

August 11, 2020

H-8

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Receive supporting documentation into the record, conclude the public hearing, and adopt Mitigated Negative Declaration MND04-20 (State Clearinghouse SCH# 2020050229) in accordance with the provisions of the California Environmental Quality Act (CEQA) and State and local Guidelines;

Declare an Ordinance approving a Zone Change ZCHG17-009 from CCA (Community Commercial Automobile-Oriented) to R-4-N (Medium-Density Multiple Residential) and from CCA (Community Commercial Automobile-Oriented) to R-3-T (Multi-family Residential, Townhouse), read the first time and laid over to the next regular meeting of the City Council for final reading; and,

Approve a Site Plan Review SPR17-062 and Vesting Tentative Tract Map No. 77097 VTTM17-001, to allow the construction of 18 for-sale three-story townhomes located at 4800 Long Beach Boulevard. (District 8)

DISCUSSION

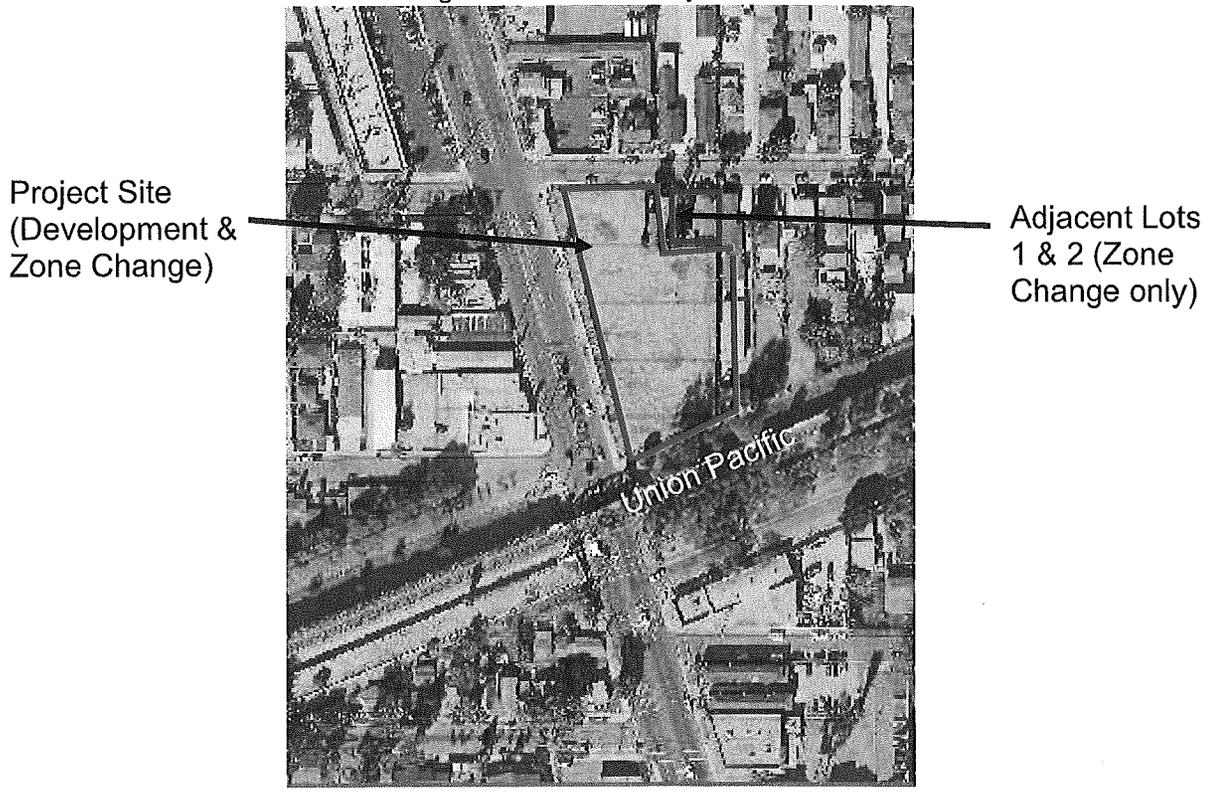
On June 18, 2020, the Planning Commission conducted a public hearing on the proposed (Application No. 1707-10) (Attachment A - Location), considered public testimony, and recommended that the City Council approve the requested actions (Attachment B - Planning Commission Report).

The site is a former redevelopment property located on the east side of Long Beach Boulevard between East 49th Street to the north and the Union Pacific Railroad to the south. Long Beach Boulevard is primarily a commercial corridor with abutting residential uses. The site is located in the Addams Neighborhood area in North Long Beach. The site encompasses five parcels, for a total project area of 1.102 acres (approximately 48,003 square feet), and is zoned Community Commercial Automobile-Oriented (CCA). Two adjacent lots located east of the project site at 132 and 134 East 49th Street are also zoned CCA.

The five-parcel site that is proposed to be developed is currently vacant covered with ruderal vegetation. The developer seeks to construct 18 three-story townhomes within three buildings that are a maximum height of 38 feet (three-stories). The adjacent lots have a single-family residence per lot. No new development is proposed on the two adjacent lots. The proposed project includes a Zone Change from CCA to R-4-N (Medium-Density Multiple Residential) to facilitate the development of the townhomes. A Zone Change for the two adjacent lots (132 and 134 East 49th Street) from CCA to R-3-T (Multi-family Residential, Townhouse) is proposed for consistency with the existing residential land use and adjacent neighborhood zoning.

The site is bordered by commercial uses to the north, across East 49th Street; commercial uses to the west, across Long Beach Boulevard; commercial and residential uses to the south of the Union Pacific Railroad; and residential uses to the east. The project site and adjacent uses are shown in Figure 1 below:

Figure 1 – Aerial of Project Site



Project Proposal

The proposed project involves development of 18 three-story townhomes that would be 38 feet in height, with 41 on-grade parking spaces. The site would include two buildings with eight townhomes each and one building with two townhomes. Of the 18 units, 9 of the townhomes would be 3-bedroom, 3-bath units consisting of approximately 1,411 square feet (SF) and nine of the townhomes would be 3-bedroom, 3-bath plus den units consisting of approximately 1,747 SF. Of the 41 required parking stalls, 36 are proposed as garage spaces (18 of which are proposed in tandem configuration) and 5 would be designated as guest parking stalls. The project will also provide 4,024 SF of private open space and 6,856 SF of common open space for a total of 10,880 SF of usable open space. (Attachment C - Plans). The townhome development is proposed with a variety of green building features, including rooftop solar panels to result in net zero energy¹ townhomes.

¹ The townhome development is fully electric, and rooftop solar panels would provide all energy used onsite.

Entitlements

As proposed, the project requires the following entitlements:

- **Zone Change:** Required to change the existing zoning from CCA to R-4-N (which permits medium density residential development) to allow the development of the proposed townhomes. A zone change for the adjacent two residential lots from CCA to R-3-T is proposed to be consistent with the existing land use and adjacent neighborhood zoning district².
- **Site Plan Review:** Site Plan Committee Review required for a residential project with five or more units as one project³.
- **Vesting Tentative Tract Map:** Required to consolidate five lots into a single parcel and allow the subdivision of airspace and creation of common areas, which enables the creation of individual townhome units that can be sold separately⁴.

Zone Change

The project site is currently zoned CCA (Community Commercial Automobile-Oriented) which permits retail and service uses. Residential uses are not permitted in the CCA zone. However, the General Plan's Land Use Element, adopted in December 2019, designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density). This PlaceType is a mixed-use land use designation that allows neighborhood-serving, low-intensity commercial uses and low-density apartment and condominium buildings⁵. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre), depending on lot size. This density is required to allow the development of 18 townhomes.

The applicant seeks a Zone Change to R-4-N to allow for the construction of the proposed townhomes in accordance with the R-4-N development standards. The area of Long Beach Boulevard south of the project site has multi-family residential uses and is zoned R-4-N. The rezoning of the project site will be consistent with the adjacent multi-family zoning and medium density development. The adjacent two lots located to the east of the project site are currently zoned CCA, which does not permit residential development. The existing single-family residential structures are legal, nonconforming uses. The City proposed rezoning to R-3-T will recognize the existing residential land use and be consistent with the existing zoning (R-3-T) of the neighborhood east of the project site. Both the R-4-N zone and the R-3-T zone are consistent with the General Plan's Land Use Designation, NSC-L PlaceType. (Attachment D – Zone Change Map)

² LBMC §21.25.101

³ Long Beach Municipal Code (LBMC) §21.25.502.A.1.a

⁴ LBMC §20.12 and §20.14

⁵ Land Use Element (LUE 2019) pg. 65

Site Plan Review

The site plan review process is established to ensure that the highest quality of land planning and design are incorporated into development projects. The process ensures that new projects are compatible with existing neighborhoods and meet required project development standards. On December 11, 2019, the Site Plan Review Committee reviewed the project architecture and site layout and approved the project pursuant to LBMC 21.25.503. The final approval of the project is contingent on the Zone Change.

The applicant proposes to build 18 three-story townhomes (38 feet in height) on a currently vacant site on Long Beach Boulevard. Sixteen of the proposed townhomes are oriented toward Long Beach Boulevard with front doors and pedestrian walkways accessible from the street. Vehicular access to the project site would be provided via East 49th Street, which would lead to an internal driveway that would provide access to the individual garages and guest parking spaces.

The design of the proposed townhome development reflects a traditional architectural style with a variation of roof pitch, color palette and materials. The project requires a total of 2,700 square feet of common and private open space, and the applicant proposes a total of 10,880 square feet of common and private open space combined. The proposed project meets Title 21 parking requirements for a total of 41 onsite parking spaces. The townhome development is proposed with a variety of green building features, including rooftop solar panels to result in net zero energy townhomes and a Leadership in Energy and Environmental Design (LEED) Gold equivalency rating (Attachment E – Green Scorecard).

Overall, the project design is compatible in building design within itself and harmonious with neighboring structures and the surrounding community.

Vesting Tentative Tract Map (VTTM)

The project includes a request for a Vesting Tentative Tract Map (Attachment C - Plans), which proposes to merge five parcels into a single 48,003-square-foot lot and create 18 condominium subdivisions to allow the individual sale of townhomes. As a condition of project approval, the applicant is required to dedicate and improve 13 feet along Long Beach Boulevard and 8 feet on East 49th Street adjacent to the project site for future street widening purposes. The proposed subdivision, including required dedications, supports the orderly development of land consistent with the Zoning and General Plan.

Based on the previous discussion, positive findings can be made for each of the three entitlements needed to allow the development of the 18-townhome project. The proposed Vesting Tentative Tract Map is consistent with the Land Use Element of the General Plan, which designates the project site as NSC-L, and the design of the subdivision is consistent with height and density standards set forth for residential development by the PlaceType. The conditions associated with this approval are included in Attachment F – Conditions of Approval. The detailed findings for each entitlement are attached in Attachment G – Findings.

Conclusion

The project will redevelop a vacant site as well as provide critically-needed housing in the form of for-sale three-bedroom townhouses, for which there has been an expressed need for to satisfy a local shortage in units for larger families. The proposed townhome development is appropriate in design and scale to the neighborhood and site conditions and will make a positive contribution to the Long Beach Boulevard corridor. Staff is able to make positive findings for all of the requested entitlements and recommends that the City Council approve these entitlements (Attachment G).

Public hearing notices were distributed on July 28, 2020, in accordance with the requirements of Chapter 21.21 of the Long Beach Municipal Code. Any written testimony received following the preparation of this report will be provided to the City Council prior to the hearing.

Pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, an Initial Study/Mitigated Negative Declaration (IS/MND-04-20, State Clearinghouse No. 2020050229) has been prepared for the project and finds that, by implementing identified mitigation measures, the project will not result in significant effects to the environment (Attachment H – IS/MND 04-20). The IS/MND was circulated for a 30-day public review period between May 11, 2020 and June 9, 2020. Staff received seven public comments on the MND, both from members of the public, as well as from other public agencies and organizations. The comments and the responses to the comments are included in the Responses to Comments section of the Final IS/MND (Attachment I). Attachment J also includes public comments received outside of the 30-day public review period.

At its June 18, 2020 regularly scheduled meeting, the Planning Commission took action to recommend approval of the project: five Commissioners approved the project proposal, and two Commissioners were absent.

The matter was reviewed by Assistant City Attorney Michael J. Mais on July 13, 2020 and by Budget Analysis Officer Julissa José-Murray on July 10, 2020.

TIMING CONSIDERATIONS

City Council action is requested on August 11, 2020. Pursuant to §21.25.103 of the Zoning Code, the Planning Commission's recommendations on this matter must be transmitted to the City Council within 60 days of positive action by the Planning Commission on June 18, 2020.

FISCAL IMPACT

This recommendation has no staffing impact beyond the budgeted scope of duties and is consistent with existing City Council priorities. There is no fiscal or local job impact associated with this recommendation.

HONORABLE MAYOR AND CITY COUNCIL

August 11, 2020

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SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



OSCAR W. ORCI
DIRECTOR OF DEVELOPMENT SERVICES

APPROVED:



THOMAS B. MODICA
CITY MANAGER

ATTACHMENTS: ORDINANCE
ATTACHMENT A – LOCATION
ATTACHMENT B – PLANNING COMMISSION REPORT
ATTACHMENT C – PLANS
ATTACHMENT D - ZONE CHANGE MAP
ATTACHMENT E - GREEN SCORECARD
ATTACHMENT F - CONDITIONS OF APPROVAL
ATTACHMENT G – FINDINGS
ATTACHMENT H – MITIGATED NEGATIVE DECLARATION IS-MND 04-20
ATTACHMENT I – FINAL MITIGATED NEGATIVE DECLARATION WITH RESPONSES TO COMMENTS
ATTACHMENT J – PUBLIC COMMENTS RECEIVED

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

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ORDINANCE NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LONG BEACH AMENDING THE USE DISTRICT MAP OF THE CITY OF LONG BEACH AS SAID MAP HAS BEEN ESTABLISHED AND AMENDED BY AMENDING PORTIONS OF PART 22 OF SAID MAP FROM CCA (COMMUNITY COMMERCIAL AUTOMOBILE-ORIENTED) TO R-4-N (MEDIUM-DENSITY, MULTIPLE RESIDENTIAL) AND CCA (COMMUNITY COMMERCIAL AUTOMOBILE-ORIENTED) TO R-3-T (MULTI-FAMILY RESIDENTIAL, TOWNHOUSE)

The City Council of the City of Long Beach ordains as follows:

Section 1. Environmental documentation having been prepared, certified, received and considered as required by law, and the City Council hereby finding that the proposed change will not adversely affect the character, livability or appropriate development of the surrounding area and that the proposed change is consistent with the goals, objectives and provisions of the General Plan, the official Use District Map of the City of Long Beach, as established and amended, is further amended by amending portions of Part 22 of said Map from CCA (Community Commercial Automobile-Oriented) to R-4-N (Medium-Density, Multiple Residential; and CCA (Community Commercial Automobile-Oriented) to R-3-T (.Multi-family Residential, Townhouse).

