
2	Building Construction	Building Construction	8/28/2017	6/1/2018	5	200	
3	Demolition	Demolition	7/3/2017	7/11/2017	5	7	
4	Grading	Grading	7/17/2017	8/25/2017	5	30	
5	Paving	Paving	5/4/2018	6/15/2018	5	31	
6	Site Preparation	Site Preparation	7/12/2017	7/14/2017	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,044; Non-Residential Outdoor: 33,015; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	ŭ	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00		0.74
Building Construction	Cranes	1	6.00		0.20

Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	0	8.00		
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	0	6.00	187	-
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	
Building Construction	Welders	3	8.00	46	0.45
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	1	8.00	158	0.38

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle	Vehicle
									Class	Class
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	46.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	140.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	2,371.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Architectural Coating - 2018

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	s/yr							MT	/yr		
Archit. Coating	0.3122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6300e- 003	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670
Total	0.3168	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709
Total	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709

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	s/yr							MT	/yr		
Archit. Coating	0.3122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6300e- 003	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670
Total	0.3168	0.0311	0.0287	5.0000e- 005		2.3300e- 003	2.3300e- 003		2.3300e- 003	2.3300e- 003	0.0000	3.9576	3.9576	3.8000e- 004	0.0000	3.9670

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	s/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	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709
Total	7.4000e- 004	6.1000e- 004	6.5200e- 003	2.0000e- 005	1.5300e- 003	1.0000e- 005	1.5400e- 003	4.1000e- 004	1.0000e- 005	4.2000e- 004	0.0000	1.4696	1.4696	5.0000e- 005	0.0000	1.4709

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4373	83.4373	0.0175	0.0000	83.8759
Total	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4373	83.4373	0.0175	0.0000	83.8759

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e- 003	0.1072	0.0292	2.1000e- 004	5.1000e- 003	9.1000e- 004	6.0200e- 003	1.4700e- 003	8.7000e- 004	2.3500e- 003	0.0000	20.1956	20.1956	1.5300e- 003	0.0000	20.2337
Worker	0.0124	0.0103	0.1104	2.5000e- 004	0.0227	1.9000e- 004	0.0229	6.0300e- 003	1.8000e- 004	6.2100e- 003	0.0000	22.4358	22.4358	8.5000e- 004	0.0000	22.4570
Total	0.0164	0.1175	0.1395	4.6000e- 004	0.0278	1.1000e- 003	0.0289	7.5000e- 003	1.0500e- 003	8.5600e- 003	0.0000	42.6314	42.6314	2.3800e- 003	0.0000	42.6908

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	s/yr							MT	/yr		
Off-Road	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4372	83.4372	0.0175	0.0000	83.8758
Total	0.1334	0.8656	0.6461	9.9000e- 004		0.0554	0.0554		0.0534	0.0534	0.0000	83.4372	83.4372	0.0175	0.0000	83.8758

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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e- 003	0.1072	0.0292	2.1000e- 004	5.1000e- 003	9.1000e- 004	6.0200e- 003	1.4700e- 003	8.7000e- 004	2.3500e- 003	0.0000	20.1956	20.1956	1.5300e- 003	0.0000	20.2337
Worker	0.0124	0.0103	0.1104	2.5000e- 004	0.0227	1.9000e- 004	0.0229	6.0300e- 003	1.8000e- 004	6.2100e- 003	0.0000	22.4358	22.4358	8.5000e- 004	0.0000	22.4570
Total	0.0164	0.1175	0.1395	4.6000e- 004	0.0278	1.1000e- 003	0.0289	7.5000e- 003	1.0500e- 003	8.5600e- 003	0.0000	42.6314	42.6314	2.3800e- 003	0.0000	42.6908

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3290	101.3290	0.0204	0.0000	101.8390
Total	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3290	101.3290	0.0204	0.0000	101.8390

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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e- 003	0.1228	0.0322	2.5000e- 004	6.2400e- 003	8.8000e- 004	7.1200e- 003	1.8000e- 003	8.5000e- 004	2.6500e- 003	0.0000	24.6006	24.6006	1.7700e- 003	0.0000	24.6449
Worker	0.0134	0.0110	0.1183	3.0000e- 004	0.0278	2.3000e- 004	0.0280	7.3700e- 003	2.1000e- 004	7.5800e- 003	0.0000	26.6533	26.6533	9.1000e- 004	0.0000	26.6761
Total	0.0178	0.1338	0.1505	5.5000e- 004	0.0340	1.1100e- 003	0.0351	9.1700e- 003	1.0600e- 003	0.0102	0.0000	51.2539	51.2539	2.6800e- 003	0.0000	51.3210

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3289	101.3289	0.0204	0.0000	101.8389
Total	0.1426	0.9585	0.7632	1.2100e- 003		0.0582	0.0582		0.0562	0.0562	0.0000	101.3289	101.3289	0.0204	0.0000	101.8389

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e- 003	0.1228	0.0322	2.5000e- 004	6.2400e- 003	8.8000e- 004	7.1200e- 003	1.8000e- 003	8.5000e- 004	2.6500e- 003	0.0000	24.6006	24.6006	1.7700e- 003	0.0000	24.6449
Worker	0.0134	0.0110	0.1183	3.0000e- 004	0.0278	2.3000e- 004	0.0280	7.3700e- 003	2.1000e- 004	7.5800e- 003	0.0000	26.6533	26.6533	9.1000e- 004	0.0000	26.6761
Total	0.0178	0.1338	0.1505	5.5000e- 004	0.0340	1.1100e- 003	0.0351	9.1700e- 003	1.0600e- 003	0.0102	0.0000	51.2539	51.2539	2.6800e- 003	0.0000	51.3210

3.4 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					0.0141	0.0000	0.0141	2.1300e- 003	0.0000	2.1300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e- 003	0.0937	0.0545	8.0000e- 005		5.7700e- 003	5.7700e- 003		5.3900e- 003	5.3900e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370
Total	9.6700e- 003	0.0937	0.0545	8.0000e- 005	0.0141	5.7700e- 003	0.0199	2.1300e- 003	5.3900e- 003	7.5200e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	7.4000e- 004	0.0246	4.7200e- 003	6.0000e- 005	1.2000e- 003	1.3000e- 004	1.3300e- 003	3.3000e- 004	1.2000e- 004	4.5000e- 004	0.0000	5.4774	5.4774	4.1000e- 004	0.0000	5.4877
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	2.7000e- 004	2.3000e- 004	2.4300e- 003	1.0000e- 005	5.0000e- 004	0.0000	5.0000e- 004	1.3000e- 004	0.0000	1.4000e- 004	0.0000	0.4932	0.4932	2.0000e- 005	0.0000	0.4936
Total	1.0100e- 003	0.0248	7.1500e- 003	7.0000e- 005	1.7000e- 003	1.3000e- 004	1.8300e- 003	4.6000e- 004	1.2000e- 004	5.9000e- 004	0.0000	5.9706	5.9706	4.3000e- 004	0.0000	5.9813

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					5.4900e- 003	0.0000	5.4900e- 003	8.3000e- 004	0.0000	8.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e- 003	0.0937	0.0545	8.0000e- 005		5.7700e- 003	5.7700e- 003		5.3900e- 003	5.3900e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370
Total	9.6700e- 003	0.0937	0.0545	8.0000e- 005	5.4900e- 003	5.7700e- 003	0.0113	8.3000e- 004	5.3900e- 003	6.2200e- 003	0.0000	7.6884	7.6884	1.9400e- 003	0.0000	7.7370

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	s/yr							MT	/yr		
Hauling	7.4000e- 004	0.0246	4.7200e- 003	6.0000e- 005	1.2000e- 003	1.3000e- 004	1.3300e- 003	3.3000e- 004	1.2000e- 004	4.5000e- 004	0.0000	5.4774	5.4774	4.1000e- 004	0.0000	5.4877
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	2.7000e- 004	2.3000e- 004	2.4300e- 003	1.0000e- 005	5.0000e- 004	0.0000	5.0000e- 004	1.3000e- 004	0.0000	1.4000e- 004	0.0000	0.4932	0.4932	2.0000e- 005	0.0000	0.4936
Total	1.0100e- 003	0.0248	7.1500e- 003	7.0000e- 005	1.7000e- 003	1.3000e- 004	1.8300e- 003	4.6000e- 004	1.2000e- 004	5.9000e- 004	0.0000	5.9706	5.9706	4.3000e- 004	0.0000	5.9813

3.5 Grading - 2017

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	s/yr							MT	/yr		
Fugitive Dust					0.0695	0.0000	0.0695	0.0375	0.0000	0.0375	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0326	0.3634	0.1976	4.0000e- 004		0.0184	0.0184		0.0169	0.0169	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706
Total	0.0326	0.3634	0.1976	4.0000e- 004	0.0695	0.0184	0.0879	0.0375	0.0169	0.0544	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0125	0.4169	0.0799	9.5000e- 004	0.0204	2.2000e- 003	0.0226	5.5900e- 003	2.1100e- 003	7.7000e- 003	0.0000	92.7643	92.7643	6.9300e- 003	0.0000	92.9376
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	1.1600e- 003	9.7000e- 004	0.0104	2.0000e- 005	2.1400e- 003	2.0000e- 005	2.1600e- 003	5.7000e- 004	2.0000e- 005	5.8000e- 004	0.0000	2.1135	2.1135	8.0000e- 005	0.0000	2.1155
Total	0.0137	0.4178	0.0903	9.7000e- 004	0.0225	2.2200e- 003	0.0247	6.1600e- 003	2.1300e- 003	8.2800e- 003	0.0000	94.8778	94.8778	7.0100e- 003	0.0000	95.0531

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	s/yr							MT	/yr		
Fugitive Dust					0.0271	0.0000	0.0271	0.0146	0.0000	0.0146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0326	0.3634	0.1976	4.0000e- 004		0.0184	0.0184		0.0169	0.0169	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706
Total	0.0326	0.3634	0.1976	4.0000e- 004	0.0271	0.0184	0.0455	0.0146	0.0169	0.0315	0.0000	36.8880	36.8880	0.0113	0.0000	37.1706

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Hauling	0.0125	0.4169	0.0799	9.5000e- 004	0.0204	2.2000e- 003	0.0226	5.5900e- 003	2.1100e- 003	7.7000e- 003	0.0000	92.7643	92.7643	6.9300e- 003	0.0000	92.9376
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	1.1600e- 003	9.7000e- 004	0.0104	2.0000e- 005	2.1400e- 003	2.0000e- 005	2.1600e- 003	5.7000e- 004	2.0000e- 005	5.8000e- 004	0.0000	2.1135	2.1135	8.0000e- 005	0.0000	2.1155
Total	0.0137	0.4178	0.0903	9.7000e- 004	0.0225	2.2200e- 003	0.0247	6.1600e- 003	2.1300e- 003	8.2800e- 003	0.0000	94.8778	94.8778	7.0100e- 003	0.0000	95.0531

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Off-Road	0.0117	0.1213	0.1032	1.6000e- 004		6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0117	0.1213	0.1032	1.6000e- 004		6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343
Total	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	0	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	0.0117	0.1213	0.1032	1.6000e- 004	6	6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003		14.6450
Paving	0.0000				(0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0117	0.1213	0.1032	1.6000e- 004	6	6.5600e- 003	6.5600e- 003		6.0500e- 003	6.0500e- 003	0.0000	14.5347	14.5347	4.4100e- 003	0.0000	14.6450

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	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343	
Total	8.2000e- 004	6.7000e- 004	7.2500e- 003	2.0000e- 005	1.7000e- 003	1.0000e- 005	1.7100e- 003	4.5000e- 004	1.0000e- 005	4.6000e- 004	0.0000	1.6329	1.6329	6.0000e- 005	0.0000	1.6343	

3.7 Site Preparation - 2017

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	s/yr							MT	/yr		
Fugitive Dust					7.9000e- 003	0.0000	7.9000e- 003	4.3400e- 003	0.0000	4.3400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5700e- 003	0.0267	0.0133	2.0000e- 005		1.5500e- 003	1.5500e- 003		1.4200e- 003	1.4200e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214
Total	2.5700e- 003	0.0267	0.0133	2.0000e- 005	7.9000e- 003	1.5500e- 003	9.4500e- 003	4.3400e- 003	1.4200e- 003	5.7600e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302	
Total	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302	

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Fugitive Dust					3.0800e- 003	0.0000	3.0800e- 003	1.6900e- 003	0.0000	1.6900e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5700e- 003	0.0267	0.0133	2.0000e- 005		1.5500e- 003	1.5500e- 003		1.4200e- 003	1.4200e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214
Total	2.5700e- 003	0.0267	0.0133	2.0000e- 005	3.0800e- 003	1.5500e- 003	4.6300e- 003	1.6900e- 003	1.4200e- 003	3.1100e- 003	0.0000	1.9068	1.9068	5.8000e- 004	0.0000	1.9214

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/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	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302
Total	7.0000e- 005	6.0000e- 005	6.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1301	0.1301	0.0000	0.0000	0.1302

Appendix C Project Operational Emissions Worksheets



2005 James M Wood

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Nonresidential

% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	5.0%
5%	9.8%
10%	14.5%
15%	19.3%
20%	24.0%

Residential	
% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	28.0%
5%	31.6%
10%	35.2%
15%	38.8%
20%	42.4%

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) = Residential % savings over Title 24 (2013) =

5.0%
28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					_
Project Nonresidential Land Uses					
Enclosed Parking with Elevator	3.92	0.19	2.63	-	-
Hotel	3.50	2.89	2.67	21.79	4.06

Title 24 (2016)					
Project Nonresidential Land Uses					
Enclosed Parking with Elevator	3.72	0.19	2.50	-	-
Hotel	3.33	2.89	2.54	20.70	4.06

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: $http://www.energy.ca.gov/title 24/2016 standards/rule making/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf.$ Accessed December 2016.

CalEEMod Version: CalEEMod.2016.3.1 Page 1 of 1 Date: 2/14/2017 4:55 PM

2005 James M Wood - Operational - South Coast Air Basin, Summer

2005 James M Wood - Operational South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2018
Utility Company	Los Angeles Dep	artment of Water & Power			
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	lay		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.086
Mobile	1.5938	6.8637	18.6368	0.0528	3.8719	0.0619	3.9338	1.0361	0.0583	1.0944		5,351.884 8	5,351.8848	0.3057		5,359.52 9
Total	3.1383	7.3030	19.0285	0.0554	3.8719	0.0954	3.9672	1.0361	0.0918	1.1278		5,878.888 0	5,878.8880	0.3160	9.6600e- 003	5,889.669 9

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exha PM2		M2.5 otal	Bio- CO2	NBio- CO	Total CO2	CH4	N2O	CO2e
Category					lb/	day								lb	/day		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.000 00		000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.03	34 0.0	0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Mobile	1.5938	6.8637	18.6368	0.0528	3.8719	0.0619	3.9338	1.0361	0.05	83 1.0	0944		5,351.884 8	5,351.884	8 0.3057		5,359.527 9
Total	3.1383	7.3030	19.0285	0.0554	3.8719	0.0954	3.9672	1.0361	0.09	18 1.1	1278		5,878.888 0	5,878.888	0.3160	9.6600e- 003	5,889.665 9
	ROG	N	lOx (co s		-			gitive M2.5	Exhaust PM2.5	PM2 Tota		CO2 NBio	-CO2 Tota	I CO2 C	H4 N	20 C
Percent Reduction	0.00	0	.00 0	0.00	.00 0	.00 0	.00 0	.00 0	0.00	0.00	0.00	0.0	0 0	.00 0	.00 0.	00 0.	00 0

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Mitigated	1.5938	6.8637	18.6368	0.0528		0.0619			0.0583	1.0944		5,351.884 8	5,351.8848			5,359.527 9
Unmitigated	1.5938	6.8637	18.6368		3.8719	0.0619	3.9338	1.0361	0.0583	1.0944		5,351.884 8	5,351.8848			5,359.527 9

4.2 Trip Summary Information

	Aver	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	:	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.546979	0.044837	0.199064	0.126777	0.018273	0.005878	0.019668	0.028140	0.001951	0.002100	0.004606	0.000701	0.001026
Enclosed Parking with Elevator	0.546979		0.199064	0.126777	0.018273			0.028140		0.002100	0.004606		0.001026

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/c	lay							lb/d	ay		
NaturalGas Mitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
NaturalGas Unmitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/c	day		
Enclosed Parking with Elevator	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
Hotel	4479.12	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

Mitigated

	NaturalGa s 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/d	day							lb/c	lay		
Enclosed Parking with Elevator	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
Hotel	4.47912	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

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/d	ay							lb/d	lay		
Mitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Unmitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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/d	ay							lb/c	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Equipment Type

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Heat Input/Year

Boiler Rating

Fuel Type

Heat Input/Day

User Defined Equipment

Equipment Type	Number

Number

11.0 Vegetation

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2005 James M Wood - Operational - South Coast Air Basin, Winter

2005 James M Wood - Operational South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2018
Utility Company	Los Angeles Departmen	t of Water & Power			

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N2O Intensity
 0.006

 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

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/d	lay							lb/c	lay		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.086
Mobile	1.5407	7.0197	17.8700	0.0500	3.8719	0.0625	3.9344	1.0361	0.0589	1.0949		5,071.588 9	5,071.5889	0.3063		5,079.24 4
Total	3.0852	7.4590	18.2617	0.0526	3.8719	0.0960	3.9678	1.0361	0.0923	1.1284		5,598.592 1	5,598.5921	0.3165	9.6600e- 003	5,609.38 4

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exh:	aust 2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day								lb/	day		
Area	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.00 00		8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Energy	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334	 !	0.0	334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Mobile	1.5407	7.0197	17.8700	0.0500	3.8719	0.0625	3.9344	1.0361	0.0	589	1.0949		5,071.588 9	5,071.5889	0.3063		5,079.245 4
Total	3.0852	7.4590	18.2617	0.0526	3.8719	0.0960	3.9678	1.0361	0.0	923	1.1284		5,598.592 1	5,598.5921	0.3165	9.6600e- 003	5,609.383 4
	ROG	N	Ox	co s		_			ugitive PM2.5	Exhau PM2.		-	CO2 NBio	-CO2 Total	CO2 CI	14 N	20 CC
Percent Reduction	0.00	0	.00	0.00 0	.00 0	0.00	0.00 0	.00	0.00	0.00	0.0	0.0	0 0.	.00 0.0	0.0	00 0.	00 0.0

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	lay		
Mitigated	1.5407		17.8700	0.0500			3.9344		0.0589	1.0949		5,071.588 9	5,071.5889			5,079.245 4
Unmitigated	1.5407		17.8700		3.8719	0.0625	3.9344	1.0361	0.0589	1.0949			5,071.5889			5,079.245 4

4.2 Trip Summary Information

	Aver	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator		8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.546979	0.044837	0.199064	0.126777	0.018273	0.005878	0.019668	0.028140	0.001951	0.002100	0.004606	0.000701	0.001026
Enclosed Parking with Elevator	0.546979		0.199064	0.126777	0.018273			0.028140		0.002100	0.004606		0.001026

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/d	ay							lb/c	lay		
NaturalGas Mitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
NaturalGas Unmitigated	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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/d	day							lb/c	day		
Enclosed Parking with Elevator	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
Hotel	4479.12	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

Mitigated

	NaturalGa s 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/d	day							lb/c	lay		
Enclosed Parking with Elevator	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
Hotel	4.47912	0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865
Total		0.0483	0.4391	0.3689	2.6300e- 003		0.0334	0.0334		0.0334	0.0334		526.9551	526.9551	0.0101	9.6600e- 003	530.0865

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Mitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Unmitigated	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

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/d	ay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

Mitigated

	ROG	NOx	СО	SO2	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/d	lay							lb/d	lay		
Architectural Coating	0.1711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1800e- 003	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515
Total	1.4962	2.1000e- 004	0.0228	0.0000		8.0000e- 005	8.0000e- 005		8.0000e- 005	8.0000e- 005		0.0482	0.0482	1.3000e- 004		0.0515

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Equipment Type

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Heat Input/Year

Boiler Rating

Fuel Type

Heat Input/Day

User Defined Equipment

Equipment Type	Number

Number

11.0 Vegetation

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2005 James M Wood - Operational - South Coast Air Basin, Annual

2005 James M Wood - Operational South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	0.37	66,029.00	0
Enclosed Parking with Elevator	110.00	Space	0.99	44,000.00	0

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 31

Climate Zone 11 Operational Year 2018

Utility Company Los Angeles Department of Water & Power

 CO2 Intensity
 1227.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Client provided square footage.

Vehicle Trips - Trip generation calculated using Linscott, Law, and Greenspan's Trip Generation Table

Energy Use - Refer to "Title 24 Energy Savings" Workbook for Calculations

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation - See City of LA Zero Waste Program Progress http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	2.20	2.54
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.68	3.33
tblEnergyUse	T24NG	20.02	20.70
tblLandUse	BuildingSpaceSquareFeet	159,720.00	66,029.00
tblLandUse	LandUseSquareFeet	159,720.00	66,029.00
tblLandUse	LotAcreage	3.67	0.37
tblVehicleTrips	ST_TR	8.19	6.94
tblVehicleTrips	SU_TR	5.95	6.94
tblVehicleTrips	WD_TR	8.17	6.94

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Area	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Energy	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	566.4831	566.4831	0.0130	3.9400e- 003	567.9824
Mobile	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Waste						0.0000	0.0000		0.0000	0.0000	12.2262	0.0000	12.2262	0.7225	0.0000	30.2898
Water						0.0000	0.0000		0.0000	0.0000	0.8853	22.1546	23.0398	0.0915	2.2600e- 003	25.9981
Total	0.5534	1.3820	3.3581	9.7100e- 003	0.6919	0.0174	0.7093	0.1854	0.0167	0.2022	13.1114	1,437.774 3	1,450.8857	0.8772	6.2000e- 003	1,474.663 0

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					ton	s/yr							МТ	-/yr		
Area	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Energy	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	566.4831	566.4831	0.0130	3.9400e- 003	567.9824
Mobile	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Waste						0.0000	0.0000		0.0000	0.0000	2.9343	0.0000	2.9343	0.1734	0.0000	7.2695
Water	9					0.0000	0.0000		0.0000	0.0000	0.7082	17.9903	18.6985	0.0732	1.8100e- 003	21.0657
Total	0.5534	1.3820	3.3581	9.7100e- 003	0.6919	0.0174	0.7093	0.1854	0.0167	0.2022	3.6425	1,433.610 0	1,437.2525	0.3098	5.7500e- 003	1,446.710 4
	ROG	N	Ox (co s					_	naust PM M2.5 To	_	CO2 NBio	-CO2 Total	CO2 CI	14 N2	20 CO2
Percent	0.00	0	.00 0	.00 0.	.00 0	.00 0	.00 0	.00 0	.00 0	.00 0.0	00 72.	22 0.2	29 0.9	64.	68 7.3	26 1.9

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Reduction

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Mitigated	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870
Unmitigated	0.2717	1.3018	3.2880	9.2300e- 003	0.6919	0.0113	0.7032	0.1854	0.0106	0.1961	0.0000	849.1311	849.1311	0.0502	0.0000	850.3870

4.2 Trip Summary Information

	Avera	age Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	763.40	763.40	763.40	1,821,603	1,821,603
Total	763.40	763.40	763.40	1,821,603	1,821,603

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator		8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

	Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
I	Hotel	0.546979	0.044837	0.199064	0.126777	0.018273		•					0.000701	
	Enclosed Parking with Elevator	0.546979	0.044837			0.018273		0.019668		0.001951			0.000701	

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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	479.2398	479.2398	0.0113	2.3400e- 003	480.2206
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	479.2398	479.2398	0.0113	2.3400e- 003	480.2206
NaturalGas Mitigated	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
NaturalGas Unmitigated	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							МТ	-/yr		
Enclosed Parking with Elevator	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
Hotel	1.63488e+ 006	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
Total		8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

Mitigated

	NaturalGa s 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					ton	s/yr							МТ	√yr		
Enclosed Parking with Elevator	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
Hotel	1.63488e+ 006	8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618
Total		8.8200e- 003	0.0801	0.0673	4.8000e- 004		6.0900e- 003	6.0900e- 003		6.0900e- 003	6.0900e- 003	0.0000	87.2433	87.2433	1.6700e- 003	1.6000e- 003	87.7618

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/уг	
Enclosed Parking with Elevator	282040	157.0854	3.7100e- 003	7.7000e- 004	157.4069
Hotel	578414	322.1544	7.6100e- 003	1.5700e- 003	322.8137
Total		479.2398	0.0113	2.3400e- 003	480.2206

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/уг	
Enclosed Parking with Elevator	282040	157.0854	3.7100e- 003	7.7000e- 004	157.4069
Hotel	578414	322.1544	7.6100e- 003	1.5700e- 003	322.8137
Total		479.2398	0.0113	2.3400e- 003	480.2206

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Unmitigated	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
Architectural Coating	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Total	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

Mitigated

	ROG	NOx	СО	SO2	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	s/yr							MT	/yr		
Architectural Coating	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003
Total	0.2729	3.0000e- 005	2.8500e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.4600e- 003	5.4600e- 003	1.0000e- 005	0.0000	5.8300e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	18.6985	0.0732	1.8100e- 003	21.0657
Unmitigated	23.0398	0.0915	2.2600e- 003	25.9981

7.2 Water by Land Use

Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Г/уг	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
Hotel	2.79034 / 0.310038	23.0398	0.0915	2.2600e- 003	25.9981
Total		23.0398	0.0915	2.2600e- 003	25.9981

<u>Mitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Γ/yr	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
Hotel	2.23228 / 0.291126	18.6985	0.0732	1.8100e- 003	21.0657
Total		18.6985	0.0732	1.8100e- 003	21.0657

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	/yr	
Mitigated	2.9343	0.1734	0.0000	7.2695
Unmitigated	12.2262	0.7225	0.0000	30.2898

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Enclosed Parking with Elevator		0.0000	0.0000	0.0000	0.0000
Hotel		12.2262	0.7225	0.0000	30.2898
Total		12.2262	0.7225	0.0000	30.2898

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	Γ/yr	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	14.4552	2.9343	0.1734	0.0000	7.2695
Total		2.9343	0.1734	0.0000	7.2695

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





1815 E. Wilshire Ave., Suite 905 Santa Ana, CA 92705

(714) 542-2644 Fax: (714) 542-2520

December 22, 2015

Mr. Tony Chien **Divine Hotels Group Inc.** Da-Yuh Development Inc. 611 S. Westlake Avenue Los Angeles, CA 90057

Email: tony@dayuhdevelopmentinc.com

RE: PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

857 S. Westlake Avenue Los Angeles, CA 90057

WEECO Project No.: 2015-5152

Dear Mr. Chien:

Western Environmental Engineers Company (WEECO) has completed a Phase II Environmental Site Assessment at the existing commercial property at 857 S. Westlake Avenue, Los Angeles, California (the Site). The purpose of this assessment was to investigate soil quality at the Site.

WEECO appreciates the opportunity to work on this investigation project. Should you have any questions concerning the information provided herein or in the accompanying report, please contact James Yoon or Sin H. Kim at (714) 542-2644.

Respectfully,

Western Environmental Engineers Company

James Yoon, REPA

Project Manager

Sin Han Kim, P.E.

Principal Engineer

Registered Civil Engineer

California Registration No. C62688

Attachment – Phase II Environmental Site Assessment Report

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Appendix C. Geophysical Survey Report

1.0 INTRODUCTION

This report presents the results of Phase II Environmental Site Assessment activities conducted by Western Environmental Engineers Company (WEECO) for existing commercial property located at 857 S. Westlake Avenue, Los Angeles, California (the Site) (Figure 1).

The purpose of this site investigation was to gather detailed information about the contaminants in the existing commercial property of the site, and to determine the contaminants existing on site and to approximate the volume of the contaminants' plumes. This Environmental Site Assessment report contains a brief history of the existing site characteristics, sample collection procedures, analytical results and other supporting data, as well as conclusions and recommendations.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The subject site located at 857 S. Westlake Avenue, in the City of Los Angeles is legally described by the assessor's parcel number: 5141-020-021. According to the Los Angeles County, Office of the Assessor, the subject site is an approximately 20,200 square-foot lot, and has been developed with one (1) commercial building approximately 8,042 square-feet in size. The building was first constructed in 1987/1995, respectively. From the visual inspection, the subject site is composed of one (1) single-story commercial building used as a retail stores and coin laundry. Asphalt-paved parking areas were observed to the south and north of the subject site. Currently, the subject site is occupied by a retail stores with 4-units and a coin laundry.

2.2 SITE ENVIRONMENTAL HISTORY

2.2.1 Historic Operations

WEECO reviewed a historical aerial photo map for the subject site. According to the historical aerial photo map, the subject building's structure does not change since 1989. From 1948 to 1980, one (1) big large building was located at the center of the subject property, and another small building located northwest corner of the subject property. However, the subject property was not occupied a gas station.

2.2.2 Previous Investigations

No previous investigation report received from the client at this time.

2.2.3 Adjacent Properties

During the Site Reconnaissance, WEECO's field assessor has visually inspected and documented the use of the adjacent properties, and findings are as follows:

NORTH

• The property to the north of the subject site is used for a <u>residential purpose (Apartment)</u>.

EAST

• The property to the east of the subject site across S. Westlake Ave. is used for a residential/commercial purpose (Apartment & Church).

SOUTH

• The property to the south of the subject site across James M Wood Blvd. is a <u>commercial</u> <u>purpose (Restaurant)</u>.

WEST

• The property to the west of the subject site is used for a commercial purpose (Fallas Stores).

3.0 ENVIRONMENTAL SETTING

3.1 GEOLOGY AND HYDROGEOLOGY

Based on soil borings advanced to assess the Site, subsurface soil generally consists of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs). The color of the soil ranged from brown to light brown; the consistency of the soil was moist. Groundwater was not encountered during drilling activities.

The subject site is in the Los Angeles Forebay Area, located in the northern part of the Central Basin. In general, it is a free groundwater area; however, in the course of this investigation it became evident that the Bellflower aquiclude extends into the southerly portion of the forebay area. The aquiclude extends in this area contains a high percentage of sand, and vertical percolation of water is apparently more rapid here than in other portions of the basin covered by it. Where the Bellflower aquiclude is missing within the forebay area, the aquifers are in direct hydraulic continuity with the surface.

The Los Angeles Forebay Area is overlain by parts of the La Brea, Los Angeles and Montebello Plains. The known water-bearing sediments extend to a depth of 1600 feet (1440 feet below sea level) and include recent alluvium, the Lakewood formation and the San Pedro formation. Some fresh water also may be present in the Pliocene and Miocene rocks underlying these formations in this area.

Recent alluvium in the Los Angeles Forebay Area is found on the Los Angeles Plain and in the Los Angeles Narrows. It attains a maximum thickness of 160 feet, and includes the western arm of Gaspur aquifer and the parts of the Semi-perched aquifer and Bellflower aquiclude lying west and south of the Los Angeles River.

The Semi-perched aquifer is defined as the area where sand and gravel overlying the Bellflower aquiclude is more than 20 feet in thickness. This semi-perched aquifer is also present in the Lakewood formation just south of the Repetto Hill. Although the aquifer can be defined in well logs, water levels in well indicate that it contains little or no water.

The groundwater depth in the vicinity of the subject site is a deeper than 45 feet bgs (data obtained from Geotracker from an open LUFT site, 2101 W. 8th St.). The regional groundwater flow is expected to follow the topographic gradient, which is towards the southwest.

4.0 SITE ASSESSMENT ACTIVITIES

WEECO supervised the installation of four (4) soil borings (B1 through B4) on December 10, 2015. The site assessment included pre-field activities, soil sampling, soil classification, and sample analysis. The following sections describe each of these elements.

4.1 PRE-FIELD ACTIVITIES

Prior to initiating drilling operations, a notification was provided to the clients.

WEECO prepared a comprehensive Health and Safety Plan (HASP) for this project based on the scope of work and the potential hazards present. The HASP was the primary mechanism to ensure employee, environmental, and public safety during field activities. The HASP was implemented and enforced on-site by the WEECO Site Health and Safety Officer.

In accordance with California State Law, WEECO contacted Underground Service Alert (USA) prior to commencing drilling activities to identify any public utility alignments that may have been in potential conflict with the proposed boring locations.

4.2 DRILLING, SOIL AND GROUNDWATER SAMPLING PROCEDURES

4.2.1 Drilling Operations

On December 10, 2015, WEECO supervised the advancement of 4 soil borings (B1 through B4) at the locations illustrated on Figure 2. Drilling was conducted by Kehoe Testing & Engineering, Inc. using a GeoProbe direct push drill rig down to 30 feet below ground surface (bgs). Four (4) soil boring locations were selected in order to further define the vertical and lateral extent of the contamination plume at the subject site.

4.2.2 Subsurface Soil and Groundwater Sampling

During drill advancement at borings B1 through B4, sampling of encountered subsurface soils was performed using a standard 2-foot long by 1-inch inner-diameter, rod steel sampler, sleeved with 18-inch long acetate sampling tubes. Soil samples were collected at every ten-feet intervals or less using the sampler. At each sampling interval, the sampler was hydraulically driven into undisturbed soil until 24 inches of penetration was achieved. Upon advancement of the sampler to the full 24-inch length or refusal depth the sampler was extracted and brought to the surface. The sampling and drilling sequence was then repeated for the entire depth of each boring.

The sample sleeves were sealed with TeflonTM sheets, plastic caps, non-VOC tape, properly labeled, and placed in an ice-filled cooler pending delivery under Chain-of-Custody (COC) to a laboratory for potential chemical analysis. The soils in the remaining acetate tube were visually examined by WEECO field personnel who then classified the soils in accordance with the Unified Soil Classification System (USCS). A summary of the USCS classifications are presented in the boring logs included as Appendix A. The COC records and chemical analyses for the soil samples collected from the borings are presented in Appendix B, respectively.

4.2.3 Laboratory Testing Program

All soil samples collected during this investigation were delivered under COC to Chemtek Environmental Laboratories Inc (Chemtek) located at 13554 Larwin Circle, Santa Fe Springs, California. Chemtek is certified to perform hazardous waste testing by the State of California Environmental Laboratory Accreditation Program (ELAP), ELAP No. 1435.

All soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) for carbon chains by EPA Method 8015 (m) and Volatile Organic Compounds (VOCs) by EPA Method 8260B.

4.2.4 Equipment Cleaning Procedures/Containment of Materials

All sampling equipment and sampling tubes were decontaminated prior to each sampling by repeated washing using a brush and Liquinox solution, a tap water rinse, and finally a deionized water rinse. The sampler and sampling tubes were either air-dried or dried with a clean towel. Clean augers were used for each boring.

5.0 DISCUSSION OF RESULTS

5.1 SITE HYDROGEOLOGIC CONDITIONS

Based on soil borings advanced to assess the Site, subsurface soil generally consists of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs). The color of the soil ranged from brown to light brown; the consistency of the soil was moist. Groundwater was not encountered during drilling activities.

5.2 ANALYTICAL RESULTS

5.2.1 Soil Chemical

In accordance with the laboratory results, the highest concentration of MTBE were found a 0.001 mg/kg boring locations B2-10' and B3-30'. Other carbon chains and VOCs were not detected in any soil gas samples.

The results of carbon chain and Volatile Organic Compounds (VOCs) analyses are presented in Table 1.

5.3 SOIL SCREENING LEVELS

The laboratory analytical results were compared to the "Maximum Soil Screening Levels (MSSLs) for TPH, BTEX and MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996.

In accordance with the laboratory results, the highest concentration of MTBE were measured at 0.001 mg/kg boring locations B2-10' and B3-30', which are lower than the Maximum Soil Screening Levels (MSSLs) for MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996 of 0.013 mg/kg.

The measured concentrations were found to be extremely low and well within the maximum soil screening levels (MSSLs) limits of TPH and VOCs. These concentrations can be considered as clean, based on the State of California Water Resources Control Board "Maximum Soil Screening Levels for TPH and BTEX above Drinking Water Aquifers & Average Attenuation Factor for Different Distance above Groundwater and Lithology in the Distance for VOCs."

Although not confirmed during this preliminary site characterization, groundwater contamination beneath the subject site appears extremely unlikely.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The site assessment has led to the following conclusions, which are subject to the standard limitations discussed in Section 7.0:

- General lithologies consist of clay (surface to 10 feet bgs), sand (10 to 20 feet bgs), and clay (20 to 30 feet bgs).
- We did not encountered groundwater during our soil boring activity.
- In accordance with the laboratory results, the highest concentration of MTBE were measured at 0.001 mg/kg boring locations B2-10' and B3-30', which are lower than the Maximum Soil Screening Levels (MSSLs) for TPH, BTEX and MTBE above Drinking Water Aquifers as defined by the Los Angeles Regional Water Quality Control Board" in May 1996 of 0.013 mg/kg. The measured concentrations were found to be extremely low and well within the maximum soil screening levels (MSSLs) limits of TPH and VOCs. These concentrations can be considered as clean, based on the State of California Water Resources Control Board "Maximum Soil Screening Levels for TPH and BTEX above Drinking Water Aquifers & Average Attenuation Factor for Different Distance above Groundwater and Lithology in the Distance for VOCs."

6.2 Recommendations

Based on these analytical results, WEECO concludes that no further subsurface investigation is necessary at this time based on the conditions revealed by the four borings. WEECO does not recommend any further action regarding the soil contaminant concentrations based on the results of the four on-site borings.

7.0 STANDARD LIMITATIONS

WEECO has prepared this report for the exclusive use of *Divine Hotels Group Inc./Da-Yuh Development Inc.* as it pertains to the former service station site, located at 857 S. Westlake Avenue, Los Angeles, California. WEECO's investigation has been performed with the degree of skill generally exercised by practicing engineers and professional civil engineer in the environmental field. WEECO makes no other warranty, either expressed or implied, concerning the conclusions and professional advice, which is contained within the body of this report. Any use of or reliance on this report by a third party shall be at such a party's sole risk.

Inherent in most projects performed in a heterogeneous subsurface environment, excavation or continuing assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may alter with time; consequently, the findings presented herein are subject to change.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of WEECO to conduct appropriate notifications as specified by current county and state regulations.

WEECO can offer no assurances and assumes no responsibility for site conditions or activities that were outside the scope of the inquiry requested by *Divine Hotels Group Inc./Da-Yuh Development Inc.* as outlined in this document. It should be understood by *Divine Hotels Group Inc./Da-Yuh Development Inc.* that WEECO has relied on the accuracy of documents, oral information, and other material and information provided by *Divine Hotels Group Inc./Da-Yuh Development Inc.* and other associated parties. It is recognized that regulatory requirements may change, including the revision of accepted action levels, which could necessitate a review of the discussion, findings, recommendations or conclusions of this report. Any subsequent modification, revision or verification of this report must be provided in writing by WEECO.

TABLES

TABLE 1 Summary of Laboratory Results

(unit: mg/kg) Constituents **B1-10** B1-20 B1-30 **B2-10 B2-20 B2-30** TPH-GRO (C4-C12) < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2 TPH-DRO (C12-C22) <5 <5 <5 <5 < 5 < 5 TPH-HRO (C23-36) <10 <10 <10 <10 <10 <10 Benzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromochloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromodichloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromoform < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Bromomethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 n-Butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 sec-Butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 tert-butylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Carbon Tetrachloride < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloroform < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Chloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2-chlorotoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 4-chlorotoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2-chloroethyl vinyl ether < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dibromochloromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dibromo-3-chloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dibromoethane (EDB) < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dibromomethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1.2-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,3-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,4-Dichlorobenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Dichlorodifluoromethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1.1-Dichloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dichloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 cis-1,2-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 trans-1,2-Dichloroethene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,2-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,3-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 2,2-Dichloropropane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 cis-1,3-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 trans-1,3-Dichloropropene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Ethylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Hexachlorobutadiene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Isopropylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 4-isopropyltoluene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Methylene Chloride < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 Naphthalene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 n-propylbenzene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 Styrene < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 1,1,1,2-Tetrachloroethane < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001

Constituents	B1-10	B1-20	B1-30	B2-10	B2-20	B2-30
1,1,2,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene (PCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene (TCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl Chloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Xylenes	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ethanol	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Methyl Tert. Butyl Ether (MTBE)	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001
Ethyl tertiary butyl ether (ETBE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Di-isopropyl ether (DIPE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary amyl methyl ether (TAME)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tertiary butyl alcohol (TBA)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Butanone (MEK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone (MIBK)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

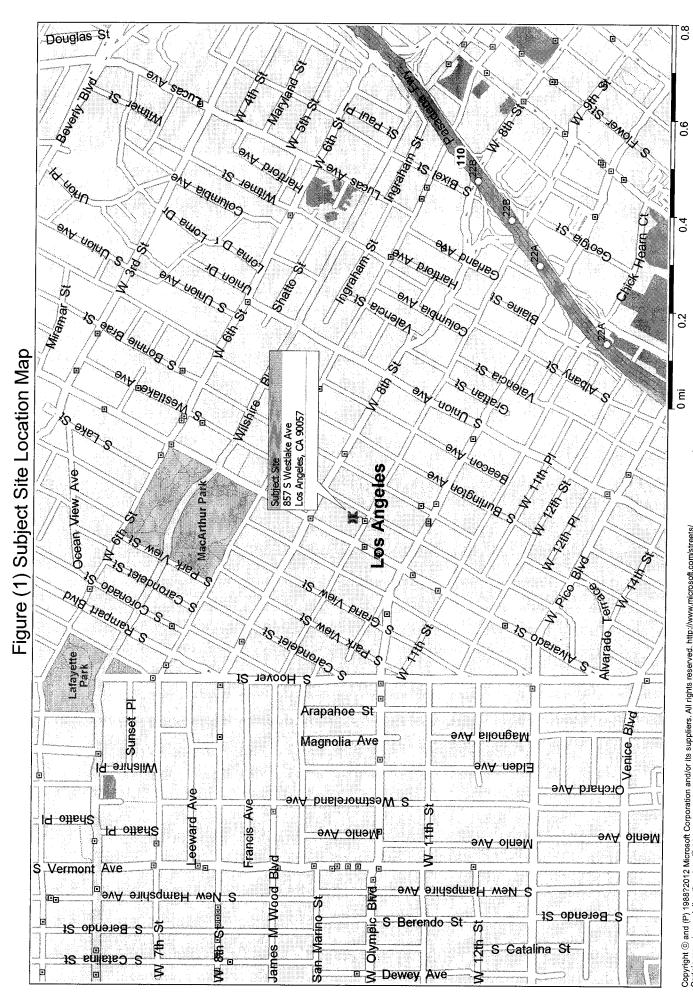
Constituents	B3-10	B3-20	B3-30	B4-10	B4-20	B4-30
TPH-GRO (C4-C12)	<0.2	< 0.2	<0.2	< 0.2	< 0.2	< 0.2
TPH-DRO (C12-C22)	<5	<5	<5	<5	<5	<5
TPH-HRO (C23-36)	<10	<10	<10	<10	<10	<10
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
n-Butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
sec-Butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
tert-butylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-chlorotoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
4-chlorotoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-chloroethyl vinyl ether	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001
Dibromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (EDB)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Constituents	B3-10	B3-20	B3-30	B4-10	B4-20	B4-30
1,3-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2,2-Dichloropropane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Hexachlorobutadiene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
4-isopropyltoluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methylene Chloride	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
n-propylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene (PCE)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichlorobenzene	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene (TCE)	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl Chloride	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethanol (TDE)	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Methyl Tert. Butyl Ether (MTBE)	<0.001	<0.001	0.001	<0.001	<0.001	< 0.001
Ethyl tertiary butyl ether (ETBE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Di-isopropyl ether (DIPE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tertiary amyl methyl ether (TAME)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tertiary butyl alcohol (TBA)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2-Butanone (MEK)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Methyl-2-pentanone (MIBK)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Hexanone	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01
Note: GRO = gasoline range organic (C4-C	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02

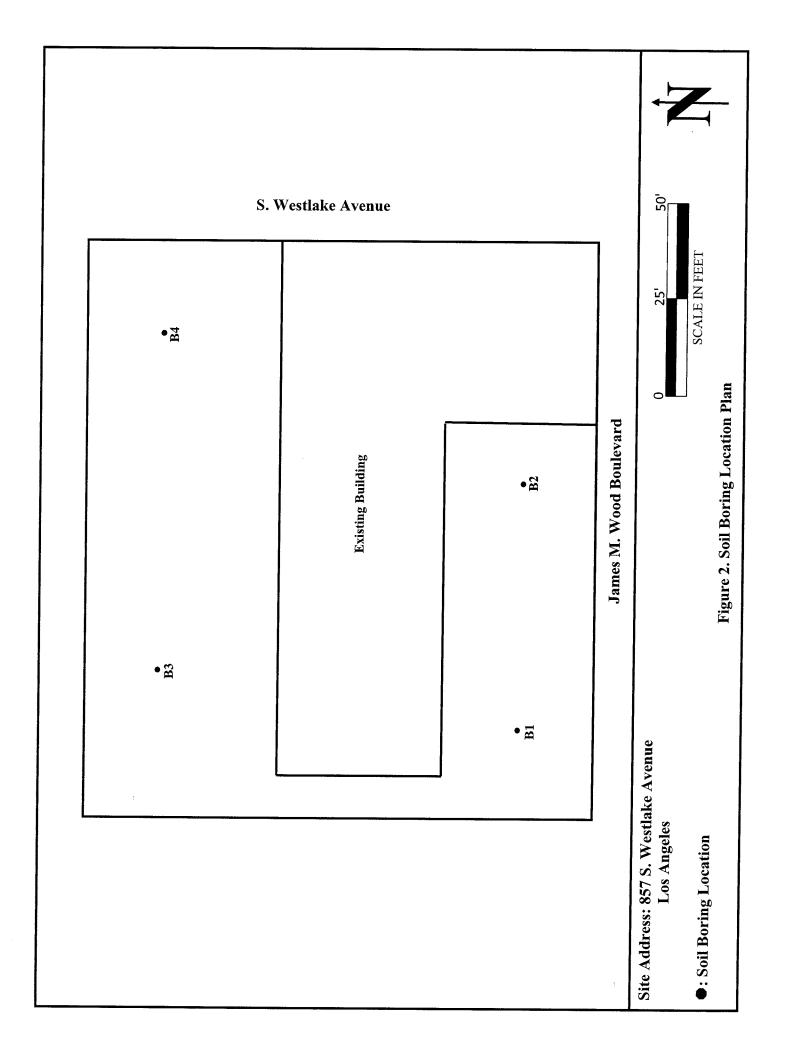
Note:

GRO = gasoline range organic (C4-C12) by EPA Method 8015M DRO = diesel range organic (C13-C22) by EPA Method 8015M HRO = heavy oil range organic (C23-C32) by EPA Method 8015M Other VOCs analyzed by EPA Methods 8260B

FIGURES



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APPENDIX A.

Boring Logs

]	LOG (OF BORI	ING		
Drill Ri	ig: 6600	Truck Mo	ounted	GeoProl	pe	Boring Dia	meter: 1.3/8	inches	Boring Number : B1	
Drilling 12/10/20)15	Logger: JY	Civil Engir	neer: SK	drilling. To changes in	he passage conditions.	of time or other	locations may	the time and place of y cause consequential	
BULK	TUBE	VAPO READI (ppm	NGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS		DESCRIPTION AND REMARKS	
								2" Asphal	t Paving	
						5				
	37			7.20	D: .	10	CI	27 10 FG		
	X			7:29	Direct Push	10	CL	plasticity,	F: Medium brown clay, low to medium moist.	
						15				
	X			7:39	Direct Push	20	CL	10 FT – 20 plasticity,	FT: Brown clay, low to medium moist.	<i>:</i>
						25				
	X .			7:55	Direct Push	30	CL	20 FT - 30 , moist.	FT: Brown clay, low to medium plastici	ıty
						35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.	
						40:				
WEE					al Engine	ers Co.	PROJECT N		se II Environmental Site	
		E. Wilsl anta Ana		•	ite #905) 92705			857 S. Wes	essment. tlake Avenue es, CA 90057	
							Project Numl			

					LOG (OF BOR	ING		
Drill R	ig: 6600	Truck M	ounted GeoPi	obe	Boring Dia	meter: 1.3/8	inches		Boring Number : B2
Drilling 12/10/2	015	Logger: JY	Registered Civil Engineer: Sk	drilling. T	a representa he passage conditions.	Tumber : B2			
BULK	TUBE	VAP READ (ppn	INGS	E BLOW COUNTS	DEPTH, FEET	USCS		DESCRIPTION AND F	REMARKS
							2" Asphal	t Paving	
					5				
	X		8:19	Direct Push	10	CL	2" – 10 F plasticity	Γ: Dark brown clay, low, moist.	to medium
					15				
	X		8:28	Direct Push	20	CL	10 FT – 20 plasticity,) FT: Medium brown cl moist.	ay, low to medium
					25				
	X		8:43	Direct Push	30	CL	20 FT - 30 , moist.	FT: Brown clay, low to	medium plasticity
					35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.	
7.					40				
WEE				ntal Engine	ers Co.	PROJECT N		se II Environmental	Site
			hire Ave. (S , California	,			857 S. Wes	essment. tlake Avenue es, CA 90057	
						Project Num			nber

				1	LOG (OF BORI	ING		
Drill R	ig: 6600	Truck M	ounted GeoP	obe	Boring Dia	nmeter: 1.3/8 i	inches		Boring Number : B3
Drilling 12/10/2		Logger: JY	Registered Civil Engineer: SI	drilling. Th	he passage	ation of subsurfac of time or other	e conditions at the locations may ca	e time and place of ause consequential	Number : B3
BULK	TUBE	VAP READ (ppn	OR TIM		DEPTH, FEET	USCS	DES	SCRIPTION AND R	EMARKS
	E						2" Asphalt Pa	ving	
					5				
	X		9:04	Direct Push	10	CL	2" – 10 FT: M plasticity, mo	Medium brown clay, in the state of the state	low to medium
					15				
	X		9:10	Direct Push	20	SP	10 FT – 20 FT	Γ:Light brown sand,	moist.
					25				
	X		9:23	Direct Push	30	CL	20 FT - 30 FT plasticity, mor	: Medium brown cla ist.	y, low to medium
					35		TD: 30 Feet Backfilled with 2" asphalt rep	h bentonite chips. aving.	
3					40				
WEE				ntal Engine	ers Co.	PROJECT N	AME: Phase I Assessn	I Environmental	Site_
			hire Ave. (S , California				857 S. Westlak Los Angeles, (ce Avenue	
****							per: 2015-5152		nber

					I	OG	OF BORI	NG				
Drill R	ig: 6600	Truck M	lounted	GeoProl	be 1	Boring Di	ameter: 1.3/8 i	nches		Boring Number : B4		
Drilling 12/10/2		Logger: JY	Regis Civil Engir		drilling. Th	is log is a representation of subsurface conditions at the time and place of lling. The passage of time or other locations may cause consequential linges in conditions.						
BULK	TUBE	VAF READ (ppr	INGS	TIME	BLOW COUNTS	DEPTH FEET	, USCS		DESCRIPTION AND R	EMARKS		
								2" Asphal	t Paving			
						5						
							-					
	X			9:43	Direct Push	10	CL	2" – 10 FT plasticity,	T: Medium brown clay, I moist.	low to medium		
						15						
	X			9:49	Direct Push	20	SP	10 FT – 20	FT:Light brown sand,	moist.		
						25						
	X			10.02	D :		GD.	00 PF 00				
	Λ			10:03	Direct Push	30	SP	20 F1 - 30	FT: Light brown sand, 1	moist.		
						35		TD: 30 Fee Backfilled 2" asphalt	with bentonite chips.			
						40				:		
WEE	CO <u>v</u>	Western	Envir	onment	al Enginee	rs Co.	PROJECT NA		se II Environmental	Site_		
		E. Wils anta Ana		`	ite #905) 92705		ADDRESS: 8	357 S. Wes				
							Project Numb		es, CA 90057 152 Figure Num	ıber		

APPENDIX B.

Chain of Custody Forms and Laboratory Certificates of Analysis

ELAP: 1435 LACSD: 10167 13554 Larwin Cir., Santa Fe Springs, CA 90670 T 562.926.9848 F 562.926.8324

Certificate of Analysis

Client: WEECO

Attention:

1815 E. Wilshire Ave #905 Santa Ana, CA Project No.

Project Site: 857 S. Westlake Ave

LA, CA 90057

Job No: 512052

Page 1

Report Date: 12/18/15 Date Received: 12/10/15

Number of Samples: 12 Sample Matrix: Soil

This is the Certificate of Analysis for the following samples:

SAMPLE IDENTIFICATION	DATE OF SAMPLE	LABORATORY IDENTIFICATION
B1-10	12/10/15	512052-01A
B1-20	12/10/15	512052-02A
B1-30	12/10/15	512052-03A
B2-10	12/10/15	512052-04A
B2-20	12/10/15	512052-05A
B2-30	12/10/15	512052-06A
B3-10	12/10/15	512052-07A
B3-20	12/10/15	512052-08A
B3-30	12/10/15	512052-09A
B4-10	12/10/15	512052-10A
B4-20	12/10/15	512052-11A
B4-30	12/10/15	512052-12A

Reviewed and Approved:

- car

Michael C.C. Lu

For Laboratory Director





1815 E. Wilshire Ave #905

Certificate of Analysis

Project No.

Project Site: 857 S. Westlake Ave

LA, CA 90057

Job No: 512052 Report Date: 12/18/15 Page 2

Date of Sample: 12/10/15
Date Received: 12/10/15

Sample Matrix: Soil

Santa Ana, CA EPA Method: 8260B

Client: WEECO

Attention:

Units: ppb or µg/kg

Client Sample I Dilution Factor		B1-20	B1-30	B2-10 1	B2-20	B2-30	B3-10	B3-20	B3-30	B4-10	
Difficult 4 dete	(ppb)	(ppb)	(ppb)	(dqq)	(dqq)	(dqq)	(dqq)	(dqq)	(ppb)	(ppb)	Limi (ppb
Benzene	ND	ND	ND	ND	ND	ND	ND	ND			(ppc
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	;
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	i
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	i
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND			•
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND				ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND ND	ND	ND ND	ND	ND	1
1.2-Dichlorobenzene	ND	ND	ND	ND ND	ND ND	ND ND	ND		ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND ND				ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND		ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND ND	ND ND	ND	ND	ND	ND	ND	1
· ·	ND	ND				ND	ND	ND	ND	ND	1
1,1-Dichloroethene cis-1,2 Dichloroethene	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	1
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane				ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-isopropyitoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	1	ND	ND	ND	ND	1	ND	1
ETBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	i
DIPE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
MEK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK 2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	10
z-nexanone Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50

DF: Dilution Factor





Santa Ana, CA

1815 E. Wilshire Ave #905

Certificate of Analysis

Project No.

Project Site: 857 S. Westlake Ave

Job No: 512052 Report Date: 12/18/15 Page 3

LA, CA 90057

Date of Sample: 12/10/15
Date Received: 12/10/15

Sample Matrix: Soil

EPA Method: 8260B Attention:

Client: WEECO

Units: ppb or µg/kg

011-16		bhn oi hi	
Client Samp Dilution Fa		B4-30	Detection Limit
10000	(dqq)	(ppb)	(ppb)
Benzene	ND	ND	1
Bromobenzene	ND	ND	1
Bromochloromethane	ND	ND	1
Bromoform Bromomethane	ND ND	ND ND	1
n-Butylbenzene	ND	ND	1
sec-Butylbenzene	ND	ND	1
tert-Butylbenzene	ND	ND	i
Carbon Tetrachloride	ND	ND	1
Chlorobenzene Chloroethane	ND ND	ND ND	1
Chloroform	ND	ND	1
Chloromethane	ND	ND	1
2-Chlorotoluene	ND	ND	1
4-Chlorotoluene	ND	ND	1
2-Chloroethyl vinyl ether Dibromochloromethane	ND ND	ND ND	2 1
1,2-Dibromo-3-chloropropane	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	i
Dibromomethane	ND	ND	1
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND ND	ND ND	1
1,4-Dichlorobenzene	ND	ND	1
Dichlorodifluoromethane	ND	ND	1
1,1-Dichloroethane	ND	ND	1
1,2-Dichloroethane	ND	ND	. 1
1,1-Dichloroethene cis-1,2 Dichloroethene	ND ND	ND ND	1
Trans-1,2-Dichloroethene	ND	ND	1
1,2-Dichloropropane	ND	ND	i
1,3-Dichloropropane	ND	ND	1
2,2-Dichloropropane	ND ND	ND	1
1,1-Dichloropropene Cis-1,3-Dichloropropene	ND ND	ND ND	1
trans-1,3-Dichloropropene	ND	ND	1
Ethylbenzene	ND	ND	i
Hexachlorobutadiene	ND	ND	1
isopropyibenzene 4-isopropyitoluene	ND ND	ND ND	1
Methylene Chloride	ND	ND	1 5
Naphthalene	ND	ND	1
n-propylbenzene	ND	ND	1
Styrene	ND	ND	1
1,1,1,2-Tetrachioroethane 1,1,2,2-Tetrachioroethane	ND ND	ND ND	1
Tetrachioroethene(PCE)	ND	ND	1
Toluene	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	1
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	ND ND	ND ND	1
1,1,2-Trichloroethane	ND	ND	1
Trichloroethene(TCE)	ND	ND	i
Trichlorofluoromethane	ND	ND	1
1,2,3-Trichloropropane	ND ND	ND ND	1
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	ND	ND	1 1
Vinyl Chloride	ND	ND	1
Total Xylenes	ND	ND	2
Ethanol	ND	ND	250
MTBE ETBE	ND ND	ND ND	1
DIPE	ND	ND	1 1
TAME	ND	ND	1
ТВА	ND	ND	20
MEK	ND ND	ND	10
MIBK 2-Hexanone	ND ND	ND ND	10 10
Acetone	ND	ND	50
	ate: 12/16/15		

Analysis Date: 12/16/15
ND: Not Detected Below (DF x Detection Limit)

12/16/15

DF: Dilution Factor



13554 Larwin Cir., Santa Fε Springs, CA 90670 Τ 562.926.9848

F 562.926.8324

Certificate of Analysis

Page 4

Client: WEECO

Project Site: 857 S. Westlake Ave LA, CA 90057

Project No:

EPA Method: 8015M

units: mg/kg or ppm

Job No: 512052

Report Date: 12/18/15

Date of Sample: 12/10/15

Date Received: 12/10/15

Sample Matrix: Soil

		Gas Range			Diesel Rang	ge		Oil Range			
Sample ID	UNITS	(C4-C12)	DF	DLR	(C13-C22)	DF	DLR	(C23-36)	DF	DLR	
B1-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B1-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B1-30	mg/kg	ND	1	0.2	- ND	1	5.0	ND	1	10	
B2-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B2-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B2-30	mg/kg	ND	1	0.2	ND 1	1	5.0	ND	1	10	
B3-10	mg/kg	ND.	1	0.2	ND	1	5.0	ND	1	10	
B3-20	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B3-30	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B4-10	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
B4-20	mg/kg	. ND	1	0.2	ND	1	5.0	ND	1	10	
B4-30	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	
Method Blank	mg/kg	ND	1	0.2	ND	1	5.0	ND	1	10	

12/10/15

12/14/15

12/10/15

ND : Not detected at or above DLR

Sample Date:

Analysis Date:

12/10/15

12/15/15

DLR: Detection Limit for Reporting Purposes



Certificate of Analysis

Page 5

QC Analysis Date: 12/16/15 QC Lab ID: 512052-11A Units: ppb		Job N	io: 512052
and specific and an experience of the second	QUALITY CONTROL DATA	A second of the second of	
	EPA METHOD: 8260B(VOC	'5)	

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
1,1-Dichloroethene	ND	25	93.2	97.8	4.8%	30	70-130
Benzene	ND	25	86.5	88.6	2.4%	30	70-130
Trichloroethylene	ND	25	82.0	85.6	4.3%	30	70-130
Toluene	ND	25	82.4	85.7	3.9%	30	70-130
Chlorobenzene	ND	25	73.8	76.6	3.7%	30	70-130

QC Analysis Date: 12/16/15 QC Lab ID: 512052-11A Units: ppm		ing Tanggan Tanggan Tanggan	
	QUALITY CONT EPA METHOD: 8260B (TPH		

			MS	MSD		70 NPU	% NEU
ANALYTE	BLANK RESULT	SPIKE CONC.	% REC	% REC	% RPD	ACCEPT LIMITS	ACCEPT LIMITS
GRO (TPH)	ND	0.5	86.3	91.8	% RPD	30	70-13

CHEMTEK Environmental Laboratories Inc.

CHAIN OF CUSTODY RECORD

13554 Larwin Circle, Santa Fe Springs, CA 90670

512052 Job No.:

) O

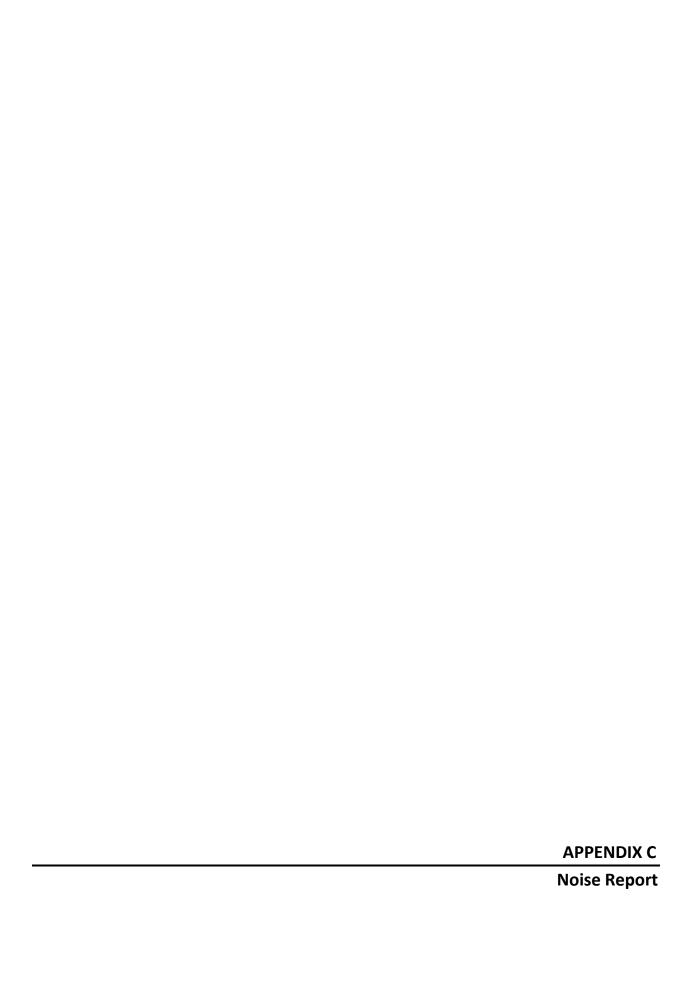
Page:

Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com

CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629)

					ANALYSIS REQUIRED	REQUIRE			
COMPANY NAME: W ZZ (0				RT					
PROJECT. JANES YES				OH:	Yłił				
ADDRESS: 1815 & W.15hin An # 9-F	Sut by Mrst	*****	and the respective section of the se	s (a	-	9.			
PHONE: . FAX:		TWO STREET, THE	77(SPANIKARIA MINI	daen oderation	30			
PROJECT INFORMATION		EURO PAS	atandemisio	Part Calonia de la	en and the second	'əp	Sį	e de la companya de l	
PROJECT NAME	P.O. No.	NOTICE (NOTES)	ninemage(gave	Western Charles	n hands are not rept	inp	eta	nice as to come	
SITE ADDRESS: 857 S. Werthale Am. L.	A. 14 9257	MATERIAL PROPERTY.	MANAGEMENT OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE P	i MOLTTONITANO	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	c۸	W A	1.661 casonia	**************************************
TAN EDF	Turn Around Time NOKM 24 hr 48 hr Other	FOLGREDISCH IN	SAULANDERS S	CTRACTORY)	ede Trafacciono	'əp	L V	Takin da kanada ka	
SAMPLED SAMPLED SAMPLED SAMPLED		108 108	CAR	λXO	он' (СОС	olfic	CAN	ntage cuscom representati	
		>	1	-	-	To the second se			
7,2%						+			
1-20/ 4		,							
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20, 10, 40, 40, 40, 40, 40, 40, 40, 40, 40, 4			<u> </u>						
8 32 20 11						\dagger			
9 R2 2c' " 4"2 "			\downarrow			-			
(1,0 11 0.11)			, - 						
24-20 11 15 62			· 十 十						
13						-			
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15									
91									
SIGNATURE A	PRINT NAME			COMPA	COMPANY NAME			DATE	TIME
RELINQUISHED BY:	Two Yes		Ϋ́	2 /2/X				P/. 114	ンゲト
RECEIVED BY:									
RELINQUISHED BY:									
RECEIVED FOR LABORATORY BY:	M + 1 1. 1.		3	Chwid				si/oi/U	70%
NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made.	ther arrangements are made.	Distribution	Distribution: WHITE with report / YELLOW to CHEMTEK / PINK to courier	report /	(ELLOW to	CHEMTE	K / PINK to	o courier	1 - 3

*Type: so-Soil GW-Ground Water WW-Waste Water AQ-Aqueous A-Air OT-Other



Draft

2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Noise and Vibration Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017



Draft

2005 W. JAMES M WOOD BLVD HOTEL PROJECT

Noise and Vibration Technical Report

Prepared for Tina Chen Infinitely Group, Inc. 1717 S. Vermont Avenue Los Angeles, CA 90006 February 2017

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Orlando Santa Monica
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Portland Woodland Hills

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EXECUTIVE SUMMARY

The purpose of this Noise and Vibration Technical Report is to assess and discuss the impacts of potential noise and vibration impacts that may occur with the implementation of the proposed 2005 James M Wood Boulevard Hotel Project located in the City of Los Angeles. The Project site is located on the northwest corner of the intersection of James M Wood Boulevard and Westlake Avenue. The Project would remove existing commercial/retail uses on the Project site and develop a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report).

The analysis describes the existing noise environment in the Project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. Noise worksheets and technical data used in this analysis are provided in the Appendices. The report summarizes the potential for the Project to conflict with applicable noise and vibration regulations, standards, and thresholds. The findings of the analyses are as follows:

Construction activities would potentially result in short-term and temporary noise impacts to
nearby noise-sensitive receptors due to on-site construction equipment and activities.
 Implementation of Mitigation Measure NOISE-1, listed below, would reduce this impact to
less than significant.

Mitigation Measure NOISE-1: The Project shall provide a temporary 15-foot tall construction noise barrier (i.e., wood, sound blanket) between the Project construction site and off-site noise sensitive uses along the entire north and east boundaries of the Project site, with a performance standard of achieving a 20 dBA noise level reduction along the north boundary and a 15 dBA noise level reduction along the east boundary. The temporary noise barriers shall be used during early Project construction phases (up through building framing) when the use of heavy equipment is prevalent. The Project shall also avoid locating or using stationary construction equipment near off-site noise sensitive uses.

- Operation of the Project would generate noise from Project-related traffic or from on-site sources (parking structure, loading dock area, refuse collection area, mechanical equipment) that would not exceed the significance thresholds and operational noise impacts would be less than significant.
- Construction of the Project would general sporadic, temporary vibration effects adjacent to the Project area, but would not be expected to exceed the significance thresholds. Thus, construction vibration impacts would be less than significant.

- Project operation would not generate excessive vibration levels at nearby sensitive receptor locations. Thus, long-term vibration impacts would be less than significant.
- Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual project and compliance with locally adopted and enforced noise ordinances. As construction activities would be required to comply with the City's allowable hours as described above and would be temporary, construction-related noise would result in a less than significant cumulative noise impact.
- Noise associated with cumulative operational sources would be less than the significance threshold. Therefore, Project operations would result in a less than significant cumulative noise impact.
- Due to the rapid attenuation characteristics of ground-borne vibration and distance of the cumulative projects to the Project site, there is no potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration. Therefore, impacts would be less than significant.

1.0

Introduction

1.1 Project Description

The Project Applicant proposes to redevelop an approximately 20,256 net square foot (22,500 gross square foot) parcel located at 2005 James M Wood Boulevard in the City of Los Angeles with a hotel use ("the Project"). The location of the Project site and nearby vicinity is shown in **Figure 1**, *Regional and Vicinity Location Map*.

The Project would consist of a hotel use with 100 hotel rooms (a hotel with up to 110 hotel rooms is analyzed in this Technical Report) consisting of studio units and suites, and hotel amenities including meeting rooms, kitchen and breakfast area, lobby and reception area, office space, and a luggage room. Vehicle loading would occur in an enclosed area on the ground floor. The refuse collection area would be located in an enclosed area on the ground floor on the northeast end of the building. The proposed building would be six floors totaling approximately 60,631 square feet with two basement levels totally approximately 37,020 square feet. The floor-to-area ratio would be 2.99 (60,631 square feet / 20,256 net square feet = 2.99). The Project would provide 100 parking spaces in an enclosed structure on the ground floor and basement levels, which would exceed the City of Los Angeles parking requirement. Short-term and long-term bicycle parking would also be provided. The Project site plan is shown in **Figure 2**, *Project Site Plans*.

1.2 Existing Site Uses

The Project site is developed with approximately 8,228 square feet of commercial/retail uses and surface parking areas. The Project would remove existing commercial/retail uses on the Project site and the existing surface parking areas.

Figure 1 Regional and Vicinity Location Map

Figure 2 Project Site Plan

Regulatory and Environmental Setting

2.1 Noise and Vibration Fundamentals

2.1.1 Noise

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility of sound is subjective and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The A-weighted sound level (dBA) de-emphasizes low frequencies to which human hearing is less sensitive and focuses on mid- to high-range frequencies. The range of human hearing is approximately 3 to 140 dBA, with 110 dBA considered intolerable or painful to the human ear. Another commonly used scale is the Cweighted sound level (dBC), which includes low-frequency noise. In a non-controlled environment, a change in sound level of 3 dB is considered "just perceptible," a change in sound level of 5 dB is considered "clearly noticeable," and a change in 10 dB is perceived as a doubling of sound volume (Bies & Hansen 1988). A comparison of types of commonly experienced environmental noise is provided in **Figure 3**, Common Noise Levels.

Although the A-weighted scale accounts for the range of people's response, and is therefore commonly used to quantify individual event or general community sound levels, the degree of annoyance or other response effects also depends on several other factors. These factors include:

- Ambient (background) sound level;
- Magnitude of sound event with respect to the background noise level;
- Duration of the sound event;
- Number of event occurrences and their repetitiveness; and
- Time of day that the event occurs.

Figure 3 Common Noise Levels

In an outdoor environment, sound levels attenuate with distance. Such attenuation is called "distance loss" or "geometric spreading" and is influenced by the noise source configuration (i.e., point source or line source). For a point source, such as stationary equipment, the rate of sound attenuation is usually 6 dB per doubling of distance from the noise source at urban, acoustically "hard" sites, or highly acoustically reflective settings that preserve sound energy (water, asphalt, and concrete). Within such environments, a sound level of 50 dBA at a distance of 25 feet from the noise source would attenuate to 44 dBA at a distance of 50 feet. The equation presented below (FHWA 2011).

$$NR_P = 20 \log (d2 / d1)$$
 (**Equation 1**)

Where: NR_P = noise reduction for point source.

d1= distance from sound source at one location.

d2 = distance from sound source at a different location.

For a line source within an acoustically hard environment, such as a roadway with a constant flow of traffic, the rate of sound attenuation is 3 dB per doubling of distance. The equation presented below (FHWA 2011; Caltrans 2013).

$$NR_L = 10 \log (d2 / d1)$$
 (**Equation 2**)

Where: NR_L = noise reduction for line source.

d1= distance from sound source at one location.

d2 = distance from sound source at a different location.

In addition, structures (e.g., buildings and solid walls) and natural topography (e.g., hills) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the "shadow" of the obstruction, such as behind a sound wall. This type of sound attenuation is known as "barrier insertion loss." If a receptor is located behind the wall but still has a view of the source (i.e., line-of-sight not fully blocked), some barrier insertion loss would still occur, but to a lesser extent. A receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and receiver) up to 20 dBA with a more substantial barrier (Caltrans 2013a).

Community noise levels usually change continuously during the day. The equivalent sound level (L_{eq}) is normally used to describe community noise. The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. For intermittent noise sources, the maximum noise level (L_{max}) is normally used to represent the maximum noise level measured during the measurement. Maximum and minimum noise levels, as compared to the L_{eq} , are a function of the

characteristics of the noise source. As an example, sources such as generators have maximum and minimum noise levels that are similar to L_{eq} since noise levels for steady-state noise sources do not substantially fluctuate. However, as another example, vehicular noise levels along local roadways result in substantially different minimum and maximum noise levels when compared to the L_{eq} since noise levels fluctuate during pass-by events. The City of Los Angeles Noise Ordinance typically uses the L_{eq} metric for the evaluation of noise levels.

To assess noise levels over a given 24-hour time period, the Community Noise Equivalent Level (CNEL) descriptor is used in land use planning. CNEL is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels that occur at night (10:00 P.M. to 7:00 A.M.) and a 5 dBA adjustment (upward) added to the sound levels that occur in the evening (7:00 P.M. to 10:00 P.M.). A similar metric, the Day-Night Noise Level (L_{dn}), is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels that occur at night (10:00 P.M. to 7:00 A.M.); L_{dn} does not include the evening adjustment. In practice, the CNEL and L_{dn} metrics are often used interchangeably and typically differ by only 1 dBA or less. The noise adjustments, or "penalties," account for increased human sensitivity to noise during the quieter nighttime periods when sleep is the most probable human activity. The CNEL metric has been adopted by the State of California to define the community noise environment for development of a community noise element of a General Plan and is also used by the City of Los Angeles for land use planning in the City's Noise Element of the General Plan.

Sound Transmission Class (STC) is an integer rating of how well a building partition attenuates airborne sound. In the United States, it is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating figure very roughly reflects the decibel reduction in noise that a partition can provide.

2.1.2 Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration. (FTA 2006) Vibration amplitudes are usually described in terms of peak levels, as in peak particle velocity (PPV). The peak level represents the maximum instantaneous peak of the vibration signal. In addition, vibrations can be measured in the vertical, horizontal longitudinal, or horizontal transverse directions. Ground vibrations are most often greatest, and can damage buildings, when they propagate in the vertical direction (Caltrans 2002, pg. 4). Therefore, the analysis of ground-borne vibration associated with the Project was evaluated in the vertical direction. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances from the source (i.e., 50 feet or less). The vibration attenuation equation is presented below (FTA 2006).

 $PPV_{equip} = PPV_{ref} (25 / D)^{n}$ (Equation 3)

Where: PPV_{ref} = reference source vibration

D = distance

n = factor for soil attenuation (default value is 1.5).

2.2 Regulatory Setting

2.2.1 Federal

Noise Control Act

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, the USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor Ldn of 55 dBA and an indoor Ldn of 45 dBA (USEPA 1974). These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project.

Occupational Safety and Health Act

Under the Occupational Safety and Health Act of 1970 (29 U.S.C. §1910 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. Feasible administrative or engineering controls or personal protective equipment is required for employees subjected to sound exceeding those listed in § 1910.95. For an 8-hour duration per day, the sound level is 90 dBA. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

2.2.2 State

California Noise Standards

The State of California does not have statewide standards for environmental noise, but the California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land

use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be "clearly unacceptable." In addition, California Government Code Section 65302(f) requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Division of Occupational Health and Safety

The California Division of Occupational Health and Safety (CalOSHA) provides guidelines to ensure people employed in the State of California are not exposed to noise levels greater than 85 dBA. An employer would be required to administer a continuing effective hearing conservation program whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level of 85 dBA (referred to as the "action level"), or equivalently, a dose of 50 percent. The following procedures shall be implemented as part of the hearing conservation program when the action level is exceeded: personal or area noise monitoring, implementation of an audiometric testing program, an evaluation of an audiogram, audiometric test requirements, and audiometric calibration. Furthermore, if the action level is exceeded, the employer shall institute a training program for all employees who are exposed to noise at or above an 8-hour time-weighted average of 85 dBA, and shall ensure employee participation in the program. The training program shall be repeated annually for each employee included in the hearing conservation program, and information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes.

California Vibration Standards

There are no state vibration standards. Moreover, according to the California Department of Transportation's (Caltrans) *Transportation and Construction Vibration Guidance Manual*, there are no official Caltrans standards for vibration. However, this Caltrans manual provides guidance that can be used as screening tools for assessing the potential for adverse vibration effects related to structural damage and human perception (Caltrans 2013b). The manual is meant to provide

practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects.

2.2.3 Local

In California, local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans, and noise ordinances set forth the specific standards and procedures for addressing particular noise sources and activities. General plans recognize that different types of land uses have different sensitivities toward their noise environment; residential areas are considered to be the most sensitive type of land use to noise and industrial/commercial areas are considered to be the least sensitive.

City of Los Angeles General Plan Noise Element

The overall purpose of the City of Los Angeles Noise Element of the General Plan is to protect citizens from the harmful and annoying effects of exposure to excessive noise. City of Los Angeles Noise Element policies that relate to the proposed Project include the following:

- Policy 2.2—Enforce and/or implement applicable city, state and federal regulations intended
 to mitigate proposed noise producing activities, reduce intrusive noise, and alleviate noise
 that is deemed a public nuisance.
- Policy 3.1—Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

Los Angeles Municipal Code

The City's Noise Regulation is provided in Chapter XI of the Los Angeles Municipal Code (LAMC). Section 111.02 of the LAMC provides procedures and criteria for the measurement of the sound level of "offending" noise sources. In accordance with the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. To account for people's increased tolerance for short-duration noise events, the Noise Regulation provides a 5 dBA allowance for noise occurring more than five but less than fifteen minutes in any one-hour period and an additional 5 dBA allowance (total of 10 dBA) for noise occurring five minutes or less in any one-hour period.

The LAMC indicates that in cases where the actual ambient conditions are not known, the City's presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) minimum ambient noise levels as defined in Section 111.02 of the LAMC should be used. The presumed ambient noise levels for these areas as set forth in the LAMC Sections 111.02 and 112.05 are provided in **Table 1**, *City of Los Angeles Presumed Ambient Noise Levels*. For residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime. Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied

property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than five (5) decibels.

Section 112.05 of the LAMC sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is required where "technically feasible." Chapter VI, Section 41.40 of the LAMC prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 A.M. to 9:00 P.M.; and Saturdays and National Holidays between 8:00 A.M. to 6:00 P.M.). In general, the City's Department of Building and Safety enforces noise ordinance provisions relative to equipment and the Los Angeles Police Department enforces provisions relative to noise generated by people.

TABLE 1
CITY OF LOS ANGELES PRESUMED AMBIENT NOISE LEVELS

Zone	Daytime Hours (7 A.M. to 10 P.M.) dBA (L _{eq})	Nighttime Hours (10 P.M. to 7 A.M.) dBA (L_{eq})
Residential	50	40
Commercial	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

Source: LAMC. Section 111.03.

Section 113.01 of LAMC prohibits collecting or disposing of rubbish or garbage, to operate any refuse disposal truck, or to collect, load, pick up, transfer, unload, dump, discard, or dispose of any rubbish or garbage, as such terms are defined in Section 66.00 of LAMC, within 200 feet of any residential building between the hours of 9:00 P.M. and 6:00 A.M. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

Guidelines for Noise-Compatible Land Uses

The City has adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the *City of L.A. CEQA Thresholds Guide* in terms of the CNEL (City of L.A. 2006). CNEL guidelines for specific land uses are classified into four categories: (1) "normally acceptable," (2) "conditionally acceptable," (3) "normally unacceptable," and (4) "clearly unacceptable." As shown in **Table 2**, *City of Los Angeles Land Use Compatibility for Community Noise*, a CNEL value of 70 dBA is the upper limit of what is considered a "conditionally acceptable" noise environment for hotel uses, although the upper limit of what is considered "normally acceptable"

for hotel uses is set at 65 dBA CNEL. New development should generally be discouraged within the "normally unacceptable" or "clearly unacceptable" categories. However, if new development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

TABLE 2
CITY OF LOS ANGELES LAND USE COMPATIBILITY FOR COMMUNITY NOISE

	Community Noise Exposure CNEL (dBA)			
Land Use	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	_	50 to 70	_	Above 65
Sports Arena, Outdoor Spectator Sports	_	50 to 75	_	Above 70
Playgrounds, Neighborhood Parks	50 to 70	_	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	_	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	_
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	_

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.

Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: City of L.A. CEQA Thresholds Guide, 2006.

2.3 Environmental Setting

2.3.1 Noise Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure and the types of activities typically involved at the receptor location. The City of Los Angeles CEQA Thresholds Guide states that residences, schools, motels and hotels, libraries, religious institutions, hospitals, nursing homes, and parks are generally more sensitive to noise

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

than commercial and industrial land uses. The nearest existing noise sensitive uses in close proximity to the Project site include the following:

- Multi-Family Residential Dwellings: A two-story multi-family residential building is located adjacent to the Project site property to the north. Two- and three story multi-family residential buildings are located further to the north (approximately 80 feet and greater from the Project site) and to the east across Westlake Avenue (approximately 60 feet and greater from the Project site). Residential uses are also located to the south of James M Wood Boulevard (approximately 180 feet and greater from the Project site), but are located further away from the Project site and generally have intervening commercial uses on the south side of James M Wood Boulevard that would mask, shield, or partially shield noise from the Project site.
- Religious Facility: A Christian fellowship land use is located on Westlake Avenue to the east of the Project site (approximately 60 feet from the Project site) with a building setback of approximately 40 to 50 feet from Westlake Avenue (for a total of approximately 100 to 110 feet between the Project site and the building).

All other noise-sensitive uses are located at greater distances from the Project site and would experience lower noise levels associated with the Project. Therefore additional sensitive receptors beyond those identified above are not required to be evaluated.

2.3.2 Vibration Sensitive Receptors

Typically, ground-borne vibration generated by man-made activities (i.e., rail and roadway traffic, mechanical equipment and typical construction equipment) diminishes rapidly as the distance from the source of the vibration become greater. The Federal Transportation Association (FTA) uses a screening distance of 100 feet for high vibration sensitive buildings (e.g., hospital with vibration sensitive equipment) and 50 feet for residential uses (FTA 2006). When vibration sensitive uses are located within those distances from a project site, vibration impact analysis is required. With respect to structures, vibration-sensitive receptors generally include historic buildings with construction susceptible to damage, buildings in poor structural condition, and uses that require precision instruments (e.g., hospital operating rooms or scientific research laboratories). The residential uses located adjacent to the north of the Project site would be within the screening distance (less than 50 feet) with the potential for perceptible vibration due to short-term Project construction and long-term Project operations. Therefore, vibration impacts will be quantified and evaluated for the nearby residential uses.

2.3.3 Ambient Noise Levels

The predominant existing noise source surrounding the Project site is traffic noise from James M Wood Boulevard to the south of the Project site, Westlake Avenue to the east of the Project site, and from Alvarado Street to the west of the Project site. Secondary noise sources include general commercial and residential-related activities, such as heating, ventilation, and air conditioning (HVAC) units, periodic landscape maintenance, residential and commercial delivery trucks, and refuse service activities.

Ambient noise measurements were conducted at three locations, representing the nearby land uses in the vicinity of the Project site to establish the ambient noise levels. The measurement locations along with surrounding land uses are shown on **Figure 4**, *Noise Measurement Locations*. Short-term (15-minute) measurements were conducted at locations R1, R2, and R3. Ambient sound measurements were conducted on Wednesday, February 15, 2017, to characterize the existing noise environment in the Project vicinity. Ambient noise monitoring printouts are provided in **Appendix A** of this Technical Report.

The ambient noise measurements were conducted using the Larson-Davis Sound Track LxT1 Sound Level Meter (SLM). The Larson-Davis LxT1 is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade, at the following locations as shown in **Figure 4**:

- Measurement Location R1: This location represents the existing noise environment of the Project vicinity along James M Wood Boulevard. The SLM was placed on the southern boundary of the Project site along James M Wood Boulevard.
- Measurement Location R2: This location represents the existing noise environment of the
 Project vicinity along Westlake Avenue, and is considered representative of the noise
 environment of the existing off-site multi-family residential uses to the north of the Project
 site and on the east side of Westlake Avenue as well as the religious facility to the east of the
 Project site. The SLM was placed on the eastern boundary of the Project site along Westlake
 Avenue.
- Measurement Location R3: This location represents the existing noise environment of the Project vicinity north of James M Wood Boulevard and east of Alvarado Street, and is considered representative of the existing off-site multi-family residential uses to the north and east of the Project site. The SLM was placed on the western boundary of the Project site adjacent to a commercial land use.