Section 2. Those portions of Part 22 of said Map that are amended by this ordinance are depicted on Exhibit "A" which is attached hereto and by this reference made a part of this ordinance and the official Use District Map of the City.

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

1 Section 3. All ordinances and parts of ordinances in conflict herewith are
2 hereby repealed.

3 Section 4. The City Clerk shall certify to the passage of this ordinance by
4 the City Council and cause it to be posted in three conspicuous places in the City of Long
5 Beach, and it shall take effect on the thirty-first day after it is approved by the Mayor.

6
7 I hereby certify that the foregoing ordinance was adopted by the City
8 Council of the City of Long Beach at its meeting of _____, 2020, by the
9 following vote:

10
11 Ayes: Councilmembers: _____

12 _____

13 _____

14 _____

15 Noes: Councilmembers: _____

16 _____

17 Absent: Councilmembers: _____

18 _____

19 Recusal(s): Councilmembers: _____

20 _____

21 _____

22 _____

23 _____ City Clerk

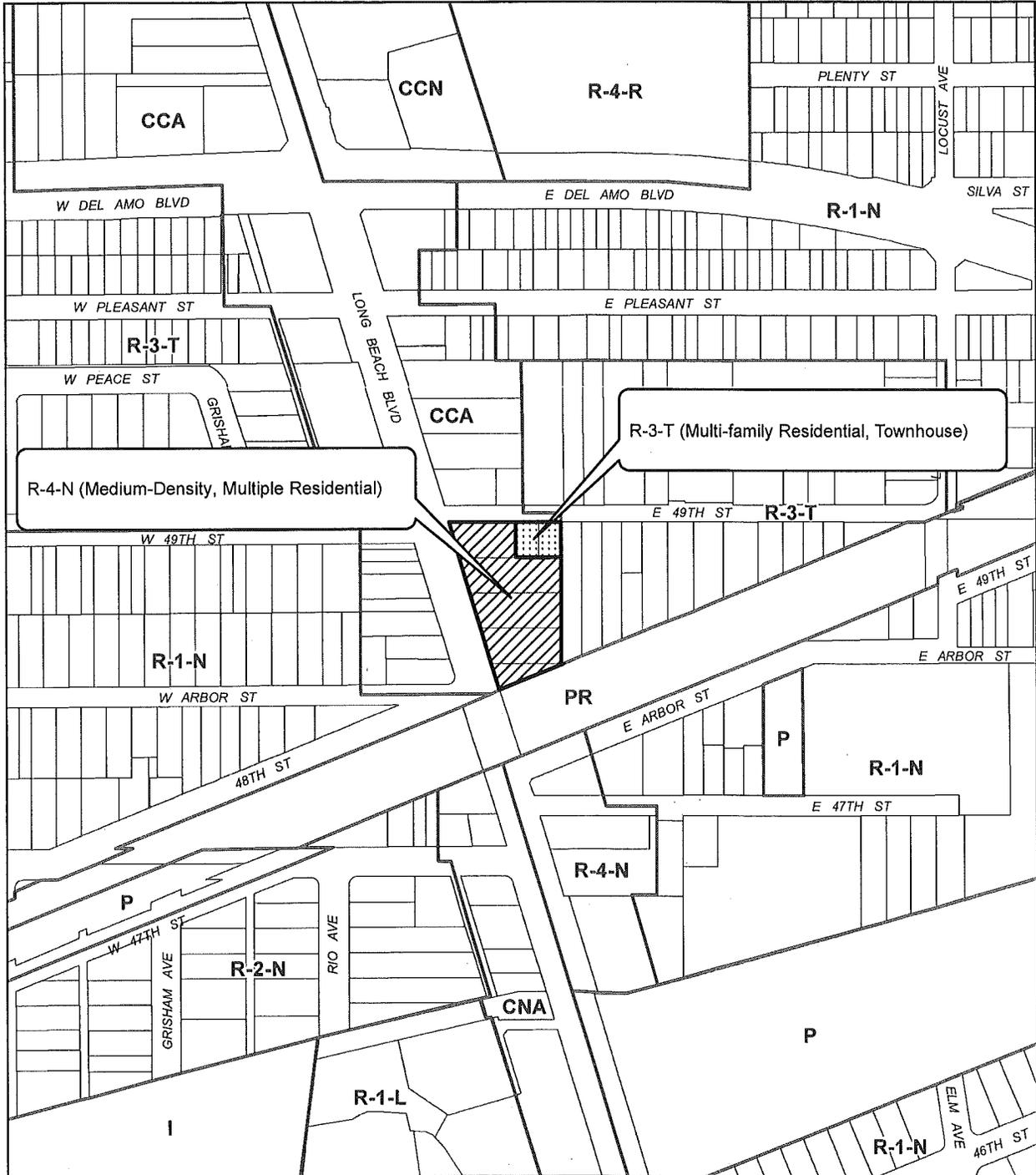
24 _____

25 Approved: _____

26 _____ Mayor

27 _____

28 _____



R-4-N (Medium-Density, Multiple Residential)

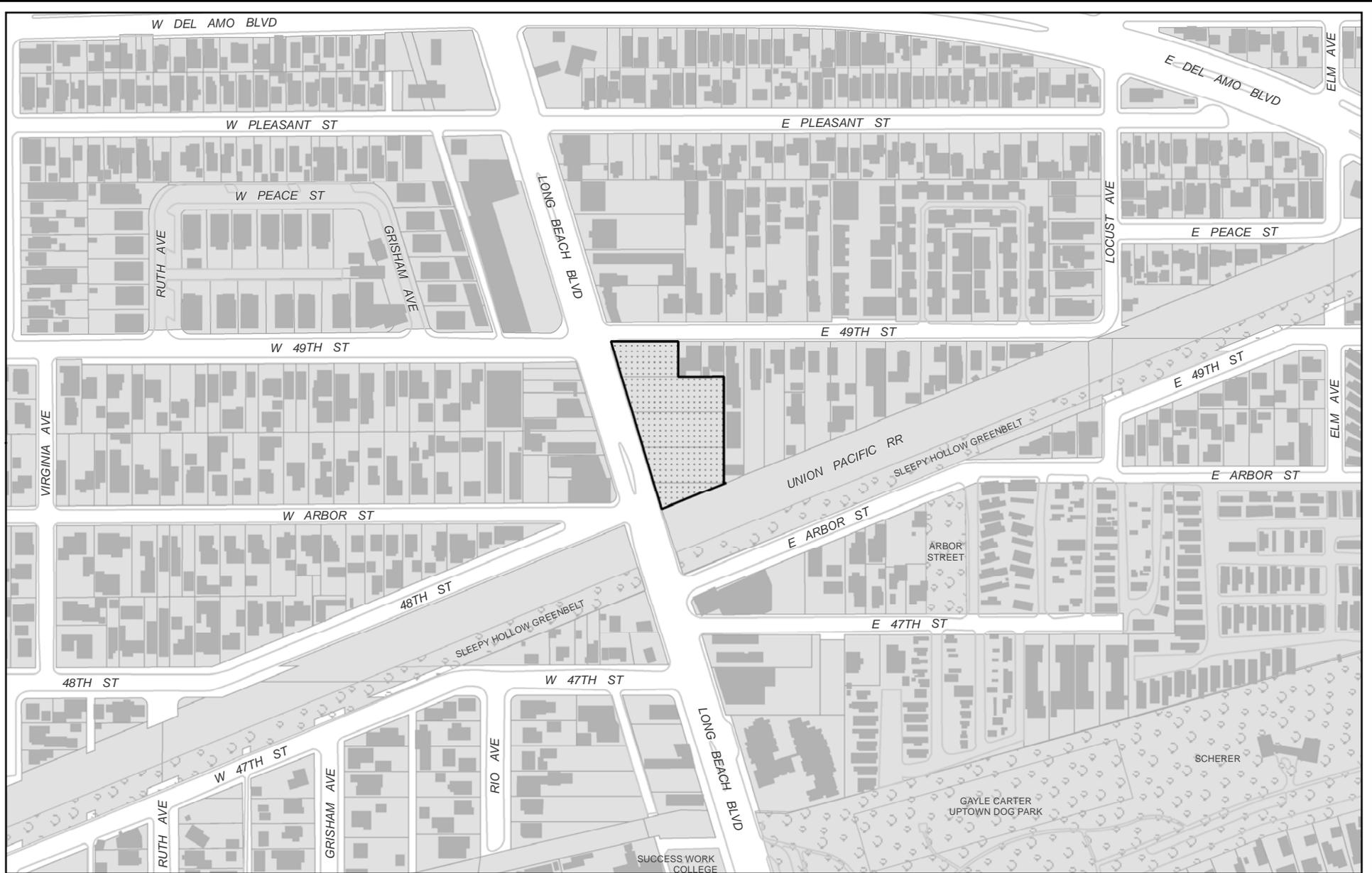


R-3-T (Multi-family Residential, Townhouse)



AMENDMENT TO A PORTION OF PART 22
OF THE USE DISTRICT MAP

Rezoning Case
1707-10
(ZCHG17-009)



Subject Property:
 4800 Long Beach Blvd
 Application No. 1707-10
 Council District 8
 Zoning Code : CCA

Attachment A



June 18, 2020

CHAIR AND PLANNING COMMISSIONERS

City of Long Beach
California

RECOMMENDATION:

Recommend that the City Council adopt Mitigated Negative Declaration MND-04-20 (State Clearinghouse SCH# 2020050229) and approve Zone Change ZCHG17-009 from CCA (Community Commercial Automobile-Oriented) to R-4-N (Medium-Density Multiple Residential) and R-3-T (Multi-family Residential, Townhouse), Site Plan Review SPR17-062, and Vesting Tentative Tract Map TTM17-001 to allow the construction of 18 three-story townhomes at 4800 Long Beach Boulevard. (Council District 8)

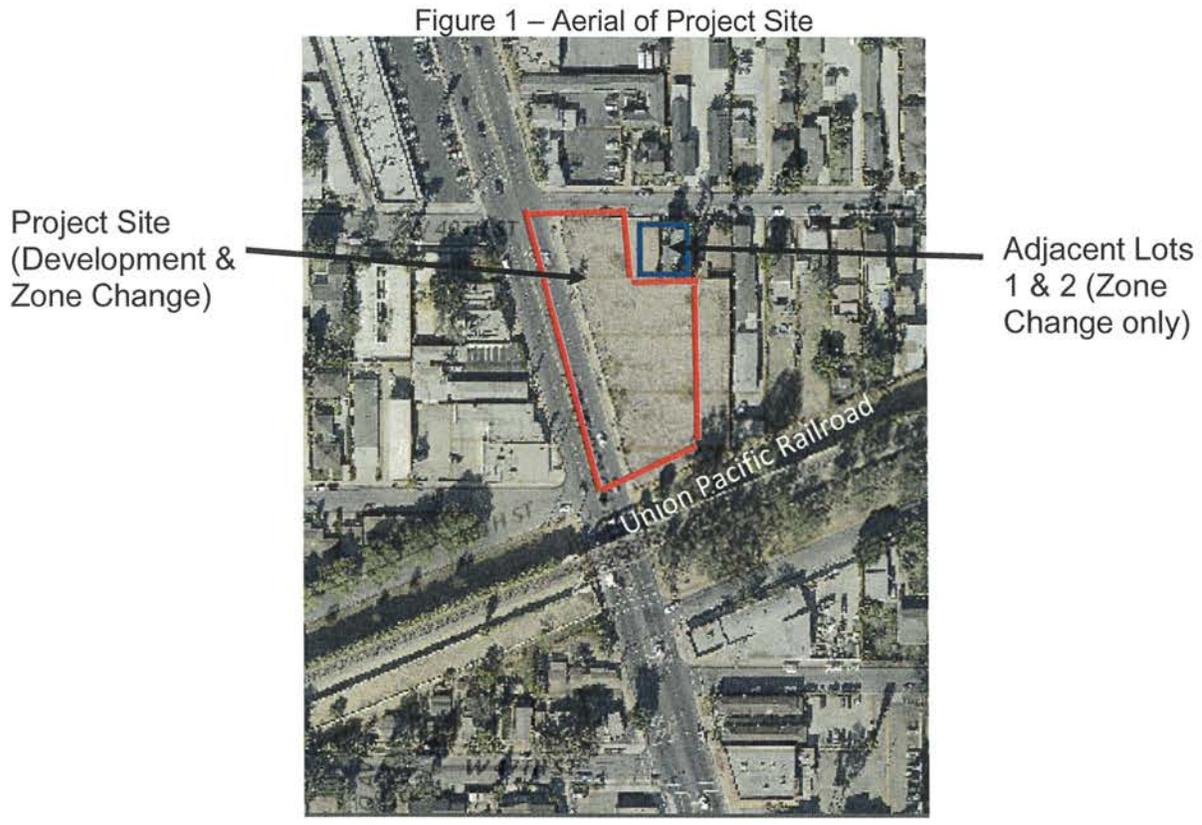
APPLICANT: Kim Prijatel
City Ventures
3121 Michelson Drive, Suite 150
Irvine, CA 92612
(Application No. 1707-10)

DISCUSSION

The site is a Successor Agency property located on the east side of Long Beach Boulevard between E. 49th Street to the north and the Union Pacific Railroad to the south. Long Beach Boulevard is primarily a commercial corridor with abutting residential uses. The site is located in the Addams Neighborhood area in North Long Beach. The site encompasses five parcels for a total project area of 1.102 acres (approximately 48,003 square feet) and is zoned Community Commercial Automobile-Oriented (CCA). Two adjacent lots located east of the project site at 132 and 134 E. 49th Street are also zoned Community Commercial Automobile-Oriented (CCA). (Exhibit A - Vicinity Map) The five-parcel site that is proposed to be developed is currently vacant covered with ruderal vegetation. The developer seeks to construct 18 three-story townhomes within three buildings that are a maximum height of 38' (three-stories). The adjacent lots have one existing single-family residence per lot. No new development is proposed on the two adjacent lots. The proposed project includes a Zone Change from CCA to R-4-N (Medium-Density Multiple Residential) to facilitate the development of the townhomes. A Zone Change for the two adjacent lots (132 and 134 E. 49th Street) from CCA to R-3-T (Multi-family Residential, Townhouse) is proposed for consistency with the existing residential land use and adjacent neighborhood zoning. (Exhibit B - Zone Change Map)



The site is bordered by commercial uses to the north, across E. 49th Street; commercial uses to the west, across Long Beach Boulevard; commercial and residential uses to the south of the Union Pacific Railroad; and residential uses to the east. The project site and adjacent uses are shown in Figure 1 below:



Project Description

The proposed project involves development of 18 three-story townhomes that would be 38-feet in height, with 41 on-grade parking spaces. The site would include two buildings with eight townhomes each and one building with two townhomes. Of the 18 units, nine of the townhomes would be 3-bedroom, 3-bath units consisting of approximately 1,411 square feet (SF) and nine of the townhomes would be 3-bedroom, 3-bath plus den units consisting of approximately 1,747 SF. Of the 41 required parking stalls, 36 are proposed as garage spaces (18 of which are proposed in tandem configuration) and 5 would be designated as guest parking stalls. The project will also provide 4,024 SF of private open space and 6,856 SF of common open space for a total of 10,880 SF of usable open space. (Exhibit C - Plans). The townhome development is proposed with a variety of green building features, including rooftop solar panels to result in net zero energy¹ townhomes.