A summary of noise measurement data is provided in **Table 3**, *Summary of Ambient Noise Measurements*. As shown in **Table 3**, the existing ambient noise level in the vicinity of the Project site currently exceed the City's presumed ambient noise levels for residential areas of 50 dBA during the measurement period. The ambient noise levels in the immediate Project vicinity are representative of an urban area with a mix of commercial uses.

Figure 4 Noise Measurement Locations

TABLE 3
SUMMARY OF AMBIENT NOISE MEASUREMENTS

	Measured Ambient Noise Levels (dBA, $L_{\rm eq}$)		
Location, Duration, Existing Land Uses, and Date of Measurements	Equivalent Noise Level, L_{eq}	Maximum Noise Level, L_{max}	Minimum Noise Level, L _{min}
R1 Wednesday 2/15/17 (10:40 a.m. to 10:55 a.m.)	67.2	87.4	51.0
R2 Wednesday 2/15/17 (10:57 a.m. to 11:12 a.m.)	63.2	82.2	51.8
R3 Wednesday 2/15/17 (11:13 a.m. to 11:28 a.m.)	61.0	76.5	52.4

SOURCE: ESA 2017.

To further characterize the Project area's ambient noise environment, the noise levels attributed to existing traffic on local roadways were calculated using a noise prediction model which was developed based on calculation methodologies provided in the California Department of Transportation (Caltrans) Technical Noise Supplement (TeNS) document and traffic data provided in the Project traffic impact analysis prepared by Linscott, Law & Greenspan Engineers (LLG) for the Project (LLG 2017). This methodology, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

A traffic model calibration test was performed to establish the noise prediction model's accuracy. The road segments included in the calibration test were along James M Wood Boulevard, between Alvarado Street and Westlake Avenue, and along Westlake Avenue, between James M Wood Boulevard and 8th Street. At the locations identified above (R1 and R2), a 15-minute noise recording was made concurrent with logging of actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in **Table 4**, *Traffic Noise Model Validation Results*. As indicated, the noise model results are within 2 dBA of the measured noise levels, which is within the industry standard tolerance of the noise prediction model. Therefore, the Project-specific traffic noise prediction model is considered accurate and reflective of the Project's physical setting.

TABLE 4
TRAFFIC NOISE MODEL VALIDATION RESULTS

Measurement Location	Measured Noise Level (dBA, L_{eq})	Calculated Noise Level (dBA, L _{eq})	Net Difference (dBA, L _{eq})
R1	67.2	68.1	0.9
R2	63.2	61.6 ^a	1.6

R2 is located on Westlake Avenue and had very few vehicles during the short-term measurement time resulting in a calculated value of 51.5 dBA L_{eq} (based solely on the relatively few vehicles on Westlake Avenue during the measurement time). However, R2 is located approximately 125 feet north of James M Wood Boulevard. Therefore, the calculated noise level at R2, taking into account the higher traffic noise level from James M Wood Boulevard (R1) is expected to result in a calculated value of approximately 61.6 dBA, L_{eq}.

SOURCE: ESA 2017.

Because the monitoring data validates the use of a project-specific traffic noise prediction model, the ambient noise environment of the Project vicinity can be characterized by the levels attributable to existing traffic on local roadways. As indicated in **Table 3** and **Table 4**, the off-site multi-family residential uses at location R2 and R3 are within the "normally acceptable" community noise category (refer to **Table 2**), which is an exterior noise level of up to 65 dBA for multi-family homes. As indicated in **Table 3** and **Table 4**, the off-site religious facility at location R2 is within the "normally acceptable" community noise category (refer to **Table 2**), which is an exterior noise level of up to 70 dBA for churches.

Environmental Impacts

3.1 Significance Thresholds

Appendix G of the State CEQA Guidelines provides a set of screening questions that address impacts with regard to noise and vibration. These questions are as follows:

Would a project result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Impact Threshold NOISE-1);
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (Impact Threshold NOISE-2);
- c. A substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project (Impact Threshold NOISE-3);
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (Impact Threshold NOISE-4);
- 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
- 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

The Project is not located within an airport land use plan and is not located within two miles of a public airport or public use airport or within the vicinity of a private airstrip, as discussed in items "e" and "f" above. As such, the Project would result in no impacts to these screening criteria and no further analyses of these topics are necessary.

With respect to items "a" through "d" above, the quantitative thresholds described below are used to evaluate the potential for the Project to result in noise and vibration impacts.

3.1.1 Construction

Noise and Vibration Technical Report

The City of L.A. CEQA Thresholds Guide defines the following significance thresholds for construction activities lasting more than 10 days in a three month period or occurring during the

hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or anytime on Sunday:

- On-site Project construction activities cause the exterior ambient noise level to increase by 5 dBA or more at a noise-sensitive use, as measured at the property line of any sensitive use (evaluated under Impact Thresholds NOISE-1 and NOISE-4).
- Off-site Project construction traffic causes the exterior ambient noise level to increase by 5 dBA CNEL or more at a noise-sensitive use, as measured at the property line of any sensitive use (evaluated under Impact Thresholds NOISE-1 and NOISE-4).

3.1.2 Operation

Operational noise impacts are evaluated for Project-related off-site roadway traffic noise impacts and on-site stationary source noise from on-site activities and equipment.

- The Project would cause any ambient noise levels to increase by 5 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally acceptable" or "conditionally acceptable" (see **Table 2** for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally unacceptable" or "clearly unacceptable" (evaluated under Impact Thresholds NOISE-1 and NOISE-3).
- Project-related operational (i.e., non-roadway) noise sources such as outdoor activities, building mechanical/electrical equipment, etc., increase ambient noise level by 5 dBA, causing a violation of the City Noise Ordinance (evaluated under Impact Thresholds NOISE-1 and NOISE-3).
- The maximum noise level (L_{max}) generated from the operation of the loading dock, refuse collection area, or parking structure (i.e., car alarm) exceeds the average (L_{eq}) ambient noise level by 10 dBA (evaluated under Impact Thresholds NOISE-1 and NOISE-3).

3.1.3 Ground-Borne Vibration

The City of Los Angeles has not adopted a significance threshold to assess vibration impacts during construction. Thus, the Caltrans *Transportation and Construction Vibration Guidance Manual* is used as screening tools to assess the potential for adverse vibration effects related to structural damage and human perception (Caltrans 2013b).

- Potential Building Damage Project construction activities cause ground-borne vibration levels to exceed 0.5-inch-per second PPV at the nearest off-site residential buildings (evaluated under Impact Threshold NOISE-2).
- Potential Human Annoyance Project construction and operation activities cause groundborne vibration levels to exceed 0.035-inch-per-second PPV at nearby residential uses (evaluated under Impact Threshold NOISE-2).

3.2 Methodology

The evaluation of potential noise and vibration impacts that may result from the construction and long-term operation of the Project is conducted as follows.

3.2.1 Construction Noise

On-Site Construction Noise

On-site construction noise impacts were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise levels at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors. More, specifically, the following steps were undertaken to assess construction-period noise impacts.

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see **Table 3**, above)
- Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model;
- Distances between construction site locations (noise sources) and surrounding sensitive receptors were estimated using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth);
- The construction noise level was then estimated, in terms of hourly L_{eq}, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance; and
- Construction noise levels were then compared to the construction noise significance thresholds.

Off-Site Roadway Construction Noise

Roadway noise impacts were evaluated using the Caltrans TeNS method based on the roadway traffic volume data provided in the traffic impact analysis prepared by LLG for the Project (LLG 2017). This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was quantified and compared to baseline noise levels that would occur under the "Without Project" condition.

3.2.2 Operational Noise

Off-Site Roadway Traffic Noise

Similar to off-site roadway construction noise, roadway traffic noise impacts were evaluated using the Caltrans TeNS method based on the roadway traffic volume data provided in the traffic impact analysis prepared by LLG for the Project (LLG 2017). This method allows for the

definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was quantified and compared to baseline noise levels that would occur under the "Without Project" condition.

Stationary Point-Source Noise

Stationary point-source noise impacts were evaluated by identifying the noise levels generated by outdoor stationary noise sources, such as rooftop mechanical equipment and loading area activity, estimating the hourly L_{eq} noise level from each noise source at sensitive receptors, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 3);
- Distances between stationary noise sources and surrounding sensitive receptor locations were estimated using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth);
- Stationary-source noise levels were then estimated for each sensitive receptor location based
 on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of
 distance and incorporating noise attenuating features and design standards such as outdoor
 mechanical equipment enclosures or noise mufflers; and
- Noise level increases were compared to the stationary source noise significance thresholds.

3.2.3 Groundborne Vibration

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, estimating the distance between vibration sources and surrounding structure locations and vibration sensitive receptors using Project architectural drawings, Project site plans, and aerial imagery (e.g., Google Earth), and making a significance determination based on the significance thresholds.

3.2.4 Project Characteristics

The Project would replace the existing retail uses on the site with a new hotel use. As a result sound levels could increase on the Project site and in the vicinity due to activity associated with occupants, visitors, consumers, and the operation of mechanical equipment and automobiles. Applicable regulations with which the Project must comply that would minimize Project-related noise sources include the following:

• Chapter VI, Section 41.40 of the LAMC limits construction hours for exterior construction and hauling activities to between the hours of 7:00 A.M. and 9:00 P.M., Monday through Friday, and 8:00 A.M. and 6:00 P.M. on Saturday.

All building outdoor mounted mechanical and electrical equipment would be designed to
meet the requirements of LAMC, Chapter XI, Section 112.02, which limits the noise output
from such equipment to no more than a five decibel increase over the ambient noise level.

3.2.5 Project Design Features

In addition to compliance with regulatory requirements, contractors are expected to implement industry-wide best management practices to ensure equipment are operating in accordance with industry standards. The analysis of construction noise incorporates—and the analysis assumes implementation of—the following industry-wide best management practice, referred to as a Project Design Feature (PDF) that would minimize construction-related noise and vibration levels:

PDF-NOISE-1: Equipment Noise Control: The Project contractor(s) shall equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards and specifications.

3.3 Project Impacts

Impact Threshold NOISE-1: A significant impact would occur if the Project would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Statement: Noise from on-site construction equipment and activities would potentially increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds and would result in a potentially significant impact. Implementation of Mitigation Measure NOISE-1 would reduce this impact to less than significant. Noise from off-site construction truck trips would not be expected to increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds and this impact would be less than significant. Operational noise impacts from Project-related traffic would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds and this impact would be less than significant. Operational noise from the on-site Project parking structure, loading dock area, refuse collection area, and mechanical equipment would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds and this impact would be less than significant.

On-Site Construction Noise

Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction of the Project would involve the following phases of activity: (1) demolition; (2) site preparation; (3) grading and excavation; (4) building construction and architectural coatings; and (5) paving. Each phase involves the use of different types of construction equipment and, therefore, has its own distinct noise characteristics. Demolition would typically include equipment such as a concrete saw, dozer, and

tractors/loaders/backhoes. Site preparation would typically include equipment such as a dozer and tractors/loaders/backhoes. Grading and excavation would typically include equipment such as an excavator, tractors/loaders/backhoes, dozer, and drill rig. An estimate of up to approximately 16,500 cubic yards of earth would be excavated for the two basement levels beneath the hotel. Building construction and architectural coatings would typically include equipment such as a crane, forklift, generator set, tractor/loader/backhoe, and air compressor. Paving would typically include equipment such as a paver, roller, and mixer. The Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required. Project construction could begin as early as mid-2017 with completion anticipated in 2018.

As would be the case for construction of most land use development projects, construction of the proposed Project would require the use of heavy-duty equipment with the potential to generate audible noise above the ambient background noise level. Even with implementation of PDF NOISE-1, individual pieces of construction equipment anticipated during Project construction could produce maximum noise levels of 75 dBA to 90 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 5**, *Construction Equipment Noise Levels*. These maximum noise levels would occur when equipment is operating under full power conditions. The estimated usage factor for the equipment is also shown in **Table 5**. The usage factors are based on the FHWA Roadway Construction Noise Model User's Guide (FHWA 2006). To more accurately characterize construction-period noise levels, the average (Hourly L_{eq}) noise level associated with each construction phase is estimated based on the quantity, type, and usage factors for each type of equipment used during each construction phase and are typically attributable to multiple pieces of equipment operating simultaneously.

TABLE 5
CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Estimated Usage Factor (%)	Reference Noise Level at 50 feet (dBA, L_{max})
Air Compressor	50%	78
Bore/Drill Rig	20%	79
Cement and Mortar Mixer	40%	79
Concrete Saw	20%	90
Crane	40%	81
Dozer	40%	82
Excavator	40%	81
Forklift	10%	75
Generator Set	50%	81
Paver	50%	77
Paving Equipment	20%	90
Roller	20%	80
Tractor / Loader / Backhoe	25%	80

SOURCE: FHWA 2006; and ESA 2017.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity).

Over the course of a construction day, the highest noise levels would be generated when multiple pieces of construction equipment are operated concurrently. The Project's estimated construction noise levels were calculated for a scenario in which a reasonably number of construction equipment was assumed to be operating simultaneously, given the physical size of the site and logistical limitations, and with the noisiest equipment located at the construction area nearest to the affected receptors to present a conservative impact analysis. This is considered a considered a worst-case evaluation because the Project would typically use fewer overall equipment simultaneously at any given time, and as such would likely generate lower noise levels than reported herein. The estimated noise levels at the off-site sensitive receptors were calculated using the FHWA's Roadway Construction Noise Model. **Table 6**, *Estimated Construction Noise levels* (L_{eq}) at Existing Off-Site Sensitive Receptor Locations, shows the estimated construction noise levels that would occur at the nearest off-site sensitive uses during a peak day of construction activity at the Project Site. Detailed noise calculations for construction activities are provided in **Appendix B** of this Technical Report.

Table 6
Estimated Construction Noise Levels (L_{EQ}) at Off-Site Sensitive Receiver Locations

Offsite Sensitive Receptor Location	Location	Distance from Closest Edge of Construction Activity to Noise Receptor (ft.) ^a	Estimated Maximum Construction Noise Levels (dBA L _{eq})	Significance Threshold ^b	Exceed Significance Threshold?
R1	Multi-family residential uses south of the Project site across James M Wood Boulevard	180	72	72	No
R2	Multi-family residential uses and religious facility to the west of the Project site across Westlake Avenue	60	79	68	Yes
R3	Multi-family residential uses adjacent to the north of the Project site	25	85	66	Yes

The distance represents the nearest construction area on the Project site to the property line of the offsite receptor.

SOURCE: ESA 2017.

As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Mitigation measures are therefore prescribed to reduce construction noise impacts to these sensitive noise receptors.

The significance threshold is the daytime ambient equivalent noise levels (L_{eq}) as shown in **Table 3** plus 5 dBA.

Off-Site Construction Noise

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. Trucks traveling to and from the Project site would be required to travel along a haul route approved by the City of Los Angeles. Approximately 10 haul truck trips per hour would occur during a workday. Haul truck traffic would take the most direct route to the appropriate freeway ramp.

Noise associated with construction truck trips were estimated using the Caltrans TeNS method based on the maximum number of truck trips in a day. The noise calculation worksheets for construction truck trips are provided in **Appendix B** of this Technical Report. The results of the analysis indicate that the Project truck trips would generate noise levels of approximately 59 dBA, measured at a distance of 25 feet along James M Wood Boulevard. As shown in **Table 3**, the existing noise level along James M Wood Boulevard is approximately 67 dBA. Construction traffic noise levels generated by truck trips would increase traffic noise levels along James M Wood Boulevard by up to approximately 68 dBA (59 dBA + 67 dBA = 68 dBA). The noise level increases by truck trips would be below the significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

Operational Off-Site Roadway Traffic Noise

Existing roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). Roadway noise attributable to Project development was calculated using the Caltrans TeNS methodology previously described and was compared to baseline noise levels that would occur under the "Without Project" condition.

Project impacts are shown in **Table 7**, *Operational Off-Site Traffic Noise – Existing Conditions*. As shown in **Table 7**, there would be no increase in Project-related traffic noise levels over existing traffic noise levels. This increase in sound level would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. The increase in noise levels would be lower at the remaining roadway segments analyzed. As a result, the Project-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 7
OPERATIONAL OFF-SITE TRAFFIC NOISE – EXISTING CONDITIONS

Calculated Traffic Noise Levels Measured at 25 Feet from the Roadway (dBA, Peak Hour $L_{\rm eq}$; Equivalent to CNEL)

Roadway Segment	Existing (A)	Existing with Project (B)	Project Increment (B-A)	Exceed Threshold?
James M Wood				
Between Hoover Street and Alvarado Street	68.4	68.5	0.1	No
Between Alvarado Street and Union Avenue	68.7	68.7	0.0	No
Hoover Street				
Between James M Wood Boulevard and Olympic Boulevard	71.8	71.8	0.0	No
Alvarado Street				
Between Olympic Boulevard and James M Wood Boulevard	71.7	71.7	0.0	No
Between James M Wood Boulevard and 8th Street	71.6	71.6	0.0	No
Between 8th Street and 7th Street	71.6	71.6	0.0	No

SOURCE: ESA 2017.

Operational Parking Structure Noise

Vehicle access to structured parking on the Project site would be accommodated via an entrance driveway on the existing alley from James M Wood Boulevard. Parking stalls would be located in the interior of the building and in subterranean floors and would be screened from public view and shielded from surrounding off-site development by the Project building itself. Automobile movements within parking structures represent the most continuous noise source and can in certain circumstances generate noise levels with the potential to adversely impact adjacent land uses. However, due to the slow speeds of the vehicles in the garage, and because views of the parking levels would be visually screened (enclosed) by the Project building, blocking the line of sight between the noise source and sensitive receptors, parking-related noise would be shielded and would not increase the ambient noise levels at the nearest off-site future sensitive receptor locations. As such, parking structure noise would not increase the exterior noise level above the City's thresholds of significant and impacts would be less than significant and no mitigation would be required.

Operational Loading Dock Area Noise

Loading dock activities such as truck movements/idling and loading/unloading operations generate noise levels that have the potential to adversely impact adjacent land uses during long-term Project operations. The Project's loading area would be located in the interior of the building and would be screened from public view and shielded from surrounding off-site development by the Project building itself. Therefore, operational loading dock area noise would not increase exterior ambient noise levels and would not exceed the City's thresholds of significance. Impacts would be less than significant.

Operational Refuse Collection Area Noise

The Project's refuse and recycling collection bins would be stored in a dedicated area at the southwest portion of the Project Site. This area would be fully enclosed by permanent walls and access doors. In addition, collecting or disposing of rubbish or garbage would not occur between the hours of 9:00 p.m. and 6:00 a.m. of the following day to comply with Section 113.01 of the LAMC. Therefore, operational refuse collection area noise would not increase exterior ambient noise levels and would not exceed the City's thresholds of significance. Impacts would be less than significant.

Operational Fixed Mechanical Equipment Noise

The operation of mechanical equipment typically installed for developments like the Project, such as HVAC systems and related equipment, may generate audible noise levels. Project mechanical equipment including air conditioning condensers would be installed on the building rooftop, with other equipment contained within the building. The Project's HVAC units would either be minisplit systems or conventional system mounted on the roof and screened from view. As stated in Section 3.2.4, Project Characteristics, all Project mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02, which prohibits the noise from such equipment from causing an increase in the ambient noise level of more than 5 dB. Therefore, operation of mechanical equipment on the Project building would not exceed the City's thresholds of significance and impacts would be less than significant.

Composite Noise Level Impacts from Project Operations

An evaluation of the combined noise levels from the Project's various operational noise sources (i.e., composite noise level) was conducted to conservatively ascertain the potential maximum Project-related noise level increase that may occur at the noise-sensitive receptors considered in this analysis. Noise sources associated with the Project include traffic on nearby roadways, the parking structure, the loading dock and refuse collection areas, and on-site mechanical equipment.

As discussed above, the Project would generate an increase in traffic-related noise that would be substantially below the "clearly noticeable" increase of 5.0 dBA and also well below a "just perceptible" increase of 3.0 dBA. Furthermore, the parking structure and loading dock and refuse collection areas would be located in the interior of the building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase would not exceed the City's thresholds of significance and impacts would be less than significant.

Mitigation Measure

Construction-related noise has the potential to result in a significant noise impact at sensitive receptor locations to the north and east of the Project site. Thus, the following mitigation measure is prescribed to minimize construction-related noise impacts.

Mitigation Measure NOISE-1: The Project shall provide a temporary 15-foot tall construction noise barrier (i.e., wood, sound blanket) between the Project construction site and off-site noise sensitive uses along the entire north and east boundaries of the Project site, with a performance standard of achieving a 20 dBA noise level reduction along the north boundary and a 15 dBA noise level reduction along the east boundary. The temporary noise barriers shall be used during early Project construction phases (up through building framing) when the use of heavy equipment is prevalent. The Project shall also avoid locating or using stationary construction equipment near off-site noise sensitive uses.

Mitigation Measure NOISE-1 provides for noise barriers that would achieve a noise reduction of up to 20 dBA along the north boundary and 15 dBA along the east boundary between Project construction and off-site receptor locations north and east of the Project site. The noise reduction provided by the noise barrier would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, construction noise impacts would be mitigated to less than significant.

Impact Threshold NOISE-2: A significant impact would occur if the Project would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Impact Statement: Construction equipment and activities would not be expected to result in vibration levels at off-site vibration sensitive receptors in excess of the structural or human annoyance significance thresholds. Construction-related vibration impacts would be less than significant. Operational equipment and activities would not be expected to result in vibration levels at off-site vibration sensitive receptors in excess of the structural or human annoyance significance thresholds. Operational-related vibration impacts would be less than significant.

Structural Vibration Impacts

Construction machinery and operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible

vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibration from construction activities rarely reaches the levels that damage structures. The FTA has published standard vibration velocities, in terms of PPV, for construction equipment operations. The typical vibration PPV levels for construction equipment pieces anticipated to be used during Project construction are listed in **Table 8**, *Typical Vibration Velocities for Potential Project Construction Equipment*.

TABLE 8
TYPICAL VIBRATION VELOCITIES FOR POTENTIAL PROJECT CONSTRUCTION EQUIPMENT

	Reference Vibration Source Levels, PPV (inch/second)			
Equipment	25 feet	50 feet	100 feet	200 feet
Large bulldozer	0.089	0.031	0.011	0.004
Loaded trucks	0.076	0.027	0.010	0.003
Small bulldozer	0.003	0.001	0.0004	0.0001

SOURCE: USDOT Federal Transit Administration 2006.

With regard to the proposed Project, ground-borne vibration would be generated primarily during site clearing and grading activities and by off-site haul-truck traveling on surface streets. Ground-borne vibration impacts are confined to short distances (i.e., 50 feet or less) from the vibration source and decrease rapidly with distance. As indicated in **Table 8**, vibration velocities from the operation of construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the equipment. As indicated in **Table 8**, the vibration velocity of 0.089 inches per second PPV at a distance of 25 feet from construction equipment would be reduced to 0.031 inches per second PPV at 50 feet distance and reduced to 0.011 inches per second PPV at 100 feet distance.

The nearest off-site residential building is located to the north of the Project site. The existing building on the Project site is located approximately 50 feet away from the nearest off-site residential building. Therefore, bulldozers and loaded trucks would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of 0.5 inches per second PPV. Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

The Project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which could produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the parking structure area. Ground-borne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold of 0.5 inches per second PPV for structural damage. As such, operational vibration impacts associated with operation of the Project would be

below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

Human Annoyance Vibration Impacts

As discussed in the preceding section, construction of the Project would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of 0.035 inches per second PPV. Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

Ground-borne vibration generated by commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold of 0.035 inches per second PPV for perceptibility. As such, operational vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

Impact Threshold NOISE-3: A significant impact would occur if the Project would result in a substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project.

Impact Statement: Operational noise impacts from Project-related traffic would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds. Operational noise from the on-site Project parking structure, loading dock area, refuse collection area, and mechanical equipment would not be expected to increase noise levels at off-site noise-sensitive receptors in excess of the significance thresholds. Therefore, the Project would not be expected to result in a substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project and impacts would be less than significant.

As discussed under Impact Threshold NOISE-1, existing roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). As shown in **Table 7**, the maximum increase in Project-related traffic noise levels over existing traffic noise levels would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. As a result, the Project-related traffic noise increases would be less than the threshold.

In addition, as discussed under Impact Threshold NOISE-1, operational noise from the Project's parking structure, loading dock, and refuse collection areas would be located in the interior of the

building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase from on-site noise sources would not exceed the City's thresholds of significance.

Based on the results of the analysis, the Project would not be expected to result in a substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project and impacts would be less than significant and mitigation measures would not be required.

Impact Threshold NOISE-4: A significant impact would occur if the Project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Statement: Short-term and temporary noise from on-site construction equipment and activities would potentially increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds. Short-term and temporary noise from off-site construction truck trips would not be expected to increase noise levels at off-site noise-sensitive receptors in the Project vicinity in excess of the significance thresholds. Short-term and temporary noise from on-site construction equipment and activities could result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. This impact would be potentially significant. Implementation of Mitigation Measure NOISE-1 would reduce this impact to less than significant.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity).

As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Implementation of **Mitigation Measure NOISE-1** would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, the short-term and temporary construction noise impact from on-site equipment and activities would be mitigated to less than significant.

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. Trucks traveling to and from the Project site would be required to travel along a haul route approved by the City of Los Angeles. As discussed under Impact Threshold NOISE-1, the noise level increases by truck trips would be below the

significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

3.4 Cumulative Impacts

3.4.1 Construction Noise

Noise from construction of the Project plus related projects would be localized, thereby potentially affecting areas immediately within 500 feet from each projects' construction site. Due to distance attenuation (more than 500 feet away) and intervening structures, construction noise from one site would not result in a noticeable increase in noise at sensitive receptors near another site, precluding a cumulative noise impact. In addition, all related projects would be required to implement noise mitigation measures as required by the California Environmental Quality Act (CEQA), if necessary to reduce significant impacts. Therefore, the Project's contribution to cumulative construction noise impacts would not be expected to be cumulatively considerable. As such, cumulative impacts would be less than significant.

3.4.2 Operational Noise

The Project site and surrounding area would generate noise that may contribute to cumulative noise from a number of community noise sources including vehicle travel, mechanical equipment (e.g., HVAC systems), and other noise typical of an urban environment. Due to City's provisions that limit on-site stationary-source mechanical equipment noise such as outdoor air-conditioning equipment, noise levels would be less than significant at the property line for each related project. As the Project's stationary-source impacts would be less than significant, stationary-source noise impacts attributable to cumulative development would also be less than significant.

However, the proposed Project and other developments in the Project area could produce traffic volumes that are capable of generating a roadway noise impacts. Cumulative noise impacts due to roadway traffic have been assessed based on the difference between noise generated by existing traffic volumes and traffic volumes projected under "Future With Project" conditions, based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). The traffic noise levels are provided in **Table 9**, *Operational Off-Site Traffic Noise – Future Conditions*. As indicated in **Table 9**, there would be no cumulative noise increase from the Project on future noise conditions. This increase in sound level would be attributed to other related projects and not to the proposed Project and would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. The increase in noise levels would be lower at the remaining roadway segments analyzed. As a result, the Project-related cumulative noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 9
OPERATIONAL OFF-SITE TRAFFIC NOISE – FUTURE CONDITIONS

Calculated Traffic Noise Levels Measured at 25 Feet from the Roadway (dBA, Peak Hour $L_{\rm eq}$; Equivalent to CNEL)

Roadway Segment	Existing (A)	Future with Project (B)	Cumulative Increment (B-A)	Exceed Threshold?
James M Wood				
Between Hoover Street and Alvarado Street	68.4	69.6	1.2	No
Between Alvarado Street and Union Avenue	68.7	69.8	1.1	No
Hoover Street				
Between James M Wood Boulevard and Olympic Boulevard	71.8	72.5	0.7	No
Alvarado Street				
Between Olympic Boulevard and James M Wood Boulevard	71.7	72.7	1.0	No
Between James M Wood Boulevard and 8th Street	71.6	72.8	1.2	No
Between 8th Street and 7th Street	71.6	72.7	1.1	No

SOURCE: ESA 2017.

3.4.3 Groundborne Vibration

Due to the rapid attenuation characteristics of ground-borne vibration and distance of the cumulative projects to the Project site, there is no potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration. Therefore, impacts would be less than significant.

4.0

Summary of Results

The Project would replace the existing retail uses on the site with a new hotel use. As a result sound levels could increase on the Project site and in the vicinity due to activity associated with occupants, visitors, consumers, and the operation of mechanical equipment and automobiles. The following is a summary of the Project's construction and operational noise impacts.

4.1 Construction Noise

As would be the case for construction of most land use development projects, construction of the proposed Project would require the use of heavy-duty equipment with the potential to generate audible noise above the ambient background noise level. Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction of the Project must comply with applicable regulations that would minimize Project-related noise sources. These regulations include Chapter VI, Section 41.40 of the LAMC (permissible construction hours) and Chapter XI, Section 112.02 of the LAMC (noise limits for all building outdoor mounted mechanical and electrical equipment). In addition, contractors are expected to implement industry-wide best management practices to ensure equipment are operating in accordance with industry standards, which includes equipping all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards and specifications.

During Project construction, the nearest and most affected off-site noise sensitive receptors that would be exposed to increased noise levels would be the existing residential uses located in proximity to the Project site as well as the noise sensitive religious facility (refer to Section 2.3.2, Noise Sensitive Receptors, for a description of the noise sensitive uses in the Project vicinity). As shown in **Table 6**, the Project would have a potentially significant short-term and temporary construction noise impact on residential uses located to the north and east of the Project site and the religious facility to the east of the Project site. Implementation of **Mitigation Measure NOISE-1** would reduce construction-related noise to less than the significance threshold at the off-site sensitive uses. Thus, the short-term and temporary construction noise impact from on-site equipment and activities would be mitigated to less than significant.

Construction of the Project would require haul and vendor truck trips to and from the site to export soil and delivery supplies to the site. The noise level increases by truck trips would be below the significance threshold of 5 dBA. Therefore, off-site construction traffic noise impacts would be less than significant and no mitigation measures would be required.

4.2 Operational Noise

The Project would generate operational noise from Project-related vehicle travel, mechanical equipment (e.g., HVAC systems), the on-site parking structure, loading dock area, and refuse collection area. Roadway noise levels were calculated along arterial segments in the Project site vicinity based on traffic data provided in the Project traffic impact analysis prepared by LLG for the Project (LLG 2017). As shown in **Table 7**, the increase in traffic noise level would be well below a "clearly noticeable" increase of 5.0 dBA in areas characterized by "normally acceptable" noise levels, and also well below a "just perceptible" increase of 3.0 dBA in areas characterized as "conditionally acceptable" noise levels. As a result, the Project's traffic-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

The Project's parking structure and loading dock and refuse collection areas would be located in the interior of the building and acoustically shielded by the Project building itself. Operational mechanical equipment would be required to be designed with appropriate noise control devices, such as sound attenuators, acoustic louvers, or sound screens/parapet walls to comply with noise limitation requirements provided in LAMC, Chapter XI, Section 112.02. As a result, the Project's combined operational noise increase from on-site noise sources would not exceed the City's thresholds of significance and impacts would be less than significant.

4.3 Groundborne Vibration

Construction machinery and operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. With regard to the proposed Project, ground-borne vibration would be generated primarily during site clearing and grading activities and by off-site haul-truck traveling on surface streets. Ground-borne vibration impacts are confined to short distances (i.e., 50 feet or less) from the vibration source and decrease rapidly with distance.

The nearest off-site residential building is located to the north of the Project site. The existing building on the Project site is located approximately 50 feet away from the nearest off-site residential building. Therefore, bulldozers and loaded trucks would be expected to generate vibration levels of approximately 0.031 inches per second PPV or less and would not generate vibration levels in excess of the significance threshold for structural damage (0.5 inches per second PPV) or the significance threshold for human annoyance (0.035 inches per second PPV). Therefore, construction vibration impacts would be less than significant and mitigation measures would not be required.

The Project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which could produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the parking structure area. Ground-borne vibration generated

by each of the above-mentioned activities would generate approximately up to 0.005 inches per second PPV adjacent to the Project site based on FTA data (FTA 2006). The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold for structural damage (0.5 inches per second PPV) or the significance threshold for human annoyance (0.035 inches per second PPV). As such, operational vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be less than significant and mitigation measures would not be required.

5.0

References

- Bies & Hansen, 1988. Bies, D.A. and C.H. Hansen, Engineering Noise Control, (1988).
- California Department of Transportation (Caltrans), (2002). Transportation Related Earthborne Vibrations, (2002). Available: http://www.dot.ca.gov/hq/env/noise/pub/TRANSPORTATION_RELATED_EARTHBOR NE_VIBRATIONS.pdf. Accessed February 2017.
- Caltrans, 2013a. Technical Noise Supplement (TeNS) to the Traffic Noise Analysis Protocol, (2013). Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf. Accessed February 2017.
- Caltrans, 2013b. Transportation and Construction Vibration Guidance Manual, (2013). Available: http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf. Accessed February 2017.
- City of Los Angeles (City of L.A.), 2006. City of L.A. CEQA Thresholds Guide, Section I.2, (2006).
- Federal Highway Administration (FHWA), 2006. Roadway Construction Noise Model RCNM and User Guide, (2006). Available: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/. Accessed February 2017.
- FHWA, 2011. Highway Traffic Noise, Measurement of Highway-Related Noise, (2011). Available: https://www.fhwa.dot.gov/Environment/noise/measurement/mhrn02.cfm. Accessed February 2017.
- Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment, (2006). Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual .pdf. Accessed February 2017.
- Linscott, Law & Greenspan Engineers (LLG), 2017. Traffic Impact Study, 2005 James M Wood Blvd Hotel Project, (2017).
- United States Environmental Protection Agency (USEPA), 1974. EPA Identifies Noise Levels Affecting Health and Welfare (April 1974). Available: https://archive.epa.gov/epa/aboutepa/epa-identifies-noise-levels-affecting-health-and-welfare.html. Accessed February 2017.







TRAFFIC IMPACT STUDY

2005 JAMES M. WOOD BOULEVARD HOTEL PROJECT

City of Los Angeles, California February 17, 2017

Prepared for:

Infinitely Group, Inc. 611 South Westlake Avenue Los Angeles, California 90057

LLG Ref. 5-17-0316-1

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APPENDIX

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TRAFFIC IMPACT STUDY

2005 James M. Wood Boulevard Hotel Project

City of Los Angeles, California February 17, 2017

1.0 Introduction

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts generated by the proposed hotel project (the "Project") located at 2005 James M. Wood Boulevard in the Westlake area of the City of Los Angeles. The Project proposes the construction of a hotel that will provide up to 100 guestrooms. The proposed Project site is located at the northwest corner of the Westlake Avenue and James M. Wood Boulevard intersection. The Project site location and general vicinity are shown in *Figure 1–1*.

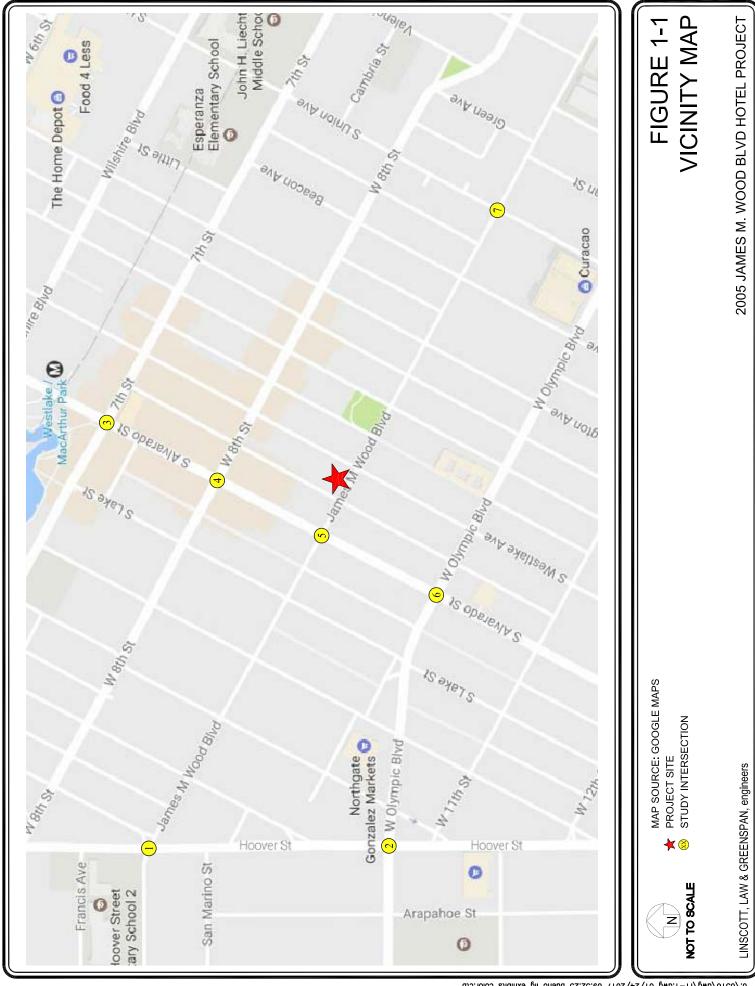
The traffic analysis follows City of Los Angeles traffic study guidelines¹ and is consistent with traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program². This traffic analysis evaluates potential Project-related impacts at seven key intersections in the vicinity of the Project site. The study intersections were determined in consultation with City of Los Angeles Department of Transportation (LADOT) staff. The Critical Movement Analysis method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for all seven study intersections. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the Project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast net new traffic volumes from the Project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the Project, (vi) determines future forecast with Project-related impacts, and (vii) recommends mitigation measures, where necessary.

-

¹ Traffic Study Policies and Procedures, City of Los Angeles Department of Transportation, August 2014.

² 2010 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, 2010.



1.1 Study Area

Upon coordination with LADOT staff, seven study intersections have been identified for evaluation. All of the intersections were analyzed during both the weekday morning and afternoon peak hours. The seven study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided in Section 3.0.

The general location of the Project in relation to the study locations and surrounding street system is presented in $Figure\ 1-1$. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

- a. Immediately adjacent or in close proximity to the Project site;
- b. In the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and
- c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, the proposed Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The site of the Project is located at 2005 James M. Wood Boulevard and is within the Westlake Community Plan Area of the City of Los Angeles, California. The Project site is located at the northwest corner of the Westlake Avenue and James M. Wood Boulevard intersection. The Project site location and general vicinity are shown in *Figure 1–1*.

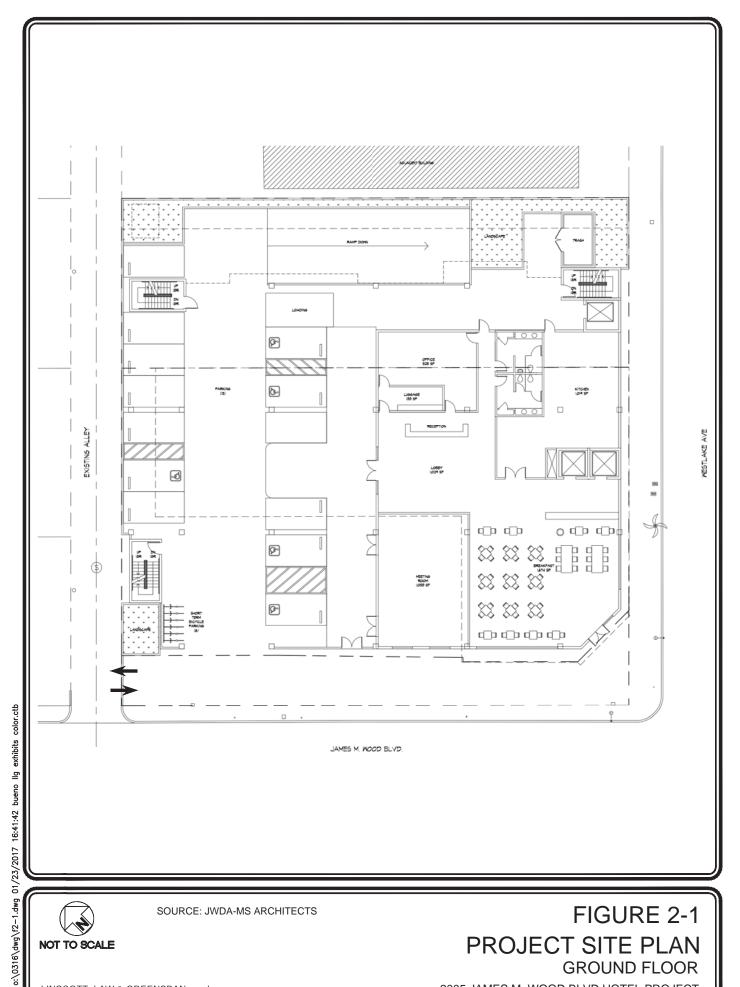
2.2 Existing Project Site

The existing Project site is currently occupied by retail space. The building area of the retail space is 8,228 square feet. Vehicular access to the existing Project site is provided via two driveways located off James M. Wood Boulevard and Westlake Avenue. Additionally, vehicular access is provided via the existing north-south alley located along the property's westerly frontage.

2.3 Proposed Project Description

The Project applicant proposes to construct a hotel that will provide up to 100 guestrooms. Parking for the Project will be provided on-site within a subterranean parking garage. A small number of at-grade parking will also be provided. Construction and occupancy of the Project is planned to be completed by the year 2019. The site plan for the Project is illustrated in *Figure* 2–1.

Vehicular access to the site will be provided via the existing north-south alley. Further discussion of the Project site access and circulation schemes is provided in Section 3.0.





SOURCE: JWDA-MS ARCHITECTS

FIGURE 2-1 PROJECT SITE PLAN **GROUND FLOOR**

2005 JAMES M. WOOD BLVD HOTEL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the Project is displayed in *Figure 2–1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the existing site is provided via one driveway located off the north side of James M. Wood Boulevard and one driveway located off the west side of Westlake Avenue. Additionally, vehicular access is available via the existing alley that is adjacent to the property's westerly frontage.

3.2 Vehicular Project Site Access

Vehicular access to the Project site will be provided via the north-south alley located along the Project site's westerly frontage. The north-south alley will provide access to both the ground floor parking and loading area, as well as the subterranean parking levels of the on-site parking garage.

The north-south alley intersects 8th Street to the north and James M. Wood Boulevard to the south. Traffic movements at the alley intersections with 8th Street and James M. Wood Boulevard are assumed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project site is provided by the I-10 (Santa Monica) Freeway, US-101 (Hollywood) Freeway, and I-110 (Pasadena/Harbor) Freeway. Brief descriptions of the I-10, US-101, and I-110 Freeways are provided in the following paragraphs.

I-10 (Santa Monica) Freeway is an east-west freeway connecting the City of Santa Monica with the City of Los Angeles and the municipalities of the San Gabriel Valley and San Bernardino County to the east. In the Project vicinity, three to four mixed-flow freeway lanes are generally provided in each direction on the I-10 Freeway with auxiliary merge/weave lanes provided between some interchanges. Eastbound and westbound ramps are provided at Hoover Street on the I-10 Freeway in the Project area.

US-101 (Hollywood) Freeway is a north-south freeway that extends across northern and southern California. In the Project vicinity, four mixed-flow freeway lanes are provided in each direction on the US-101 Freeway. Northbound and southbound ramps are provided at Alvarado Street on the US-101 Freeway in the Project area.

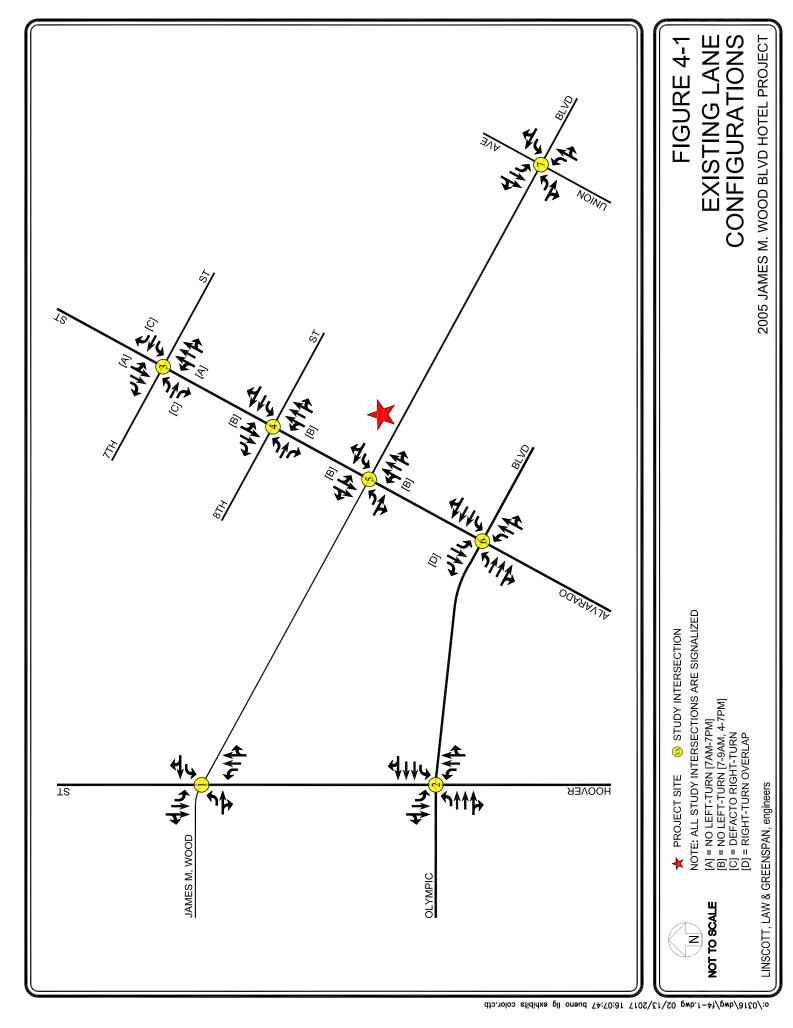
I-110 (Pasadena/Harbor) Freeway is a north-south oriented freeway connecting the San Gabriel area to the north with the San Pedro area to the south. In the Project vicinity, three to four mixed-flow freeway lanes are generally provided in each direction on the I-110 Freeway with auxiliary merge/weave lanes provided between some interchanges. Northbound and southbound ramps are provided at 8th Street on the I-110 Freeway in the Project area.

4.2 Local Roadway System

Immediate access to the Project site is provided via James M. Wood Boulevard and the existing north-south alley. The following study intersections were selected in consultation with LADOT staff for analysis of potential impacts due to the Project:

- 1. Hoover Street / James M. Wood Boulevard
- 2. Hoover Street / Olympic Boulevard
- 3. Alvarado Street / 7th Street
- 4. Alvarado Street / 8th Street
- 5. Alvarado Street / James M. Wood Boulevard
- 6. Alvarado Street / Olympic Boulevard
- 7. Union Avenue / James M. Wood Boulevard

All seven study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in *Figure 4–1*.



4.3 Roadway Descriptions

A brief description³ of the important roadways in the Project vicinity is provided in the following paragraphs.

Hoover Street is a north-south oriented roadway located west of the Project Site. Within the Project study area, Hoover Street is designated as a Major Highway Class II/Avenue II north of Alvarado Street and as a Major Highway Class II/Boulevard II south of Alvarado Street by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Hoover Street in the Project study area. Separate exclusive left-turn lanes are provided on Hoover Street at major intersections. Hoover Street is posted for a 35 miles per hour speed limit in the Project vicinity.

Alvarado Street is a north-south oriented roadway located west of the Project Site. Within the Project study area, Alvarado Street is designated as a Major Highway Class II/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in the southbound direction and three through travel lanes are generally provided in the northbound direction on Alvarado Street in the Project study area. Separate exclusive left-turn lanes are provided on Alvarado Street at the Olympic Boulevard intersection. Separate southbound right-turn only lanes are provided on Alvarado Street at major intersections. Alvarado Street is posted for a 35 miles per hour speed limit in the Project vicinity.

Westlake Avenue is a north-south oriented roadway that borders the Project site to the east. Within the Project study area, Westlake Avenue is designated as a Local Street by the City of Los Angeles. One through travel lane is generally provided in both directions on Westlake Avenue in the Project study area. There is no speed limit posted on Westlake Avenue in the Project vicinity, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.

Union Avenue is a north-south oriented roadway located east of the Project site. Within the Project study area, Union Avenue is designated as a Secondary Highway /Avenue III by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on Union Avenue within the Project study area. Separate exclusive left-turn lanes are provided on Union Avenue at the James M. Wood Boulevard intersection. There is no speed limit posted on Union Avenue in the Project vicinity, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.

7th Street is an east-west oriented roadway that is located north of the Project site. Within the Project study area, 7th Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. One through travel lane is generally provided in both directions on 7th Street within the Project study area. Separate exclusive left-turn lanes are provided on 7th Street at the Alvarado Street intersection. 7th Street is posted for a 30 miles per hour speed limit in the Project vicinity.

³ For reference, the street descriptions provided include both the designations under the prior City Transportation Element (e.g., Major Highway, Secondary Highway, etc.) and Mobility Plan 2035 (e.g., Boulevard, Avenue, etc.) adopted by the Los Angeles City Council in August 2015).

8th Street is an east-west oriented roadway that is located north of the Project site. Within the Project study area, 8th Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on 8th Street within the Project study area. Separate exclusive left-turn lanes are provided on 8th Street at the Alvarado Street intersection. A separate eastbound right-turn only lane is provided on 8th Street at the Alvarado Street intersection. 8th Street is posted for a 35 miles per hour speed limit in the Project vicinity.

James M. Wood Boulevard is an east-west oriented roadway that borders the Project site to the south. Within the Project study area, James M. Wood Boulevard is designated as a Collector Street west of Alvarado Street and as a Secondary Highway/Avenue III east of Alvarado Street by the City of Los Angeles. One through travel lane is generally provided in both directions on James M. Wood Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on James M. Wood Boulevard at the Alvarado Street intersection. James M. Wood Boulevard is posted for a 25 miles per hour speed limit in the Project vicinity.

Olympic Boulevard is an east-west oriented roadway that is located south of the Project site. Within the Project study area, Olympic Boulevard is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. Three through travel lanes are generally provided in both directions on Olympic Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on Olympic Boulevard at the Alvarado Street intersection. Olympic Boulevard is posted for a 35 miles per hour speed limit in the Project vicinity.

4.4 Public Bus Transit Services

Public bus/rail transit service within the Project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro) and LADOT Transit (DASH). A summary of the existing transit service, including the transit route, destinations, and peak hour headways is presented in *Table 4–1*. The existing public transit routes in the Project site vicinity are illustrated in *Figure 4–2*. The Project site is located within one-quarter a mile of a Metro RapidBus stop.

Table 4-1 EXISTING PUBLIC TRANSIT ROUTES [1]

		[-]		,	16-Feb-17
		ROADWAY(S)	NO. O DURI	NO. OF BUSES/TRAINS DURING PEAK HOUR	AINS JUR
ROUTE	DESTINATIONS	NEAR SITE	DIR	AM	PM
Меtro 28	Downtown LA/Eagle Rock to Downtown LA/Century City (via Olympic Boulevard & Eagle Rock Boulevard)	Olympic Boulevard	EB WB	8 9	5 5
Metro 51/52/351	Wilshire Center to M.L. King Jr. Transit Center (via Avalon Boulevard)	7th Street	NB SB	15	8 13
Metro 66	Downtown LA/Montebello to Downtown LA/Wilshire Center (via 8th Street & Olympic Boulevard)	8th Street	EB WB	8 4	4 4
Metro 200	Echo Park to Exposition Park (via Alvarado Street & Hoover Street)	Alvarado Street	NB SB	× ×	8 7
Metro 603	Glendale Galleria to Grand/LATTC Station (via San Fernando Road, Rampart Boulevard, & Hoover Street)	6th Street	NB SB	4 8	4
Metro Rapid 728	Downtown Los Angeles to Century City (via West Olympic Boulevard)	Olympic Boulevard	EB	5 5	5
DASH Pico Union / Echo Park	Pico Union to Echo Park (via Washington Boulevard, Union Avenue & Echo Park Avenue)	Union Avenue	NB SB	4 4	5
			Total	91	81

Sources: Los Angeles County Metropolitan Transportation Authority (Metro) website, 2017.
 Los Angeles Department of Transportation (DASH) website, 2017.





SOURCE: METROPOLITAN TRANSPORTATION AUTHORITY

★ PROJECT SITE

FIGURE 4-2 **EXISTING PUBLIC** TRANSIT ROUTES

LINSCOTT, LAW & GREENSPAN, engineers

2005 JAMES M. WOOD BLVD HOTEL PROJECT

5.0 TRAFFIC COUNTS

Manual traffic counts of vehicular turning movements were conducted at each of the seven study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours.

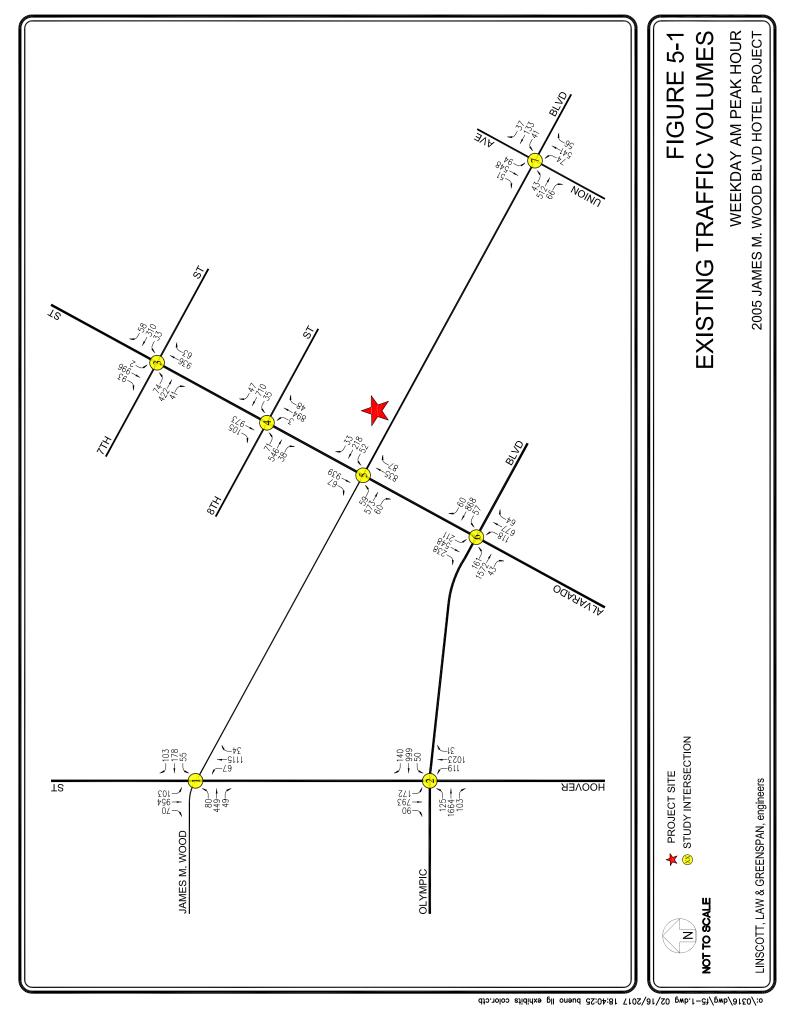
The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in *Table 5-1*. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in *Figures 5-1* and *5-2*, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in *Appendix A*.

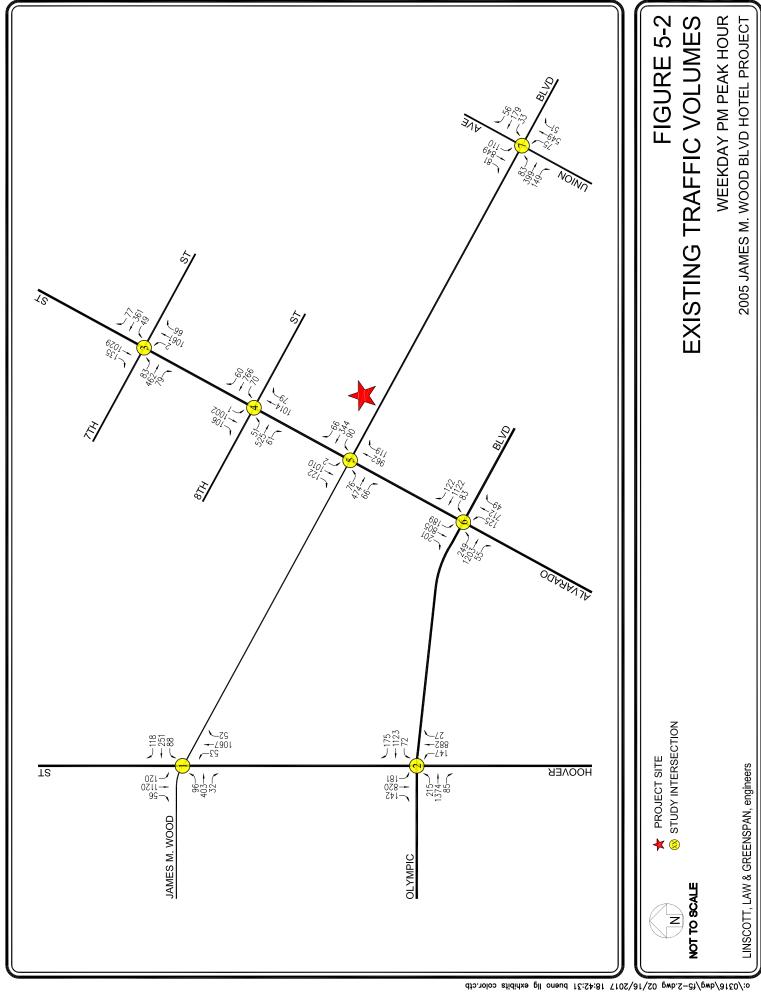
Table 5-1 EXISTING TRAFFIC VOLUMES [1]

16-Feb-17

			1	AM PE	AK HOUR	PM PE	AK HOUR
NO.	INTERSECTION	DATE	DIR	BEGAN	VOLUME	BEGAN	VOLUME
1	Hoover Street / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	1,216 1,127 578 336	4:45	1,172 1,296 531 457
2	Hoover Street / Olympic Boulevard	02/08/2017	NB SB EB WB	8:00	1,173 1,055 1,892 1,189	4:45	1,056 1,143 1,674 1,370
3	Alvarado Street / 7th Street	02/08/2017	NB SB EB WB	7:15	999 1,091 537 401	4:45	1,129 1,164 624 487
4	Alvarado Street / 8th Street	02/08/2017	NB SB EB WB	7:15	945 1,078 655 792	5:00	1,093 1,109 637 896
5	Alvarado Street / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	922 1,006 692 303	5:00	1,081 1,134 616 500
6	Alvarado Street / Olympic Boulevard	02/08/2017	NB SB EB WB	7:45	859 997 1,776 985	5:00	886 1,195 1,507 1,327
7	Union Avenue / James M. Wood Boulevard	02/08/2017	NB SB EB WB	7:30	671 693 621 211	4:45	675 1,040 631 268

^[1] National Data & Surveying Services





6.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-Project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

- "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
- (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in CEQA Guidelines for purposes of developing the forecast.

6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Los Angeles Departments of Transportation and Planning. The list of related projects in the project site area is presented in *Table 6-1*. The location of the related projects is shown in *Figure 6-1*.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual⁴. The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 6–1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in *Figures 6–2* and *6–3*, respectively.

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⁴ Institute of Transportation Engineers *Trip Generation* manual, 9th Edition, Washington, D.C., 2012.

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MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM VC	AM PEAK HOUR VOLUMES [2]	22 22	PM 2	PM PEAK HOUR VOLUMES [2]	Z 2
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	(±)	VOLUMES	N	OUT	TOTAL	NI	OUT	TOTAL
	LA Trade Tech College 5 Year Master Plan 400 W. Washington Boulevard	Construction	School	21,300 GSF		nom.	336	127	463	574	268	842
7	Wilshire Coronado 2525 Wilshire Boulevard	Construction	Condominium Retail	160 DU 7,500 GSF		1,160	16	09	9/	61	36	76
ю	Tenten Wilshire Expansion (The Icon, 1027 W. Wilshire Boulevard	Proposed	Condominium Retail	402 DU 4,728 GSF		1,498	21	92	113	83	53	136
4	3060 W. Olympic Boulevard	Construction	Retail	109,006 GSF		4,134	09	26	98	169	191	360
25	Northeast Tower Mixed-Use 215 W. 9th Street	Proposed	Condominium Retail	210 DU 9,000 GSF		1,140	14	99	70	49	38	102
9	Amacon Project 1133 S. Hope Street	Proposed	Apartment Retail	208 DU 5,029 GSF		1,543	20	74	94	91	50	141
7	5th & Olive 437 S. Hill Street	Proposed	Apartment Quality Restaurant	600 DU 13,872 GSF		3,088	44	122	166	162	76	259
∞	805 S. Catalina Street	Proposed	Condominium Retail	300 DU 5,000 GSF		1,935	24	119	143	110	57	167
6	3200 W. Beverly Boulevard	Proposed	Apartment Retail	32 DU 5,867 GSF		632	4	16	20	39	32	71
10	11th & Hill Project 1115 S. Hill Street	Proposed	Condominium Restaurant	172 DU 6,850 GSF	[3]	543	(45)	40	(5)	50	(-)	43
=	Bixel & Lucas Project 1102 W. 6th Street	Construction	Apartment Retail	725 DU 39,999 GSF	[4]	3,800	26	204	230	227	114	341
12	8th / Hope / Grand Project 609 W. 8th Street	Proposed	Condominium Hotel Retail Restaurant	225 DU 200 Rooms 30,000 GSF 32,000 GSF		4,908	06	104	194	242	159	401
13	820 S. Hoover Street	Proposed	Condominium Retail	32 DU 4,500 GSF		414	7	15	22	18	14	32
41	Norse Mixed Use Development 1924 W. Temple Street	Proposed	Retail High-Rise Condominiun Apartment	18,460 GSF 202 DU 46 DU	[5]	1,187	(18)	74	56	78	13	91
15	1130 W. Wilshire Boulevarc	Proposed	Office Day Care High-Turnover Restaurant Quality Restaurant	88,224 GSF 20 Students 248 GSF 5,375 GSF		964	92	12	104	28	61	68
16	Embassy Tower 848 S. Grand Avenue	Proposed	Condominiur: Retail	420 DU 38,500 GSF		3,882	99	144	210	212	165	377

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM	AM PEAK HOUR VOLUMES [2]	UR 21	PM	PM PEAK HOUR VOLUMES [2]	UR 21
NO.		STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	NI	OUT	TOTAL
17	Beverly + Lucas Project 1430 W. Beverly Boulevard	Proposed	Apartment	144 DU		780	13	49	62	47	25	72
18	Oak Village Residences Project 902 W. Washington Boulevard	Proposed	Condominium	142 DU	[9]	482	2	25	27	35	16	51
119	Wilshire Grand Redevelopment Projec 900 W. Wilshire Boulevard	Construction	Condominiur Hotel Fitness Facility Office Retail/Restaurant	100 DU 560 Rooms 20 KSF 1,500 KSF 50 KSF	[2]	3,624	725	75	0008	94	764	858
20	2100 S. Figueroa Street	Proposed	Condominium Retail	291 DU 7,134 GSF	[3]	870	(82)	99	(16)	29	(28)	39
21	Southwestern Law School Expansion 3050 W. Wilshire Boulevar	Proposed	Apartment Administration Offiα Lecture Hall	133 DU 43,400 GSF 450 Seats	[3]	(1,337)	(35)	(16)	(51)	(45)	(52)	(64)
22	Westlake Theater Apartments Project 619 S. Westlake Avenue	Proposed	Apartment	52 DU	[8]	254	8	17	20	16	∞	24
23	1435 W. 3rd Street	Proposed	Specialty Retail Apartment	3,500 GSF 122 DU	[6]	711	11	42	53	41	25	99
24	Metropolis Mixed-Use 899 S. San Francisco Street	Construction	Condominium: Office Hotel Retail/Restaurant	836 DU 988,225 GSF 480 Rooms 46,000 GSF		8,010	307	318	625	387	512	668
25	1027 S. Olive Street	Construction	Apartment	100 DU		632	6	39	48	38	21	59
26	1300 S. Hope Street	Proposed	Apartment Retail	419 DU 42,000 GSF		4,280	88	105	193	136	102	238
27	928 S. Broadway	Construction	Apartment Condominium Retail	670 DU 17 DU 58,800 GSF		4,715	21	229	250	272	109	381
28	G12 Mixed-Use 1200 S. Grand Avenue	Proposed	Apartment Retail	640 DU 45,000 GSF		4,886	92	148	240	181	134	315
29	1329 W. 7th Street	Construction	Apartment Retail	94 DU 2,000 GSF		662	16	37	53	39	22	19
30	840 S. Olive Street		Condominium Restaurant Retail	303 DU 9,680 GSF 1,500 GSF		3,071	81	166	247	174	96	270
31	968 S. Berendo Street	Construction	Church	85,308 GSF		535	23	∞	31	3	6	12
32	1700 W. Olympic Hotel 1700 W. Olympic Boulevarc	Proposed	Hotel	160 Rooms	[10]	1,157	4	32	76	45	42	87

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM V	AM PEAK HOUR VOLUMES [2]	JUR 2]	Md	PM PEAK HOUR VOLUMES [2]	UR 2]
NO.		STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	IN	OUT	TOTAL	NI	OUT	TOTAL
33	1001 S. Olive Street	Construction	Apartment Quality Restaurant	225 DU 5,000 GSF		1,581	22	79	101	94	51	145
34	Hill Street Mixed-Use 920 S. Hill Street	Proposed	Apartment Retail	239 DU 5,400 GSF		1,476	23	84	107	87	50	137
35	Broadway Mixed-Use 955 S. Broadway	Proposed	Apartment Retail	201 DU 6,000 GSF		1,275	21	72	93	74	43	117
36	801 S. Olive Street	Construction	Apartment Restaurant Retail	363 DU 7,500 GSF 2,500 GSF	[11]	2,557	33	129	162	149	83	232
37	1212 W. Flower Street	Proposed	Condominium Retail Office	730 DU 10,500 GSF 70,465 GSF		3,956	78	233	311	229	121	350
38	820 S. Olive Street	Proposed	Apartment Retail	589 DU 4,500 GSF		3,309	63	202	265	195	106	301
39	The Herald Examiner Mixed-Use Project 1111 S. Broadway	Proposed	Condominium Retail Office	587 DU 32,560 GSF 41,140 GSF	[12]	5,304	137	213	350	274	262	536
40	1148 S. Broadway	Proposed	Apartment Retail	94 DU 2,500 GSF		553	∞	30	38	32	18	50
41	2850 W. 7th Street	Proposed	Condominium Hotel Retail	160 DU 40 Rooms 3,600 GSF		1,057	20	72	92	72	42	114
42	1120 S. Grand Avenue	Proposed	High-Rise Apartment Retail	666 DU 20,690 GSF		2,730	42	127	169	136	93	229
43	1230 S. Olive Street	Proposed	Apartment Retail	362 DU 4,000 GSF		2,114	31	126	157	127	69	196
4	2929 W. Leeward Avenue	Proposed	Condominium	80 DC		476	7	33	40	4	21	65
45	1247 S. Grand Avenue	Proposed	Apartment Retail	118 DU 5,125 GSF		763	10	41	51	42	25	<i>L</i> 9
46	1400 S. Figueroa Street Residential Project 1400 S. Figueroa Street	Proposed	Apartment Retail	106 DU 4,834 GSF	[13]	647	10	38	48	39	22	61
47	6th & Virgil 2968 W. 6th Street	Proposed	Apartment High-Turnover Restaurant Health Club	399 DU 12,000 GSF 8,000 GSF	[14]	2,943	73	154	722	168	93	261
48	Legal Aid Foundation of LA 1550 W. 8th Street	Construction	Office	33,957 GSF		230	29	4	33	9	26	32

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NUMBER	PROJECT	LAND USE DATA	DATA	PROJECT DATA	DAILY TRIP ENDS [2]	AM	AM PEAK HOUR VOLUMES [2]	UR 21	MA V	PM PEAK HOUR VOLUMES [2]	UR 21
NO.		STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	NI	LOO	TOTAL
49	Variety Arts Mixed-Use 940 S. Figueroa Street	Proposed	Theatre Restaurant Bar	1,942 Seats 10,056 GSF 5,119 GSF		2,237	2	4	6	66	35	134
50	1036 S. Grand Avenue	Proposed	Restaurant	7,149 GSF		492	2	3	5	27	14	41
51	1335 W. 1st Street	Proposed	Apartment Retail	101 DU 3,514 GSF		714	10	40	50	42	24	99
52	1150 W. Wilshire Boulevard	Proposed	Apartment Restaurant	80 DU 4,589 GSF	[3]	511	(22)	26	4	39	(5)	34
53	1218 W. Ingraham Street	Proposed	Apartment	90 DU		532	∞	33	41	33	17	50
54	742 S. Hartford Avenue	Construction	Apartment	58 DU		333	5	21	26	20	111	31
55	1728 W. 7th Street	Proposed	Restaurant Bar	9,600 GSF 3,500 GSF	[3]	362	(30)	(40)	(70)	50	14	49
56	1145 W. 7th Street	Proposed	Condominium Apartment Retail	126 DU 100 DU 7,200 GSF		1,084	4	99	70	<i>L</i> 9	35	102
57	3076 W. Olympic Boulevard	Proposed	Apartment Retail	226 DU 16,907 GSF		1,567	25	78	103	06	99	146
58	3350 W. Wilshire Boulevard	Proposed	Apartment	121 DU		728	111	43	54	47	25	72
59	1011 S. Park View Street	Proposed	Apartment	108 DU		594	6	38	47	38	19	57
09	2965 W. 6th Street	Proposed	Hotel	99 Rooms		889	26	18	4	25	25	50
61	422 S. Lake Street	Construction	Apartment	90 DU		532	∞	33	41	33	17	50
62	1302 W. Washington Boulevard	Proposed	Pharmacy/Drug Store	16,572 GSF	[3]	414	(33)	(18)	(51)	21	12	33
63	1929 W. Pico Boulevard	Proposed	Charter High School	480 Students	[15]	821	140	99	206	29	33	62
49	2789 W. Olympic Boulevard	Proposed	Office Retail	2,781 GSF 20,607 GSF		612	16	∞	24	25	29	54
65	1255 E. Elden Avenue	Proposed	Apartment	93 DU		376	0	32	32	28	10	38
99	3100 W. 8th Street	Proposed	Apartment	100 DU		100	10	41	51	10	41	51
<i>L</i> 9	3330 W. Beverly Boulevard	Proposed	Apartment Child Care	40 DU 4,237 GSF		495	26	34	09	35	32	<i>L</i> 9
89	326 S. Reno Street	Proposed	Apartment	05 DU		326	S	20	25	20	111	31
69	2335 W. Temple Street	Proposed	Apartment	71 DU		554	∞	31	39	37	20	57
70	1017 S. Mariposa Avenue	Proposed	Apartment	79 DU		373	5	23	28	23	12	35

LINSCOTT, LAW & GREENSPAN, engineers

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROJECT NAME/NIMBER	PROJECT	LAND USE DATA	DATA	PROJECT	DAILY TRIP ENDS [2]	WA	AM PEAK HOUR VOLUMES [2]	UR 21	PM	PM PEAK HOUR VOLUMES [2]	UR 21
NO.		STATUS	LAND-USE	SIZE	(±)	VOLUMES	N	OUT	TOTAL	NI	OUT	TOTAL
71	The Alexan Project 850 S. Hill Street	Proposed	Apartment Retail Restaurant	305 DU 3,499 GSF 3,500 GSF	[16]	1,998	29	108	137	117	29	184
72	427 S. Berendo Street	Proposed	Apartment	85 DU		288	S	17	22	17	10	27
73	2405 W. 8th St	Proposed	Apartment Retail	144 DU 4,406 GSF	[3]	333	(20)	48	28	42	(15)	27
74	340 N. Patton Street	Proposed	Apartment	43 DU		267	4	16	20	17	∞	25
75	1625 W. Palo Alto Street	Proposed	Hotel	89 Rooms		727	28	19	47	27	26	53
92	2859 W. Francis Avenue	Proposed	Apartment	81 DU		492	7	28	35	31	5	36
77	Apex II Mixed-Use 700 W. 9th Street	Proposed	Condominiur: Retail	341 DU 11,687 GSF	[17]	1,365	20	77	76	72	48	120
78	649 S. Olive Street	Proposed	Hotel	241 Rooms		1,674	9	4	50	63	09	123
79	605 S. Vermont Avenue	Proposed	Apartment Museum	103 DU 30,937 GSF		755	17	39	56	42	37	79
08	Sapphire Mixed-Use 1111 W. 6th Street	Proposed	Apartment Shopping Center Quality Restaurant Coffee Shop	369 DU 18,600 GSF 2,200 GSF 1,200 GSF	[3]	587	(71)	117	46	104	(51)	53
81	815 S. Kingsley Drive	Proposed	Apartment	DO DO		521	7	32	39	30	18	48
82	1633 W. 11th Street Charter Project 1633 W. 11th Street	Proposed	Charter School (K-5)	460 Students	[18]	970	194	158	352	29	37	99
83	Grand Residence 1229 S. Grand Avenue	Proposed	Condominium Restaurant	161 DU 3,000 GSF		1,116	23	62	85	62	33	95
\$	675 S. Bixel Street	Proposed	Apartment Hotel Retail	425 DU 126 Rooms 4,874 GSF		3,461	74	173	247	184	116	300
85	740 S. Hartford Avenue	Proposed	Apartment	80 DU		479	7	30	37	29	15	4
98	2900 W. Wilshire Boulevarc	Proposed	Retail Fast-Food Restaurant High-Rise Apartmen	10,000 GSF 5,500 GSF 644 DU		3,482	81	135	216	137	81	218
87	616 S. Westmoreland Avenue	Proposed	Apartment Retail Restaurant	77 DU 745 GSF 2,360 GSF		446	-	30	31	31	ĸ	36
8	Lifan Tower Mixed-Use 1235 W. 7th Street	Proposed	Condominiur: Retail	303 DU 5,960 GSF		1,725	23	95	118	100	54	154

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Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP	PROTECT NAME/NITMBER	PROTECT	LAND USE DATA	DATA	PROJECT	DAILY TRIP FNDS [2]	AM	AM PEAK HOUR	UR	PM	PM PEAK HOUR	UR 1
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	IN	OUT	TOTAL
68	940 S. Hill Street	Proposed	Apartment Restaurant	232 DU 14,000 GSF		1,881	20	08	100	115	53	168
06	2649 W. San Marino Avenue	Proposed	Apartment	45 DU		246	4	15	19	15	∞	23
91	1322 Linwood Apartments 1322 W. Linwood Avenue	Proposed	Apartment	84 DU		449	S	30	35	28	14	42
92	14th & Olive Mixed-Use 1340 S. Olive Street	Proposed	Apartment Retail High-Turnover Restaurant	156 DU 5,000 GSF 10,000 GSF		1,700	51	82	133	68	57	146
93	1334 S. Flower Street Residential Project 1334 S. Flower Street	Proposed	Apartment Retail/Restaurant	188 DU 10,096 GSF	[19]	1,038	(3)	63	09	29	22	68
94	1020 S. Figueroa Street 1020 S. Figueroa Street	Proposed	High-Rise Condominium Hotel Retail Restaurant	650 DU 300 Rooms 40 KSF 40 KSF	[20]	6,583	204	274	478	312	227	539
95	Zion Market 888 S. Vermont Avenue	Proposed	Office Retail	4,400 GSF 47,208 GSF		2,526	45	19	26	171	169	340
96	2972 W. 7th Street	Proposed	Apartment Retail	304 DU 9,735 GSF		1,018	17	66	116	76	23	66
26	720 W. Washington Boulevard	Proposed	Senior Apartment	105 DU		350	7	12	19	13	12	25
86	1400 S. Flower Street Residential Project 1400 S. Flower Street	Proposed	Apartment Retail	147 DU 6,921 GSF	[3]	801	(1)	49	84	51	17	89
66	3240 W. Wilshire Boulevard	Proposed	Hotel Apartment Retail	162 Rooms 545 DU 5,222 GSF		1,353	15	173	188	68	23	112
100	1930 W. Wilshire Boulevard		Apartment Theater Classroom Hotel	478 DU 850 Seats 50 Students 220 Rooms	[3]	1,355	(44)	128	8	103	(41)	62
101	1000 S. Vermont Avenue	Proposed	Apartment Retail	236 DU 60,300 GSF		2,655	39	94	133	137	102	239
102	2870 W. Olympic Boulevarc	Proposed	Hotel Retail	121 Rooms 17,850 GSF		1,178	34	23	57	4	40	84
103	Beaudry Ave & 2nd St Mixed-Use 130 S. Beaudry Avenue	Proposed	Apartment Retail/Restaurant	230 DU 9,000 GSF		1,159	∞	76	8	76	29	105
104	Urban View Lofts Project 495 S. Hartford Avenue	Proposed	Apartment	220 DU		1,033	16	63	79	62	34	96

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Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

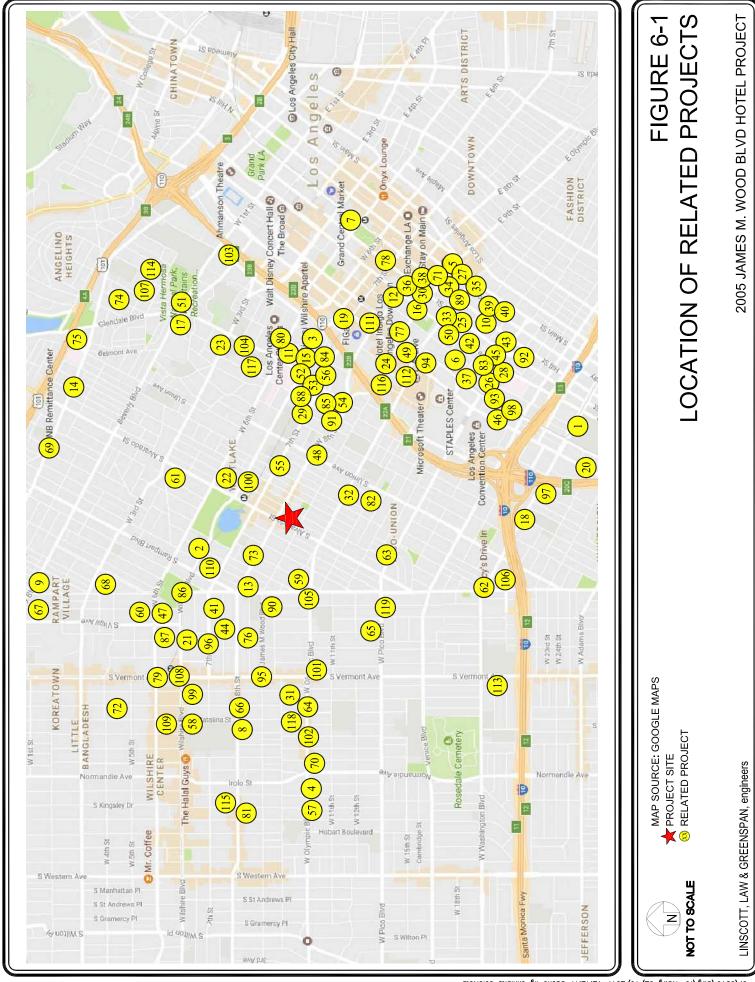
MAP	PROJECT NAME/NIMBER	PROTECT	LAND USE DATA	DATA	PROJECT	DAILY TRIP FUDS [2]	AM	AM PEAK HOUR	UR	PM	PM PEAK HOUR	UR 21
NO.	ADDRESS/LOCATION	STATUS	LAND-USE	SIZE	SOURCE	VOLUMES	N	OUT	TOTAL	N	OUT	TOTAL
105	Olympic & Hoover Mixed-Use 2501 W. Olympic Boulevard	Proposed	Apartment Retail	173 DU 36,180 GSF		1,911	27	72	66	100	73	173
106	1122 W. Washington Boulevard	Proposed	Medical Office	60,000 GSF		2,060	107	29	136	57	146	203
107	1316 Court & 1323 Colton Apartments 1316 W. Court Street	Proposed	Apartment	122 DU		745	11	46	57	45	24	69
108	Wilshire Gate Project 631 S. Vermont Avenue	Proposed	Hotel Condominium Office Retail/Restaurant	200 Rooms 250 DU 49,227 GSF 21,230 GSF	[21]	2,599	95	95	190	115	120	235
109	The Nest on Catalina 621 S. Catalina Street	Proposed	Apartment Retail Lounge/Restaurant Banquet Hall	165 DU 8,500 GSF 15,000 GSF 15,000 GSF		2,776	26	55	81	180	95	275
110	668 S. Coronado Street	Proposed	Apartment Retail	122 DU 1,182 GSF		947	14	84	62	99	34	06
111	8th & Figueroa Mixed-Use 744 S. Figueroa Street	Proposed	Apartment Retail	438 DU 10,156 GSF		2,972	38	148	186	176	94	270
112	Olympic Tower Project 815 W. Olympic Boulevard	Proposed	Hotel Retail Office	346 Rooms 61,149 GSF 36,256 GSF		3,915	137	133	270	167	165	332
113	1620 W. Cordova Street Charter School Project 1620 W. Cordova Street	Proposed	Charter Middle School	400 Students	[22]	527	105	99	171	16	20	36
114	1300 W. Court Street	Proposed	Apartment	43 DU		286	4	18	22	17	10	27
115	748 S. Kingsley Drive	Proposed	Apartment	NG 19		406	9	25	31	24	14	38
116	926 W. James M. Wood Boulevard	Proposed	Hotel	225 Rooms		1,562	59	42	101	59	99	115
1117	459 S. Hartford Avenue	Proposed	Apartment	101 DU		361	15	15	30	22	22	4
118	966 S. Dewey Avenue	Proposed	Hotel	99 Rooms		229	28	15	43	24	24	48
119	2250-2270 W. Pico Blvd Hotel Project 2250 W. Pico Blvd	Proposed	Hotel	125 Rooms	[23]	409	26	19	45	10	6	19
						177,740	4,470	8,196	12,666	9,994	7,007	17,001

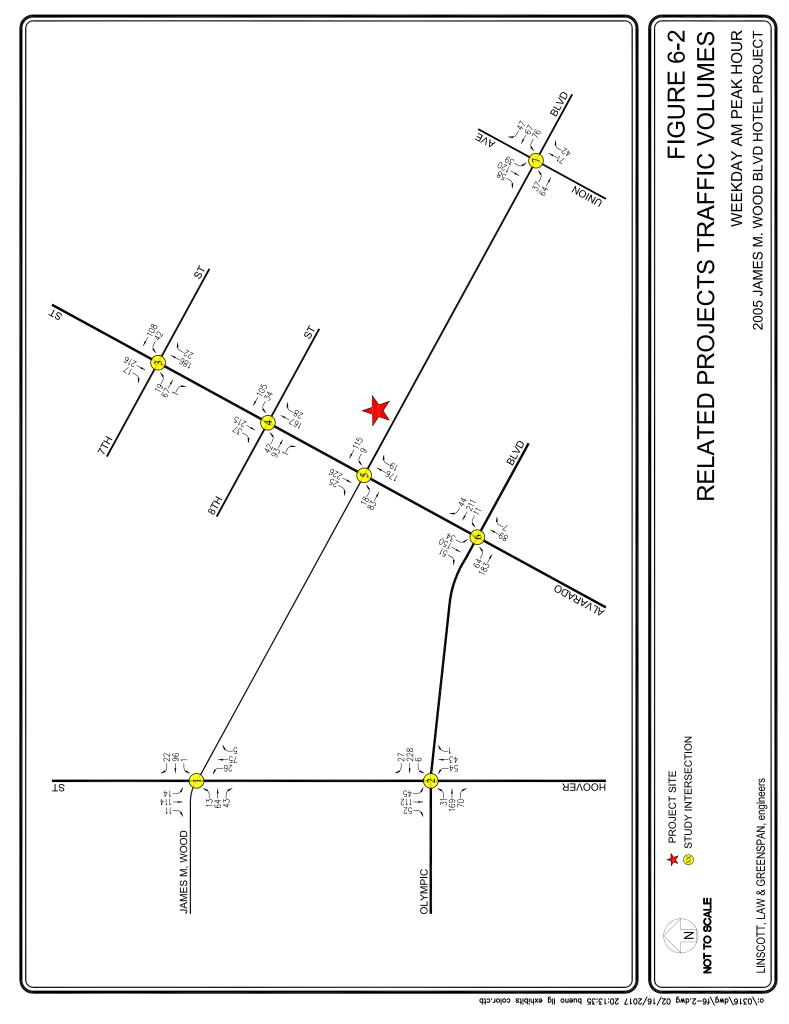
nom. = nominal
[1] Source: City of Los Angeles Department of Transportation, unless otherwise noted in the Project Data Source column.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Negative trip generation values provided by City of Los Angeles Department of Transportation Related Projects List. It is assumed that the trip generation potential of the existing/prior uses exceeds the trip generation potential of the proposed use.