¹ The townhome development is fully electric, and rooftop solar panels would provide all energy used onsite.

Required Entitlements

As proposed, the project requires the following entitlements:

- **Zone Change:** Required to change the existing zoning from CCA to R-4-N (which permits medium density residential development) in order to allow the development of the proposed townhomes. A zone change for the adjacent two residential lots from CCA to R-3-T is proposed to be consistent with the existing land use and adjacent neighborhood zoning district².
- **Site Plan Review:** Site Plan Committee Review required for a residential project with five or more units as one project³. Projects proposed with more than 50,000 square feet of with more than 50 dwelling units require Site Plan Review by the Planning Commission.
- **Vesting Tentative Tract Map:** Required to consolidate 5 lots into a single parcel and allow the subdivision of airspace and creation of common areas, which enables the creation of individual townhome units that can be sold separately⁴.

The Planning Commission will act in an advisory capacity for this application as the City Council issues the final decision on projects that include a Zone Change. Therefore, the project requires recommendation of approval by the Planning Commission before it is presented to the City Council for review and final decision.

Zone Change

The project site is currently zoned CCA (Community Commercial Automobile-Oriented) which permits retail and service uses. Residential uses are not permitted in the CCA zone. However, the General Plan's Land Use Element, adopted in December 2019, designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density). This PlaceType is a mixed-use land use designation that allows neighborhood-serving, low-intensity commercial uses and low-density apartment and condominium buildings⁵. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre), depending on lot size. This density is required to allow the development of 18 townhomes.

The applicant seeks a Zone Change to R-4-N (Medium-Density Multiple Residential) District to allow for the construction of the proposed townhomes in accordance with the R-4-N development standards. The area of Long Beach Boulevard located to the south of the project site has multi-family residential uses and is zoned R-4-N. The rezoning of the project site will be consistent with the adjacent multi-family zoning and medium density development. The adjacent two lots located to the east of the project site are currently zoned CCA (Community Commercial Auto-oriented), which does not permit residential development. The existing single-family residential structures are legal, nonconforming uses. The City proposed rezoning to R-3-T (Multi-family Residential, Townhouse)

² LBMC §21.25.101

³ Long Beach Municipal Code (LBMC) §21.25.502.A.1.a

⁴ LBMC §20.12 and §20.14

⁵ Land Use Element (LUE 2019) pg. 65

will recognize the existing residential land use and be consistent with the existing zoning (R-3-T) of the neighborhood east of the project site. Both the R-4-N zone and the R-3-T zone are consistent with the General Plan’s Land Use Designation, NSC-L PlaceType (Neighborhood Serving Center or Corridor - Low Density).

Site Plan Review

The site plan review process is established to ensure that the highest quality of land planning and design are incorporated into development projects. The process ensures that new projects are compatible with existing neighborhoods and meet required project development standards. On December 11, 2019, the Site Plan Review Committee reviewed the project architecture and site layout and approved the project pursuant to LBMC 21.25.503. The final approval of the project is contingent on the Zone Change.

The applicant proposes to build 18 three-story townhomes (38-feet in height) on a currently vacant site on Long Beach Boulevard. Sixteen of the proposed townhomes are oriented toward Long Beach Boulevard with front doors and pedestrian walkways accessible from the street. A low decorative wall is proposed to create private open space in front of each unit activating the streetscape. In addition, there is a paseo feature located between the two main structures facing Long Beach Boulevard creating a focal entrance to the project. Vehicular access to the project site would be provided via E. 49th Street, which would lead to an internal driveway that would provide access to the individual garages and guest parking spaces. Table 1 provides a summary of the proposed project’s compliance with the proposed R-4-N Zoning District.

The design of the proposed townhome development reflects a traditional architectural style with a variation of roof pitch and parapets consisting of three-color schemes that help achieve both variety and cohesiveness among the three townhome buildings. Each style includes a white base stucco color, horizontal lap siding, stucco, or vertical board and batt siding to create individual units. A variety of materials including the use of shingles, lap siding, wood-like railings, awnings with wood brackets, vertical metal railings enhance the modern traditional style of the proposed project.

Table 1 - Summary of Proposed Development (“Project Site”)

4800 Long Beach Boulevard Project	Required	Proposed
<i>Density</i>	44 units/acre max ⁶	18.24 units/acre
<i>Height</i>	38' (3 stories) max	38' (3 stories)

⁶ Maximum density permitted in the R-4-N zoning district

CHAIR AND PLANNING COMMISSIONERS

June 18, 2020

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<p><i>Open Space</i></p>	<p>150 square feet (sf)/unit = 2,700 SF total</p> <p>Common open space: 1,350 SF</p> <p>Private open space: 1,350 SF</p>	<p>604 SF/unit = 10,880 SF total</p> <p>Common open space: 6,856 SF</p> <p>Private open space: 4,024 SF</p>
<p><i>Parking</i></p>	<p>36 garage spaces + 5 guest spaces 41 total</p>	<p>36 garage spaces + 5 guest spaces 41 total</p> <p>18 of the garage spaces are proposed as tandem and require a waiver⁷</p>

Open Space

The project requires a total of 2,700 square feet of common and private open space, and the applicant proposes a total of 10,880 square feet of common and private open space combined. Common open space is proposed as a cluster of four outdoor space areas distributed throughout the project site. Private open space will be provided in the form of private decks and private yard areas.

The project incorporates a surplus of usable open space (10,880 square feet) over the minimum required 2,700 square feet, in addition to providing high-quality amenities that enhance the overall project design and result in high functionality of the usable open space. As conditioned, the common open space areas and their amenities shall be maintained in perpetuity and reflected in the Covenants, Conditions, and Restrictions (CC&Rs) for the project (Exhibit D - Conditions of Approval).

Parking and Leadership in Energy and Environmental Design (LEED) Gold Equivalency

As shown in Table 1 - Summary of Proposed Development, the proposed project meets Title 21 parking requirements for a total of 41 on-site parking spaces. All 36 spaces for the townhomes are proposed as garage parking spaces and 18 of the 36 garage spaces are proposed in tandem configuration.

Tandem parking is not typically permitted as required parking for market rate residential projects⁸, however, the Title 21 allows the Director of Development Services to grant a project flexibility with certain development standards provided a commitment to LEED gold or higher certification is made.⁹ The developer proposes design features for the project to achieve LEED Gold equivalency and be granted the flexibility to provide 18 of the required parking stalls in tandem configuration. Such features are summarized in the list below and further detailed in Exhibit D – Green Scorecard, which also provides the calculations of the proposed features in achieving LEED Gold equivalency.

⁷ LBMC §21.25.508A.3

⁸ LBMC §21.41.233

⁹ LBMC §21.25.508.A.3 and LBMC §21.45.400.H

Proposed Green Features

- Onsite renewable energy generation through rooftop solar panels (net zero electric homes);
- Bioswales for 85% capture and treatment of total annual stormwater;
- 75% of total landscaping comprised of drought tolerant plants;
- Water-efficient fixtures; and
- EnergyStar appliances.

As a condition of approval, the project will maintain the features qualifying the project for LEED Gold equivalency standards, per the submitted Green Scorecard, in perpetuity.

With incorporation of the aforementioned conditions of approval, overall, the project design is compatible in building design within itself and harmonious with neighboring structures and the surrounding community.

Vesting Tentative Tract Map (VTTM 77097)

The project includes a request for a Vesting Tentative Tract Map (Exhibit B - Plans), which proposes to merge five parcels into a single 48,003-square-foot lot and create 18 condominium subdivisions to allow the individual sale of townhomes. As a condition of project approval, the applicant is required to dedicate and improve 13-feet along Long Beach Blvd and 8-feet on E. 49th Street adjacent to the project site for future street widening purposes. The proposed subdivision including required dedications supports the orderly development of land consistent with the Zoning and General Plan.

The proposed Vesting Tentative Tract Map is consistent with the Land Use Element of the General Plan, which designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density), and the design of the subdivision is consistent with height and density standards set forth for residential development by the PlaceType. Therefore, findings in support of the subdivision can be made.

Based on the previous discussion, positive findings can be made for each of the three entitlements needed to allow the development of the 18-townhome project. Overall, staff finds that the proposed project conforms to the requirements of the applicable Zoning Regulations and that all relevant findings of fact necessary for approval are met. The detailed findings for each entitlement are attached in Exhibit F – Findings.

PUBLIC HEARING NOTICE

A total of 103 public hearing notices were distributed on June 4, 2020, in accordance with the requirements of Chapter 21.21 of the Long Beach Municipal Code.

As of the writing of the report, Staff received four public comments on the MND. The public comments are provided in Exhibit G - Public Comments Received.

ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, an Initial Study/Mitigated Negative Declaration (IS/MND-04-20, State Clearinghouse No. 2020050229) has been prepared for the project and finds that, by implementing identified mitigation measures, the project will not result in significant effects to the environment (Exhibit H - IS/MND-03-20). The IS/MND was circulated for a 30-day public review period between May 11, 2020 and June 9, 2020. Staff received four comments during the public review period as provided in Exhibit G - Public Comments Received.

CHAIR AND PLANNING COMMISSIONERS

June 18, 2020

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Respectfully submitted,



ANITA JUHOLA-GARCIA
PROJECT PLANNER



ALEXIS OROPEZA
CURRENT PLANNING OFFICER



CHRISTOPHER KOONTZ, AICP
PLANNING BUREAU MANAGER



LINDA F. TATUM, FAICP
DIRECTOR OF DEVELOPMENT SERVICES

LFT:CK:AO:ajg

Attachments:

- Exhibit A – Vicinity Map
- Exhibit B – Zone Change Map
- Exhibit C – Plans
- Exhibit D – Conditionals of Approval
- Exhibit E – Green Scorecard
- Exhibit F – Findings
- Exhibit G – Public Comment Received
- Exhibit H – IS-MND

Attachment C



Building 801 | 8 Plex

Building 800 | 8 Plex

OUR TEAM

CITY VENTURES

Contact: Kim Prijatel
3121 Michelson Drive, Suite 150, Irvine, CA 92162
949.258.7531 | www.CityVentures.com

WHA Architects . Planners . Designers

Contact: Nick Manea
2850 Redhill Ave, Suite 200, Santa Ana, CA 92705-5543
949.250.0607 | www.WHAinc.com

C&V CONSULTING, INC.

Contact: Marco Midence
6 Orchard, Suite 200, Lake Forest, CA 92630
949.916.3800 | www.cvc-inc.net

C2 COLLABORATIVE

Contact: Trevor Rathfon
416 North El Camino Real, San Clemente, CA
92672949.366.6624 | www.c2collaborative.com

AT DESIGN CONSULTING, INC.