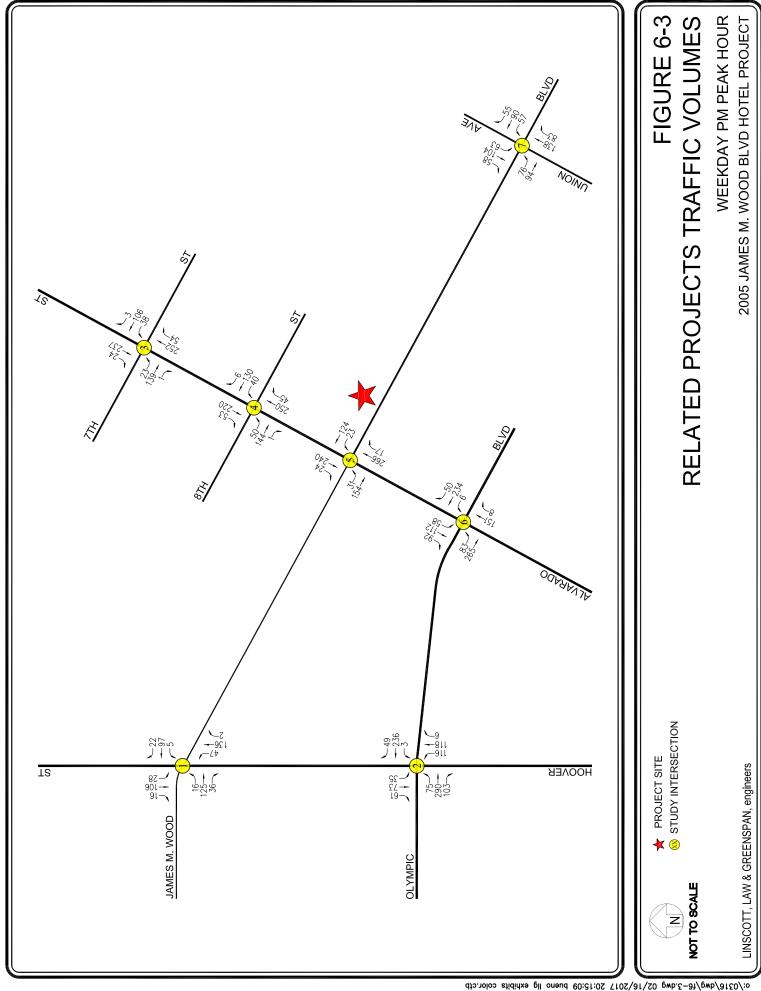
- [4] Source: Traffic Analysis for The Good Sanaritan Mixed-Use Development, Crain & Associates, October 2008.
- [5] Source: Traffic Impact Analysis for a Proposed Mixed Use Development Temple Street and Bornie Brae Street, Overland Traffic Consultants, Inc., May 2008.
 - [6] Source: Traffic Impact Study for the Oak Village Residences Project, LLG Engineers, July 2009.
- [7] Source: Transportation Study for the Wilshire Grand Redevelopment Project, Gibson Transportation Consulting Inc., April 2010.
 [8] Source: Technical Memorandum Potential Traffic Impacts for the Proposed Residential / Public Parking Development, 619 to 633 S. Westlake Avenue, Arthur L. Kassan, P.E., March 2011.
 [9] Source: Traffic Impact Study for 1435 W. Third Street, Overland Traffic Consultants, Inc., May 2008.
 [10] Source: Traffic Impact Study for 1700 W. Olympic, LLG Engineers, August 2013.

- Source: Traffic Review for 801 South Olive Street Project, The Mobility Group, Revised September 2013.
 Source: Traffic Industrial Project The Herald Examiner Mixed-Use Project, Crain & Associates, Revised July 2006.
 Source: Traffic Impact Study for 1400 S. Figueron Project, LLG Engineers, March 2014.
 Source: Traffic Impact Study for 1400 S. Figueron Project, LLG Engineers, April 2014.
 Source: Traffic Impact Study for 1920 W. Pico Boulevard Charter School, KOA Corporation, May 2015.
 Source: Supplemental Traffic Review Momorandum for 820. S. Hill Street Project, The Mobility Group, January 2016.
 Source: Traffic Review for Apex Phase II (9th & Figueroa) Project, The Mobility Group, Revised November 2015.
- [18] Source: Traffic Impact Study for 1633 W. 11th Street Charter School Project, LLG Engineers, January 2016.
- [19] Source: Traffic Impact Study for 1334 S. Flower Street Residential Project, LLG Engineers, June 2016.
- [20] Source: Traffic Study for the 1020 S. Figueroa Street Project, Gibson Transportation Consulting Inc., May 2016.
- [21] Source: Traffic Impact Study for Wilshire Gate Project, LLG Engineers, September 2016.
 [22] Source: Traffic Impact Study for 1620 W. Cordova Street Charter School Project, LLG Engineers, November 2016.
 [23] Source: Traffic Impact Study for 2250-2270 W. Pico Blvd Hotel Project, LLG Engineers, 2017.

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6.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%) per year to the year 2019 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the 2010 Congestion Management Program for Los Angeles County (the "CMP manual") and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the Downtown L.A. area, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 0.2% per year between the years 2015 and 2020. Thus, application of an annual growth factor of 1.0% allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Therefore, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

7.0 Traffic Forecasting Methodology

In order to estimate the traffic impact characteristics of the Project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts identified.

7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project:

• Hotel: ITE Land Use Code 310 (Hotel) trip generation average rates were used to forecast the traffic volumes expected to be generated by the hotel component of the Project. Note that this analysis assumes that any external vehicle trips related to the site's ancillary uses such as the restaurant and meeting room within the hotel are accounted for within the ITE hotel trip rate as these uses are expected to primarily support the hotel guests. Therefore, a separate and additive trip forecast related to the hotel's on-site restaurant and meeting room is not required in the trip generation calculation.⁵

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⁵ The ITE *Trip Generation* manual description of a Hotel (Land Use Code 310) is as follows: "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." The trip generation rates provided by ITE are based on traffic counts conducted at existing land uses, including hotels. Thus, while the independent variable provided in the ITE hotel trip rate is the number of guestrooms, the ITE trip rate is intended to account for all vehicle trips generated by the hotel building, including trips by hotel guests, staff, service vehicles, any "external" visitors to the on-site food and beverage facilities, etc.

In addition to the trip generation forecasts for the Project land use components (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the site access points), a forecast was made of transit trips. The transit reduction is based on the site's proximity to the various bus and rail lines, as well as the land use characteristics of the Project. As shown in *Table 4–1* and *Figure 4–2*, the Project site is well served by public transit, including a Metro RapidBus stop at the intersection of Alvarado Street and Olympic Boulevard. A transit adjustment of 15% has been utilized.

An adjustment was also made to the trip generation forecast based on the Project site's existing land use. The existing retail center (8,228 square feet of building area) would be removed as part of the Project. The ITE Land Use Code 820 (Shopping Center) trip generation average rates were used to estimate the trip reduction related to the removal of the existing use from the Project site.

Lastly, a forecast was made of likely pass-by trips. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. In this instance, the adjacent roadways to the Project site include James M. Wood Boulevard, Westlake Avenue, and the existing north-south alley. Based on the *LADOT Policy on Pass-By Trips*, a 50% pass-by reduction adjustment was applied to the existing retail land use.

The trip generation forecast for the Project was submitted for review and approval by LADOT staff. As presented in *Table 7–1*, the Project is expected to generate 42 net new vehicle trips (24 inbound trips and 18 outbound trips) during the AM peak hour. During the PM peak hour, the Project is expected to generate 38 net new vehicle trips (20 inbound trips and 18 outbound trips). Over a 24-hour period, the Project is forecast to generate a net increase of 545 daily trip ends (approximately 273 inbound trips and 272 outbound trips) during a typical weekday.

7.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e. Hoover Street, Alvarado Street, Olympic Boulevard, I-10 Freeway, US-101 Freeway, I-110 Freeway etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project site assuming the site access and circulation scheme described in Section 3.0;

Accordingly, it is not required or appropriate to separately and additively estimate trip generation related to the hotel's ancillary uses such as the on-site restaurant and meeting room facilities as this would result in a substantial overstatement of the hotel's trip generation potential.

23-Jan-17

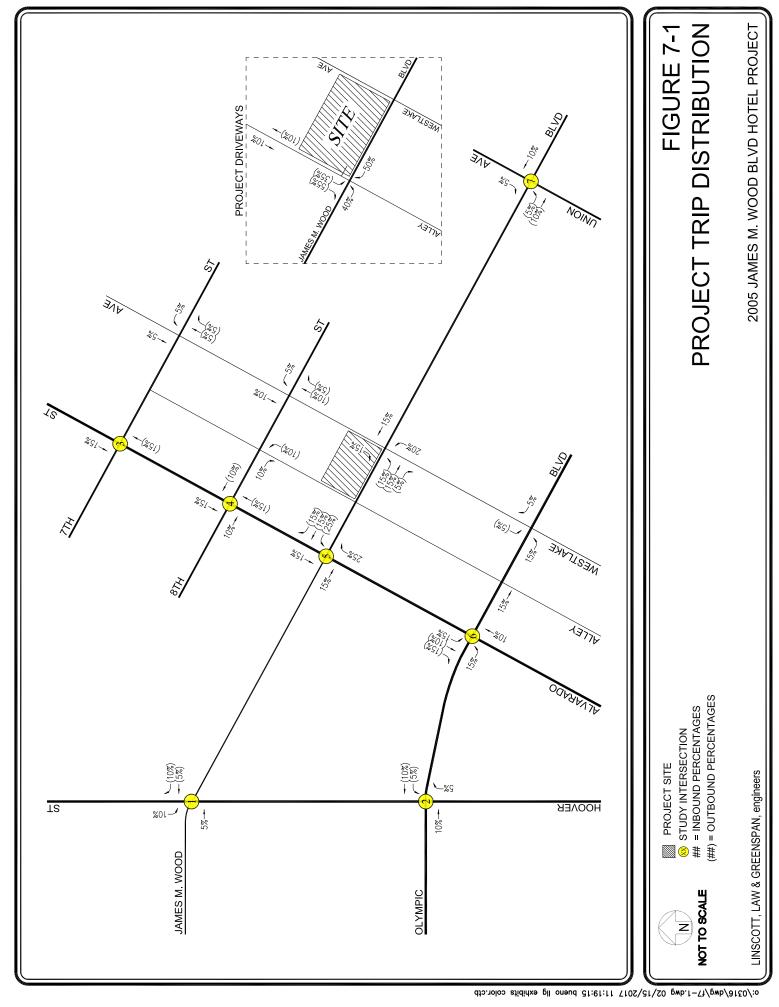
		DAILY	MA	AM PEAK HOUR	OUR	PM	PM PEAK HOUR	UR
		TRIP ENDS [2]	Λ	VOLUMES [2]	[2]	V(VOLUMES [2]	[2]
LAND USE	SIZE	VOLUMES	IN	OUT	OUT TOTAL	IN	OUT	TOTAL
Proposed Project Hotel [3]	100 Rooms	817	31	22	53	31	29	09
Proposed Transit Trips [4] Hotel (15%)		(123)	(5)	(3)	(8)	(5)	(4)	6)
Existing Site Retail [5]	(8,228) GLSF	(351)	(5)	(3)	(8)	(15)	(16)	(31)
Existing Transit Trips [4] Retail (15%)		53	1	0	1	2	2	4
Net Project Driveway Subtotal		396	22	16	38	13	11	42
Existing Pass-By Trips [6] Retail (50%)		149	2	2	4	7	7	14
NET PROJECT TRIPS		545	24	18	42	20	18	38

- [1] Source: ITE "Trip Generation", 9th Edition, 2012.
 [2] Trips are one-way traffic movements, entering or leaving.
 [3] ITE Land Use Code 310 (Hotel) trip generation average rates.
- Daily Trip Rate: 8.17 trips/Rooms; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.53 trips/Rooms; 59% inbound/41% outbound
- PM Peak Hour Trip Rate: 0.60 trips/Rooms; 51% inbound/49% outbound
- [4] The Project site is located within 1/4 mile of a Metro Rapid bus stop. The trip reduction for transit trips has been applied to the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments within a 1/4 mile walking distance of a transit station or a RapidBus stop.
 - [5] ITE Land Use Code 820 (Shopping Center) trip generation average rates. Daily Trip Rate: 42.70 trips/1000 GLSF; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF; 62% inbound/38% outbound - PM Peak Hour Trip Rate: 3.71 trips/1000 GLSF; 48% inbound/52% outbound
- Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site.

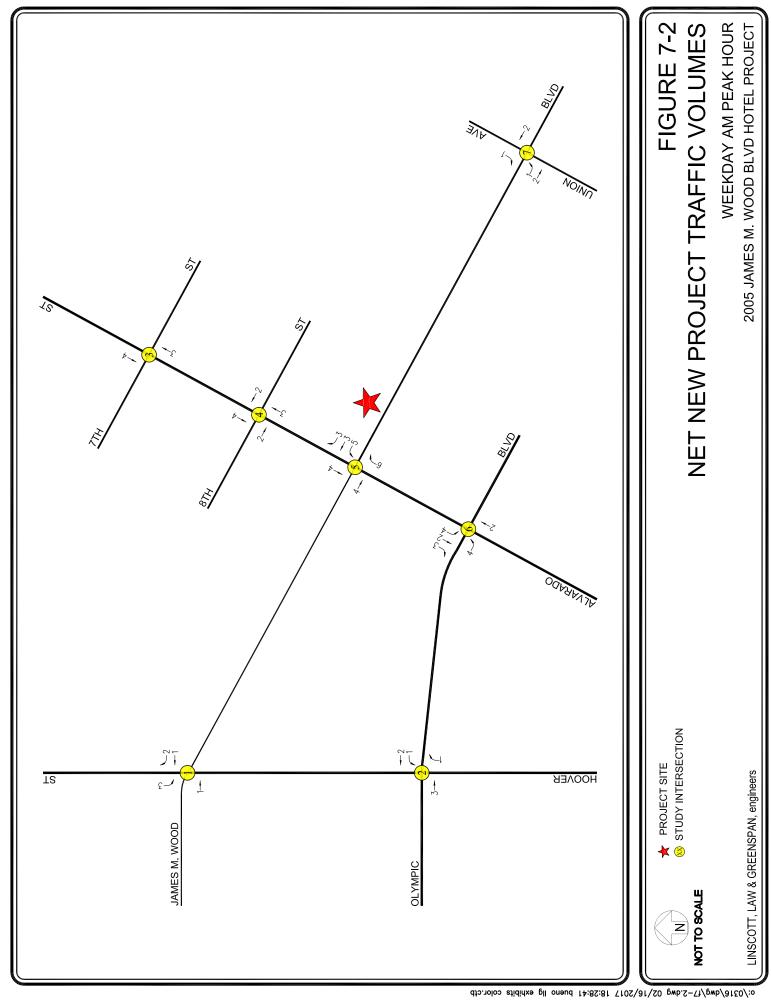
 The trip reduction for pass-by trips has been applied to the commercial component of the Project based on the "LADOT Traffic Study [6] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Policies and Procedures", August 2014 for Shopping Center less than 50,000 sf.

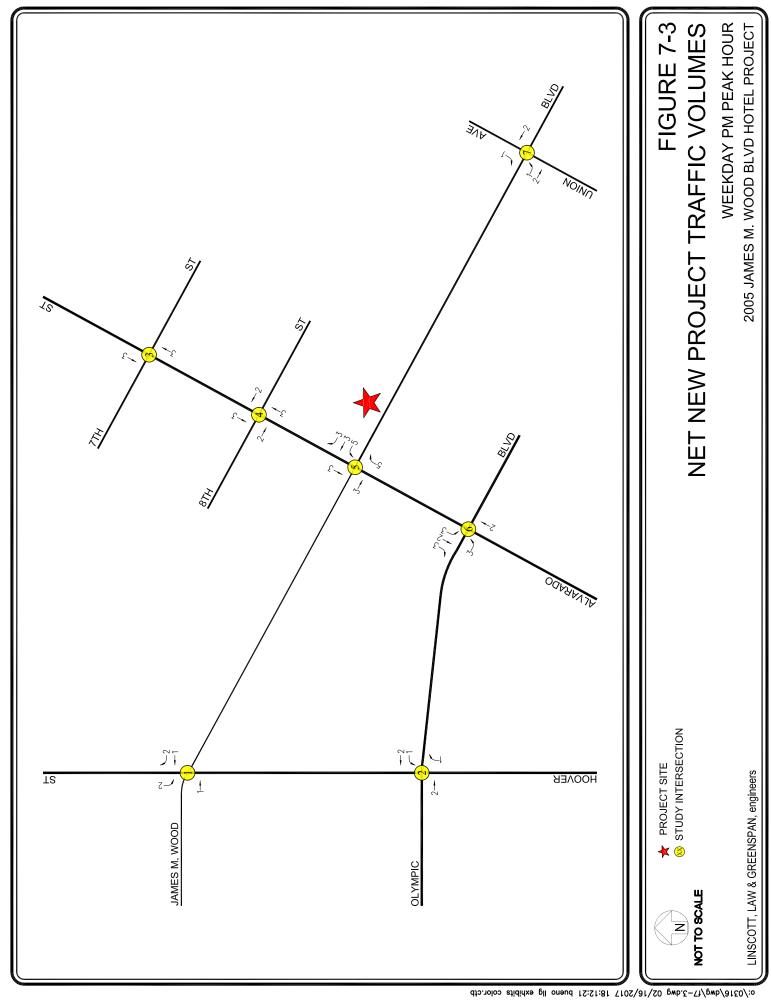
- The location of existing and proposed parking areas;
- Nearby population and employment centers as well as adjacent residential neighborhoods;
- Input from LADOT staff.

The general, directional traffic distribution patterns for the Project are presented in *Figure 7–1*. The forecast net new weekday AM and PM peak hour Project traffic volumes at the study intersections associated with the Project are presented in *Figures 7–2* and *7–3*, respectively. The traffic volume assignments presented in *Figures 7–2* and *7–3* reflect the traffic distribution characteristics shown in *Figure 7–1* and the Project traffic generation forecast presented in *Table 7–1*.



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8.0 Traffic Impact Analysis Methodology

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (v/c) ratios on a critical lane basis. The overall intersection v/c ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the CMA method and corresponding Level of Service is provided in *Appendix B*.

8.1 Impact Criteria and Thresholds

The relative impact of the added traffic volumes to be generated by the Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the study intersections, without and with the Project. The previously discussed capacity analysis procedures were utilized to evaluate the future v/c relationships and service level characteristics at each study intersection.

The significance of the potential impacts of Project generated traffic was identified using the traffic impact criteria set forth in LADOT's *Traffic Study Policies and Procedures*, August 2014. According to the City's published traffic study guidelines, the impact is considered significant if the Project-related increase in the v/c ratio is equal to or exceeds the thresholds presented in *Table 8–1*.

	Table 8-1	
	CITY OF LOS ANGELES	S
INTER	SECTION IMPACT THRESHO	LD CRITERIA
Final v/c	Level of Service	Project Related Increase in v/c
> 0.701 - 0.800	С	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection v/c ratio by an amount equal to or greater than the values shown above.

8.2 LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical v/c ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical v/c ratios by three percent (0.03) for a total of 10 percent (0.10). According to the City of Los Angeles, ATSAC/ATCS system upgrades for all seven study intersections have been implemented. As such, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated.

8.3 Traffic Impact Analysis Scenarios

Pursuant to LADOT's traffic study, Level of Service calculations have been prepared for the following scenarios for the study intersections:

- (a) Existing (2017) conditions;
- (b) Condition (a) with completion and occupancy of the Project;
- (c) Condition (b) with implementation of Project mitigation measures, where necessary;
- (d) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2019 and with completion and occupancy of the related projects (i.e., future cumulative baseline);
- (e) Condition (d) with completion and occupancy of the Project;
- (f) Condition (e) with implementation of Project mitigation measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

9.0 TRAFFIC ANALYSIS

The traffic impact analysis prepared for the seven study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria is summarized in *Table 9–1*. The CMA data worksheets for the seven analyzed intersections are contained in *Appendix B*.

9.1 Existing Conditions

9.1.1 Existing Conditions

As indicated in column [1] of *Table 9–1*, all seven study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5–1* and *5–2*, respectively.

9.1.2 Existing With Project Conditions

As shown in column [2] of *Table 9–1*, application of the City's threshold criteria to the "Existing With Project" scenario indicates that the Project is not expected to create a significant impact at any of the seven study intersections. Incremental, but not significant, impacts are noted at the study intersections due to the Project. The existing with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9–1* and *9–2*, respectively.

9.2 Future Conditions

9.2.1 Future Cumulative Baseline Conditions

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in Table 6-1.

As presented in column [3] of *Table 9–1*, three of the seven study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline condition. The following intersections are expected to operate at LOS E or worse during the peak hours shown below under future cumulative baseline conditions:

 Int. No. 2: Hoover Street / Olympic Boulevard AM Peak Hour: v/c = 1.003, LOS F PM Peak Hour: v/c = 1.104, LOS F

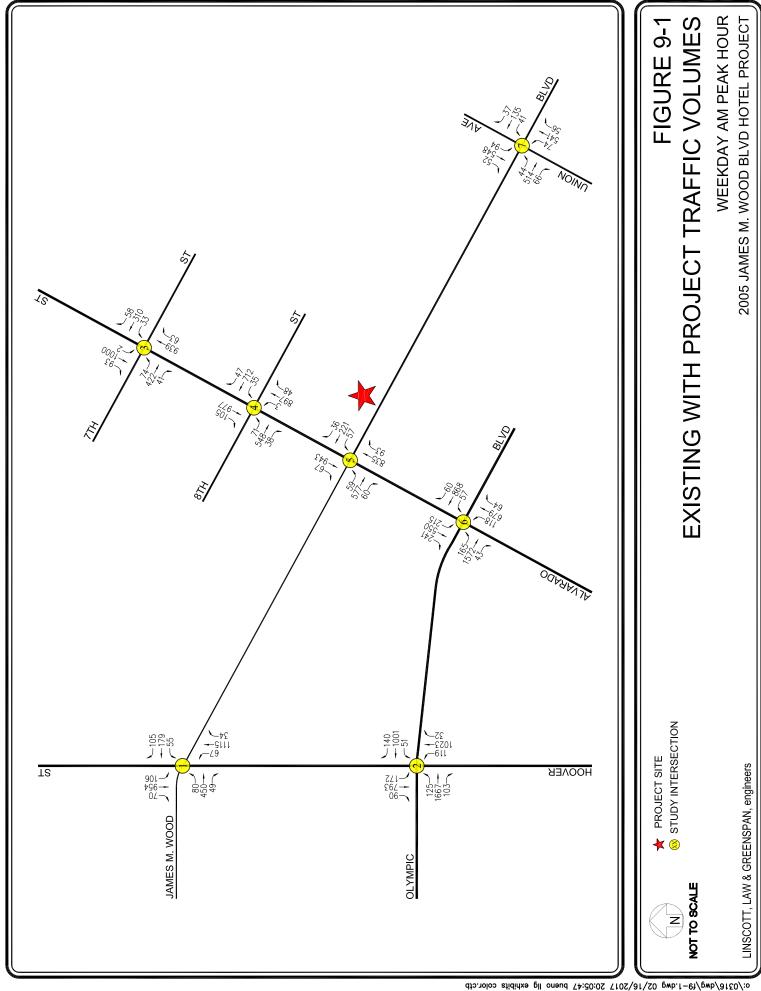
 Int. No. 5: Alvarado Street / James M. Wood Boulevard PM Peak Hour: v/c = 0.923, LOS E

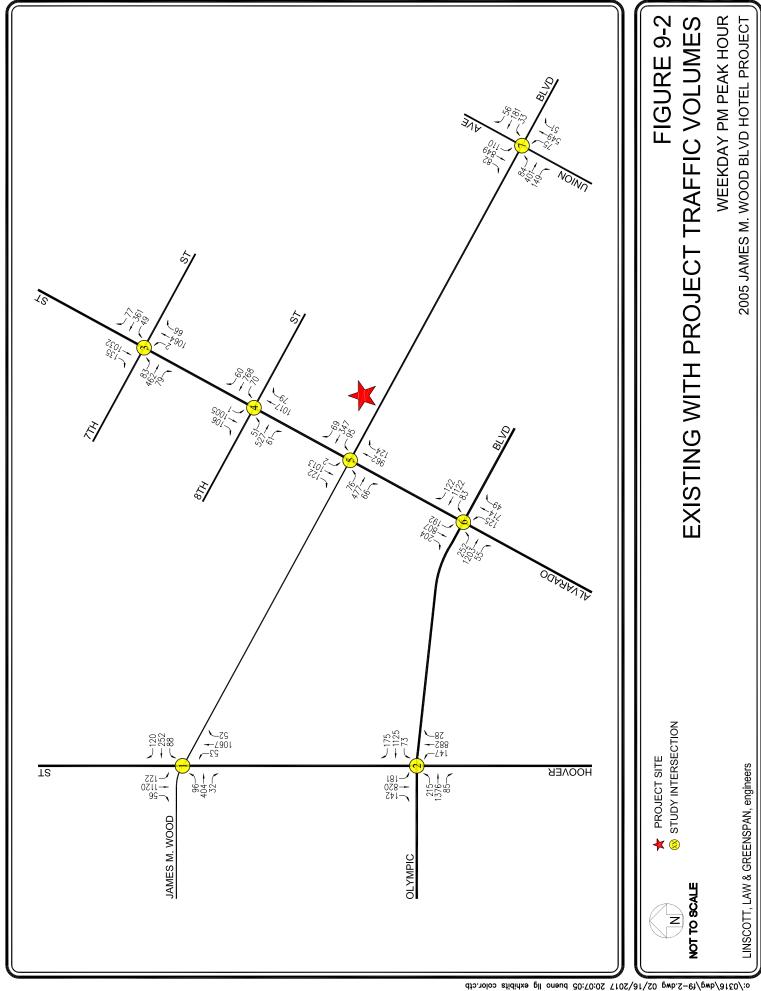
Table 9-1 SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE AM AND PM PEAK HOURS

Hower Street				[1]	H			[2]		[3]				[4]	10-ren-1/
Hover Street AM O.721 C O.723 C O.002 NO O.845 D O.895 D O.805			YEAR 2017		YEAR 201 EXISTING	רז ב	CHANGE	SIGNIF.	YEAR 2 FUTURE	2019 PRE-	YEAR 2 FUTUR	3019 RE	CHANGE	SIGNIF.	
Hoover Street / AM	NO.	INTERSECTION	PEAK HOUR	NITSE	SO.	ROJE	CT		IMPACT [a]	PROJE V/C	CT	W/ PROJ V/C	ECT LOS	V/C [(4)-(3)]	IMPACT [a]
Hover Street / Olympic Boulevard AM 0.873 D 0.875 D 0.000 NO 1.104 F 1.104 F 0.000 Alvarado Street / Olympic Boulevard AM 0.534 D 0.874 D 0.000 NO 0.697 B 0.000 F 0.000 Alvarado Street / Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.614 B 0.657 B 0.000 0.785 C 0.797 C 0.001 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.652 B 0.699 B 0.007 NO 0.883 D 0.846 D 0.003 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.756 C 0.769 C 0.009 NO 0.883 D 0.885 D 0.003 Alvarado Street / Dimon Avenue / James M. Wood Boulevard AM 0.775 C 0.776 C 0.004 NO 0.885 D 0.885 D 0.003	1	Hoover Street / James M. Wood Boulevard	AM PM		υυ	0.723	ပ	0.002	NO	0.845	D	0.847	О	0.002	NO NO
Alvarado Street	2	Hoover Street / Olympic Boulevard	AM PM		Q Q	0.875	D	0.002	NO NO	1.003	ਸ਼ਸ਼	1.005	ъ ъ	0.002	NO NO
Alvarado Street / Street AM 0.614 B 0.617 B 0.003 NO 0.785 C 0.787 C 0.002 8th Street PM 0.633 B 0.635 B 0.007 NO 0.843 D 0.846 D 0.003 Alvarado Street / James M. Wood Boulevard AM 0.701 C 0.708 C 0.007 NO 0.883 D 0.888 D 0.008 Alvarado Street / James M. Wood Boulevard AM 0.775 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.005 Union Avenue / James M. Wood Boulevard PM 0.773 C 0.775 C 0.001 NO 0.985 E 0.987 E 0.002	3	Alvarado Street / 7th Street	AM PM		A A	0.541	A A	0.003	NO NO	0.697	ВС	0.698	B	0.001	NO NO
Alvarado Street / AM	4	Alvarado Street / 8th Street	AM PM		B	0.617	В	0.003	NO NO	0.785	C D	0.787	C	0.002	NO
Alvarado Street / AM 0.756 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.003 Olympic Boulevard PM 0.797 C 0.803 D 0.006 NO 1.045 F 1.050 F 0.005 Union Avenue / AM 0.773 C 0.775 C 0.001 NO 1.068 F 1.069 F 0.001	5	Alvarado Street / James M. Wood Boulevard	AM PM		C	0.699	В	0.007	NO NO	0.853	D	0.861	D	0.008	NO NO
Union Avenue / AM 0.773 C 0.775 C 0.002 NO 0.985 E 0.987 E 0.002 James M. Wood Boulevard PM 0.761 C 0.762 C 0.001 NO 1.068 F 1.069 F 0.001	9	Alvarado Street / Olympic Boulevard	AM PM		υυ	0.760	C	0.004	NO NO	0.885	D	0.888	D	0.003	NO
	7	Union Avenue / James M. Wood Boulevard	AM PM		טט	0.775	υυ	0.002	NO NO	0.985	<u>а</u> н	0.987	五正	0.002	NO NO

According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table: <u>a</u>

Project Related Increase in v/c	equal to or greater than 0.040	equal to or greater than 0.020	equal to or greater than 0.010
SOT	C	О	Е, F
Final v/c	0.701 - 0.800	0.801 - 0.900	> 0.901





 Int. No. 6: Alvarado Street / Olympic Boulevard PM Peak Hour: v/c = 1.045, LOS F

• Int. No. 5: Union Avenue / AM Peak Hour: v/c = 0.985, LOS E James M. Wood Boulevard PM Peak Hour: v/c = 1.068, LOS F

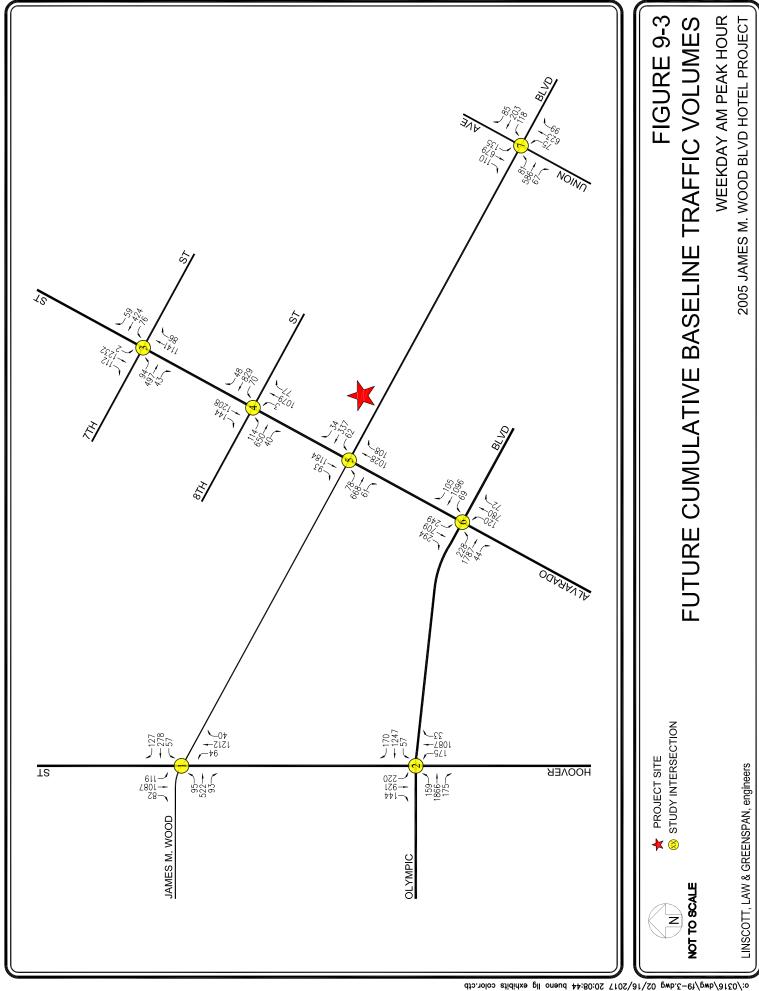
The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in *Figures 9–3* and *9–4*, respectively.

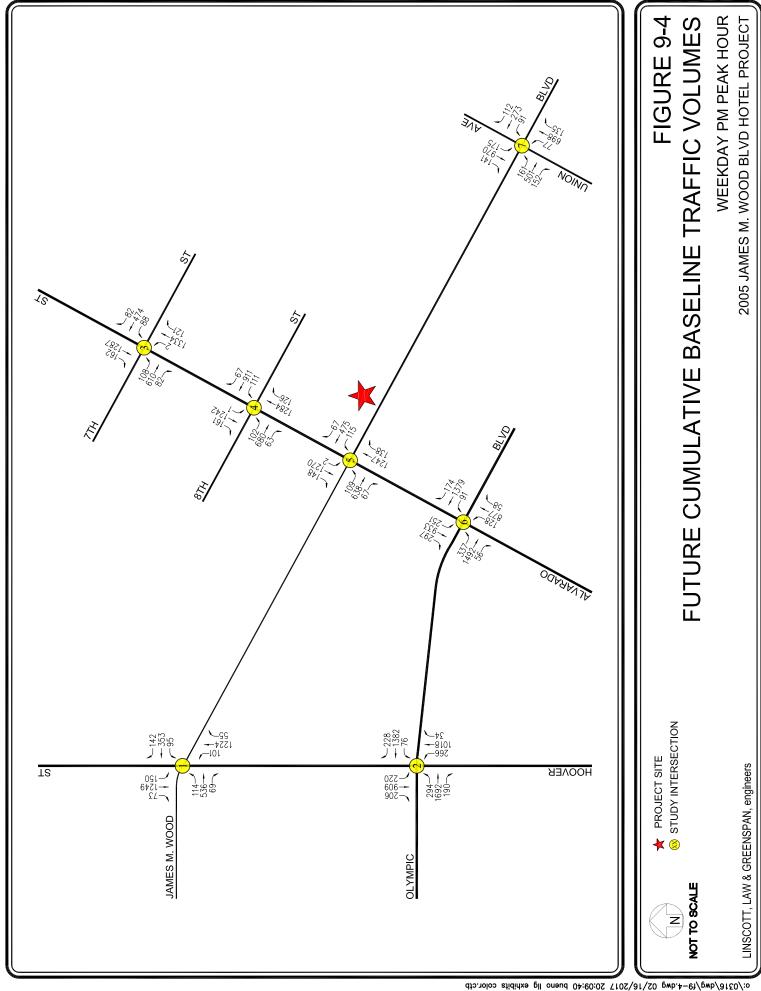
9.2.2 Future Cumulative With Project Conditions

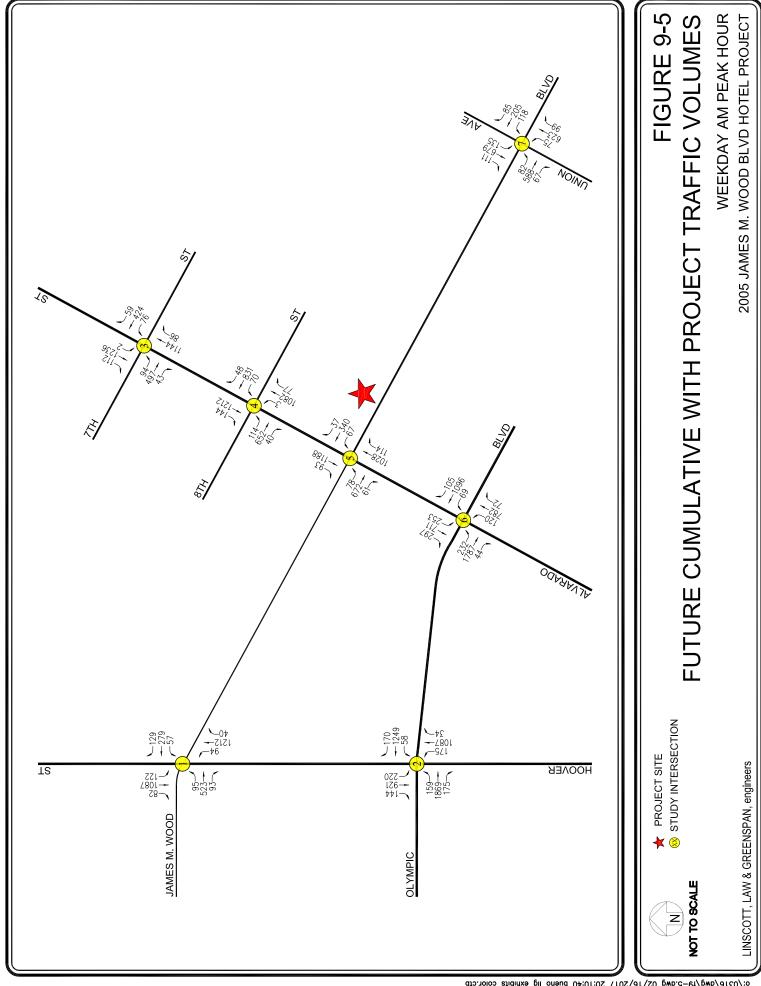
The future cumulative with Project conditions were forecast based on the addition of traffic generated by the Project plus completion and occupancy of related projects. As shown in column [4] of *Table 9–1*, application of the City's threshold criteria to the "Future With Project" scenario indicates that the Project is not expected to create a significant impact at any of the seven study intersections.

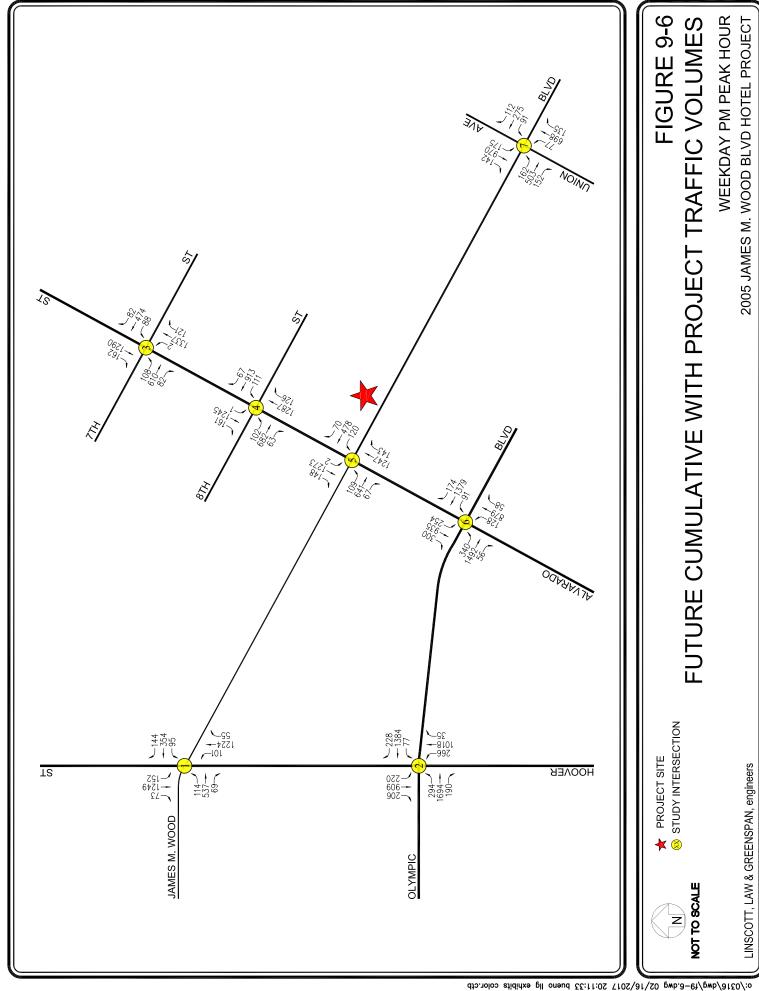
As indicated in column [4] of *Table 9–1*, incremental, but not significant, impacts are noted at all seven study intersections during the weekday AM and PM peak hours with the addition of ambient growth in traffic, related project traffic, and Project traffic, as presented in *Table 9–1*. As no significant impacts are expected due to the Project, no traffic mitigation measures are required or recommended for the study intersections.

The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9–5* and *9–6*, respectively.









10.0 Congestion Management Program Traffic Impact Assessment

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the 2010 Congestion Management Program for Los Angeles County, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

"A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C \geq 0.02), causing or worsening LOS F (V/C > 1.00)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

10.1 Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified:

• <u>CMP Station</u> <u>Intersection</u>

No. 85 Wilshire Boulevard / Alvarado Boulevard

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Project will add 50 or more trips during either the AM or PM weekday peak hours. As shown in *Figure 7–2* and *Figure 7–3*, the proposed Project would not add 50 or more trips during the AM or PM peak hours at the CMP monitoring location. Specifically, the proposed Project is expected to add only 7 AM peak hour trips and 6 PM peak hour trips to the Wilshire Boulevard / Alvarado Boulevard intersection. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

10.2 Freeways

The following CMP freeway monitoring locations have been identified in the Project vicinity:

•	CMP Station	Location
	No. 1013	I-10 Freeway at Budlong Avenue
	No. 1048	I-110 Freeway south of SR-101 Freeway

The CMP TIA guidelines require that freeway monitoring locations must be examined if the Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The Project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

10.3 Transit Impact Review

As required by the 2010 Congestion Management Program for Los Angeles County, a review has been made of the potential impacts of the Project on transit service. As discussed in Subsection 4.5 herein, existing transit service is provided in the vicinity of the proposed Project.