Contact: Annie Tutunjan
2211 Michelson Drive, Suite 450, Irvine, CA 92162
949.724.1619 | www.atdesignconsulting.com

SHEET INDEX:

ARCHITECTURE

- A.SP1 Conceptual Site Plan
- A.SP2 Conceptual Open Space Plan
- A.SP3 Conceptual Trash Staging Plan
- A.1 Building 200- Duplex Conceptual Building Plans
- A.2 Building 200- Duplex Conceptual Elevations
- A.3 Building 800- 8 Plex Conceptual Building Plans
- A.4 Building 800- 8 Plex Conceptual Elevations
- A.5 Building 801- 8 Plex Conceptual Building Plans

LANDSCAPE

- L-1 Landscape Plan
- L-2 Inspirational Imagery
- L-3 Outdoor Living Space Enlargement
- L-4 Plant Material Imagery

CIVIL

- C-1 Tentative Tract Map
- C-2 Preliminary Grading Plan
- C-3 Preliminary Utility Plan
- C-4 Required Street Dedications
- C-5 Fire Access & Hydrant Location Plan

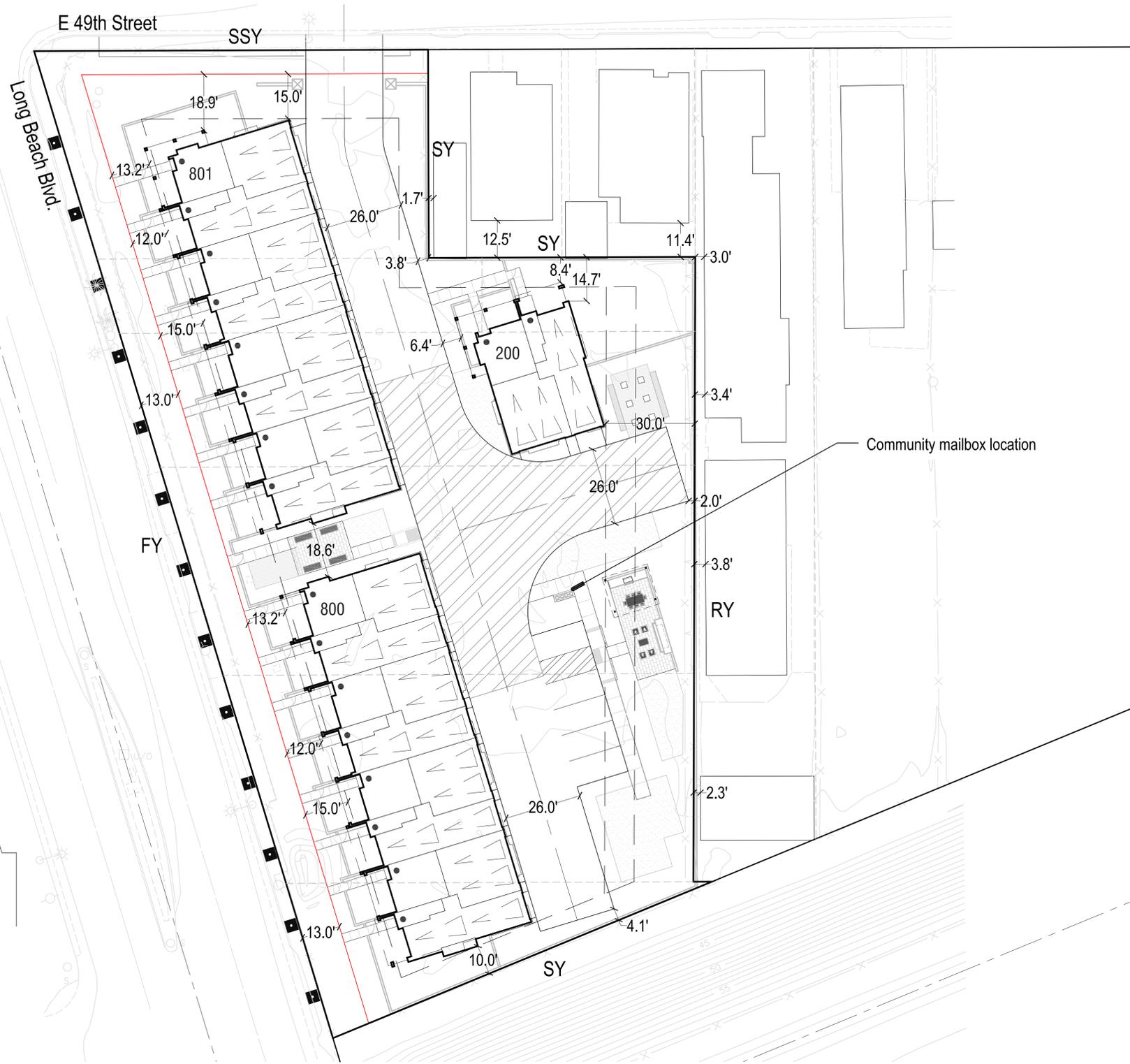
- C-1 ALTA / NSPS Land Title Survey
- C-2 ALTA / NSPS Land Title Survey

4800 Long Beach Blvd

LONG BEACH, CA

CITY SUBMITTAL

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Project Summary

- Total Site Area:** ± 1.102 Acres
- Net Site Area:** ± 0.977 Acres
- Total Units:** 18 Homes
 - (9) Plan 1: ± 1,411 S.F., 3 Bedroom, 3 Bath
 - (9) Plan 2: ± 1,747 S.F., 3 Bedroom, 3 Bath, Den
- Net Density:** 18.42 Homes per Acre
- Parking:**
 - Required: 41 Spaces (2.28 spaces per home)
 - (18) Homes x 2.0 Spaces = 36 Spaces
 - (18) Guest x 0.25 Spaces = 5 Spaces
 - Provided: 41 Spaces (2.28 spaces per home)
 - Garage: 36 Spaces
 - Head In: 5 Spaces (9' x 18')
- Open Space:**
 - Required: 2,700 S.F. Total (150 S.F. per home)
 - Common: 1,350 S.F. (75 S.F. per home; 12' min. dim.)
 - Private: 1,350 S.F. (75 S.F. per home; 8' min. dim.)
 - Provided: 10,880 S.F. Total (± 604 S.F. per home)
 - Common: 6,856 S.F. (12' Min. Dimension)
 - Private: 4,024 S.F. (8' Min. Dimension)

Zoning Summary

- Existing General Plan: 8A & 3A
- Proposed General Plan: 3A
- Existing Zoning: CCA
- Proposed Zoning: R-4-N
- Max. Density: 44 Homes per Acre
- Building Setbacks:
 - Front Yard (FY): 15'
 - Street Side Yard (SSY): 15'
 - Interior Side Yard (SY): 10'
 - Rear Yard (RY): 20' for 2-story; 30' for 3-story
- Building Encroachments:
 - 2.5' for architectural protrusions into the Front setback
 - 5' for decks into the Front and Street Side setbacks
 - 3' for decks into Interior Side setbacks
- Building Separation: 8' minimum
- Max. Building Height: 38' and 3 Stories
- Max. Lot Coverage: N/A
- Street Dedications: _____

- Notes:**
1. Site plan is for conceptual purposes only.
 2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
 3. Base information per civil engineer.
 4. Civil engineer to verify all setbacks and grading information.
 5. Building Footprints might change due to the final design elevation style.
 6. Open space area is subject to change due to the balcony design of the elevation.
 7. Building setbacks are measured from property lines to building foundation lines.



CONCEPTUAL SITE PLAN

4800 Long Beach Blvd

LONG BEACH, CA

A.SP1

0 10 20 40

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Project Summary

Total Site Area: ± 1.102 Acres
Net Site Area: ± 0.977 Acres

Total Units: 18 Homes
 • (9) Plan 1: ± 1,411 S.F., 3 Bedroom, 3 Bath
 • (9) Plan 2: ± 1,747 S.F., 3 Bedroom, 3 Bath, Den

Net Density: 18.42 Homes per Acre

Open Space:
 Required: 2,700 S.F. Total (150 S.F. per home)
 • Common: 1,350 S.F. (75 S.F. per home; 12' min. dim.)
 • Private: 1,350 S.F. (75 S.F. per home; 8' min. dim.)

Provided: 10,880 S.F. Total (± 604 S.F. per home)
 • Common: 6,856 S.F. (12' Min. Dimension)
 • Private: 2,372 S.F. (8' Min. Dimension)
 • Deck: 1,652 S.F. (8' Min. Dimension)*
 * Decks have a full depth of 8', with a 2-3' encroachment into setback area allowed per code. Area counted towards open space numbers is only the area behind the setback lines. Please see architectural floor plans for deck dimensions and details.

Zoning Summary

Existing General Plan: 8A & 3A
 Proposed General Plan: 3A

Existing Zoning: CCA
 Proposed Zoning: R-4-N

Max. Density: 44 Homes per Acre

Building Setbacks: Front Yard (FY): 15'
 Street Side Yard (SSY): 15'
 Interior Side Yard (SY): 10'
 Rear Yard (RY): 20' for 2-story; 30' for 3-story

Building Encroachments: 2.5' for architectural protrusions into the Front setback
 5' for decks into the Front and Street Side setbacks
 3' for decks into Interior Side setbacks

Building Separation: 8' minimum

Max. Building Height: 38' and 3 Stories

Max. Lot Coverage: N/A

Street Dedications: _____

- Notes:**
1. Site plan is for conceptual purposes only.
 2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
 3. Base information per civil engineer.
 4. Civil engineer to verify all setbacks and grading information.
 5. Building Footprints might change due to the final design elevation style.
 6. Open space area is subject to change due to the balcony design of the elevation.
 7. Building setbacks are measured from property lines to building foundation lines.



CONCEPTUAL OPEN SPACE PLAN

4800 Long Beach Blvd

LONG BEACH, CA

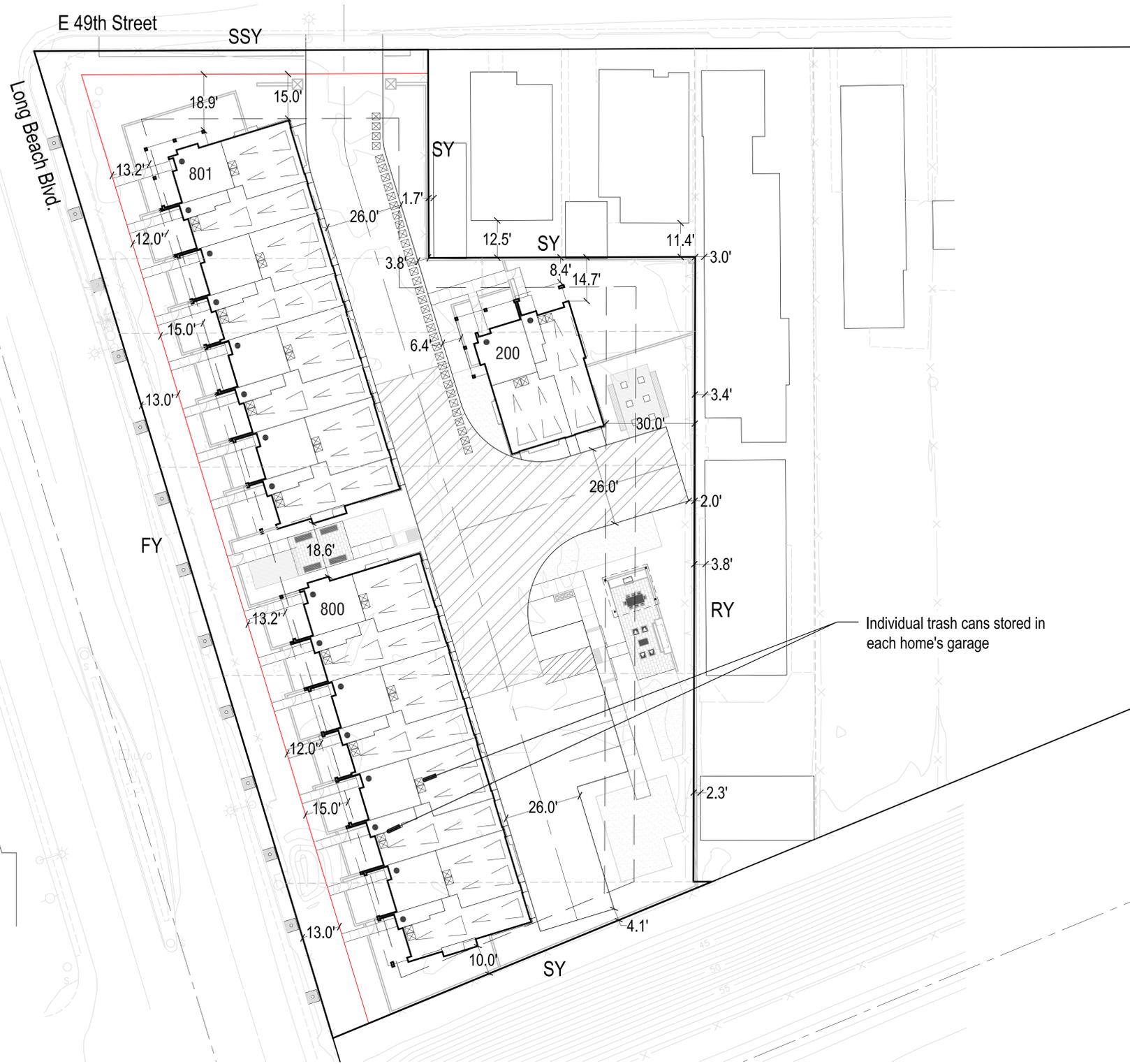
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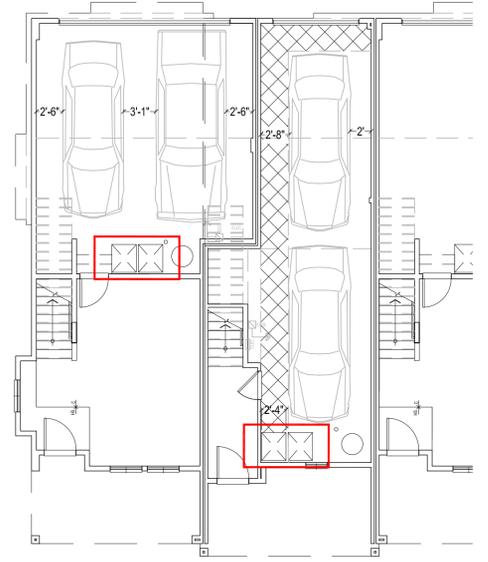
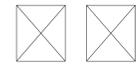




Individual trash cans stored in each home's garage

Project Summary

Total Site Area: ± 1.102 Acres
Net Site Area: ± 0.977 Acres
Total Units: 18 Homes
 • (9) Plan 1: ± 1,411 S.F., 3 Bedroom, 3 Bath
 • (9) Plan 2: ± 1,747 S.F., 3 Bedroom, 3 Bath, Den
Net Density: 18.42 Homes per Acre
Trash: 2 bins per home, stored in garage



Typical trash clearances in garages (varies based on car type)

- Notes:**
1. Site plan is for conceptual purposes only.
 2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
 3. Base information per civil engineer.
 4. Civil engineer to verify all setbacks and grading information.
 5. Building Footprints might change due to the final design elevation style.
 6. Open space area is subject to change due to the balcony design of the elevation.
 7. Building setbacks are measured from property lines to building foundation lines.

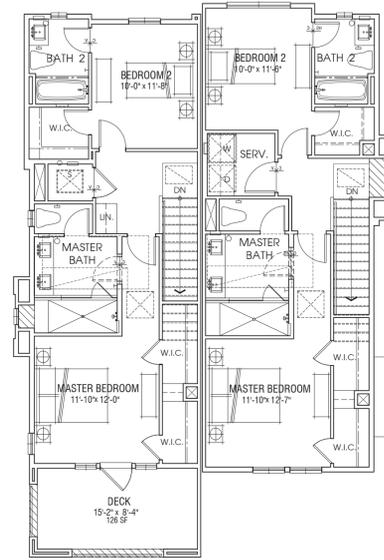


CONCEPTUAL TRASH STAGING PLAN

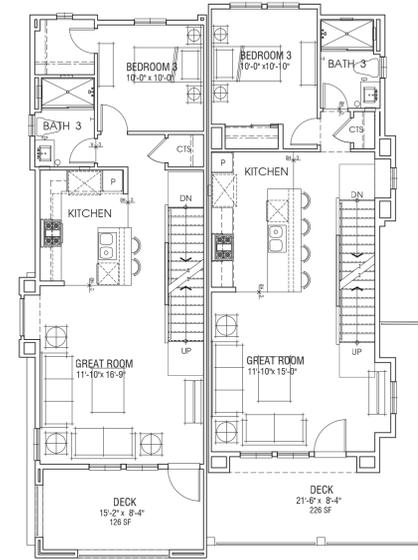
4800 Long Beach Blvd
 LONG BEACH, CA

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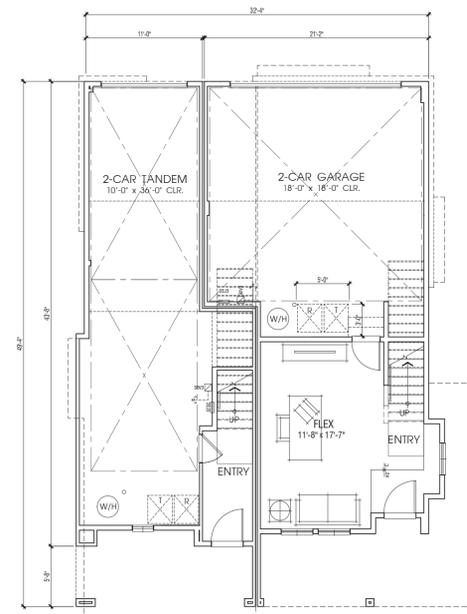




THIRD FLOOR



SECOND FLOOR



Plan 1
3 BEDROOM / 3 BATH
+/-1,435 SF

Plan 2
3 BEDROOM / 3 BATH
/ FLEX
+/-1,737 SF

FIRST FLOOR

OCCUPANCY: R3
CONSTRUCTION TYPE: VB
SPRINKLER SYSTEM: 13D

- NOTES:
1. SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION.
 2. FLOOR PLANS NEED FURTHER REFINEMENTS TO MATCH ELEVATION DESIGN.

BLDG 200 | Duplex Conceptual Building Plans

4800 Long Beach Blvd

LONG BEACH, CA



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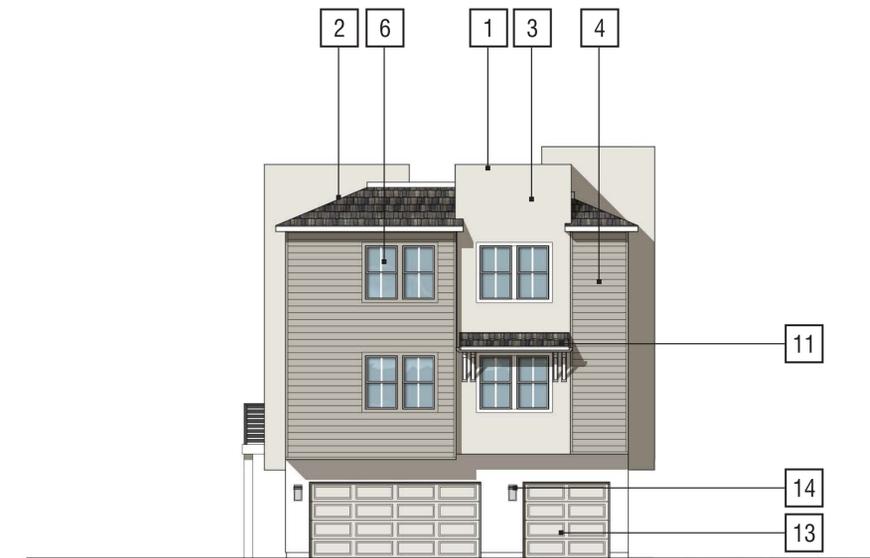




Note: Artist's conception, colors, materials and application may vary.

Right Elevation

- MATERIALS:**
- 1 Roof: Flat With Parapet
 - 2 Roof: Composite Shingles
 - 3 Stucco
 - 4 Horizontal Lap Siding
 - 5 Board and Batt
 - 6 Vinyl Windows
 - 7 Entry Door
 - 8 Stucco Column
 - 9 Horizontal Wood Like Railing
 - 10 Vertical Metal Railing
 - 11 Awning w/Wood Brackets
 - 12 Metal Awning
 - 13 Metal Sectional Roll-Up Garage Door
 - 14 Coach Light And Illuminated Address Panel
 - 15 Utility Cabinet

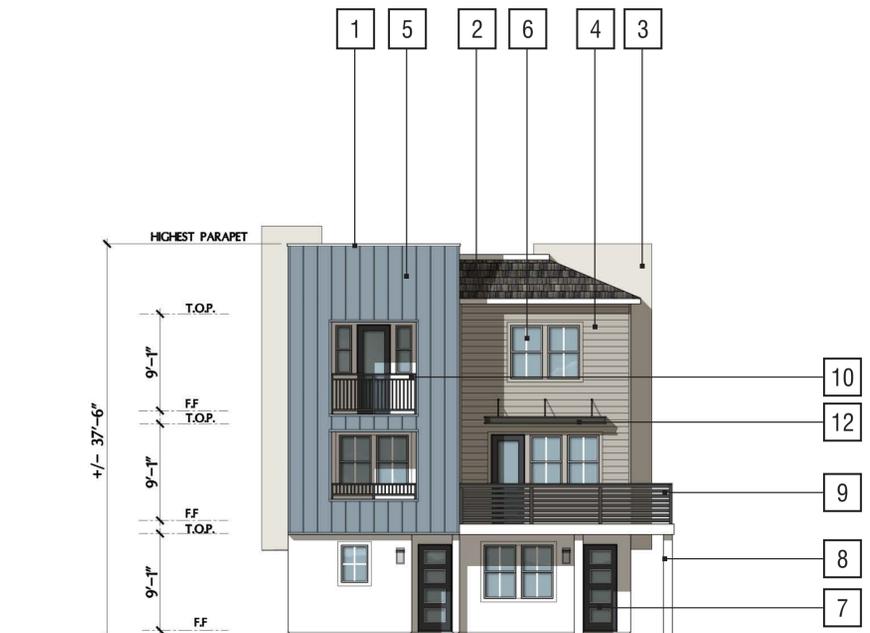


Rear Elevation



Refer to Landscape Drawings for wall, tree, shrubs and patio wall locations

Left Elevation



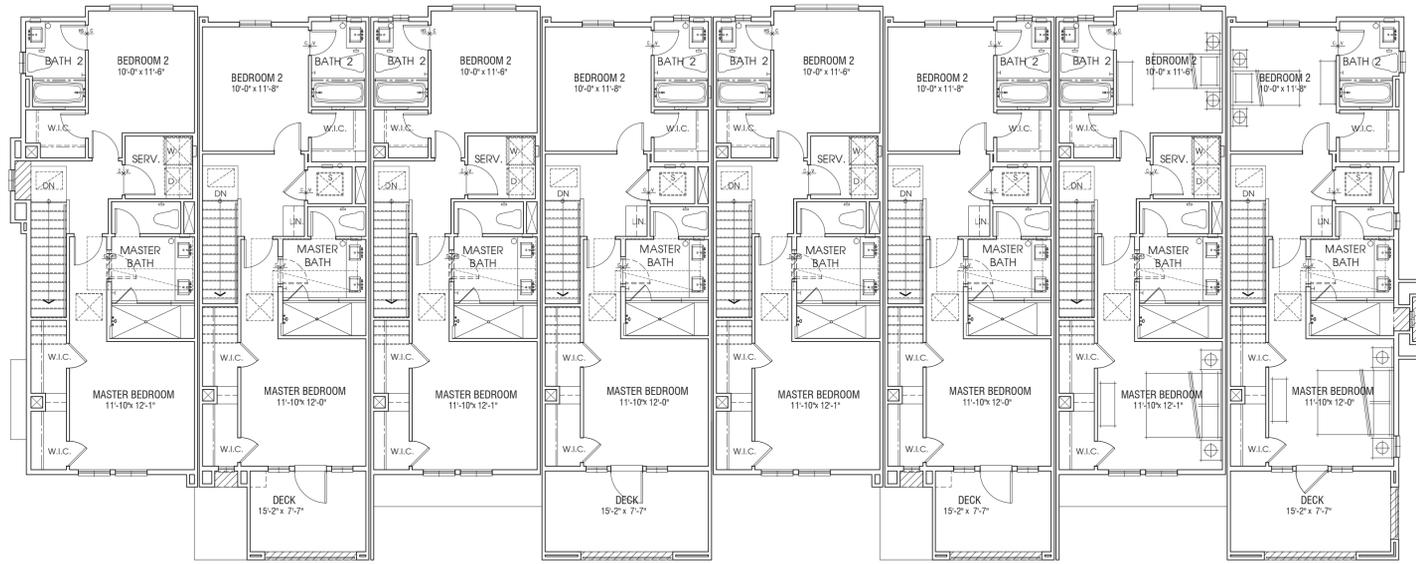
Front Elevation

Scheme 1

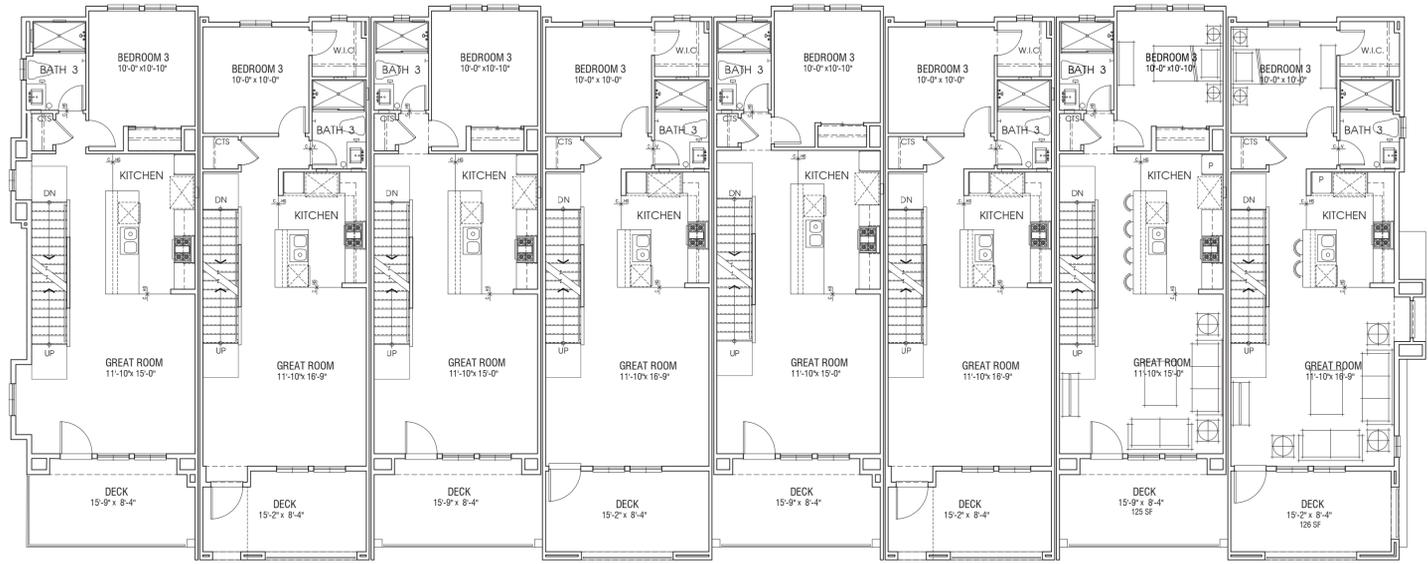
BLDG 200 | Duplex Conceptual Elevations

4800 Long Beach Blvd

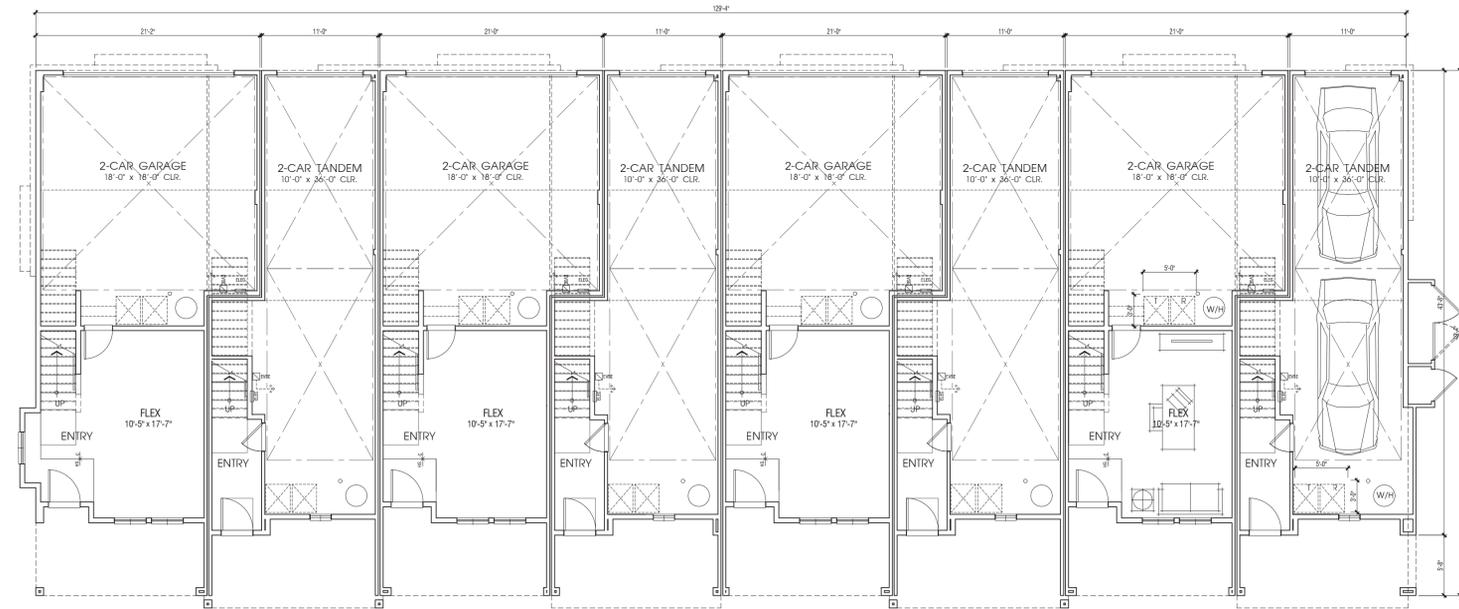
LONG BEACH, CA



THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

Plan 2
3 BEDROOM / 3 BATH
/ FLEX
+/- 1,737 SF

Plan 1
3 BEDROOM / 3 BATH
+/- 1,435 SF

OCCUPANCY: R3
CONSTRUCTION TYPE: VB
SPRINKLER SYSTEM: 13D

- NOTES:
1. SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION.
 2. FLOOR PLANS NEED FURTHER REFINEMENTS TO MATCH ELEVATION DESIGN.