The Project trip generation, as shown in *Table 7–1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 10 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the Project is forecast to generate demand for 6 transit trips during the AM peak hour and 6 transit trips during the PM peak hour. Over a 24-hour period, the Project is forecast to generate demand for 77 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour = $42 \times 1.4 \times 0.1 = 6$ Transit Trips
- PM Peak Hour = $38 \times 1.4 \times 0.1 = 6$ Transit Trips
- Daily Trips = $545 \times 1.4 \times 0.1 = 77$ Transit Trips

As shown in *Table 4–1*, 7 transit lines are provided adjacent to or in close proximity the Project site. As outlined in *Table 4–1*, under the "No. of Buses/Trains During Peak Hour" column, these 7 transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) generally 91 buses/trains during the AM peak hour and 81 buses/trains during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond to an insignificant number of additional Project-generated transit trips per bus/train. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips.

11.0 CONCLUSIONS

This traffic impact analysis has been prepared to evaluate the potential impacts to the local street system due to the proposed hotel project at 2005 James M. Wood Boulevard. Seven (7) intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the Project. Application of the impact threshold criteria from the City of Los Angeles to the "With Proposed Project" scenarios indicates that the seven study intersections are not anticipated to be significantly impacted by the Project. Incremental, but not significant, impacts are noted at the seven study intersections evaluated in this analysis. As no significant impacts are expected due to the Project, no traffic mitigation measures are required or recommended for the study intersections.

Appendix A
MANUAL TRAFFIC COUNT DATA



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Hoover St

East/West James M Wood Blvd

N/B

150

1187

16.30

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

S/B

137

BIKES BUSES	19 37		24 34		19 0		16 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	309	8.45	294	8.15	158	8.15	94	7.45
PM PK 15 MIN	303	17.15	339	16.45	142	17.30	149	17.45
AM PK HOUR	1218	7.15	1127	7.30	577	7.30	326	7.15

1307 16.15

NORTHBOUND Approach		SOUTHBO	OUND Appr	oach		TOTAL	XING S/L	XING N/L			
II	Τ.4	TTL	D4	Total	II	Τ.	TL	Dt Total	NI C	D-1 C-1	D- 4 C-1

E/B

69

15.15

528

Hours	Lt	Th	Rt	Total
7-8	65	1112	21	1198
8-9	42	1107	39	1188
9-10	60	991	31	1082
15-16	52	958	36	1046
16-17	47	1068	33	1148
17-18	55	1044	49	1148
TOTAL	321	6280	209	6810

52	750	50	1040	13-10	70	702	77	112/
47	1068	33	1148	16-17	124	1119	45	1288
55	1044	49	1148	17-18	114	1088	56	1258
321	6280	209	6810	TOTAL	594	5771	295	6660

WESTBOUND Approach

7-8 8-9 9-10

Lt	Th	Rt	Total		N-S	_	Ped	Sch	Ped	Sch
84	885	57	1026		2224		56	27	51	43
100	927	53	1080		2268		18	2	23	3
76	770	35	881		1963	Ī	20	2	16	1
96	982	49	1127		2173	Ī	40	11	12	12
124	1119	45	1288		2436		33	5	15	11
114	1088	56	1258		2406		33	3	33	9
				•'		-				
594	5771	295	6660		13470		200	50	150	79
				•		-				

476 17.00

W/B

67

EASTBOUND Approach

Hours

7-8

8-9 9-10

15-16

16-17 17-18

TOTAL

	Lt	Th	Rt	Total
	58	318	51	427
	67	427	41	535
	51	283	43	377
	69	368	65	502
	82	372	41	495
	99	383	33	515
•				
	426	2151	274	2851

Hours	Lt	Th	Rt	Total
7-8	63	149	104	316
8-9	41	138	89	268
9-10	51	139	73	263
15-16	69	154	83	306
16-17	87	187	102	376
17-18	80	264	132	476
TOTAL	391	1031	583	2005

TOTAL	XING W/L	XING E/L
E-W	Ped Sch	Ped Sch
743	142 103	56 44
803	34 4	22 2
640	24 0	12 1
808	86 43	40 5
871	57 34	30 1
991	52 26	35 0
4856	395 210	195 53

Project ID: 17-5070-001 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	AM												
NS/EW Streets:		Hoover St			Hoover St		Jame	s M Wood B	lvd	Jame	s M Wood B	llvd	
	NORTHBOUND)	SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM 9:30 AM	11 13 22 19 13 13 9 7 16 20 13 11	267 285 285 275 280 275 259 293 241 276 234 240	6 4 1 10 11 11 8 9 5 8 10 8	17 20 26 21 26 30 20 24 18 25 22 11	197 215 231 242 235 246 223 223 183 179 214	9 12 18 18 16 18 12 7 9 5 11	10 11 20 17 20 23 11 13 20 7	40 66 105 107 111 125 95 96 84 60 65 74	7 13 14 17 8 10 10 13 13 12 10 8	15 15 19 14 8 12 6 15 17 14 7	28 29 33 59 41 36 28 33 23 42 39 35	24 29 30 21 28 24 18 19 18 18 14 23	631 712 804 820 797 823 699 752 647 666 652 638
TOTAL VOLUMES : APPROACH %'s : PEAK HR START TIME :	NL 167 4.82%	NT 3210 92.56%	NR 91 2.62%	SL 260 8.70%	ST 2582 86.44%	SR 145 4.85%	EL 176 13.14%	ET 1028 76.77%	ER 135 10.08%	WL 155 18.30%	WT 426 50.30%	WR 266 31.40%	TOTAL 8641
PEAK HR VOL : PEAK HR FACTOR :	67	1115 0.986	33	103	954 0.958	70	80	448 0.913	49	53	169 0.864	103	3244 0.985

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-001 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΡМ

PW												i	
NS/EW Streets:	Hoover St			I	Hoover St		James M Wood Blvd			James M Wood Blvd			
	N	ORTHBOUND)	SC	DUTHBOUND)	EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL	ST 2	SR 0	EL	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
LAINES:	1	2	U	•	2	U	·	1	U		1	U	
3:00 PM	10	250	8	13	240	11	15	69	15	16	34	28	709
3:15 PM	13	231	8	26	213	3	18	97	25	16	40	24	714
3:30 PM	15	233	8	23	271	18	19	96	14	23	41	17	778
3:45 PM	14	244	12	34	258	17	17	106	11	14	39	14	780
4:00 PM	8	261	6	32	271	9	17	95	13	22	46	21	801
4:15 PM	13	263	10	32	281	15	18	102	10	18	39	26	827
4:30 PM	16	274	7	26	275	8	23	78	10	21	51	26	815
4:45 PM	10	270	10	34	292	13	24	97	8	26	51	29	864
5:00 PM	17	270	10	21	293	17	22	93	6	23	55	25	852
5:15 PM	17	274	12	30	280	15	17	107	10	16	50	33	861
5:30 PM	9	253	17	35	255	11	33	101	8	20	74	31	847
5:45 PM	12	247	10	28	260	13	27	82	9	21	85	43	837
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	154	3070	118	334	3189	150	250	1123	139	236	605	317	9685
APPROACH %'s:	4.61%	91.86%	3.53%	9.09%	86.82%	4.08%	16.53%	74.27%	9.19%	20.38%	52.25%	27.37%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL:	53	1067	49	120	1120	56	96	398	32	85	230	118	3424
PEAK HR FACTOR:		0.965			0.956			0.926			0.866		0.991



TOTAL

0

0

STREET: North/South Hoover St/Coronado St East/West James M Wood Blvd Wednesday February 8, 2017 Weather: SUNNY Day: Date: 7-10 & 3-6 Chekrs: Hours: NDS YES School Day: I/S CODE District: N/B E/B W/B S/B DUAL-WHEELED 0 0 2 3 BIKES 0 5 6 1 BUSES 0 0 0 0 N/B TIME S/B TIME E/B TIME W/B TIME AM PK 15 MIN 8.00 7.30 8.00 9.00 1 3 PM PK 15 MIN 15.00 17.00 1 17.00 3 15.30 AM PK HOUR 8.00 11 7.30 2 8.00 7.30 PM PK HOUR 3 16.00 24 16.30 17.00 26 15.30 NORTHBOUND Approach SOUTHBOUND Approach TOTAL XING S/L XING N/L Hours Total Hours Total Th Rt Rt N-S Ped Sch Ped Sch 7-8 7-8 0 0 0 8-9 8-9 0 10 0 0 0 0 9-10 0 0 0 9-10 0 6 0 0 0 0 0 15-16 0 15-16 0 0 0 16-17 16-17 17 0 21 17-18 17-18 TOTAL 0 0 TOTAL 0 9 59 68 75 0 0 **EASTBOUND Approach** WESTBOUND Approach TOTAL XING W/L XING E/L Hours Th Rt Total Hours Rt Total E-W Ped Sch Ped Sch 7-8 7-8 8-9 0 0 8-9 0 0 14 14 16 0 0 0 0 0 0 0 9-10 0 0 9-10 0 17 17 18 0 0 15-16 0 15-16 0 0 0 20 20 20 0 0 0 21 0 16-17 0 16-17 21 21 0 17-18 0 19 19 24 0 0 0 17-18

TOTAL

0

0

105

105

113

0

0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 17-5070-101

Day: Wednesday

TOTALS

City: Los Angeles Date: 2/8/2017 AM NS/EW Streets Hoover St/Coronado St Hoover St/Coronado St James M Wood Blvd James M Wood Blvd NORTHBOUND SOUTHBOUND EASTBOUND WESTBOUND NL NT NR ST EL ΕT ER WL WT WR TOTAL SL SR LANES: 7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 0 0 0 9:15 AM 9:30 AM 9:45 AM SR WT WR TOTAL NL NT NR SL ST EL ΕT ER WL TOTAL VOLUMES: APPROACH %'s: 0.00% 100.00% 0.00% 0.00% 17.39% 82.61% 100.00% 0.00% 0.00% 0.00% 0.00% 100.00% PEAK HR START TIME : 730 AM TOTAL PEAK HR VOL:

0.917

0.250

0.792

0.889

CONTROL: Signalized

0.250

PEAK HR FACTOR:

Project ID: 17-5070-101 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΡМ

_	PM												
NS/EW Streets:	Hoove	r St/Coronad	o St	Hoover	St/Coronac	do St	Jame	s M Wood Bl	lvd	James	M Wood E	Blvd	
	N	ORTHBOUND)	SOUTHBOUND		E	ASTBOUND		W	/ESTBOUNI	D		
LANES:	NL 1	NT 2	NR 0	SL 0	ST 0	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:30 PM 5:45 PM	0 0 0 0 0 0 0 0 0	1 0 0 0 1 1 1 0 1 1 1	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 1 0 0 3 0	2 0 4 1 3 2 5 6 5 5 1 6	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	3 3 7 7 7 5 4 5 4 6 4 5	6 3 11 8 11 9 9 12 16 14 6
TOTAL VOLUMES : APPROACH %'s : PEAK HR START TIME :	NL 0 0.00%	NT 6 100.00%	NR 0 0.00%	SL 0 0.00%	ST 5 11.11%	SR 40 88.89%	EL 5 100.00%	ET 0 0.00%	ER 0 0.00%	WL 0 0.00%	WT 0 0.00%	WR 60 100.00%	TOTAL 116
PEAK HR VOL : PEAK HR FACTOR :	0	3 0.750	0	0	3 0.750	21	5	0.417	0	0	0 0.792	19	51 0.797



N/B

172

1125 16.30

STREET:

DUAL-WHEELED

PM PK HOUR

North/South Hoover St

East/West Olympic Blvd

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day:	YES	District:	I/S CODE	
			 •	

S/B

145

BIKES	29		28		49		62		
BUSES	38		33		58		54		
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME	
AM PK 15 MIN	320	7.30	282	7.30	489	8.15	322	7.15	
PM PK 15 MIN	314	16.30	313	16.30	461	16.15	394	17.15	
AM PK HOUR	1215	7.15	1086	7.30	1892	8.00	1221	7.00	

1201 16.15

NORTHBOUND Approach	SOUTHBOUND Approach	TOTAL	XING S/L	XING N/L

E/B

179

1689 17.00

W/B

235

1385 17.00

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	_	Ped	Sch
7-8	118	1055	17	1190	7-8	165	767	94	1026	2216	64	27		62	7
8-9	119	1023	31	1173	8-9	172	793	90	1055	2228	77	5		47	0
9-10	112	910	30	1052	9-10	114	653	104	871	1923	70	2		38	1
15-16	111	814	34	959	15-16	172	828	108	1108	2067	112	26		78	9
16-17	128	936	33	1097	16-17	175	881	114	1170	2267	118	34		90	14
17-18	148	858	25	1031	17-18	185	771	154	1110	2141	116	17		95	7
TOTAL	736	5596	170	6502	TOTAL	983	4693	664	6340	12842	557	111		410	38

EASTBOUND Approach	WESTBOUND Approach	TOTAL	XING W/L	XING E/L

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	F	ed	Sch		Ped	Sch
7-8	146	1200	94	1440	7-8	35	1070	116	1221	2661		64	9		43	7
8-9	125	1664	103	1892	8-9	50	999	140	1189	3081		45	1		59	0
9-10	108	1269	109	1486	9-10	48	954	97	1099	2585		30	0		52	1
15-16	154	1219	90	1463	15-16	51	898	159	1108	2571		85	11		71	13
16-17	173	1363	109	1645	16-17	73	942	153	1168	2813		89	23		88	29
17-18	232	1381	76	1689	17-18	67	1153	165	1385	3074		78	7	Ī	111	16
				<u>_</u>												
TOTAL	938	8096	581	9615	TOTAL	324	6016	830	7170	16785	3	91	51		424	66

Project ID: 17-5070-002 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	- AM								•				
NS/EW Streets:		Hoover St		1	Hoover St		0	lympic Blvd		0	lympic Blvd		
	N	ORTHBOUNE)	SC	DUTHBOUNI	D	E	ASTBOUND		V	VESTBOUND)	
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM 9:30 AM	27 23 36 32 33 30 24 32 24 26 34 28	261 281 280 233 276 236 250 261 229 235 242	6 3 4 4 10 7 6 8 9 3 5	38 31 52 44 47 50 43 32 31 21 32 30	185 189 206 187 212 194 194 193 177 151 175	24 19 24 27 22 21 21 26 25 15 36 28	38 30 33 45 34 33 24 34 28 26 26 26	206 272 340 382 392 428 425 419 328 348 283 310	22 23 22 27 30 28 26 19 28 26 28 26 28 27	6 8 9 12 14 11 11 11 14 12 17 9	268 278 258 266 241 275 237 246 221 272 214 247	25 36 22 33 26 36 30 48 24 30 26 17	1106 1193 1286 1292 1337 1349 1291 1332 1136 1170 1110
TOTAL VOLUMES : APPROACH %'S : PEAK HR START TIME :	NL 349 10.22%	NT 2988 87.50%	NR 78 2.28%	SL 451 15.28%	ST 2213 74.97%	SR 288 9.76%	EL 379 7.87%	ET 4133 85.78%	ER 306 6.35%	WL 133 3.79%	WT 3023 86.15%	WR 353 10.06%	TOTAL 14694
PEAK HR VOL :	119	1023 0.919	31	172	793 0.939	90	125	1664 0.967	103	50	999 0.923	140	5309 0.984

Project ID: 17-5070-002 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	PM												
NS/EW Streets:	1	Hoover St		I	Hoover St		0	lympic Blvd		0	lympic Blvd		
	NO	ORTHBOUND)	SC	OUTHBOUN	D	E	ASTBOUND		V	VESTBOUND)	
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
2.1125.	•	_	· ·	•	_		•	· ·	· ·	•			
3:00 PM	32	220	9	39	211	34	42	298	22	14	207	40	1168
3:15 PM	30	184	7	44	177	23	34	289	20	9	221	45	1083
3:30 PM	23	212	7	41	236	27	39	303	25	14	214	35	1176
3:45 PM	26	198	11	48	204	24	39	329	23	14	256	39	1211
4:00 PM	43	237	5	41	205	32	44	340	24	14	207	34	1226
4:15 PM	18	203	10	45	219	32	50	377	34	21	246	40	1295
4:30 PM	28	276	10	44	247	22	38	274	26	16	219	30	1230
4:45 PM	39	220	8	45	210	28	41	372	25	22	270	49	1329
5:00 PM	40	253	7	44	234	31	46	324	22	10	220	37	1268
5:15 PM	37	201	6	45	190	38	65	358	23	19	327	48	1357
5:30 PM	31	208	6	47	186	45	63	320	15	21	306	41	1289
5:45 PM	40	196	6	49	161	40	58	379	16	17	300	39	1301
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	387	2608	92	532	2480	376	559	3963	275	191	2993	477	14933
APPROACH %'s:	12.54%	84.48%	2.98%	15.70%	73.20%	11.10%	11.65%	82.61%	5.73%	5.22%	81.75%	13.03%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL :	147	882	27	181	820	142	215	1374	85	72	1123	175	5243
PEAK HR FACTOR :		0.880			0.925			0.938			0.869		0.966



STREET:

North/South Alvarado St

East/West 7th St

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

7-10 & 3-6 Hours: Chekrs: NDS

School Day:	YES	District:	I/S CODE	
	N/B	S/B	E/B	W/B

DUAL-				
WHEELED	181	206	78	53
BIKES	53	40	115	102
BUSES	44	78	83	57
	N/B TIME	S/B TIME	E/B TIME	W/B
	IN/D TIME	S/D IIIVIE	E/D IIIVIE	W/D

			'					
AM PK 15 MIN	267	7.15	295	7.30	161	7.45	106	7.45
PM PK 15 MIN	293	17.45	303	16.45	183	17.00	133	17.15
AM PK HOUR	999	7.15	1091	7.15	578	7.30	401	7.15
PM PK HOUR	1131	17 00	1164	16 30	662	16 15	494	17.00

Hours

NORTHBOUND Approach	SOUTHBOUND Approach	TOTAL	XING S/L	XING N/L
---------------------	---------------------	-------	----------	----------

Hours	Lt	Th	Rt	Total
7-8	0	917	67	984
8-9	1	869	63	933
9-10	1	789	45	835
15-16	2	968	67	1037
16-17	0	1022	81	1103
17-18	2	1068	61	1131
TOTAL	6	5633	384	6023

7-8	3	988	93	1084
8-9	0	878	104	982
9-10	3	902	86	991
15-16	10	909	98	1017
16-17	1	992	122	1115
17-18	0	1010	131	1141
TOTAL	17	5679	634	6330

Th

Rt Total

W/B

TIME

N-S	Ped	Sch	Ped	Sch
2068	259	42	172	16
1915	202	2	199	4
1826	208	7	217	4
2054	447	39	388	38
2218	495	8	444	24
2272	489	38	479	20
12353	2100	136	1899	106

XING W/L

EASTBOUND	Approach

Hours

7-8

8-9

9-10

15-16

16-17

17-18

TOTAL

Lt	Th	Rt	Total
73	377	30	480
40	421	43	504
45	281	32	358
84	395	62	541
71	487	79	637
83	448	72	603
	•		
396	2409	318	3123

WESTBOUN	ND Appro	ach
Hours	Lt	7

Hours	Lt	Th	Rt	Total		
7-8	36	285	57	378		
8-9	13	253	48	314		
9-10	29	239	44	312		
15-16	55	322	66	443		
16-17	34	321	64	419		
17-18	40	380	74	494		
TOTAL	207	1800	353	2360		

E-W	Ped
858	171
818	167
670	205
984	351
1056	380
1097	465
5483	1739

TOTAL

Ped	Sch
321	2
347	0
319	0
527	0
586	6
817	23
2917	31

XING E/L

Project ID: 17-5070-003 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles AM

						AN	/I						i
NS/EW Streets:	А	Alvarado St Alvarado St				7th St			7th St				
•	No	ORTHBOUNI)	SC	OUTHBOUND)	E	EASTBOUND		V	VESTBOUND)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
LAINES.	U	3	U	U	2	'	'	2	U	·	2	U	
7:00 AM	0	197	14	1	248	24	10	61	3	9	47	10	624
7:15 AM	0	252	15	0	237	18	13	77	6	9	80	15	722
7:30 AM	0	239	19	2	265	28	21	119	9	9	76	17	804
7:45 AM	0	229	19	0	238	23	29	120	12	9	82	15	776
8:00 AM	0	216	10	0	256	24	11	106	14	6	72	11	726
8:15 AM	0	191	20	0	224	23	12	115	10	2	68	9	674
8:30 AM	0	223	18	0	193	30	10	108	10	2	56	15	665
8:45 AM	1	239	15	0	205	27	7	92	9	3	57	13	668
9:00 AM	0	199	11	1	217	24	14	65	6	4	58	8	607
9:15 AM	0	205	9	2	239	20	10	62	5	6	69	9	636
9:30 AM	1	191	7	0	245	26	10	74	11	9	46	13	633
9:45 AM	0	194	18	0	201	16	11	80	10	10	66	14	620
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	2	2575	175	6	2768	283	158	1079	105	78	777	149	8155
APPROACH %'s:	0.07%	93.57%	6.36%	0.20%	90.55%	9.26%	11.77%	80.40%	7.82%	7.77%	77.39%	14.84%	
PEAK HR START TIME :	715 <i>F</i>	MA											TOTAL
PEAK HR VOL :	0	936	63	2	996	93	74	422	41	33	310	58	3028
PEAK HR FACTOR:		0.935			0.925			0.834			0.946		0.942

Project ID: 17-5070-003 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

	PM									•			
NS/EW Streets:	P	Alvarado St		А	Ivarado St			7th St			7th St		
	N	ORTHBOUNI	D	SC	OUTHBOUN	D	E	ASTBOUND		V	VESTBOUNE)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM	1 0 1 0 0 0 0 0 0	226 259 222 261 252 239 258 273 246 275 267 280	13 17 20 17 28 19 16 18 15 14 19 13	2 4 0 4 1 0 0 0 0 0	203 222 236 248 237 235 255 265 248 249 267 246	18 20 26 34 22 16 46 38 36 27 34 34	30 18 13 23 18 17 16 20 27 20 16 20	98 86 95 116 119 122 132 114 132 110 106	9 17 17 19 21 17 24 17 24 16 22 10	12 19 15 9 3 9 10 12 15 12	79 85 83 75 102 66 67 86 81 99 95 105	15 19 20 12 17 11 20 16 19 22 20 13	706 766 748 818 820 751 844 859 844 844 857
TOTAL VOLUMES : APPROACH %'s :	NL 4 0.12%	NT 3058 93.49%	NR 209 6.39%	SL 11 0.34%	ST 2911 88.94%	SR 351 10.72%	EL 238 13.36%	ET 1330 74.68%	ER 213 11.96%	WL 129 9.51%	WT 1023 75.44%	WR 204 15.04%	TOTAL 9681
PEAK HR START TIME : PEAK HR VOL : PEAK HR FACTOR :	445 F 2	1061 0.970	66	0	1029 0.960	135	83	462 0.852	79	49	361 0.915	77	3404 0.991



STREET: North/South

Alvarado St

East/West

8th St

Day:

Wednesday Date:

February 8, 2017

Weather:

SUNNY

Hours: 7-10 & 3-6

Chekrs: NDS

School Day:

YES	Di	stri	ct
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1/8	\mathbf{C}	וו)	Ю.

	N/B	S/B	E/B	W/B
DUAL-	<u> </u>			
WHEELED	179	207	83	91
BIKES	63	63	50	51
BUSES	44	48	39	34

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME	
AM PK 15 MIN	253	8.45	278	8.00	176	7.45	218	7.30	
PM PK 15 MIN	292	17.45	297	17.30	176	17.00	264	17.45	
AM PK HOUR	945	7.15	1078	7.15	682	7.45	792	7.15	
PM PK HOUR	1093	17.00	1136	16.45	668	16.15	896	17.00	

SOUTHBOUND	Approach	

TOTAL	
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XING S/L

XING N/L

Hours
7-8
8-9
9-10
15-16
16-17
17-18

TOTAL

Hours

7-8

8-9 9-10

15-16

16-17

17-18

TOTAL

Lt	Th	Rt	Total
4	885	42	931
0	857	77	934
27	746	61	834
33	896	64	993
2	981	73	1056
0	1014	79	1093
-		•	
66	5379	396	5841

Hours
7-8
8-9
9-10
15-16
16-17
17-18
TOTAL

Lt	Th	Rt	Total
0	941	105	1046
1	840	98	939
35	809	104	948
26	854	117	997
3	1015	75	1093
1	1002	106	1109
66	5461	605	6132

N-S
1977
1873
1782
1990
2149
2202

11973

Pea	Scn	
150	77	
106	34	
101	5	
173	54	
182	9	
284	15	
996	194	

Ped	Sch
203	61
133	6
113	4
186	25
186	25
296	26
1117	147

EASTBOUND Approach

Lt	Th	Rt	Total
77	481	35	593
48	570	28	646
47	416	21	484
91	462	55	608
66	516	59	641
51	525	61	637
380	2970	259	3609

Hours	Lt	Th	Rt	Total
7-8	36	699	44	779
8-9	36	613	36	685
9-10	42	539	47	628
15-16	49	538	75	662
16-17	52	551	73	676
17-18	70	766	60	896
TOTAL	285	3706	335	4326

TOTAL	XING W/L
E-W	Ped Sch
1070	100

E-W Ped Sch	
1372 199 65	
1331 133 10	
1112 113 3	
1270 190 34	
1317 198 43	
1533 311 26	
7935 1144 181	

Ped	Sch
231	77
154	27
158	11
326	46
360	19
448	12

XING E/L

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-004 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

ΑM NS/EW Streets Alvarado St Alvarado St 8th St 8th St NORTHBOUND SOUTHBOUND EASTBOUND WESTBOUND NT ΕT ER WL WT WR TOTAL NL NR SL ST SR EL LANES: 7:00 AM 33 7:15 AM 7:30 AM 23 24 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 25 33 13 9:00 AM 9:15 AM 9:30 AM 9:45 AM SR WT WR NL NT NR SL ST EL ΕT ER WL TOTAL TOTAL VOLUMES: APPROACH %'s: 1.15% 92.18% 6.67% 1.23% 88.31% 10.47% 9.98% 85.14% 4.88% 5.45% 88.48% 6.07% PEAK HR START TIME : 715 AM TOTAL PEAK HR VOL: PEAK HR FACTOR: 0.953 0.969 0.930 0.908 0.956

Project ID: 17-5070-004 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_	PM								•				
NS/EW Streets:	A	Alvarado St		Α	Ivarado St			8th St			8th St		
	N	ORTHBOUND)	SO	DUTHBOUNI	D	E	ASTBOUND	•	V	VESTBOUND		
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM	8 7 11 7 1 0 0 1 0 0	206 242 194 254 232 231 251 267 237 260 247 270	12 17 14 21 22 19 18 14 17 20 20 22	12 5 3 6 0 0 3 0 0	180 226 221 227 250 226 259 280 248 244 269 241	28 23 35 31 16 24 22 13 30 24 28 24	20 26 26 19 17 16 18 15 14 11 9	97 104 130 131 123 141 129 123 136 143 123 123	15 15 10 15 9 15 15 20 26 16 7	10 8 17 14 12 13 14 13 17 20 20	128 125 134 151 134 125 119 173 150 191 194 231	15 21 21 18 26 18 13 16 16 10 14 20	731 819 816 894 842 828 861 935 891 939 931
TOTAL VOLUMES : APPROACH %'s :	NL 35 1.11%	NT 2891 92.01%	NR 216 6.87%	SL 30 0.94%	ST 2871 89.75%	SR 298 9.32%	EL 208 11.03%	ET 1503 79.69%	ER 175 9.28%	WL 171	WT 1855 83.03%	WR 208 9.31%	TOTAL 10461
PEAK HR START TIME : PEAK HR VOL : PEAK HR FACTOR :	0	1014	79	1	1002 0.934	106	51	525 0.905	61	70	766 0.848	60	3735 0.959



STREET:

DUAL-WHEELED

PM PK HOUR

EASTBOUND Approach

TOTAL

North/South Alvarado St

East/West James M Wood Blvd

N/B

169

1081

17.00

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

S/B

203

BIKES BUSES	71 44		71 48		43		42 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	259	8.45	273	8.00	181	7.45	83	8.00
PM PK 15 MIN	282	17.45	300	16.45	166	17.15	150	17.45
AM PK HOUR	938	7.15	1033	7.15	692	7.30	308	7.15

1153 16.45

NORTHBOUND Approach			SOUTHBOU	SOUTHBOUND Approach					TOTAL	XING	S/L	XING	XING N/L		
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total		N-S	Ped	Sch	Ped	Sch
7-8	1	826	83	910	7-8	1	934	68	1003		1913	55	5	77	9

WESTBOUND Approach

E/B

80

616 16.45

Hours	Lt	Th	Rt	Total
7-8	1	826	83	910
8-9	0	854	80	934
9-10	22	753	73	848
15-16	17	845	84	946
16-17	0	943	103	1046
17-18	0	962	119	1081
TOTAL	40	5183	542	5765

0	943	103	1046	16-17	2	1018	101	1121
0	962	119	1081	17-18	2	1010	122	1134
				•				
40	5183	542	5765	TOTAL	83	5411	470	5964
				!				

8-9 9-10 15-16

1	934	68	1003		1913	55	5	77	9
1	845	62	908		1842	29	0	55	0
58	755	54	867		1715	24	0	37	1
19	849	63	931		1877	56	16	98	15
2	1018	101	1121		2167	63	4	83	11
2	1010	122	1134		2215	72	19	112	4
				_					
83	5411	470	5964		11729	299	44	462	40
				-					

17.00

500

W/B

50

Hours	Lt	Th	Rt	Total
7-8	67	453	62	582
8-9	51	533	53	637
9-10	60	343	45	448
15-16	76	389	62	527
16-17	65	427	73	565
17-18	76	474	66	616

2619

3375

395

7-8 67 196 36 299 8-9 46 195 52 293 9-10 35 155 46 236 15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500 TOTAL 372 1350 343 2065	Hours	Lt	Th	Rt	Total
9-10 35 155 46 236 15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500	7-8	67	196	36	299
15-16 62 210 66 338 16-17 72 250 77 399 17-18 90 344 66 500	8-9	46	195	52	293
16-17 72 250 77 399 17-18 90 344 66 500	9-10	35	155	46	236
17-18 90 344 66 500	15-16	62	210	66	338
	16-17	72	250	77	399
TOTAL 372 1350 343 2065	17-18	90	344	66	500
TOTAL 372 1350 343 2065					
	TOTAL	372	1350	343	2065

TOTAL	XING	W/L		E/L		
E-W	Ped	Sch		Ped	Sch	
881	81	11		114	14	
930	56	1		78	3	
684	52	7		60	14	
865	98	9		171	13	
964	145	9		184	15	
1116	164	8		213	19	
' <u></u>						
5440	596	45		820	78	

Project ID: 17-5070-005 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΔМ

_				AM								Ī	
NS/EW Streets:	А	Ivarado St		А	Ivarado St		Jame	s M Wood B	lvd	James	s M Wood B	llvd	
•	N	ORTHBOUND)	SC	OUTHBOUND)	E	ASTBOUND		W	/ESTBOUND)	<u> </u>
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM 9:30 AM	1 0 0 0 0 0 0 0 7 3 5 7	186 206 221 213 213 188 214 239 197 185 191	21 16 27 19 23 18 19 20 24 27 9	1 0 0 0 0 0 0 1 1 0 14 12 21	221 234 253 226 257 203 201 184 190 190 196 179	21 12 10 25 16 16 14 16 15 16 13	17 17 20 13 12 14 14 11 13 19 16	74 92 141 146 139 147 132 115 94 87 81	11 19 10 22 12 16 11 14 7 6 17	21 18 17 11 11 13 10 12 7 6 12	40 50 43 63 66 46 38 45 36 41 40 38	13 9 8 6 6 13 18 15 10 13 9	627 673 750 744 755 674 672 671 614 605 610 570
TOTAL VOLUMES : APPROACH %'s :	NL 23 0.85%	NT 2433 90.38%	NR 236 8.77%	SL 60 2.16%	ST 2534 91.22%	SR 184 6.62%	EL 178 10.68%	ET 1329 79.72%	ER 160 9.60%	WL 148 17.87%	WT 546 65.94%	WR 134 16.18%	TOTAL 7965
PEAK HR START TIME : PEAK HR VOL : PEAK HR FACTOR :	730 <i>F</i>	835 0.929	87	0	939 0.921	67	59	573 0.956	60	52	218 0.913	33	TOTAL 2923 0.968

Project ID: 17-5070-005 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles РМ

_				PM									
NS/EW Streets:	А	Ivarado St		А	Ivarado St		Jame	s M Wood B	llvd	Jame	s M Wood B	lvd	
	NO	ORTHBOUNI)	SC	DUTHBOUND)	E	ASTBOUND	1	٧	VESTBOUND)	
LANES:	NL 0	NT 3	NR 0	SL 0	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM	7	199	20	7	184	19	18	89	13	23	54	25	658
3:15 PM	2	216	23	5	216	17	17	90	15	13	54	13	681
3:30 PM	7	191	19	4	224	12	19	93	15	9	53	16	662
3:45 PM	1	239	22	3	225	15	22	117	19	17	49	12	741
4:00 PM	0	225	29	0	258	30	17	104	21	18	46	11	759
4:15 PM	0	218	25	1	221	20	19	120	17	20	58	19	738
4:30 PM	0	241	27	0	263	28	11	98	20	20	70	29	807
4:45 PM	0	259	22	1	276	23	18	105	15	14	76	18	827
5:00 PM	0	242	18	2	267	27	19	116	12	23	59	17	802
5:15 PM	0	227	40	0	245	17	19	131	16	23	91	8	817
5:30 PM	0	238	34	0	263	32	19	123	23	23	86	20	861
5:45 PM	0	255	27	0	235	46	19	104	15	21	108	21	851
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	17	2750	306	23	2877	286	217	1290	201	224	804	209	9204
APPROACH %'s:	0.55%	89.49%	9.96%	0.72%	90.30%	8.98%	12.70%	75.53%	11.77%	18.11%	65.00%	16.90%	
PEAK HR START TIME :	500 F	PM											TOTAL
PEAK HR VOL :	0	962	119	2	1010	122	76	474	66	90	344	66	3331
PEAK HR FACTOR:		0.958			0.958			0.928			0.833		0.967



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Alvarado St

East/West Olympic Blvd

N/B

162

906 15.45

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

7-10 & 3-6 Hours: Chekrs: NDS

School Day: YES District: I/S CODE

S/B

191

BIKES	62		64		66		67	
BUSES	46		48		58		54	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	242	7.30	279	7.30	501	8.30	275	7.00
PM PK 15 MIN	234	15.45	317	17.00	406	17.45	388	17.15
AM PK HOUR	897	7.15	1072	7.15	1802	8.00	1010	8.30

1217 16.45

NORTHBOU	ND Appro	oach			SOUTHBOU	SOUTHBOUND Approach					TOTAL	XING S/L			XING N/L		
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total		N-S	Ped	Sch		Ped	Sch	
7-8	125	684	67	876	7-8	201	618	234	1053		1929	70	11		52	0	

E/B

174

1507 17.00

W/B

196

1327 17.00

61 50

61

76 77

377

0

Hours	Lt	Th	Rt	Total
7-8	125	684	67	876
8-9	120	696	53	869
9-10	85	651	70	806
15-16	106	679	72	857
16-17	132	727	43	902
17-18	125	712	49	886
TOTAL	693	4149	354	5196

7	70	1929	1053	234	618	201	7-8
2	83	1799	930	236	502	192	8-9
	70	1641	835	190	503	142	9-10
21	125	1830	973	179	624	170	15-16
20	141	2071	1169	191	765	213	16-17
8	118	2081	1195	201	805	189	17-18
69	607	11351	6155	1231	3817	1107	TOTAL
	141 118	2071 2081	1169 1195	191 201	765 805	213 189	16-17 17-18

EASTBOUNI	EASTBOUND Approach					WESTBOUND Approach						XING W/L			XING E/L		
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total		E-W	Ped	Sch		Ped	Sch	
7-8	145	1166	39	1350	7-8	56	878	62	996		2346	50	4	ſ	92	9	
8-9	162	1598	42	1802	8-9	55	872	71	998		2800	47	1	Ī	99	3	
9-10	129	1160	32	1321	9-10	59	822	68	949		2270	64	1	Ī	96	0	
15-16	190	1109	51	1350	15-16	69	817	78	964		2314	90	9	Ī	149	22	
16 17	214	1104	56	1464	16 17	9.1	951	00	1025		2490	120	5	Ī	157	12	

8-9	162	1598	42	1802	8-9	55	872	71	998	2800		47	1	L	99	3
9-10	129	1160	32	1321	9-10	59	822	68	949	2270		64	1		96	0
15-16	190	1109	51	1350	15-16	69	817	78	964	2314		90	9		149	22
16-17	214	1194	56	1464	16-17	84	851	90	1025	2489	1	20	5		157	12
17-18	249	1203	55	1507	17-18	83	1122	122	1327	2834	1	10	9		165	8
					•											
TOTAL	1089	7430	275	8794	TOTAL	406	5362	491	6259	15053	4	81	29		758	54
					•											

Project ID: 17-5070-006 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΔМ

_						AN	//						1
NS/EW Streets:	А	Ivarado St		А	Ivarado St		O	lympic Blvd		Ol	lympic Blvd		
	No	ORTHBOUND)	SC	OUTHBOUN	D	E	ASTBOUND		V	/ESTBOUND		
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM 9:00 AM 9:15 AM	31 32 28 34 23 29 32 36 18 18 24	150 172 196 166 179 167 165 185 194 155 149	13 13 18 23 13 15 13 12 19 11 24	47 44 56 54 56 51 50 35 36 30 42	135 165 162 156 137 129 126 110 128 117	68 53 61 52 76 60 50 50 37 59 48	34 35 33 43 42 30 46 44 26 36 38	209 258 348 351 407 370 444 377 316 303 274	8 10 10 11 4 17 11 10 5 7 8	15 9 16 16 16 16 16 9 14 11 17	242 205 225 206 218 216 228 210 217 225 201	18 10 22 12 15 13 20 23 16 20 17	970 1006 1175 1124 1186 1113 1194 1106 1023 998 975
9:45 AM	25	153	16	34	127	46	29	267	12	12	179	15	915
TOTAL VOLUMES : APPROACH %'s :	NL 330 12.94%	NT 2031 79.62%	NR 190 7.45%	SL 535 18.99%	ST 1623 57.59%	SR 660 23.42%	EL 436 9.75%	ET 3924 87.73%	ER 113 2.53%	WL 170 5.78%	WT 2572 87.39%	WR 201 6.83%	TOTAL 12785
PEAK HR START TIME :	745 <i>F</i>	M											TOTAL
PEAK HR VOL:	118	677	64	211	548	238	161	1572	43	57	868	60	4617
PEAK HR FACTOR :		0.963			0.927			0.886			0.958		0.967

Project ID: 17-5070-006 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΡМ

_						PN	//						
NS/EW Streets:	А	Ivarado St		А	Ivarado St		0	lympic Blvd		0	lympic Blvd		
	N	ORTHBOUND)	SC	OUTHBOUNI	D	E	ASTBOUND		V	VESTBOUND)	<u> </u>
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
3:00 PM 3:15 PM 3:30 PM 3:45 PM 4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:30 PM	27 33 23 23 33 39 26 34 28 37 32 28	143 177 164 195 183 174 181 189 183 186 168	17 18 21 16 15 13 8 7 13 10 14	37 46 40 47 57 48 54 54 49 41 47 52	139 159 160 166 194 178 199 194 225 194 214	33 45 46 55 51 40 47 53 43 48 55 55	51 46 34 59 56 53 48 57 58 51 67 73	277 257 276 299 294 318 287 295 317 285 280 321	10 16 13 12 17 15 14 10 14 12 17	15 22 14 18 15 25 23 21 18 31 18	208 178 216 215 198 213 222 218 250 330 268 274	20 23 20 15 17 15 28 30 26 27 31 38	977 1020 1027 1120 1130 1131 1137 1162 1224 1252 1211 1228
TOTAL VOLUMES : APPROACH %'s :	NL 363 13.72%	NT 2118 80.08%	NR 164 6.20%	SL 572 17.14%	ST 2194 65.75%	SR 571 17.11%	EL 653 15.11%	ET 3506 81.14%	ER 162 3.75%	WL 236 7.12%	WT 2790 84.14%	WR 290 8.75%	
PEAK HR START TIME : PEAK HR VOL :	500 F	712	49	189	805	201	249	1203	55	83	1122	122	4915
PEAK HR FACTOR :		0.951			0.942			0.928			0.855		0.981



STREET:

DUAL-WHEELED

PM PK HOUR

North/South Union Ave

East/West James M Wood Blvd

N/B

96

707 16.15

Day: Wednesday Date: February 8, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day:	YES	District:	I/S CODE

S/B

85

BIKES BUSES	41 29		55 31		74 0		48 0	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	182	8.45	194	7.45	170	7.45	62	7.15
PM PK 15 MIN	179	17.00	273	16.45	171	17.30	85	17.45
AM PK HOUR	700	8.00	693	7.30	625	7.45	231	7.15

1040 16.45

NORTHBOUND Approach	SOUTHBOUND Approach	TOTAL	XING S/L	XING N/L
---------------------	---------------------	-------	----------	----------

E/B

58

631 16.45

W/B

37

307 17.00

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	i Sch	1	Ped	Sch
7-8	76	531	42	649	7-8	69	476	33	578	1227	50) 17	'	55	34
8-9	78	563	59	700	8-9	66	478	61	605	1305	3	1 5	i	33	2
9-10	49	514	40	603	9-10	41	448	60	549	1152	14	1 0)	16	2
15-16	59	521	47	627	15-16	49	632	67	748	1375	40	5 9		33	8
16-17	72	573	52	697	16-17	88	749	63	900	1597	34	1 8	3	32	0
17-18	83	530	48	661	17-18	113	799	87	999	1660	43	9		55	7
					•										
TOTAL	417	3232	288	3937	TOTAL	426	3582	371	4379	8316	213	3 48		224	53

EASTBOUND Approach WESTBOUND Approach TOTAL XING W/L XING E/L

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	F	ed	Sch		Ped	Sch
7-8	44	422	61	527	7-8	34	138	42	214	741	1	08	35	ſ	113	55
8-9	36	509	57	602	8-9	30	119	32	181	783		86	0		52	13
9-10	38	343	68	449	9-10	18	83	27	128	577		67	1		26	0
15-16	51	376	120	547	15-16	34	102	20	156	703	1	25	34		83	62
16-17	57	371	145	573	16-17	15	134	35	184	757	1	13	7		42	9
17-18	85	382	152	619	17-18	37	215	55	307	926	1	78	24		58	21
														-		
TOTAL	311	2403	603	3317	TOTAL	168	791	211	1170	4487	6	77	101		374	160

Intersection Turning Movement Prepared by:

National Data & Surveying Services

Project ID: 17-5070-007 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles ΔМ

_				AM										
NS/EW Streets:	ι	Union Ave		ι	Jnion Ave		Jame	s M Wood E	Blvd	Jame	s M Wood B	lvd		
	No	ORTHBOUN)	SC	DUTHBOUND)	E	EASTBOUND)	V	VESTBOUND)		
LANES:	NL 1	NT 1	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	
7:00 AM	26	111	8	13	100	8	7	73	17	2	29	7	401	
7:15 AM	17	149	13	8	100	6	10	73 94	10	12	39	11	471	
7:30 AM	13	145	11	12	125	10	12	112	22	12	33	13	520	
7:45 AM	20	126	10	36	149	9	15	143	12	8	37	11	576	
8:00 AM	20	130	20	26	140	12	8	123	18	9	37	9	552	
8:15 AM	21	140	15	20	134	20	8	134	14	12	26	4	548	
8:30 AM	15	145	12	12	101	17	8	130	12	5	24	8	489	
8:45 AM	22	148	12	8	103	12	12	122	13	4	32	11	499	
9:00 AM	9	141	10	10	114	12	7	89	19	3	20	8	442	
9:15 AM	11	120	5	10	104	18	13	82	15	4	27	7	416	
9:30 AM	13	123	10	14	112	12	5	81	21	6	19	6	422	
9:45 AM	16	130	15	7	118	18	13	91	13	5	17	6	449	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
TOTAL VOLUMES:	203	1608	141	176	1402	154	118	1274	186	82	340	101	5785	
APPROACH %'s:	10.40%	82.38%	7.22%	10.16%	80.95%	8.89%	7.48%	80.74%	11.79%	15.68%	65.01%	19.31%		
PEAK HR START TIME :	730 <i>F</i>	MA											TOTAL	
PEAK HR VOL :	74	541	56	94	548	51	43	512	66	41	133	37	2196	
PEAK HR FACTOR :		0.953			0.893			0.913			0.909		0.953	

Project ID: 17-5070-007 Day: Wednesday **TOTALS**

Date: 2/8/2017

City: Los Angeles

_						PΝ	1						
NS/EW Streets:	l	Union Ave		ι	Jnion Ave		Jame	s M Wood B	lvd	Jame	s M Wood B	lvd	
	N	ORTHBOUND)	SC	DUTHBOUND)	E	ASTBOUND		V	/ESTBOUNE)	
LANES:	NL 1	NT 1	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
3:00 PM	13	117	7	11	151	17	11	82	27	8	30	10	484
3:15 PM	13	128	13	14	162	19	9	94	30	7	31	3	523
3:30 PM	18	130	20	9	154	15	13	98	30	11	21	4	523
3:45 PM	15	146	7	15	165	16	18	102	33	8	20	3	548
4:00 PM	16	145	8	18	158	17	12	96	41	5	32	6	554
4:15 PM	20	140	16	14	179	15	12	94	36	4	32	8	570
4:30 PM	21	141	13	29	183	14	17	81	30	2	40	9	580
4:45 PM	15	147	15	27	229	17	16	100	38	4	30	12	650
5:00 PM	23	141	15	29	204	27	23	95	39	5	45	17	663
5:15 PM	24	140	9	31	207	14	17	96	36	14	53	15	656
5:30 PM	13	121	12	23	209	23	27	108	36	10	51	12	645
5:45 PM	23	128	12	30	179	23	18	83	41	8	66	11	622
T	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES:	214	1624	147	250	2180	217	193	1129	417	86	451	110	7018
APPROACH %'s:	10.78%	81.81%	7.41%	9.44%	82.36%	8.20%	11.10%	64.92%	23.98%	13.29%	69.71%	17.00%	
PEAK HR START TIME :	445 F	PM											TOTAL
PEAK HR VOL :	75	549	51	110	849	81	83	399	149	33	179	56	2614
PEAK HR FACTOR:		0.943			0.952			0.923			0.817		0.986

Appendix B
CMA AND LEVELS OF SERVICE EXPLANATION CMA DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Critical Movement Analysis Characteristics									
Level of Service	Load Factor	Equivalent CMA							
A (free flow)	0.0	0.00 - 0.60							
B (rural design)	0.0 - 0.1	0.61 - 0.70							
C (urban design)	0.1 - 0.3	0.71 - 0.80							
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90							
E (capacity)	0.7 - 1.0	0.91 - 1.00							
F (force flow)	Not Applicable	Not Applicable							

SERVICE LEVEL A

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C

At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E

This represents near capacity and capacity operation. At capacity (CMA = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F

Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.



Level of Service Workheet (Circular 212 Method)





:# S/I	North-South Street:	Hoover Street	treet			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA01	East-West Street:	James M.	James M. Wood Boulevard	levard		Project	Projection Year:	2019		Peal	Peak Hour:	AM	Reviewed by:	ed by:	MB		Project: 5	Project: 5-17-0316-1 2005 James M. Woo	2005 Jame.	s M. Woo
å	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	No. of Phases			2 0			2 0				2 0		•		2 0				2 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0	SB-	00	NB	0 SB-		NB	0	SB	0 0	NB	0 0	SB-	00	NB-	0	SB-	0
	ATSAC-1 or ATSAC+ATCS-2?		EB	WB-	0 0	- EB	O MB	. 2 0	9	0	MA	0 0 1	-94	0	WB	0 7 0	- 69	0	WB	9 0
	Override	Override Capacity	FXISTIN	EXISTING CONDITION		FXISTIN	EXISTING PLUS PROJECT).IFCT	FUTURE	CONDITION	FITTIRE CONDITION W/O PROJECT	UECT	FUTURE	CONDITIO	FILTURE CONDITION W/ PROJECT		FUTURE	FIITURE W/ PRO.IECT W/ MITIGATION	SITIM /W T	ONOITA
	MOVEMENT	ı		No. of	Lane	Project	Total	Lane	Added	Total	No. of	0.5	Added	Total	No. of	•	Added	Total	No. of	Lane
	# 0 - C	T	emnio v	Lalles	Annun V	- Iallic	Volume 67	Volume 67	allino A	Volume 94	Lalles	Volume v	A Olumba	Volume 94	Lalles	Volume 04	allino	Volume 04	Lalles	Volume 94
ΔN	← Left-Through		5	- 0	5		5	5	2	5	- 0	5	ò	5	- 0	5	•	5	- 0	5
nos	↑ Through		1115	_	575	0	1115	575	22	1212	-	929	0	1212	-	929	0	1212	_	626
3HT	↑ Through-Right		34	- c	34	C	34	34	ער	40	- c	40	C	40	← C	40	c	40	- c	40
ЯОИ	Left-Through-Right		5	0	-)))	2	0 0	2)	2	0 0	2)	2	0	2
	→ Left-Right			0			1				0	j			0				0	
a	reft ∫_		103	-	103	က	106	106	41	119	-	119	က	122	-	122	0	122	-	122
NΩ	∵ Left-Through		i	0	i	C	i	i		1	0	i i	ď	1	0	L	(1	0	l C
во	← Through		954		512	0	954	512	114	1087		282	0	1087		285	0	1087		282
łΤU			20	0	70	0	20	70	7	82	0	82	0	82	0	82	0	82	0	82
os	← Left-Through-Right			0 0							0 0				00				00	
a	Left		80	← ¢	80	0	80	80	13	92	← 0	92	0	92	← 0	92	0	92	← ¢	92
NUC	→ Through		449	00	498	~	450	499	64	522	00	615	-	523	00	616	0	523	00	616
ВТ	Through-Right		9	- 0	(•		((- 0	(•		- 0	(•		- 0	(
.SV	← Right ← Left-Through-Right		49	0 0	0	0	49	0	43	93	0 0	0	0	93	0 0	0	0	93	0 0	0
3	Left-Right			0							0 0				0 0				0	
	∫ Left		55	-	55	0	22	55	_	22	-	22	0	22	-	22	0	22	-	57
anr	← Left-Through		į	0 (į			į	0 (į		į	0		•	į	0	
108	↑ Through		1/8	o +	281	_	1/9	784	96	278	o +	405	-	279	o +	408	0	279	o +	408
ITS:	ر Right		103	- 0	0	2	105	0	22	127	- 0	0	2	129	- 0	0	0	129	- 0	0
ME				00							00				00				00	
	11811111		Nort	North-South:	678	Nor	North-South:	681		North	North-South:	745		North	North-South:	748		North	North-South:	748
	CRITICAL VOLUMES	VOLUMES	E	East-West: SUM:	553 1231	Щ	East-West: SUM:	554 1235		Ea.	East-West: SUM:	672		Eas	East-West: SUM:	673		Ea.	East-West: SUM:	673
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.821			0.823				0.945				0.947				0.947
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.721			0.723				0.845				0.847				0.847
	LEVEL OF SERVICE (LOS):	CE (LOS):			C			ပ				D				D				D
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A

CMA01



Level of Service Workheet





I/S #:	North-South Street:	Hoover Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
	East West Street:	o M Wood Bo	Paravoli		Droio	Droioction Voor			Jeog	Doak Hour	DM	0		MB			1 0000	1000	
CMA01	East-West Street: Jame	James M. Wood Boulevard	nievaru		Projec	tion rear:	20.		Lea	N Flour.	E	Reviewed by:	ed by:	MD		Project: 5-17-0316-1 2005 James M. Woo	-17-0316-1	2005 James	M. Wood
ď	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0							0 0				0 0				0 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?	1? NB- 0 EB- 0	SB- WB-	0 0	NB EB	0 SB 0 WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB- EB	0 0	SB WB	00
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	£ 55		0 0			0 0				0 0				0 0				0 0
			EXISTING CONDITION	NOI	EXISTIR	EXISTING PLUS PROJECT	OJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume V	Total Volume	No. of Lanes V	Lane Volume V	Added Volume	Total Volume	No. of Lanes	Lane Volume
aı	C Left	23	- 0	53	0	53	23	47	101	- 0	101	0	101	← ¢	101	0	101	← ¢	101
NUOS	↑ Through	1067	-	260	0	1067	260	136	1224	o –	640	0	1224	-	640	0	1224	o –	640
нтя	↑ Through-Right ↑ Right	52	- 0	52	0	52	52	2	22	- 0	22	0	22	- 0	22	0	22	- 0	22
ON	← Left-Through-Right ← Left-Right	_	00							0 0				0 0				0 0	
(120	_	120	8	122	122	28	150	-	150	2	152	-	152	0	152	-	152
ואנ	← Left-Through		0							0				0				0	
вог	→ Through Through-Right	1120		288	0	1120	588	106	1249		661	0	1249		199	0	1249		661
HTU		99	0	99	0	99	99	16	73	- 0	73	0	73	0	73	0	73	- 0	73
os	← Left-Through-Right ← Left-Right		00							0 0				0 0				00	
al	J Left J Left-Through	96	- 0	96	0	96	96	16	114	- 0	114	0	114	- 0	114	0	114	- 0	114
NUO	Through	403	0 0	435	-	404	436	125	536	0 0	909	-	537	00	909	0	237	0 0	909
ats	↓ Inrougn-Right ↓ Right	32	- 0	0	0	32	0	36	69	- 0	0	0	69	- 0	0	0	69	- 0	0
4 3	★ Left-Through-Right ✓ Left-Right		00							00				0 0				00	
	# a	88	-	8	c	88	8	ĸ	95	-	å	c	95	-	å	c	S R	-	95
ΝD	← Left-Through	3	- 0	3	•	3	3		8	- 0	3)	8	. 0	3)	}	. 0	3
nos	← Through	251	0 +	369	-	252	372	26	353	0 -	495	-	354	0 -	498	0	354	0 -	498
ITS:	Right	118	- 0	0	8	120	0	22	142	- 0	0	8	144	- 0	0	0	4	- 0	0
M	← Left-Through-Right ← Left-Right		00							00				00				00	
		ž	North-South:	089	Nor	North-South:	682		Nort	North-South:	790		North	North-South:	792		North	North-South:	792
	CRITICAL VOLUMES		East-West: SUM:	523 1203	Ea	ast-West: SUM:	524 1206		Ea	East-West: SUM:	700 1490		Eas	East-West: SUM:	701 1493		Eas	East-West: SUM:	701 1493
	VOLUME/CAPACITY (V/C) RATIO:	:c		0.802			0.804				0.993				0.995				0.995
×	V/C LESS ATSAC/ATCS ADJUSTMENT	Ë		0.702			0.704				0.893				0.895				0.895
	LEVEL OF SERVICE (LOS):	:(:		С			C				D				D				D
	REMARKS:	:5																	

Version: 1i Beta; 8/4/2011

2/16/2017-8:00 PM

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A





East-Viver Street Courage Cour	I/S #:	North-South Street: Hoover Street	Street			Year	Year of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by:	NDS		Date:	2	2/16/2017	
Through Right Ri	COVE	Fact-West Street	Boulevard			Projec	tion Year	2019		Peal	k Hour:	ΔM	Povion	, od by			Droioct.	17 0316 1	2005 Jamo	00/01/00
Main Main	ZOMINO	FEAST TREST CIT COL:	5		1	2001		6102		-			אפאופא	ved by.		-	rioject.	1-0100-71-0	zoos same	S IVI. VV OO
Mail	ŏ	no. or Friases oposed Ø'ing: N/S-1, E/W-2 or Both-3?			4 0	_						4 0				4 0				4 0
MOVEMENT MOVEMENT	Righ	t Turns: FREE-1, NRTOR-2 or OLA-3?		SB-	0 0	NB			NB	0 0	SB	0 0	NB	0 0	SB	0 0	NB	0 0	SB	0 0
MOVEMENT MOVEMENT		ATSAC-1 or ATSAC+ATCS-2?		<u>.</u>	0 0	9			}	0		0 0	1			0 0	9	o	<u>.</u>	0 0
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MOVEMENT MOVEMENT		!	EXISTIN	NG CONDIT	NOI	EXISTII		JECT	FUTURE	CONDITIO	N W/O PRC	JECT	FUTUR	E CONDITIC	ON W/ PRO.		FUTURE	W/ PROJEC	T W/ MITIC	SATION
Left-frough Timough		MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total	Lane Volume		Total Volume				Total Volume				Total Volume	No. of Lanes	Lane Volume
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	ΗТЯ	7 Right	31	. 0	31	_	32	32	-	33	0	33	_	34	. 0	34	0	34	. 0	34
	ION			0 (0				0				0	
Left Hunough				0							0	ĺ			0	ĺ			0	
Tringle Halt Trin	aı		172	- 0	172	0	172	172	45	220	- 0	220	0	220	- 0	220	0	220	- 0	220
Through-Right 125 1 125 12	NNC	Through	793	> -	442	c	793	442	112	921	-	533	C	921	-	533	C	921	o -	533
	нвс	← Through-Right	2		1	o	2	ļ	7	-		3	•	120		3	0	- 70		3
1	ΙΤΟ		06	0 (06	0	06	06	52	144	0	144	0	144	0	144	0	144	0	144
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Left-Through 125 1 125 125 125 125 125 135 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 159 1 150 1 150 1 150 1 1 1 1 1 1 1 1 1																				
Through-Right 1664 2 589 3 1667 590 169 1866 2 680 3 1869 2 681 0 1869 2 1 1 1 1 1 1 1 1 1	a	Left Left	125	← ⊂	125	0	125	125	31	159	← C	159	0	159	← C	159	0	159	- -	159
Fight Flight 103 1 103 1 103 1 1 1 1 1 1 1 1 1	NNO	Through	1664	2 0	589	က	1667	290	169	1866	0 0	680	ဗ	1869	0 0	681	0	1869	2 0	681
LENEL Right CRITICAL VOLUMENCAPTICS MANICAL SCAURT CRITICAL LOSS ATSACIATICS ADJUSTIMENT COLUMENCAPACITY (V/C) RATIOS CRITICAL COLUMENCAPTICS COLUMENCAPACITY (V/C) RATIOS CRITICAL COLUMENCAPTICS CRITICAL COLUMENCAPTICS CRITICAL COLUMENCAPTICS CRITICAL COLUMENCAPTICS CRITICAL COLUMENCAPTICS CRITICAL COLUMENCAPACITY (V/C) RATIOS CRITICAL COLUMENCAPTICS CRITICAL COLUM	ата	く Through-Right シ Right	103	← C	103	<u> </u>	103	103	20	175	- 0	175	c	175	- c	175	c	175	- c	175
CENTRACTION Solution Figure Figure Figure Figure Figure Figure Figure North-South: 138 CRITICAL VOLUME/CAPACITY (V/C) RATIO: 100; 170 Figure North-South: 138 Figure North-South: 138 Sum: 1341 Figure North-South: 1517 And thost (North-South: 138) North-South: 140	EA3	Left-Through-Right	2	0	3	·)	2	2) :	0)))	0)))	0) :
f Left Left Left 50 1 51 6 57 1 57 1 58 1 58 1 58 0 58 1 f Left-Through 4 1 50 1 50 1 5 1 5 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 7 4 7 7 4 7		↓ Left-Right		0							0	j			0	j			0	
T_Left-Through 999 2 1001 380 228 1247 2 472 2 1249 2 473 0 1249 2 Through Action Cape Tition Lough Right 140 0 140 0 140 140 27 170 0 <td>C</td> <td>€ Left</td> <td>20</td> <td>-</td> <td>20</td> <td>-</td> <td>51</td> <td>51</td> <td>9</td> <td>22</td> <td>-</td> <td>22</td> <td>-</td> <td>58</td> <td>-</td> <td>28</td> <td>0</td> <td>28</td> <td>-</td> <td>28</td>	C	€ Left	20	-	20	-	51	51	9	22	-	22	-	58	-	28	0	28	-	28
Through-Right	INN	t Left-Through ← Through	666	o 0	380	2	1001	380	228	1247	o 0	472	2	1249	o 0	473	0	1249	o 0	473
140	овт	← Through-Right		-							-				_				_	
Fleff-Right CRITICAL VOLUMES S3		140	0 0	140	0	140	140	27	170	0 0	170	0	170	0 0	170	0	170	0 0	170	
North-South: 699 North-South: 700 North-South: 780 North-South: 781 North-South: East-West: 639 East-West: 641 East-West: 737 East-West: 739 East-West: SUM: 1338 SUM: 1520 SUM: 1520 SUM: 0.973 0.973 0.975 1.103 1.103 1.105 D D D F F F	M			0 0							00				00				00	
East-West: 0.373 East-West: 7.37 East-West: 8.0M: 6.00 8.0M: 1.105 8.0M: 1.105 8.0M: 9.0M: 9.0M		CLERIT ICA INCITION	Nort	h-South:	669	Nor	th-South:	700		Nort	h-South:	780		North	n-South:	781		Norti	n-South:	781
0.973 0.975 1.103 1.105 1.105 1.105 0.975 0.873 0.875 P F		CRITICAL VOLUMES	Ė	ist-west: SUM:	639 1338	Ħ	asr-west: SUM:	1341		Ea	sr-west: SUM:	1517		Ea	st-west: SUM:	7.39 1520		Ea	st-west: SUM:	1520
0.873 0.875 1.003 1.005 1.005 D F F		VOLUME/CAPACITY (V/C) RATIO:			0.973	_		0.975				1.103				1.105				1.105
D D F F	>	C LESS ATSAC/ATCS ADJUSTMENT:			0.873			0.875				1.003				1.005				1.005
		LEVEL OF SERVICE (LOS):			D			D				ш				ш				F

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







NB- 0	:# S/I	North-South Street:	Hoover Street	treet			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by: N	NDS		Date:	2	2/16/2017	
NB 0 SB- 0 0 0	CMA02		Olympic	Boulevard			Projec	tion Year:	2019	Ī	Peal	Peak Hour:	PM	Review	Reviewed by:	MB	3	Project:	Project: 5-17-0316-1 2005 James M.	2005 Jame	s M. Woo
NB 0 NB 0 EXISTING CONDITION NO. of Lane Pr. Nolume Tr. Nolume Tr. Nolume Tr. Nolume Tr. North-South: 636 East-West: 648 SUM: 1284 SUM: 1284 SUM: 1284 SUM: 1284 SUM: 1284 O.934	o	No. o pposed Ø'ing: N/S-1, E/W-2 or				4 0							4 0				4 0				4
MOVEMENT MOVEMENT	Right	tt Turns: FREE-1, NRTOR-2 or ATSAC+1 or ATSAC+			SB- WB	000	NB EB	0 SB 0 WB		NB EB	0 0	SB WB	000	NB EB	0 0	SB- WB	000	NB- EB	0	SB WB	000
MOVEMENT MOVEMENT		Override	Capacity						0				0				0				0
MOVEMENT No. of Lane Project				EXISTIN	4G CONDIT	NOI	EXISTIN	IG PLUS PRC	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/O PROJECT	VECT	FUTUR	E CONDITIC	FUTURE CONDITION W/ PROJECT	JECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	ST W/ MITIC	SATION
Left		MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
Through Right 27 0 27 1	а	↑ Left		147	- 0	147	0	147	147	116	266	- (266	0	266	~ (266	0	266	- 0	266
↑ Through-Right	NNO	← Left-I hrough ↑ Through		882	o –	455	0	882	455	118	1018	o -	526	0	1018	o –	527	0	1018	o –	527
	ВНТ <i>Я</i>	↑ Through-Right		27	- 0	27	-	78	78	9	34	- 0	8	_	35	- 0	35	0	35	- 0	35
Left—	ION				0 0							0 0				0 0				00	
Left-Through																					
Through-Right	αN	Left - off-Through		181	- 0	181	0	181	181	35	220	- c	220	0	220	- 0	220	0	220	- ⊂	220
↑ Right 142 0 142 0 ↑ Left-Through-Right 215 1 215 0 ↑ Left-Through 1374 2 486 2 ↑ Through 1374 2 486 2 ↑ Through 1374 2 486 2 ↑ Through 85 0 85 0 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 1123 2 433 2 ↑ Left-Through 175 0 175 0 ↑ Left-Through 175 0 175 0 ↑ Left-Through 175 0 175 0 ↑ Left-Through-Right 0	INOS	Through		820	·	481	0	820	481	73	606) -	228	0	606	·	258	0	606	· — •	228
	IHTU			142	- 0	142	0	142	142	61	206	- 0	206	0	206	- 0	206	0	206	- 0	206
	os				00							00				00				00	
Through-Right 1374 2 486 2	a	J. Left → Left-Through		215	- c	215	0	215	215	75	294	- c	294	0	294	← C	294	0	294	- ⊂	294
Fight Right S	NUO	Through		1374	0 77 7	486	2	1376	487	290	1692	0 7 7	627	2	1694	0 7 7	628	0	1694	, CI -	628
↑ Left-Through-Right 0 ↑ Left-Right 0 ↑ Left-Right 72 1 72 1 ↑ Left-Through 1123 2 433 2 ↑ Through-Right 175 0 175 0 ↑ Left-Right 0 175 0 ▶ Left-Right North-South: 636 North-South: 636 North-South: 1284 CRITICAL VOLUMES East-West: 648 East-West: 648 East-West: 648 VOLUME/CAPACITY (W/C) RATIO: 0.934 WC LESS ATSAC/ATCS ADJUSTMENT: 0.834	ате	Fight Right		85	- 0	85	0	85	85	103	190	- 0	190	0	190	- 0	190	0	190	- 0	190
← Left 72 1 72 1 ← Left-Through 1123 2 433 2 ← Through-Right 175 0 175 0 ← Left-Through-Right 0 175 0 175 0 ← Left-Right North-South: 636 North-South: 636 North-South: East-West: 648 East-World VOLUME/CAPACITY (WC) RATIO: 0.934 0.934 0.834 0.834	Ε¥	★ Left-Through-Right ★ Left-Right			0 0							0 0				0 0				0 0	
↑ Left-Through 0 433 2 ↑ Through Right 175 0 175 0 ↑ Left-Through-Right 0 175 0 Left-Right North-South: 636 North-South: East-West: 648 Fa CRITICAL VOLUMES East-West: 648 Fa Fa North-South: 6036 North-South: 6036 North-South: 648 Fa VOLUME/CAPACITY (V/C) RATIO: 0.934 0.934 NORACIATCS ADJUSTMENT: 0.834 0.834 0.834		. Left		72	_	72	-	73	73	က	92	_	92	-	77	_	12	0	1	_	12
↑ Through-Right ↑ Right ↑ Left-Through-Right ↑ Left-Right CRITICAL VOLUMES VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: 1123 7 433 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	αи∩	← Left-Through		7	0 0	7	C	7		C	000	0 0	į	c	200	0 (C	200	0 0	1
↑ Right	BO	Through-Right		6711	v -	554	V	671	55	230	1307	٧ -	/26	N	1001	v -	/56	0	1304	v -	3
Y Left-Right 0 North-South: 636 North CRITICAL VOLUMES East-West: 648 Ea SUM: 1284 VOLUME/CAPACITY (V/C) RATIO: 0.934 WC LESS ATSAC/ATCS ADJUSTMENT: 0.834 0.834	MEST	← Right ← Left-Through-Right		175	00	175	0	175	175	49	228	0 0	228	0	228	0 0	228	0	228	00	228
North-South: 636 North East-West: 648 Ea SUM: 1284 0.934	ı	个 Left-Right		;	0		:	,			:	0			:	0			:	0	
0.934		CRITICAL V	OLUMES	Nort	n-South: Ist-West: SUM:	648 1284	NO E	th-South: ast-West: SUM:	648 1284		Norti Ea:	North-South: East-West: SUM:	824 831 1655		Norti Ea:	North-South: East-West: SUM:	824 831 1655		Nort Ea	North-South: East-West: SUM:	824 831 1655
		VOLUME/CAPACITY (V/C	;) RATIO:			0.934			0.934				1.204				1.204				1.204
	Š	/C LESS ATSAC/ATCS ADJU⊱	STMENT:			0.834			0.834				1.104				1.104				1.104
LEVEL OF SERVICE (LOS):		LEVEL OF SERVIC	CE (LOS):			۵			۵				ш				ш				ш

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.000
Significant impacted? NO

∆w/c after mitigation: 0.000 Fully mitigated? N/A







1/S #:	North-South Street:	Alvarado Street	Street			Year	Year of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by: NDS	DS		Date:	2	2/16/2017	
	East West Street:	7th Ctroot				Droio	tion Voor			Jeog	- LO	A M	-		MB		.,,	1 0000		
CMA03	East-West Street:	eane III				Project	tion rear.	2019		Lea	reak nour.	AIN	Keview	Keviewed by:	M		Project: 5	5-17-0316-1 2005 James M. Woo	2005 Jame	s M. Wood
do	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0 2							0 0				0 0				0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB- 0 WB-		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB-	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?	-ATCS-2? Capacity			0 0			2 0				0 2				0 0				2
			EXISTIN	EXISTING CONDITION	lon	EXISTI	EXISTING PLUS PROJECT	OJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIC	FUTURE CONDITION W/ PROJECT		FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	SATION
	MOVEMENT	ı	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane	Added	Total Volume	No. of Lanes	Lane Volume
a	↑ Left ↑		0	0 7	0	0		0	0	0	0 7	0	0	0	0 4	0	0	0	0 7	0
NUO	↑ Lert-Inrougn ↑ Through		936		333	က	939	334	186	1141		409	က	1144		410	0	1144		410
ВНТ!	Through-Right		63	- 0	333	0	63	334	22	86	- 0	409	0	98	- 0	410	0	98	- 0	410
HON	Left-Through-Right			00							00				00				00	
																ĺ				
ИD	Left Togical		2	0 +	2	0	7	2	0	7	0 7	2	0	2	0 +	2	0	2	0 -	2
INO	Through		966		502	4	1000	206	216	1232		622	4	1236		624	0	1236		624
LHB	★ Through-Right ★ Through ★ Through-Right ★ Through-Righ ★ Through-Right ★ Through-Righ ★ Through-Right ★ Through-Right ★ Thr		ć	0 7	Ĺ	c	S	Ĺ	1	2	0 7	Č	c		0 7	Ĺ	c	2	0 7	Ĺ
LNO	✓ Kignt → Left-Through-Right		99 25	- 0	oc C	0	9 5	oc C)	71.1	- 0	ဂ္ဂ	0	71.1	- 0	Ω Θ	0	71.1	- 0	62
s	∠ Left-Right			0							0				0				0	
	,																			
a	J Left → Left.Through		74	- c	74	0	74	74	19	94	- ⊂	8	0	94	← C	94	0	96	- c	94
NUC	Through		422	· -	422	0	422	422	29	497	· -	497	0	497	· -	497	0	497	· -	497
)BT	Through-Right		77	0 -	77	c	7	77	_	73	0 -	73	c	73	0 +	73	C	73	0 +	43
SA3	← Left-Through-Right		F	- 0	F	o		F	-	2	- 0	?	ò	?	- 0	?)	?	- 0	P
	Left-Right			0							0				0				0	ı
d	Left		33	_	33	0	33	33	42	92	-	9/	0	92	_	9/	0	92	-	9/
INNO	← Left-Through ← Through		310	o –	310	0	310	310	108	424	o –	424	0	424	o ←	424	0	424	o -	424
DBT	Through-Right		1	0	İ			İ	_	1	0		,	1	0 -			1	0	1
۸ES	← Right ← Left-Through-Right		28	- 0	86	0	28	89	0	69	- 0	69	0	69	- 0	69	0	69	- 0	29
٨	∱ Left-Right ຶ			0							0				0				0	
	CRITICAL VOLUMES	OLUMES	Nort Ea	North-South: East-West:	502 455	North Eas	orth-South: East-West:	506 455		Norti Ea	North-South: East-West:	622 573		North Eas	North-South: East-West:	624 573		Norti Ea	North-South: East-West:	624 573
				SUM:	957		SUM:	961			SUM:	1195			SUM:	1197			SUM:	1197
	VOLUME/CAPACITY (V/C) RATIO:	;) RATIO:			0.638			0.641	_			0.797				0.798				0.798
×	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.538			0.541				269.0				0.698				0.698
	LEVEL OF SERVICE (LOS):	CE (LOS):			A			A				В				В				В
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A







Projection Year. 2019 Projection Near. 2019 Projection Year. 2019 Project Total Volume Yolume Yo	:# S/I	North-South Street:	Alvarado Street	Street			Year	Year of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by:	SON		Date:	2	2/16/2017	
Notine Color Noti	CMA03		7th Street				Projec	tion Year:	2019		Pea	k Hour:	PM	Reviev	ved by:	ME	3	Project:	5-17-0316-1 2005 James M.	2005 Jame	s M. Wood
No. No.	ŏ	No. o oposed Ø'ing: N/S-1, E/W-2 or				2 0							2 0				0				2 0
MOVEMENT MOVEMENT	Righ	t Turns: FREE-1, NRTOR-2 o ATSAC-1 or ATSAC+ Override			SB- WB	0 2 0	NB EB			NB EB	0	SB WB	0 5 0	NB EB	0	SB WB	0 0 0 0	NB EB	0	SB WB	0 0 0
MOVEMBENT Worker Movembent Movembe				EXISTIN	IG CONDIT	NOI	EXISTIN		JECT	FUTURE	: CONDITIO	N W/O PRO	JECT	FUTUR	E CONDITION	ON W/ PRO	JECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIC	SATION
Left Through Right		MOVEMENT	1	Volume	No. of Lanes	Lane Volume	Project Traffic	Φ.	Lane Volume	Added Volume	Total Volume		Lane	Added	Total Volume		Lane	Added	Total Volume	No. of Lanes	Lane Volume
Through Right Ge	aı	Left		2	0 +	2	0	7	2	0	2	0 +	2	0	2	0 +	2	0	2	0 +	2
Fight	BOUN	↑ Through		1061		380	က	1064	381	252	1334		489	က	1337		490	0	1337		490
Through Right	нтяс			99	- 0 (380	0	99	381	24	121	- 0 (489	0	121	- 0 (490	0	121	- 0 (490
Left	ON				0 0							0 0				0 0				0 0	
Through-Right 1029 1 516 3 1032 516 237 1287 1 644 3 1290 1 645	aı			0	0 7	0	0	0	0	0	0	0 4	0	0	0	0 4	0	0	0	0 7	0
Through-Right 135 1 94 0 135 94 24 162 0 162 0 168 1 108 108 1	NUO	← Left-Inrough ← Through		1029	1	515	က	1032	516	237	1287	 (644	က	1290	1	645	0	1290	1	645
	HTL	∴ Through-Right ✓ Right		135	o -	96	0	135	96	24	162	o -	108	0	162	0 -	108	0	162	o -	108
Left-Through Hight Tolumbi-Right Through-Right	os	1 1			00							00				00				00	
Left																					
Through Right	aı	J Left J Left-Through		83	- 0	83	0	83	83	23	108	- 0	108	0	108	- 0	108	0	108	- 0	108
Fight Handle Fight	NUO	Through		462	· — c	462	0	462	462	139	610	· — c	610	0	610	· — c	610	0	610	· — c	610
Teft-Through-Right 0	BTS≜	Right		62	o — (79	0	62	79	-	82	o — (82	0	82) - (82	0	82	o ← (82
← Left C Left 49 49 49 49 38 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 88 0 88 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1 474 1<	/3				00							0 0				00				00	
T Left-Through 361 1 361 106 474 1		€ Left		49	_	64	0	49	64	38	88	-	88	0	88	_	88	0	88	_	88
Through-Right To 1 TT	OND	← Left-Through ← Through		361	o -	361	0	361	361	106	474	o -	474	0	474	0 -	474	0	474	o -	474
← Left-Through-Right 0	рата	← Through-Right ん Right		12	o -	77	C	12	7.7	e	82	0 +	83	C	82	0 -	82	C	8	0 -	82
North-South: 517 North-South: 518 North-South: 646 North-South: East-West: 511 East-West: 511 East-West: 698 East-West: SUM: 1029 SUM: 1344 SUM: 0.685 0.686 0.896 0.896 0.586 0.586 0.796	ME	← Left-Through-Right ← Left-Right			- 0 0		o ·	:	-		B	- 0 0	ł		i S	- 0 0	}		3	- 0 0	9
30m; 1020 30m; 1029 30m; 1044 30m; 1		CRITICAL V	OLUMES	Nort Ea	h-South: st-West:	517 511	Nor	th-South:	518		Norti Ea	h-South: st-West:	646 698		Norti Ea	r-South: st-West:	647 698		Nortl Ea	North-South: East-West:	698
0.585 0.586 0.796		VOLUME/CAPACITY (V/C	c) RATIO:		9	0.685		200	0.686				0.896			9	0.897			90	0.897
4	>	'C LESS ATSAC/ATCS ADJU	STMENT:			0.585			0.586				0.796				0.797				0.797
		LEVEL OF SERVIC	CE (LOS):			4			4				ပ				ပ				ပ

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A





														•						
CMA04	East-West Street:	8th Street				Projecti	tion Year:	2019		Pea	Peak Hour:	AM	Review	Reviewed by:	MB		Project: <mark>5</mark> -	5-17-0316-1	2005 James M.	M. Wood
OddO	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	No. of Phases N-2 or Both-3?			2			2 0				2 0				2 0				2
Right Tu	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB 0 WB	0 0	NB EB	00	SB WB	0 0	NB EB	00	SB- WB	0 0	NB- EB	00	SB WB	00
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity				0 0				_			0 0				0 0				0 0
			EXISTIN	EXISTING CONDITION	NOI	EXISTIN	EXISTING PLUS PROJECT	OJECT	FUTURE	E CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTUR	FUTURE CONDITION W/ PROJECT	N W/ PROJ	ECT	FUTURE V	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT	<u>I</u>	Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume V	Added Volume	Total Volume	No. of Lanes	Lane Volume
a	↑ Left ↑ . g.=.		3	0 ,	က	0	3	3	0	က	0	က	0	က	0 ,	က	0	က	0	က
NNO	← Leπ-Inrough ↑ Through		894		320	က	897	321	167	1079		391	က	1082		392	0	1082		392
ВНЈ	Through-Right		,	- 0	Ö	d	ç	5	8	1	- 0	Š	d	1	- 0	Ö	C	1	- 0	Ö
raon	← Right ← Left-Through-Right		84	0 0	320	0	84	321	78	`	00	391	0	`	00	385	0	>	0 0	382
-1	ال Left-Right			0							0				0				0	
αN	Fet Total		0	0 +	0	0	0	0	0	0	0 +	0	0	0	0 +	0	0	0	0 +	0
NUOS	Through		973		487	4	977	489	215	1208	- 🖚	604	4	1212		909	0	1212		909
ЭНТ	↓ Through-Right ↓ Right		105	o -	2	0	105	70	37	144	0 -	87	0	144	0 -	87	0	144	o -	87
	← Left-Through-Right Left-Right			00							0 0				0 0				0 0	
												Ī								
a	Left		71	← ¢	71	0	7.1	7.1	42	114	← 0	114	0	114	← ¢	114	0	114	← c	114
NUO	Through		546	o ←	546	2	548	548	93	029	-	650	2	652	> ←	652	0	652	-	652
ата	Through-Right Right		38	o -	88	0	38	38	τ-	40	0 -	40	0	40	0 -	40	0	40	o -	40
:A3	★ Left-Through-Right ✓ Left-Right			00							0 0				0 0				0 0	
	, 		35	-	ř.	c	35	ů,	34	02	-	62	c	02	-	5	c	5	-	6
anr	← Left-Through		3	0	3 () () (,	. (0		, (0	2			0,	
юв	← I hrough ← Through-Right		017		3/8	N	717	380	105	878		954	N	23.1		440	0	831		440
ITS∃	Right		47	0	47	0	47	47	0	48	0	48	0	48	. 0	48	0	48	. 0	48
M	↓ Left-Through-Right ├─ Left-Right			0 0							0				0				0	
	CRITICAL VOLUMES	LUMES	Nort	North-South:	490	North	orth-South: Fast-West	492 583		Nort	North-South: Fast-West	607		North	North-South: Fast-West	609		North	North-South: Fast-West:	609
			i	SUM:	1071	i	SUM:	1075		i	SUM:	1327		i	SUM:	1331			SUM:	1331
	VOLUME/CAPACITY (V/C) RATIO:	RATIO:			0.714			0.717				0.885				0.887				0.887
1 //C	V/C LESS ATSAC/ATCS ADJUSTMENT:	: ENENT			0.614			0.617				0.785				0.787				0.787
	LEVEL OF SERVICE (LOS):	: (FOS):			m			ď				٢								ر

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







I/S #:	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	IDS		Date:	2	2/16/2017	
CMA04	East-West Street:	8th Street				Project	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ved by:	MB			5-17-0316-1 2005 James M. Woo	2005 James	M. Wood
	No. o	No. of Phases			2			2				2				1				2
ď	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			į	0 0	!			!	•	ļ	0 (!	(ļ	0 (!	(į	0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB	O NB-		NB	0	SB WB-	0 0	NB EB	0	SB WB	0 0	NB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?				0.0			00				0.0				000				2.0
	Override	Override Capacity	AITOIAE	NOITIGNOO ONITSIXE		MITOINE	TOSI COO SI IO SI	O LECT		CITIONO	TOSI OBBO INVIORIDATION OF THE PROPERTY OF THE	O	JOILL	OI FIGNO 2	TOSI COO W NOITIGNOO SOLITIES		TIDE	NOITE SITIM /W TOSI COM /W SOITIS	CITIM WY T	OUTV
		- 1	EAISH	II CONDI	2	EAISTIR		ואברו	TO LORE	OI II ON :	N W/O PRO	1	FULUR	CONDI IC	N W/ PRO	ו בו	LOI UKE	W/ PROJEC) W WILL	AION
	MOVEMEN		Volume	No. of Lanes	Lane	Project Traffic	Total Volume	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume V	Total Volume	No. of Lanes	Lane Volume	Added	Total Volume	No. of Lanes	Lane Volume
a) rett		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INN	← Left-Through		1017		364	٣	1017	365	250	1287		077	٣	1287		724	c	1287		474
IBC	↑ Through-Right		2		t S	,	2	3	007	107	_) F	ס	107	_	- F	0	707		- ì
ΗТЯ	7 Right		79	0	364	0	79	365	45	126	0	470	0	126	0	471	0	126	0	471
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
αı	T Left		-	0 +	-	0	-	-	0	_	0 7	-	0	-	0 7	-	0	-	0 +	-
NNC	↓ Leit-Tillougii ↓ Through		1002		504	m	1005	506	220	1242		624	e	1245		626	C	1245		626
ВС	↑ Through-Right		100	. 0	5)	2	8	3	1	. 0	5)	2	- 0	3	o	2	- 0	3
łΤU			106	<u></u>	81	0	106	81	53	161	~	110	0	161	-	110	0	161	-	110
os	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
a	J Left → Left → Left-Through		21	← ⊂	51	0	21	21	20	102	← ⊂	102	0	102	← ⊂	102	0	102	← ⊂	102
NNC	→ Through		525	-	525	8	527	527	144	089	→	680	8	682	→	682	0	682	o ←	682
BT:	Through-Right		ď	0 +	8	c	8	2	•	83	0 +	83	c	83	0 +	83	c	83	0 +	63
EAS	Left-Through-Right		5	- 0	5	o	5	5	-	3	- 0	3	o	3	- 0	3	o	3	- 0	3
	Left-Right			0	I						0	j			0	j	ı	ı	0	ı
	t reft		02	-	0,2	0	20	02	40	111	-	111	0	111	-	111	0	111	-	111
חמנ	Left-Through Through Through		207	0 +	710	c	032	7	100	2	0 +	700	c	6.50	0 +	00	c	6,50	0 +	400
ВО	Through-Right		007	-	5	٧	000	<u>†</u>	001	_		1 0 0	٧	2	_	0.00	0	<u>5</u>		064
TS	トト Right		09	0	09	0	09	09	9	29	0	29	0	29	0	29	0	29	0	67
M	← Left-Through-Right ← Left-Right			00							00				00				00	
) }		Nort	North-South:	504	Nort	th-South:	909		North	North-South:	624		North	North-South:	626		North	North-South:	626
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	595 1099	Щ	East-West: SUM:	597 1103		Ea	East-West: SUM:	791 1415		Ea	East-West: SUM:	793		Ea	East-West: SUM:	793 1419
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.733			0.735				0.943				0.946				0.946
%	V/C LESS ATSAC/ATCS ADJUSTMENT:	JSTMENT:			0.633			0.635				0.843				0.846				0.846
	LEVEL OF SERVICE (LOS):	ICE (LOS):			ω			m				۵				۵				٥
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.003
Significant impacted? NO