BLDG 800 | 8-Plex Conceptual Building Plans

4800 Long Beach Blvd

LONG BEACH, CA



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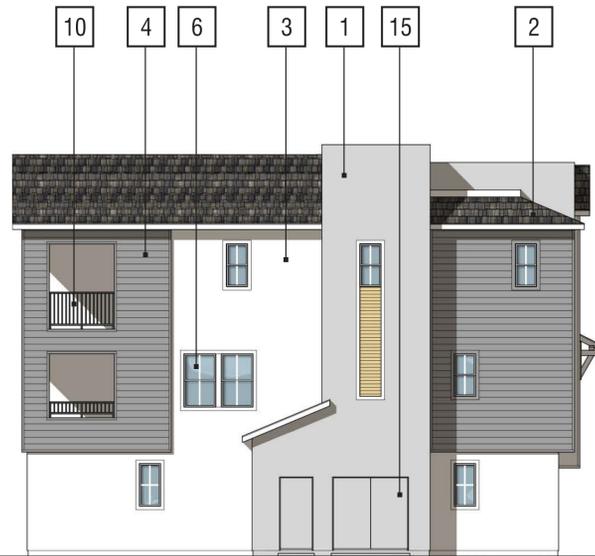
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ARCHITECTS . PLANNERS . DESIGNERS



ORANGE COUNTY . LOS ANGELES . BAY AREA

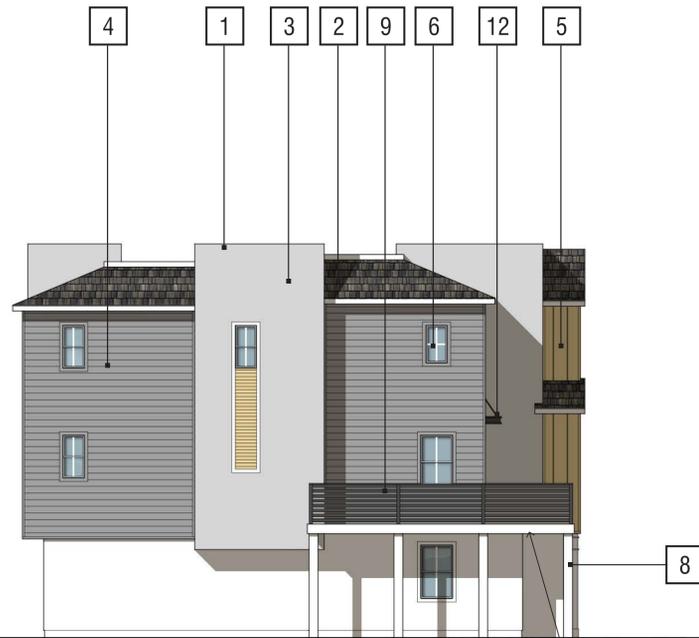


Note: Artist's conception, colors, materials and application may vary. **Right Elevation**

- MATERIALS:**
- 1 Roof: Flat With Parapet
 - 2 Roof: Composite Shingles
 - 3 Stucco
 - 4 Horizontal Lap Siding
 - 5 Board and Batt
 - 6 Vinyl Windows
 - 7 Entry Door
 - 8 Stucco Column
 - 9 Horizontal Wood Like Railing
 - 10 Vertical Metal Railing
 - 11 Awning w/Wood Brackets
 - 12 Metal Awning
 - 13 Metal Sectional Roll-Up Garage Door
 - 14 Coach Light And Illuminated Address Panel
 - 15 Utility Cabinet



Rear Elevation



Refer to Landscape Drawings for wall, tree, shrubs and patio wall locations. **Left Elevation**

Note: Wrap porch element only occurs on Building 801



Front Elevation

Scheme 2

BLDG 800 | 8-Plex Conceptual Elevations

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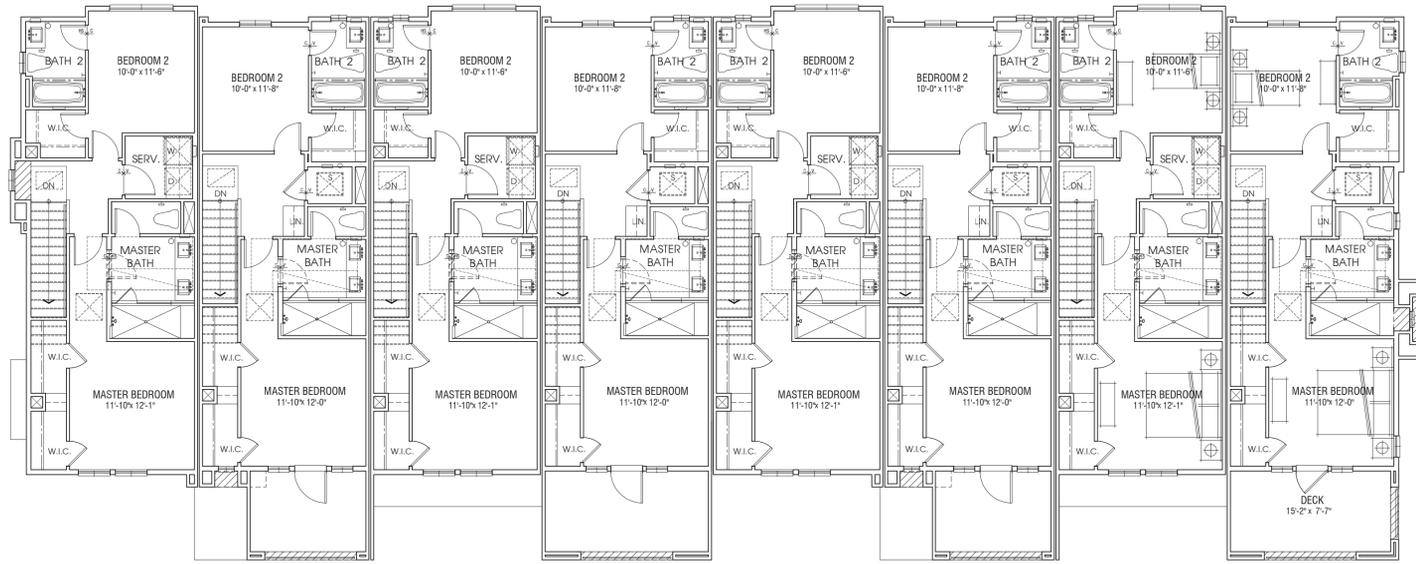


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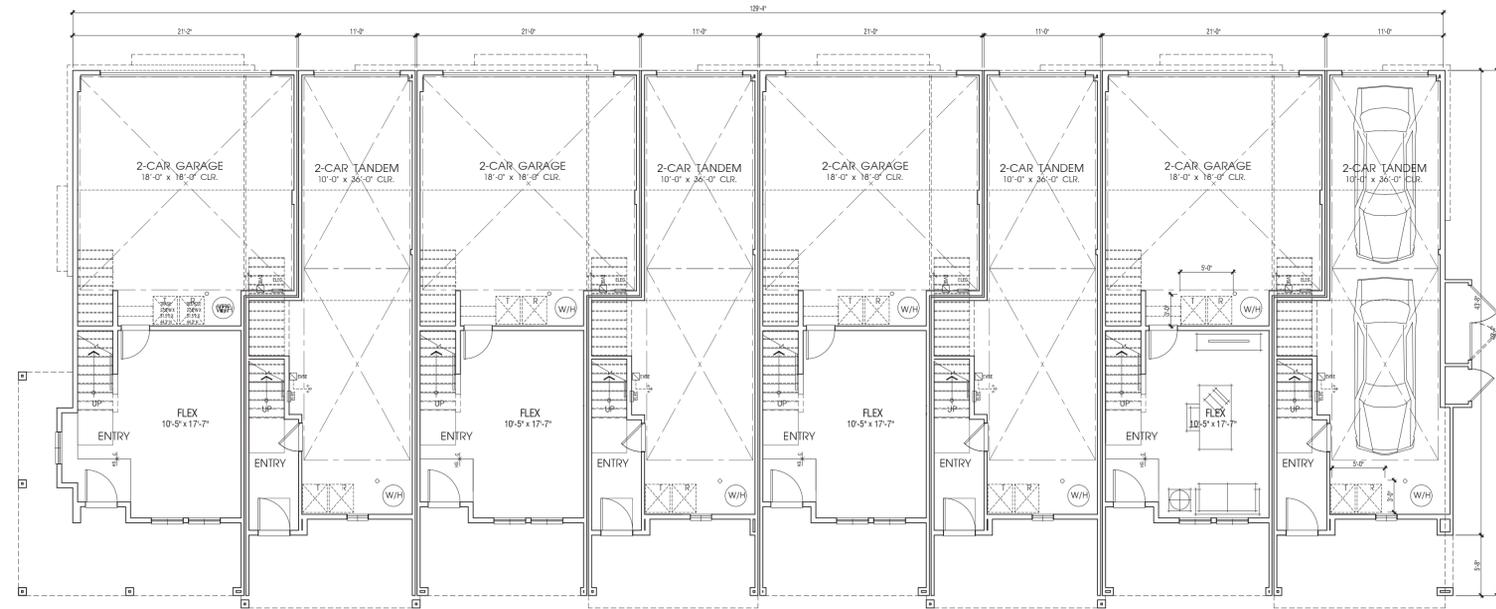




THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

Plan 2
3 BEDROOM / 3 BATH
/ FLEX
+/- 1,737 SF

Plan 1
3 BEDROOM / 3 BATH
+/- 1,435 SF

OCCUPANCY: R3
CONSTRUCTION TYPE: VB
SPRINKLER SYSTEM: 13D

- NOTES:
1. SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION.
 2. FLOOR PLANS NEED FURTHER REFINEMENTS TO MATCH ELEVATION DESIGN.

BLDG 801 | 8-Plex Conceptual Building Plans

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LEGEND

- 1** Vehicular Entry
- 2** Entry Monuments
- 3** Private Yard
 - Patio Walls - 36" ht. Stucco Low Wall with Fence Panel
 - Patio Gate - 36" ht. Gate to Match Fence Panel
- 4** Social Event Gardens
 - Enhanced Paving
 - Event Lawn for Active Play or Passive Activities
 - Community Seating Areas
 - Formal Tree Rows
- 5** Outdoor Living Space
 - Shade Structure with Decor Backdrop Wall
 - Enhanced Paving
 - Decomposed Granite Paving
 - Event Lawn for Active Play or Passive Activities
 - Community Fire Place with Lounge Seating
 - Barbecue Kitchen with Harvest Table
- 6** Rear Yard/Property Line Wall
- 7** Property Line Wall with Hedged Espaliers
- 8** Community Mailboxes
- 9** Accessible Parking
- 10** Motorcourt
- 11** Accessible Community Sidewalks
- 12** City Sidewalk
- 13** New Street Trees and Tree Wells at 25" o.c. with Root Barrier

Root Barrier:
Provide root control barriers for street trees planted along Long Beach Boulevard according to the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.

Irrigation Note:
All planting areas shall have a fully automatic irrigation system. Utilization water conserving features such as low-precipitation rate heads; low-flow micro sprays or drip irrigation, water sensors and multi-program controllers with weather station capability and drip circuit features. "Water Efficient Landscapes" irrigation system, scheduling and water use WELO calculations shall be designed to meet the requirements of the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.

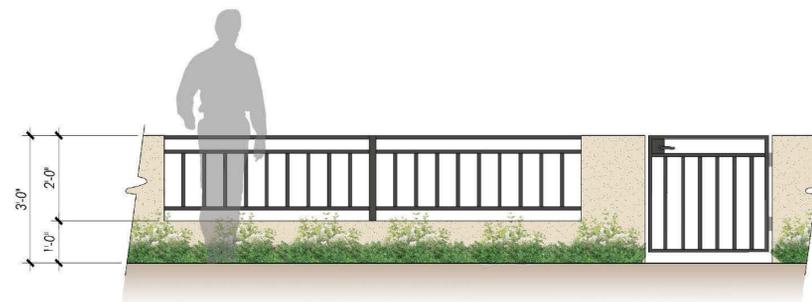


3 PRIVATE YARD PATIO WALL AND GATE

- 12" ht. Low wall with stucco finish. Color to match Architecture.
- 24" ht. Tubular Steel Fence to match Architecture.
- 36" ht. Tubular Steel Gate to match Architecture.