∆w/c after mitigation: 0.003 Fully mitigated? N/A





NB- Columb No. of NB- Columb NB-	:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduc	Conducted by:	NDS		Date:	2	2/16/2017	
Mail	CMA05		James M	I. Wood Bou	levard		Projec	tion Year:	2019	Ī	Peak	k Hour:	AM	Review	/ed by:	MB			1-17-0316-1	2005 Jame	s M. Woo
National Continuous National Continuous	o	No. posed Ø'ing: N/S-1, E/W-2 c	of Phases or Both-3?			0			0 0				0								2 0
MOVEMBNT Movembn Mov	Right	t Turns: FREE-1, NRTOR-2 o	or OLA-3?		SB- WB	0 0	NB EB			NB EB	0 0	SB WB	0 0	NB EB	0 0	SB- WB	0 0	NB- EB	0 0	SB WB	0 0
MOVEMENT MOVIEMENT MOVEMENT	ATSAC-1 or ATSAC Override	:+ATCS-2? e Capacity			0			0				0				0				0	
NOVEMBENT NOVE				EXISTIN	VG CONDIT	NOI	EXISTIN		JECT	FUTURE	CONDITIO	N W/O PRO	JECT	FUTURE	E CONDITIC	N W/ PRO.	JECT	FUTURE	W/ PROJEC	T W/ MITIC	SATION
Left Frough Size 1 307 6 536 716 716 716 717 717 717 718 71		MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic		Lane Volume									Added Volume	Total Volume	No. of Lanes	Lane Volume
Through Right	aı	Left		0	0 +	0	0	0	0	0	0	0 +	0	0	0	0 +	0	0	0	0 +	0
Fight Hough-Right	NUOE	↑ Through		835	. .	307	0	835	309	176	1028		379	0	1028		381	0	1028	- 🖚	381
Lieft Through Right	нтя	↑ Through-Right ↑ Right		87	- 0	307	9	93	309	19	108	- 0	379	9	114	- 0	381	0	114	- 0	381
Left-Through Right Color	ON				0 0							0 0				0 0				0 0	
Through Right	a			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right	NNO	∵ Left-Through		636	- 0	503	4	943	505	226	1184	- 0	639	4	1188	- 0	641	0	1188	- 0	24
	ант	↓ Through-Right Dight		67	← 0	503	c	22	אַ	26	03	← 0	630	c	03	← C	77	c	03	← ¢	671
1	nos			5	000	3	•	5	3	3	8	000	n D	o	8	000	5	>	8	000	5
Left Left Fight 59 1 59 1 59 1 59 1 78 0 78 1 78 0 78 1 78 0 0 67 0 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 0 67 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>																					
Through	а	C Left → Left → Left		29	← c	29	0	29	29	18	78	← C	78	0	78	← C	78	0	78	- c	78
Tithrings-kight 60	NNO	Through		573	00	633	4	277	637	83	899	0 0	729	4	672	0 0	733	0	672	0 0	733
C Left Filtinguph-Right 52 5 57 57 9 62 1 62 5 67 1 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 1 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 67 0 0 67 0 67 0 67 0 0 67 0 </th <th>ats,</th> <td>↓ Inrougn-Right → Right</td> <td></td> <td>09</td> <td>- 0</td> <td>0</td> <td>0</td> <td>09</td> <td>0</td> <td>0</td> <td>19</td> <td>- 0</td> <td>0</td> <td>0</td> <td>19</td> <td>- 0</td> <td>0</td> <td>0</td> <td>61</td> <td>- 0</td> <td>0</td>	ats,	↓ Inrougn-Right → Right		09	- 0	0	0	09	0	0	19	- 0	0	0	19	- 0	0	0	61	- 0	0
F Left Through 52 1 52 5 5 5 5 5 5 5 5 5 5 5 5 6 7 1 67 7 67 7 67	₹∃	★ Left-Through-Right			0 0							0 0				0 0				0 0	
T_Left-Through 218 0 251 257 115 337 0 377 0 340 0 0 340 0 340 0 0 340 0 340 0 0 340 0 340 0 0 340 0 0 340 0 0 340 0 0 340 0 0 0 340 0 0 0 340 0 <th< th=""><th></th><td>reff</td><td></td><td>52</td><td>-</td><td>25</td><td>r.</td><td>27</td><td>22</td><td>o:</td><td>62</td><td>-</td><td>62</td><td>r.</td><td>67</td><td>-</td><td>67</td><td>C</td><td>29</td><td>-</td><td>67</td></th<>		reff		52	-	25	r.	27	22	o:	62	-	62	r.	67	-	67	C	29	-	67
Through-Right	ПИВ	← Left-Through ← Through		α.τ.	0 0	750	~	100	257	<u>+</u>	337	0 0	374		340	0 0	377		340	00	377
Fight	OBI	Through-Right		2	-	- 29	0	7	2	2	3	· -	-)	}	-	5	0	5	-	5
North-South: 503 North-South: 505 North-South: 639 North-South: 641 North-South: 761 North-South: 641 North-South: 761 North-South: North-South: 761 North-South:	MES.	Right Left-Through-Right		33	000	0	က	36	0	0	34	000	0	ო	37	000	0	0	37	000	0
East-West: 685 East-West: 694 East-West: 791 East-West: 800 SUM: 1188 SUM: 1199 SUM: 1430 SUM: 1441 0.792 0.793 0.799 0.963 0.963 0.961 0.961 B B D D D		Tell-Rigill		Nort	h-South:	503	Nor	h-South:	505		North	-South:	639		North	-South:	641		Nort	-South:	641
0.792 0.799 0.953 0.953 0.699 0.853 PB PD		CRITICAL	VOLUMES	Ea	st-West: SUM:	685	Щ	St-	694		Eas	st-West: SUM:	791		Ea	st-West: SUM:	800		Ea	East-West: SUM:	800
0.692 0.659 0.853 0.853 P D		VOLUME/CAPACITY (V/	C) RATIO:			0.792			0.799				0.953				0.961				0.961
B B D	Š	C LESS ATSAC/ATCS ADJU	USTMENT:			0.692			669.0				0.853				0.861				0.861
		LEVEL OF SERVI	ICE (LOS):			В			В				O				٥				O

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.008
Significant impacted? NO

∆w/c after mitigation: 0.008 Fully mitigated? N/A





1/S #:	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA05	East-West Street:	James M.	James M. Wood Boulevard	levard		Project	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed by:	MB			5-17-0316-1 2005 James M Woo	2005 James	M Wood
		No. of Phases			2			2				2								2
ŏ	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0					•		0	!			0		•	ļ	0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	00	NB EB	O WB-		NB EB	0	SB WB-	0 0	NB EB	0	SB- WB-	0 0	NB EB	0	SB WB	0 0
	ATSAC-1 or ATSAC+ATCS-2?	ATSAC+ATCS-2?			0 0			0 0				0 2				0 0				0 2
		Goodho	EXISTIN	EXISTING CONDITION		EXISTIN	IG PLUS PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	FUTURE CONDITION W/ PROJECT	N W/ PROJ		FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume V	Total Volume	No. of Lanes	Lane	Added	Total Volume	No. of Lanes	Lane
а	↑ Left		0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0
NUO	← Left-Inrough ↑ Through		962		360	0	362	362	266	1247		462	0	1247		463	0	1247		463
антя	↑ Through-Right ↑ Right		119	- 0	360	2	124	362	17	138	- 0	462	2	143	- 0	463	0	143	- 0	463
ION	← Left-Through-Right			00							0 0				0 0				0 0	
ΔN	Left \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		2	0 -	2	0	2	2	0	2	0 +	2	0	2	0 +	2	0	2	0 +	2
INOS	Through		1010	- 0	572	ဗ	1013	574	240	1270	- 0	715	ဇ	1273	- 0	717	0	1273	- 0	717
ЭНТ	ム Through-Right し Right		122	- 0	572	0	122	574	24	148	- 0	715	0	148	- 0	717	0	148	- 0	717
nos	Left-Through-Right			00							00				00				00	
а	Left		92		92	0	92	92	31	109	← 0	109	0	109	← c	109	0	109	← c	109
NUC	→ Through		474	0	540	က	477	543	154	638	00	705	က	641	00	708	0	641	00	708
8T8	Through-Right		99	← ⊂	C	c	y	C	c	67	← ⊂	c	c	67	← C	c	c	22	← ⊂	C
EAS	← Left-Through-Right		3	000)		3)	•	5	000)		5	000)		5	000)
	T Leit-Right				Ī											Ī			>	
а	C Left		06	← c	06	5	92	92	23	115	← 0	115	2	120	← ¢	120	0	120	← c	120
NNO	← Through		344	0	410	က	347	416	124	475	00	542	က	478	0 0	548	0	478	0 0	548
атг	← Through-Right ← Right		99	- 0	0	ო	69	0	0	29	- 0	0	ო	70	- 0	0	0	02	- 0	0
ΒM	★ Left-Through-Right ↑ Left-Right			00							00				00				00	
			Nort	North-South:	572	Nort	th-South:	574		North	North-South:	715		North	North-South:	717		North	North-South:	717
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	630	Щ	East-West: SUM:	638		Ea	East-West: SUM:	820 1535		Ea	East-West: SUM:	828 1545		Ea	East-West: SUM:	828 1545
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.801			0.808				1.023				1.030				1.030
×	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.701			0.708				0.923				0.930				0.930
	LEVEL OF SERVICE (LOS):	CE (LOS):			C			C				Е				Е				Е
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.007
Significant impacted? NO

∆w/c after mitigation: 0.007 Fully mitigated? N/A





:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conducted by:	ed by:	NDS		Date:	2	2/16/2017	
CMADE	East-West Street:	Olympic I	Olympic Boulevard			Projec	Projection Year:	2019		Peal	Peak Hour:	AM	Reviewed by:	ed by:	MB			5-17-0316-1 2005 James M Woo	2005 James	M Wood
	No. o	No. of Phases			4			4				4								4
ď	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			ļ	0							0				0				0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB- 0	SB WB	m O	NB EB	0 SB		NB EB	0 0	SB WB	m 0	NB EB	0	SB WB	m 0	NB EB	0 0	SB WB	e 0
	ATSAC-1 or ATSAC+ATCS-2?				0 C			N C				00				00				. W C
		Capacity	EXISTIN	EXISTING CONDITION		EXISTIN	IG PLUS PROJECT		FUTURE	CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	FUTURE CONDITION W/ PROJECT	N W/ PROJ		FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total	No. of Lanes V	Lane	Added	Total Volume	No. of Lanes	Lane
а	Feff		118	- (118	0	118	118	0	120	- 0	120	0	120		120	0	120	- 0	120
NUO	← Left-Ihrough ↑ Through		229	o –	371	2	629	372	88	780	o –	426	7	782	o –	427	0	782	o –	427
ВНТЯ	↑ Through-Right ↑ Right		64	- 0	64	0	64	49	7	72	- 0	72	0	72	- 0	72	0	72	← 0	72
ON	← Left-Through-Right ← Left-Right			00							00				0 0				0 0	
•	ر اور		211	-	211	4	215	215	34	249	-	249	4	253	-	253	0	253	-	253
חאם	Left-Through			0				Ì			0	!			0				0	
IBOI	↓ Through ↓ Through-Right		548	0 0	274	8	220	275	150	402	0 0	355	7	711	0 0	356	0	711	0 0	356
нти			238	- (77	ဧ	241	92	51	294	· - (99	က	297	· - (65	0	297	· — (65
os				00							00				00				00	
a	J Left → Left-Through		161	- ⊂	161	4	165	165	64	228	- ⊂	228	4	232	← 0	232	0	232	← C	232
NUO	→ Through		1572	. 2	538	0	1572	538	183	1787	, N	610	0	1787	0 01 -	610	0	1787	0 0 -	610
атѕ	↓ Inrougn-Right ↓ Right		43	- 0	43	0	43	43	0	44	- 0	4	0	44	- 0	4	0	4	- 0	44
∀ ∃	★ Left-Through-Right ★ Left-Right			00							00				0 0				00	
	to I		57	-	12	c	57	12	+	69	-	g	c	09	-	g	c	9	-	9
ПИD	← Left-Through		5	0	5)	5	5		3	0	3)	3	0	3		3	0	3
าดย	← Through ← Through-Right		898	ο -	309	0	898	309	211	1096	0 +	400	0	1096	O +	400	0	1096	ν -	400
ITSE	ト Right		09	0	09	0	09	09	44	105	0	105	0	105	. 0	105	0	105	. 0	105
ıM	← Left-Through-Right ← Left-Right			00							00				00				00	
	SENTICA INTER	SHMILION	Nort	North-South:	582	Nort	orth-South:	587		Nort	North-South:	675		North	North-South:	089		Nort	North-South:	680
			Ea	SUM:	1177	ű	SUM:	1182		La	SUM:	1354		E	SUM:	1359		Ea	SUM:	1359
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.856			0.860				0.985				0.988				0.988
<u>\$</u>	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.756			092'0				0.885				0.888				0.888
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			ဝ				D				D				O
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.003
Significant impacted? NO

∆w/c after mitigation: 0.003 Fully mitigated? N/A





:# S/I	North-South Street:	Alvarado Street	Street			Year	of Count:	2017	Ambi	Ambient Growth: (%):	th: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA06	East-West Street:	Olympic F	Olympic Boulevard			Project	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed by:	MB		Project: 5	Project: 5-17-0316-1 2005 James M. Woo	2005 James	s M. Wood
ő	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	No. of Phases N-2 or Both-3?			4 0			4 0				4 0								4
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB WB	e C	NB EB	O SB	e C	NB	00	SB WB	e C	NB	0 0	SB WB	е С	NB FB	0 0	SB WB	3
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity				0 0							0 0				0 0				0
			EXISTIN	EXISTING CONDITION		EXISTIN	EXISTING PLUS PROJECT	JJECT	FUTURE	: CONDITIO	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	SATION
	MOVEMENT		Volume	No. of Lanes	Lane	Project Traffic	Total	Lane	Added	Total Volume	No. of Lanes	Lane Volume V	Added Volume V	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
d) rett		125	-	125	0	125	125	0	128	-	128	0	128	-	128	0	128	-	128
INNC	← Left-Through Through		712	0 -	384	8	714	382	151	877	0 +	468	2	879	0 -	469	0	879	o -	469
нвс	Through-Right		!	-		I		}			-		I	;	-)	;	-	}
тяс	Right		49	0 0	49	0	49	49	œ	28	0 0	28	0	28	0 0	28	0	28	0 0	28
N	← Left-Right			0 0							0 0				0 0				0 0	
	و - در		180	-	180	c	102	102	84	254	-	254	c	25.4		254	c	25.4	,	254
ПD			80	- 0	881	າ	781	761	000	- C7	- 0	1.67	າ	7 24	- 0	407	5	70 4	- 0	724
noa	Through		805	~ <	403	8	807	404	112	933	00	467	7	935	2 0	468	0	935	0 0	468
HTL	Right		201	-	0	3	204	0	92	297	o -	0	3	300	o -	0	0	300	o ←	0
os	★ Left-Through-Right ∠ Left-Right			00							00				00				00	
aı	J Left → Left-Through		249	- c	249	င	252	252	83	337	← 0	337	င	340	- c	340	0	340	- ⊂	340
NUO	Through		1203	o 64 ·	419	0	1203	419	265	1492	o (4)	516	0	1492) (N ·	516	0	1492	o	516
ата	Through-Right Right		22	- 0	22	0	22	55	0	26	- 0	26	0	26	- 0	26	0	26	- 0	56
A3	★ Left-Through-Right ✓ Left-Right			00							0 0				0 0				0 0	
	# T		80		83	c	82	83	ď	20	-	2	c	5		5	c	6		5
ΔN	Ç Left-Through		8	- 0	3	>	200	3	0	<u>-</u>	- 0	<u></u>	>	<u>_</u>	- 0	<u>_</u>	>	<u>_</u>	- 0	6
INOS	← Through		1122	۲ م	415	0	1122	415	234	1379	0 +	518	0	1379	7 7	518	0	1379	۲ م	518
ITS:	A Right		122	- 0	122	0	122	122	20	174	- 0	174	0	174	- 0	174	0	174	- 0	174
ıw.	← Left-Through-Right → Left-Right			00							00				00				00	
			Nort	North-South:	220	Nor	North-South:	574		North	North-South:	719		North	North-South:	723		North	North-South:	723
	CRITICAL VOLUMES	VOLUMES	Ea	East-West: SUM:	1234	ũ	East-West: SUM:	667 1241		Ea	East-West: SUM:	855 1574		Eas	East-West: SUM:	858 1581		Ea	East-West: SUM:	858 1581
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.897			0.903				1.145				1.150				1.150
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	ISTMENT:			0.797			0.803				1.045				1.050				1.050
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			D				L				L				F
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.005
Significant impacted? NO

∆w/c after mitigation: 0.005 Fully mitigated? N/A







:# S/I	North-South Street:	Union Avenue	venue			Year	of Count:	2017	Ambic	Ambient Growth: (%):	h: (%):	1.0	Conducted by:	ed by: NDS	SC		Date:	2	2/16/2017	
CMA07	East-West Street:	James M	James M. Wood Boulevard	levard		Project	Projection Year:	2019		Peak	Peak Hour:	AM	Reviewed by:	ed by:	MB	4	roject: 5	Project: 5-17-0316-1 2005 James M.	2005 James	s M. Wood
o	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2 0							2 0				2 0				2 0
Righ	Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB 0 EB 0	SB- WB-	0 0	NB EB	0 SB 0 WB		NB EB	0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB- EB	0 0	SB WB	0 0
	ATSAC-1 or ATSAC+ATCS-2? Override Capacity	- ATSAC+ATCS-2? Override Capacity			0			0				0				0				2 0
			EXISTIP	EXISTING CONDITION	NOI	EXISTIN	IG PLUS PROJECT	JECT	FUTURE	CONDITION	FUTURE CONDITION W/O PROJECT	JECT	FUTURE	CONDITIO	FUTURE CONDITION W/ PROJECT	ECT	FUTURE V	FUTURE W/ PROJECT W/ MITIGATION	T W/ MITIG	ATION
	MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes V	Lane /	Added Volume V	Total	No. of Lanes V	Lane /	Added Volume V	Total Volume	No. of Lanes	Lane Volume
a) Left		74	-	74	0	74	74	0	75	-	75	0	75	-	75	0	75	-	75
INNC	← Left-Through		541	0 0	297	C	541	597	71	623	0 0	722	C	623	0 0	722	c	623	0 0	722
IBC	↑ Through-Right			· —	})	-	3	-		· -	ļ)		· -	ļ)		· -	!
ITA	Right		99	0	0	0	26	0	42	66	0	0	0	66	0	0	0	66	0	0
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
ND	√ Left √ Left-Through		94	- 0	96	0	94	94	39	135	- 0	135	0	135	- 0	135	0	135	- 0	135
noe	↓ Through		548	-	300	0	548	300	120	629	-	395	0	629	- -	395	0	629	- -	395
ЭНТ	↑ Inrougn-Right		5.1	- 0	5.1	-	52	52	22	110	- 0	110	-	1,	- 0	11	C	11	- 0	111
nos			5	0	5	-	1	4	3	<u>-</u>	0 0) -	-	-	0)		0 0	
3	∴ Left-Right			0	I			j			0	j			0				0	
			43	-	43	-	44	4	37	81	-	84	-	82	-	82	0	82	_	82
ПD				0							0				0				0	
nos	Through		512	0 +	218	7	514	280	64	286	0 +	653	7	288	0 +	655	0	288	0 +	655
BTS	Right		99	- 0	0	0	99	0	0	29	- 0	0	0	29	- 0	0	0	29	- 0	0
ΑЭ	← Left-Through-Right			0 0							00				00				0 0	
a	← Left ← Left		41	← 0	4	0	41	4	92	118	← (118	0	118	← 0	118	0	118	← 0	118
ΝΛΟ	← Leit-Illiougii ← Through		133	00	170	2	135	172	29	203	00	288	2	205	00	290	0	205	00	290
ata	↑ Through-Right ↑ Right		37	- c	c	c	37	C	47	አ	- c	c	c	8	← ⊂	C	c	አ	- c	C
ME	Left-Through-Right		5	000)		5)	i	3	000)		3	000)		3	000)
	Ç Leit-Rignt		Nort	North-South:	691	Nort	th-South:	691		North	North-South:	857		North-	North-South:	857		North	North-South:	857
	CRITICAL VOLUMES	/OLUMES	Eè	East-West: SUM:	619	Ea	ast-West: SUM:	621		Eas	East-West: SUM:	771		Eas	East-West: SUM:	773		Ea	East-West: SUM:	773
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.873			0.875				1.085				1.087				1.087
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.773			0.775				0.985				0.987				0.987
	LEVEL OF SERVICE (LOS):	CE (LOS):			ပ			ပ				ш				ш				ш
	A B	RFWARKS																		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.002
Significant impacted? NO

∆w/c after mitigation: 0.002 Fully mitigated? N/A







:# S/I	North-South Street:	Union Avenue	enne			Year	of Count:	2017	Ambi	Ambient Growth: (%):	:h: (%):	1.0	Conduct	Conducted by: NDS	DS		Date:	2	2/16/2017	
CMA07	East-West Street:	James M.	James M. Wood Boulevard	levard		Projec	Projection Year:	2019		Peak	Peak Hour:	PM	Reviewed by:	ed by:	MB		Project: 5	Project: 5-17-0316-1 2005 James M. Woo	2005 James	s M. Wood
ŏ	No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0				0								2 0
Right	Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2?		NB 0 EB 0	SB- WB	0 0 0	NB EB	0 SB		NB EB	0	SB WB	0 0 0	NB EB	0 0	SB- WB	000	NB- EB-	0	SB WB	0 0 0
	Override	Override Capacity		!				0				0								0
	MOVEMENT		Kolimo	No. of Lange Vol	Lane	Project	oject Total Lane	Lane	Added	Total	dded Total No. of Lane	2 6	Added	Total	Aded Total No. of Lan	9 8	Added	Added Total No. of Lane	No. of	Lane
) Left		75	-	75	-	_	75	4				-1		_	╅	_	77	_	77
αи∩	Left-Through		i	0 (Ç	C	i.	į		Ö	0	ğ	ď	Ö	0	Ş	C	Ö	0 (000
ВО	↑ Through		549	0 -	009	0	546 6	009	138	869	0 -	833	0	869	0 -	833	0	869	0 -	833
ΗТЯ	Right		51	0	0	0	51	0	83	135	0	0	0	135	0	0	0	135	0	0
ON	← Left-Through-Right ← Left-Right			0 0							0 0				0 0				0 0	
				ĺ																
ИD	√ Left √ Left-Through		110	- 0	110	0	110	110	63	175	- 0	175	0	175	- 0	175	0	175	- 0	175
noe	Through		849	· -	465	0	849	466	104	970	· - ·	556	0	026	· - ·	256	0	970	· - ·	556
IHT	↑ Inrougn-Right		81	- 0	81	_	82	82	28	141	- 0	141	-	142	- 0	142	0	142	- 0	142
nos	← Left-Through-Right			00							00				00				00	
а	Left		83	← c	88	-	84	8	92	161	- 0	161	-	162		162	0	162	← ⊂	162
NNO	Through		399	0	548	7	401	550	94	501	0 0	653	2	503	0	655	0	503	0	655
ата	→ Through-Right → Right		149	- c	C	C	149	C	C	152	- 0	C	C	152	← C	C	C	152	- c	C
EV	← Left-Through-Right		2	000)	•)	•	}	000))	!	000)	•	}	000)
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а	← Left ← Left ← Left		33	← c	33	0	33	33	25	91	← ¢	94	0	91	← 0	91	0	16	← c	91
NNO	← Through		179	0 0	235	7	181	237	06	273	00	385	2	275	00	387	0	275	00	387
8TS	← Through-Right ← Right		26	- 0	0	0	26	0	55	112	- 0	0	0	112	- 0	0	0	112	- 0	0
=M	个 Left-Through-Right 个 Left-Right			00							00				00				00	
			Nort	North-South:	710	Nor	North-South:	710		North	North-South:	1008		North	North-South:	1008		North	North-South:	1008
	CRITICAL VOLUMES	OLUMES	Ē	East-West: SUM:	581 1291	Щ	East-West: SUM:	583 1293		Ea	East-West: SUM:	744 1752		Eas	East-West: SUM:	746 1754		Ea	East-West: SUM:	746 1754
	VOLUME/CAPACITY (V/C) RATIO:	C) RATIO:			0.861			0.862				1.168				1.169				1.169
Š	V/C LESS ATSAC/ATCS ADJUSTMENT:	STMENT:			0.761			0.762				1.068				1.069				1.069
	LEVEL OF SERVICE (LOS):	CE (LOS):			C			C				Е				Е				F
	RE	REMARKS:																		

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in w/c due to project: 0.001
Significant impacted? NO

∆w/c after mitigation: 0.001 Fully mitigated? N/A

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

Received 4/11/17

2005 James M Wood Blvd DOT Case No. CEN 17-45371

Date:

April 6, 2017

To:

Karen Hoo, City Planner

Department of City Planning

EXHIBIT D DOT Approval Letter

From:

Wes Pringle, Transportation Engineer

Department of Transportation

Subject:

TRANSPORTATION STUDY ASSESSMENT FOR THE PROPOSED HOTEL DEVELOPMENT LOCATED AT 2005 JAMES M WOOD BOULEVARD (CPC-2017-712-GPA-VZC-HD-VCU-SPR/ENV-2017-713-

EAF)

The Department of Transportation (DOT) has reviewed the transportation analysis prepared by Linscott, Law & Greenspan, Engineers dated February 21, 2017 for the proposed hotel development project located at 2005 James M Wood Boulevard. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impact criteria¹, the proposed development is not expected to result in any significant traffic impacts at the seven study intersections identified for detailed analysis. The results of the traffic impact analysis, which accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community, are summarized in **Attachment 1**.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to replace approximately 8,228 square feet of existing retail space with a 100-room hotel. Parking for the project would be provided on-site within the ground floor and a subterranean parking garage facility. Vehicle access to the project site will be accommodated via an alley way located along James M Wood Boulevard. From the alley, an access driveway will allow entry to the ground floor parking, loading area and the subterranean parking facility. The project is expected to be completed by 2019.

B. Trip Generation

The project is estimated to generate a net increase of 545 daily trips, a net increase of 42 trips in the a.m. peak hour, and a net increase of 38 trips in the p.m. peak hour.

¹ Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) <u>Trip Generation</u>, 9th Edition, 2012. A copy of the trip generation table can be found in **Attachment 2**.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

PROJECT REQUIREMENTS

A. <u>Construction Impacts</u>

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

B. Highway Dedication And Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project. Per the new Mobility Element, **Westlake Avenue** is designated a Local Street-Standard which would require a 18-foot half-width roadway within a 30-foot half-width right-of-way. **James M Wood** is designated a Avenue III (Secondary Highway) which would require a 23-foot half-width roadway within a 36-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements

The traffic study did not include the number of parking spaces that will be provided

by the project. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

D. <u>Project Access</u>

As stated above, the proposed driveway will be accessed via an alley way located along James M Wood and will accommodate truck deliveries to the hotel. All delivery truck loading and unloading shall take place on-site with no vehicles backing into the project driveway. Deliveries shall be restricted to off-peak hours only and are expected to occur between the hours of 5 a.m. and 12 p.m. Monday — Sunday. A dock manager shall be available on-site to assist delivery trucks accessing the loading area.

E. <u>Driveway Access and Circulation</u>

The proposed site plan is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section 201 N. Figueroa Street, 5th Floor, Room 550 at (213) 482-7024. In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. The conceptual site plan for the project is illustrated in **Attachment 3**.

F. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Eduardo Hermoso at (213) 972-8473.

Attachments

J:\Letters\2017\CEN17-45371_2005 James M Wood Blvd ts ltr.doc

c: Gerald Gubatan, Council District No. 1
Mehrdad Moshksar, Central District Office, DOT
Taimour Tanavoli, Case Management, DOT
Carl Mills, BOE Development Services
Mark Bueno, Linscott, Law & Greenspan, Engineers

Table 9-1 SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE AM AND PM PEAK HOURS

New Project New Project				Ξ	-			[2]		[3]				4	21-Feb-17
Hover Street AM				YEAR 2017		YEAR 201 EXISTING	20	CHANGE	SIGNIF.	YEAR 20 FUTURE F	119 'RE-	YEAR 2 FUTUR	019 te	CHANGE	SIGNIF.
Hoover Street / AM 0.772 C 0.704 C 0.002 NO 0.845 D 0.847 D 0.8895 D 0.8995 D 0.9995	NO.	INTERSECTION	PEAK HOUR	ISTIN	so,	ROJE	CT	V/C [(2)-(1)]	IMPACT [a]	PROJEC V/C	TOS TOS	W/ PROJ V/C	ECT LOS	V/C [(4)+(3)]	IMPACT [8]
Hoover Street / AM		Hoover Street / James M. Wood Boulevard	AM		00	0.723	υυ	0.002	NO NO	0.845	Q	0.847	QQ	0.002	NO NO
Alvarado Street / AM	2	Hoover Street / Olympic Boulevard	AM		QQ	0.875	00	0.002	NO NO NO	1.003	IT IT	1.005		0.002	ON ON
Alvarado Street / AM 0.614 B 0.617 B 0.003 NO 0.785 C 0.787 C 8th Street Alvarado Street / AM 0.652 B 0.659 B 0.007 NO 0.813 D 0.885 D Alvarado Street / AM 0.756 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.01mpic Boulevard Alvarado Street / AM 0.756 C 0.760 C 0.004 NO 0.885 D 0.888 D 0.01mpic Boulevard Alvarado Street / AM 0.773 C 0.775 C 0.005 NO 0.985 E 0.987 E 1.069 F 1.06	3	Alvarado Street / 7th Street	AM		V V	0.541	4 4	0.003	NO NO	0.697	B	0.698	CB	0.001	NO ON
Alvarado Street / AM 0.657 B 0.659 B 0.007 NO 0.813 D 0.885 D 0.885 M 0.657 B 0.664 B 0.007 NO 0.885 D 0.885 D 0.888 D 0.007 NO 0.885 D 0.888 D 0.007 NO 0.885 D 0.888 D 0.007 NO 0.885 D 0.888 D 0.007 NO 0.885 D 0.888 D 0.007 NO 0.006 NO 0.006 NO 0.006 F 0.007 NO 0.008 F 0.007 E 0.007 NO 0.008 F 0.007 F 0.007 NO 0.008 F 0.009 F 0.000 NO 0.008 F 0.009 F	4	Alvarado Street / 8th Street	AM PM	0.614	B	0.617	B	0.003	NO NO	0.785	C	0.787	C	0.002	ON ON
Alvarado Street / AM 0.756 C 0.760 C 0.004 NO 0.885 D 0.888 D Olympic Boulevard PM 0.797 C 0.803 D 0.006 NO 1.045 F 1.050 F Union Avenue / AM 0.773 C 0.775 C 0.001 NO 1.068 F 1.069 F 1.069 F	5	Alvarado Street / James M. Wood Boulevard	AM PM	0.652	ВВ	0.659	ВВ	0.007	NO NO	0.813	QQ	0.820	Q	0.007	NO NO
Union Avenue / AM 0.773 C 0.775 C 0.002 NO 0.985 E 0.987 E James M. Wood Boulevard PM 0.761 C 0.762 C 0.001 NO 1.068 F 1.069 F	9	Alvarado Street / Olympic Boulevard	AM PM		ပ	0.760	C	0.004	NO NO	0.885	ДH	0.888	D	0.003	NO ON
	7	Union Avenue / James M. Wood Boulevard	AM PM		22	0.775	υυ	0.002	NO NO	0.985	四下	0.987	মেদ	0.002	NO

According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table: B

 Final v/c
 LOS
 Project Related Increase in v/c

 0.701 - 0.800
 C
 equal to or greater than 0.040

 0.801 - 0.900
 D
 equal to or greater than 0.020

 > 0.901
 E, F
 equal to or greater than 0.010

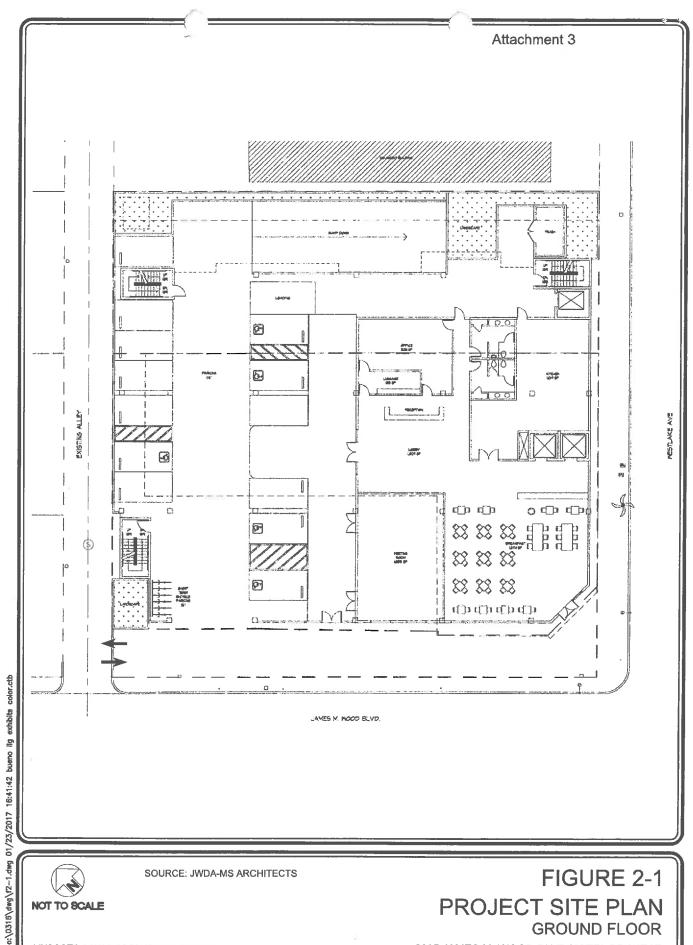
23-Jan-17

		DAILY	AM	AM PEAK HOUR	JUR	PM	PM PEAK HOUR	JUR
		TRIP ENDS [2])\	VOLUMES [2]	[7]	Λ	VOLUMES [2]	[7]
LAND USE	SIZE	VOLUMES	NI	OUT	TOTAL	N.	OUT	TOTAL
Proposed Project Hotel [3]	100 Rooms	817	31	22	53	31	29	09
Proposed Transit Trips [4] Hotel (15%)		(123)	(5)	(3)	8)	(5)	(4)	6)
Existing Site Retail [5]	(8,228) GLSF	(351)	(5)	(3)	8	(15)	(16)	(31)
Existing Transit Trips [4] Retail (15%)		53		0	1	2	73	4
Net Project Driveway Subtotal		396	22	16	38	13	11	24
Existing Pass-By Trips [6] Retail (50%)		149	2	2	4	7	7	14
NET PROJECT TRIPS		545	24	18	42	20	18	38

- [1] Source: ITE "Trip Generation", 9th Edition, 2012.
 [2] Trips are one-way traffic movements, entering or leaving.
 [3] ITE Land Use Code 310 (Hotel) trip generation average rates.
 Daily Trip Rate: 8.17 trips/Rooms; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.53 trips/Rooms; 59% inbound/41% outbound
- PM Peak Hour Trip Rate: 0.60 trips/Rooms; 51% inbound/49% outbound
- [4] The Project site is located within 1/4 mile of a Metro Rapid bus stop. The trip reduction for transit trips has been applied to the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments within a 1/4 mile walking distance of a transit station or a RapidBus stop.
 - [5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
 Daily Trip Rate: 42.70 trips/1000 GLSF; 50% inbound/50% outbound
 AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.71 trips/1000 GLSF; 48% inbound/52% outbound
- [6] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion.

 Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site.

 The trip reduction for pass-by trips has been applied to the commercial component of the Project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for Shopping Center less than 50,000 sf.





SOURCE: JWDA-MS ARCHITECTS

FIGURE 2-1 PROJECT SITE PLAN **GROUND FLOOR**

2005 JAMES M. WOOD BLVD HOTEL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

Photo Brochure 2005 W. James M. Wood Blvd.





Aerial Photo

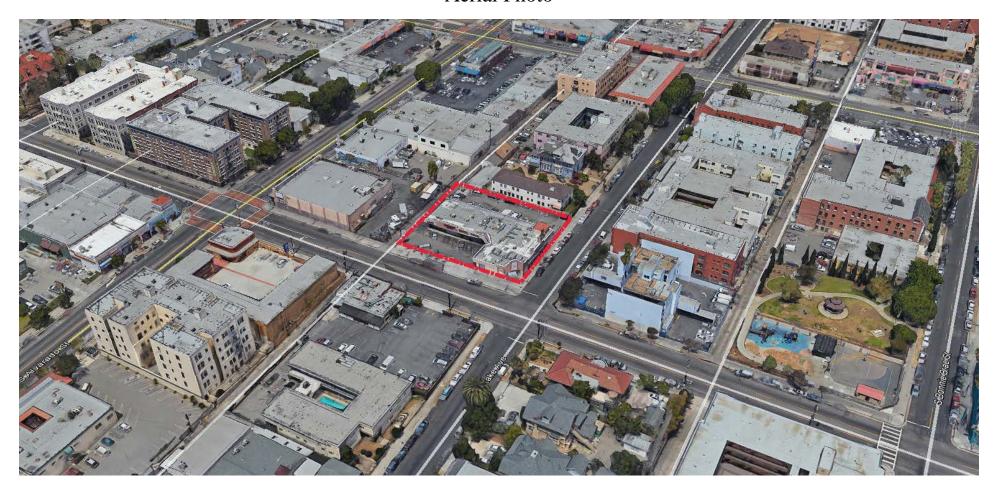


Photo 1



Photo 2

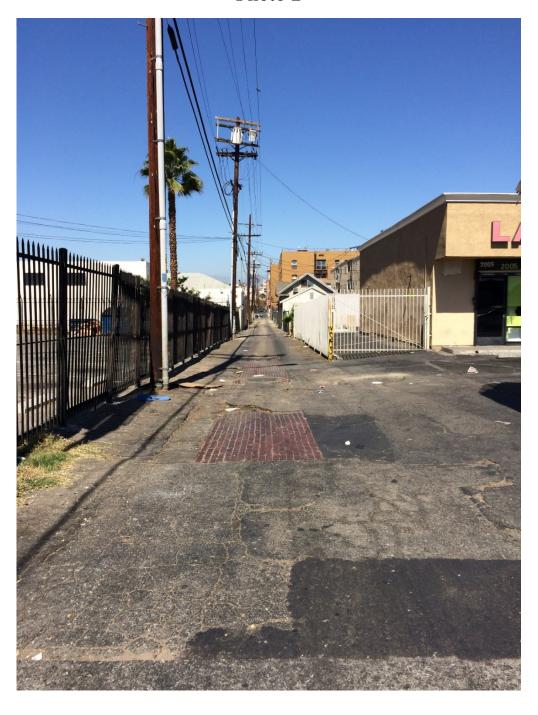


Photo 3



Photo 4



Photo 5

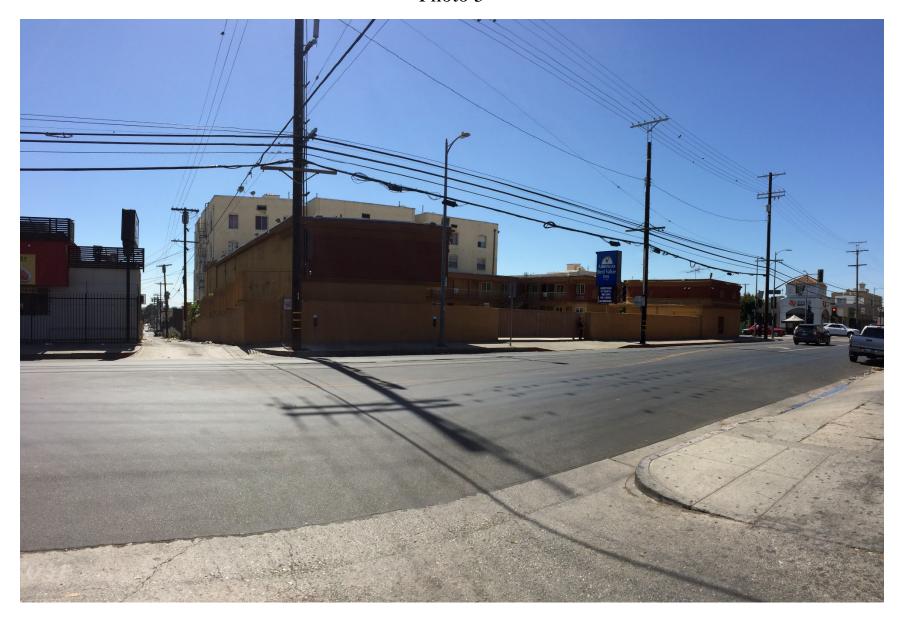


Photo 6



Photo 7

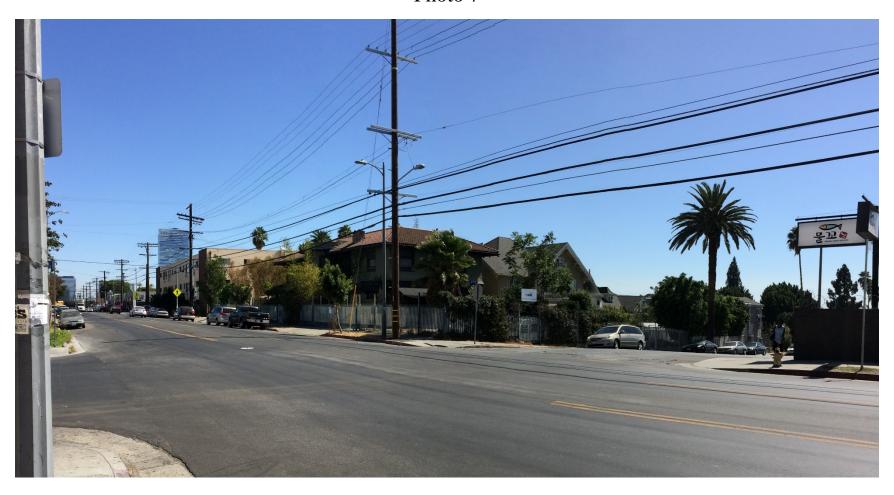


Photo 8



Photo 9



Photo 10