Note:

- 1. 24" tubular steel fence, 4" opening maximum in between TS members. All TS members shall be metalized and received (2) coats of paint- paint color to match architecture
- 2. 36' tubular steel fence. 4" opening maximum in between TS members. All TS members shall be metalized and received (2) coats of paint- paint color to match architecture



Patio Wall and Gate Elevation
Scale: 1/2" = 1'-0"



INSPIRATIONAL IMAGERY

L-2

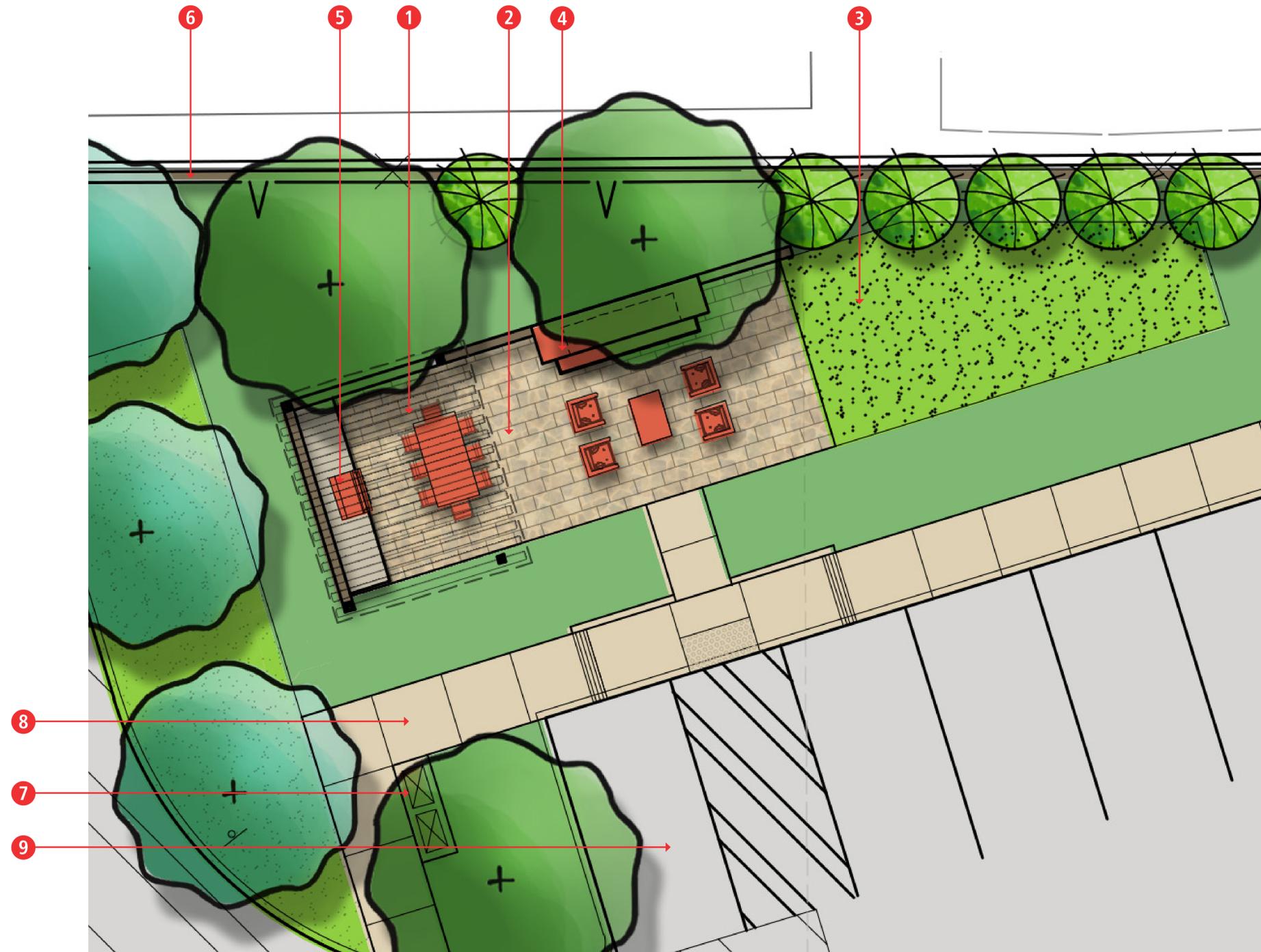
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4800 LONG BEACH BLVD
LONG BEACH, CA



LEGEND

- 1 Shade Structure with Decor Backdrop Wall
- 2 Enhanced Paving
- 3 Event Lawn for Active Play or Passive Activities
- 4 Community Fire Place with Lounge Seating
- 5 Barbecue Kitchen with Harvest Table
- 6 Rear Yard/Property Line Wall
- 7 Community Mailboxes
- 8 Accessible Community Sidewalks
- 9 Community Visitor Parking
 - Accessible Parking Space



KEY MAP



L-3 0 2 4 8'
Scale: 1/4" = 1'-0"

02.21.20

OUTDOOR LIVING SPACE ENLARGEMENT

4800 LONG BEACH BLVD
LONG BEACH, CA





Trees

PLANT PALETTE

Botanical name (Common Name)	Size (Min. Size)	WUCOLS*
Trees		
1 Tristania conferta (Brisbane Box)	24" box	M
2 Bauhinia variegata (Purple Orchid Tree)	24" box	M
3 Fraxinus angustifolia ('Raywood' Ash)	24" box	M
4 Pinus canariensis (Canary Island Pine)	24" box	M
5 Lagerstroemia indica (Crape Myrtle)	24" box	M
6 Bambusa oldhamii (Giant Timber Bamboo)	48" box	L

Note: One (1) large canopy street tree, of not less than twenty-four inch (24") box size, shall be provided for each twenty-five feet (25') of property line length with irrigation along Long Beach Boulevard per Long Beach Municipal Code Section 21.42.050.

Shrubs & Groundcover

1 Agave desmettiana (Smooth Agave)	15gal.	L
2 Chondropetalum tectorum (Cape Rush)	5gal.	M
3 Aloe vera (Aloe)	5gal.	L
4 Bougainvillea 'Oo La La' (Bougainvillea)	15gal.	L
5 Bulbine frutescens 'Hallmark' (Orange Stalked Bulbine)	5gal.	L
6 Yucca rostrata (Big Bend Yucca)	5gal.	L
7 Heteromeles arbutifolia (Toyon)	5gal.	VL
8 Lantana montevidensis 'Alba' (Lantana)	5gal.	L
9 Buxus japonica (Green Beauty Boxwood)	5gal.	M
10 Phlomis lanata (Jerusalem Sage)	5gal.	L
11 Podocarpus macrophyllus (Yew Pine)	5gal.	M
12 Equisetum hyemale (Horsetail)	5gal.	M

NOTE: 90% of this list is drought tolerant (low water use) plants.



Shrubs & Groundcover



Tree Grate
Mfr./Supplier: Urban Accessories
Model: COHO, 4'SQ
Finish: Raw Natural Finish

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1: THAT PORTION OF LOT 41, TRACT 3554 IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 38 PAGES 44 AND 45 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT 41, THENCE EASTERLY 143.97 FEET ALONG THE NORTHERLY LINE OF SAID LOT 41 TO A POINT IN THE NORTHERLY LINE OF THE 135 FEET RIGHT OF WAY OF THE LOS ANGELES AND SALT LAKE RAILROAD COMPANY; THENCE WESTERLY IN A DIRECT LINE 138.52 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE TO A POINT IN THE WESTERLY LINE OF SAID LOT 41, DISTANT SOUTHERLY THEREON 54.38 FEET FROM THE POINT OF BEGINNING; THENCE NORTHERLY 54.38 FEET ALONG THE SAID WESTERLY LINE TO THE POINT OF BEGINNING. EXCEPTING THEREFROM ALL MINERALS AND ALL MINERAL RIGHTS OF AVERY KIND AND CHARACTER NOW KNOWN TO EXIST OR HEREAFTER DISCOVERED INCLUDING, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, OIL AND GAS AND RIGHTS THEREIN, TOGETHER WITH THE SOLE, EXCLUSIVE AND PERPETUAL RIGHT TO EXPLORE FOR, REMOVE AND DISPOSE OF SAID MINERALS BY ANY MEANS OR METHODS SUITABLE TO THE FIRST PARTY, ITS SUCCESSORS AND ASSIGNS, BUT WITHOUT ENTERING UPON OR USING THE SURFACE OF SAID LAND, AND IN SUCH MANNER AS NOT TO DAMAGE THE SURFACE OF SAID LAND OR TO INTERFERE WITH THE USE THEREOF BY THE SECOND PARTY, ITS SUCCESSORS OR ASSIGNS, AS EXCEPTED AND RESERVED BY LOS ANGELES AND SALT LAKE RAILROAD COMPANY, A CORPORATION, IN DEED RECORDED APRIL 15, 1953 AND AS EXCEPTED AND RESERVED BY UNION PACIFIC RAILROAD COMPANY, A CORPORATION, IN DEED RECORDED APRIL 15, 1953.

PARCEL 2: THAT PORTION OF LOT 42, TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38 PAGE 44 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF LOT 42; THENCE NORTH 17° 28' 30" WEST 73.09 FEET; THENCE NORTH 89° 14' 20" EAST 160 FEET; THENCE SOUTH 0° 45' 40" EAST 70 FEET; THENCE WEST 138.99 FEET TO THE POINT OF BEGINNING.

PARCEL 3: THAT PORTION OF LOT 42, OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 73.09 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST AND PARALLEL WITH THE SOUTH LINE OF SAID LOT, 160 FEET; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE 73.08 FEET TO THE POINT OF BEGINNING.

PARCEL 4: THAT PORTION OF LOT 42 OF TRACT 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38 PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET; THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE, 73.09 FEET TO THE POINT OF BEGINNING. EXCEPT THEREFROM THE EAST 90 FEET.

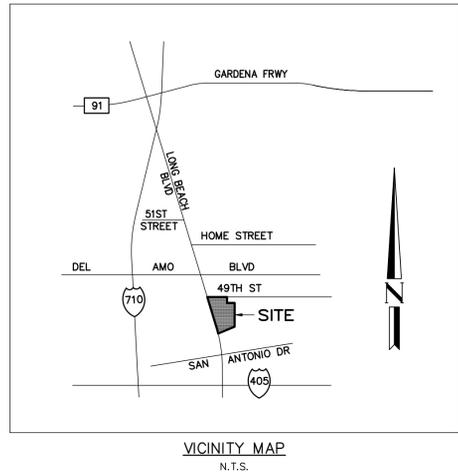
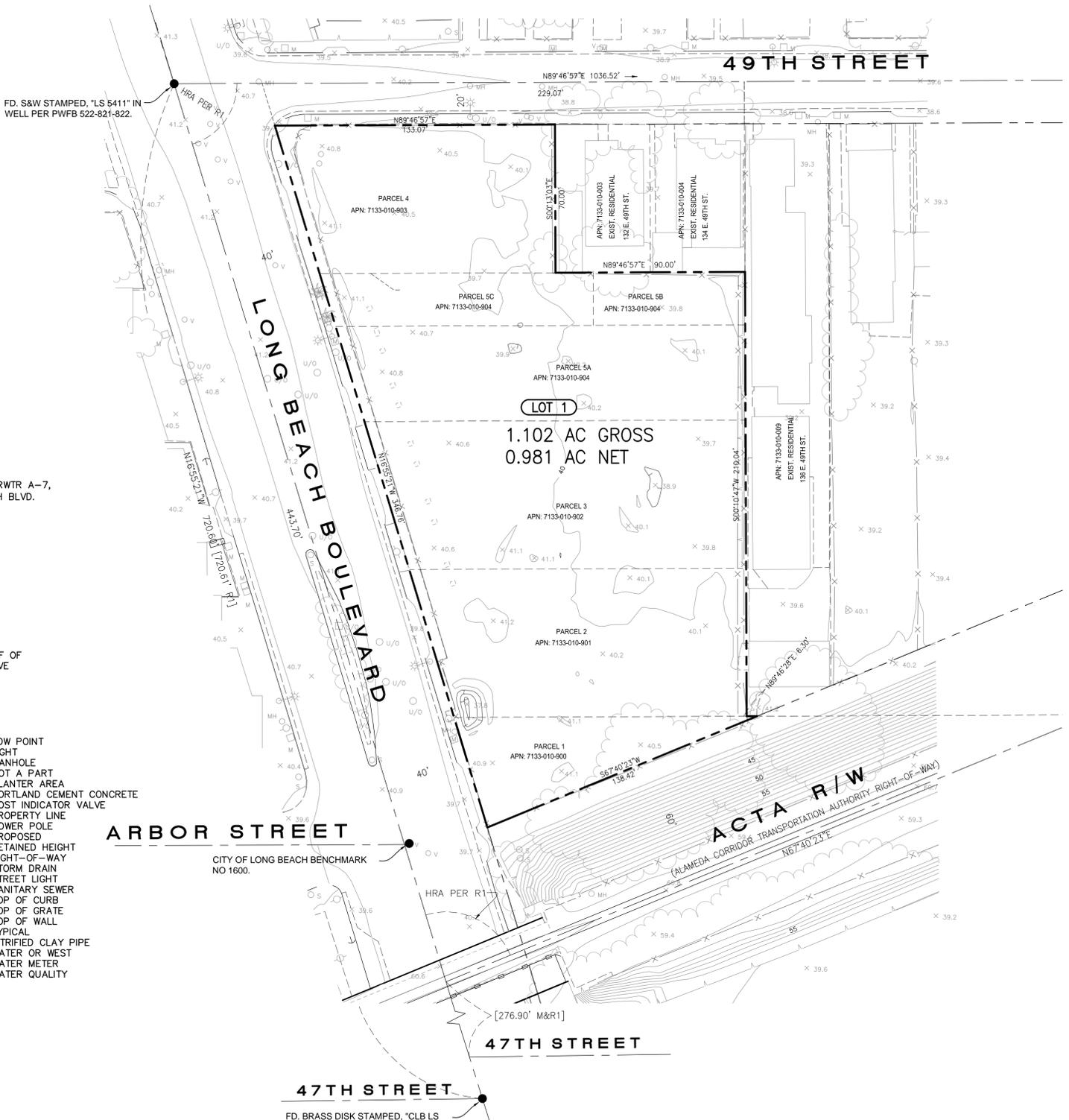
PARCEL 5A: THAT PORTION OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38 PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET; THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE, 73.09 FEET TO THE POINT OF BEGINNING. EXCEPT THE NORTH 25 FEET THEREOF.

PARCEL 5B: THE NORTH 25 FEET OF THE EAST 72.04 FEET OF THAT PORTION OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST, PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET; THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE, 73.09 FEET TO THE POINT OF BEGINNING.

PARCEL 5C: THE NORTH 25 FEET OF THAT PART OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38 PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST, PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE 73.09 FEET TO THE POINT OF BEGINNING. EXCEPT THE EASTERLY 72.04 FEET THEREOF, EXCEPT ALL RIGHT AND INTEREST IN AND TO ALL CRUDE OIL, PETROLEUM, GAS, BREA, ASPHALTUM AND ALL KINDRED SUBSTANCES AND MINERALS UNDER SAID LAND BUT WITHOUT THE RIGHT OF SURFACE ENTRY TO PARCELS 1, 2, 3 MENTIONED HEREIN BY DEED RECORDED AUGUST 23, 1966 AS INSTRUMENT NO. 2897, IN FAVOR OF MARIAN R. WILLIAMS, A MARRIED WOMAN AND WALTER T. STARKEY AND FRED A. STARKEY, HUSBAND AND WIFE, MOTHER, SON AND HIS WIFE, ALL AS JOINT TENANTS.

VESTING TENTATIVE TRACT MAP NO. 77097

FOR CONDOMINIUM PURPOSES
CITY OF LONG BEACH, COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA



OWNER/SUBDIVIDER:

City Ventures
3121 Michelson Drive, Suite 150
Irvine, California 92612
Office: (949) 258-7555

ENGINEER INFORMATION:

C&V Consulting, Inc.
6 Orchard, Suite 200
Lake Forest, California 92630
Office: (949) 916-3800

SITE ADDRESS:

4800 LONG BEACH BLVD.
LONG BEACH, CA

ASSESSOR'S PARCEL NUMBERS:

PARCEL 1 APN: 7133-010-900
PARCEL 2 APN: 7133-010-901
PARCEL 3 APN: 7133-010-902
PARCEL 4 APN: 7133-010-903
PARCEL 5A APN: 7133-010-904
PARCEL 5B APN: 7133-010-904
PARCEL 5C APN: 7133-010-904

BENCHMARK:

DESIGNATION:
CITY OF LONG BEACH BENCH MARK NUMBER 1600
DESCRIPTION:
BRASS DISC IN WELL STAMPED "L.A. CO. SURV. TRAV STA CLEARWTR A-7,
RE 2177, 1940" 2.2" E / L & T @ INTER ARBOR & LONG BEACH BLVD.
ELEVATION:
40.019' 1985 ADJ. NGVD 29 MSL

LAND USE SUMMARY:

GROSS AREA: 1.102 AC. +/-
NET AREA: 0.981 AC. +/-
TOTAL PROPOSED LOTS: 1
TOTAL PROPOSED DWELLING UNITS: 18 CONDOS

FLOOD ZONE:

THE SUBJECT PROPERTY FALLS WITHIN "ZONE X" OF PANEL 1955F OF 2350 OF FLOOD INSURANCE RATE MAP NUMBER 060136, EFFECTIVE SEPTEMBER 26, 2008.

ABBREVIATIONS

BDY	BOUNDARY	LP	LOW POINT
BLDG	BUILDING	LT	LIGHT
BIO-FILT	BIO-FILTRATION	MH	MANHOLE
BW	BACK OF WALK	N.A.P.	NOT A PART
CB	CATCH BASIN	PA	PLANTER AREA
CLF	CHAIN LINK FENCE	PCC	PORTLAND CEMENT CONCRETE
CO	CLEANOUT	P/V	POST INDICATOR VALVE
CONC	CONCRETE	P/L	PROPERTY LINE
DDCA	DOUBLE DETECTOR CHECK ASSEMBLY	PP	POWER POLE
DRWY	DRIVEWAY	PR	PROPOSED
E	ELECTRICAL OR EAST	RH	RETAINED HEIGHT
ELEC	ELECTRICAL	R/W	RIGHT-OF-WAY
ESMT	EASEMENT	SD	STORM DRAIN
EX	EXISTING	SL	STREET LIGHT
FDC	FIRE DEPARTMENT CONNECTION	SS	SANITARY SEWER
FF	FINISHED FLOOR	TC	TOP OF CURB
FH	FIRE HYDRANT	TG	TOP OF GRATE
FS	FINISHED SURFACE	TW	TOP OF WALL
FW	FIRE WATER	TYP	TYPICAL
GFF	GARAGE FINISHED FLOOR	VCP	VITRIFIED CLAY PIPE
INV	INVERT	W	WATER OR WEST
JNS	JUNCTION STRUCTURE	WM	WATER METER
LACFCD	LA COUNTY FLOOD CONTROL DISTRICT	WQ	WATER QUALITY

SHEET INDEX

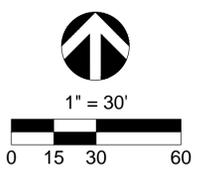
SHEET NO.	DESCRIPTION
SHEET 1	TENTATIVE TRACT MAP
SHEET 2	REQUIRED STREET DEDICATIONS
SHEET 3	PRELIMINARY GRADING PLAN
SHEET 4	PRELIMINARY UTILITY PLAN
SHEET 5	FIRE ACCESS & HYDRANT LOCATION PLAN

EXISTING EASEMENT NOTES:

- AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED IN BOOK 5363, PAGE 264 AND RECORDED IN BOOK 5614, PAGE 241 OF OFFICIAL RECORDS, IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY AFFECTS: AS DESCRIBED THEREIN THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION. AFFECTS: PARCELS 3, 5
- AN EASEMENT FOR STREET AND HIGHWAY AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED IN BOOK 6121, PAGE 268 OF OFFICIAL RECORDS. THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION. AFFECTS: PARCEL 4

UTILITY PURVEYORS:

SEWER LONG BEACH WATER DEPARTMENT 1800 E WARLOW RD LONG BEACH, CA 90807 (562) 570-2300	TELEPHONE VERIZON 5597 E 7TH ST LONG BEACH, CA 90804 (562) 986-5300
WATER LONG BEACH WATER DEPARTMENT 1800 E WARLOW RD LONG BEACH, CA 90807 (562) 570-2300	CABLE TV CHARTER COMMUNICATIONS 1310 BELLFLOWER BLVD, #102 LONG BEACH, CA 90815 (888) 438-2427
STORM DRAIN LONG BEACH PUBLIC WORKS 333 W OCEAN BLVD LONG BEACH, CA 90802 (562) 570-6383	WASTE COLLECTION LONG BEACH PUBLIC WORKS 333 W OCEAN BLVD LONG BEACH, CA 90802 (562) 570-6383
ELECTRICITY SOUTHERN CALIFORNIA EDISON CO. 125 ELM AVE, 1ST FLOOR LONG BEACH, CA 90802 (562) 491-3803	SCHOOL DISTRICT LONG BEACH UNIFIED SCHOOL DISTRICT 1515 HUGHES WY LONG BEACH, CA 90810 (562) 997-8000
GAS SOUTHERN CALIFORNIA GAS CO. 2400 E SPRING ST LONG BEACH, CA 90806 (562) 570-2000	



REVISIONS

REV	DATE	DESCRIPTION

PREPARED FOR:

CITY VENTURES
3121 MICHELSON DRIVE, SUITE 150
IRVINE, CA 90660
(949) 258-7555

PREPARED BY:

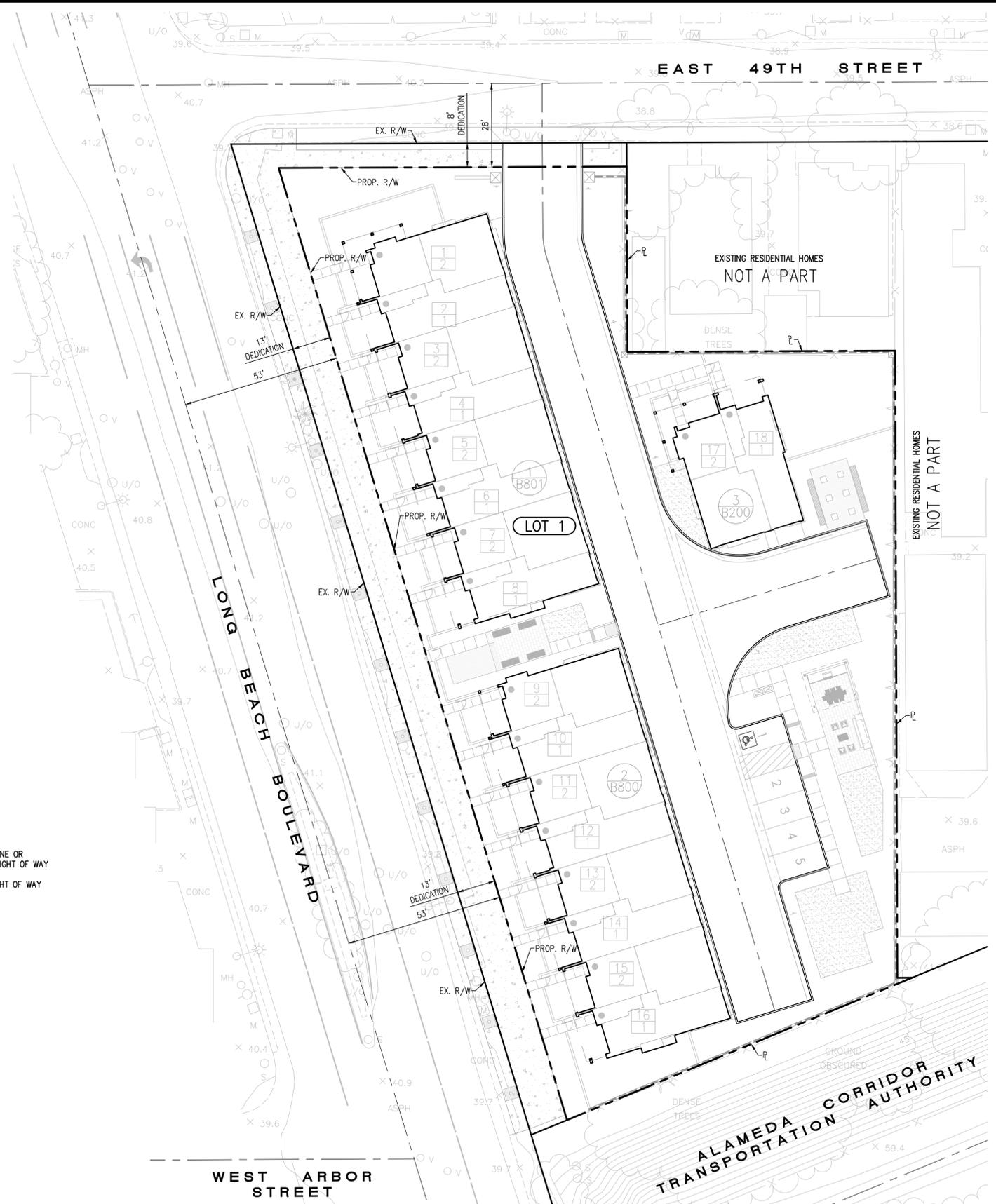
6 ORCHARD, SUITE 200
LAKE FOREST, CA 92630
T. 949.916.3800
F. 949.916.3805
CVC-INC.NET

CITY OF LONG BEACH
DEPARTMENT OF DEVELOPMENT SERVICES / PLANNING DIVISION

VESTING TENTATIVE TRACT MAP NO. 77097
4800 LONG BEACH BOULEVARD
VESTING TENTATIVE TRACT MAP

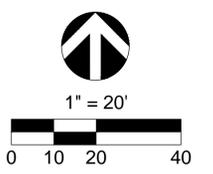
SHEET **1** OF **5**

PLAN SET: 7508
 DATE: 05/21/2008
 6:00 PM
 9:00 AM



LEGEND

- PROPERTY LINE OR PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- - - CENTERLINE



REVISIONS		
REV	DATE	DESCRIPTION

PREPARED FOR:



CITY VENTURES
 3121 MICHELSON DRIVE, SUITE 150
 IRVINE, CA 92630
 (949) 258-7555

PREPARED BY:



CONSULTING, INC.
 CIVIL ENGINEERING
 LAND PLANNING & SURVEYING

6 ORCHARD, SUITE 200
 LAKE FOREST, CA 92630
 T. 949.916.3800
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 CVC-INC.NET

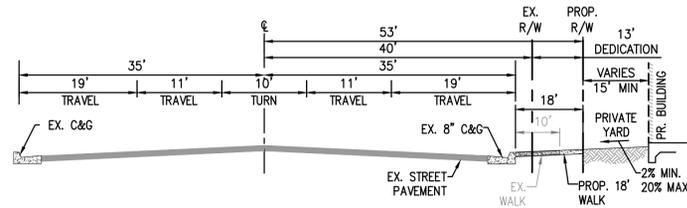


CITY OF LONG BEACH
 DEPARTMENT OF DEVELOPMENT SERVICES / PLANNING DIVISION

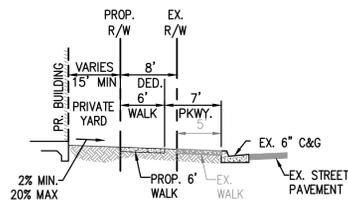
VESTING TENTATIVE TRACT MAP NO. 77097
 4800 LONG BEACH BOULEVARD
 REQUIRED STREET DEDICATIONS

SHEET **2** OF **5**

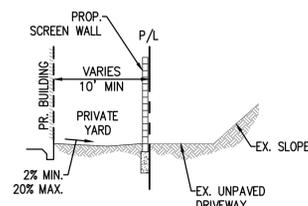
PLAN SET: P508
 DATE: 05/21/2024



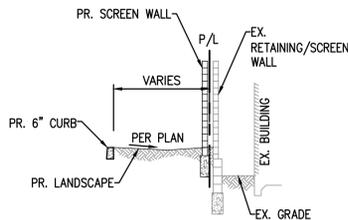
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LONG BEACH BOULEVARD**
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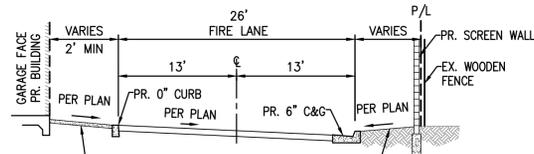
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EAST 49TH STREET**
NOT TO SCALE



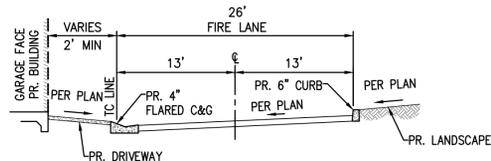
**SECTION C-C
SOUTHERN PROPERTY LINE**
NOT TO SCALE



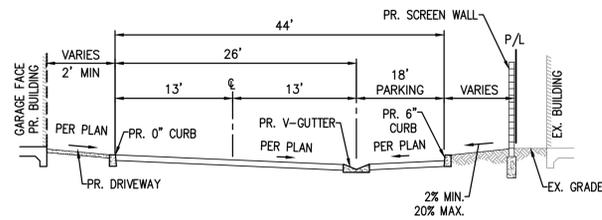
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EASTERLY PROPERTY LINE**
NOT TO SCALE



**SECTION E-E
26' INTERIOR STREET**
NOT TO SCALE



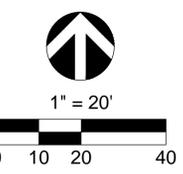
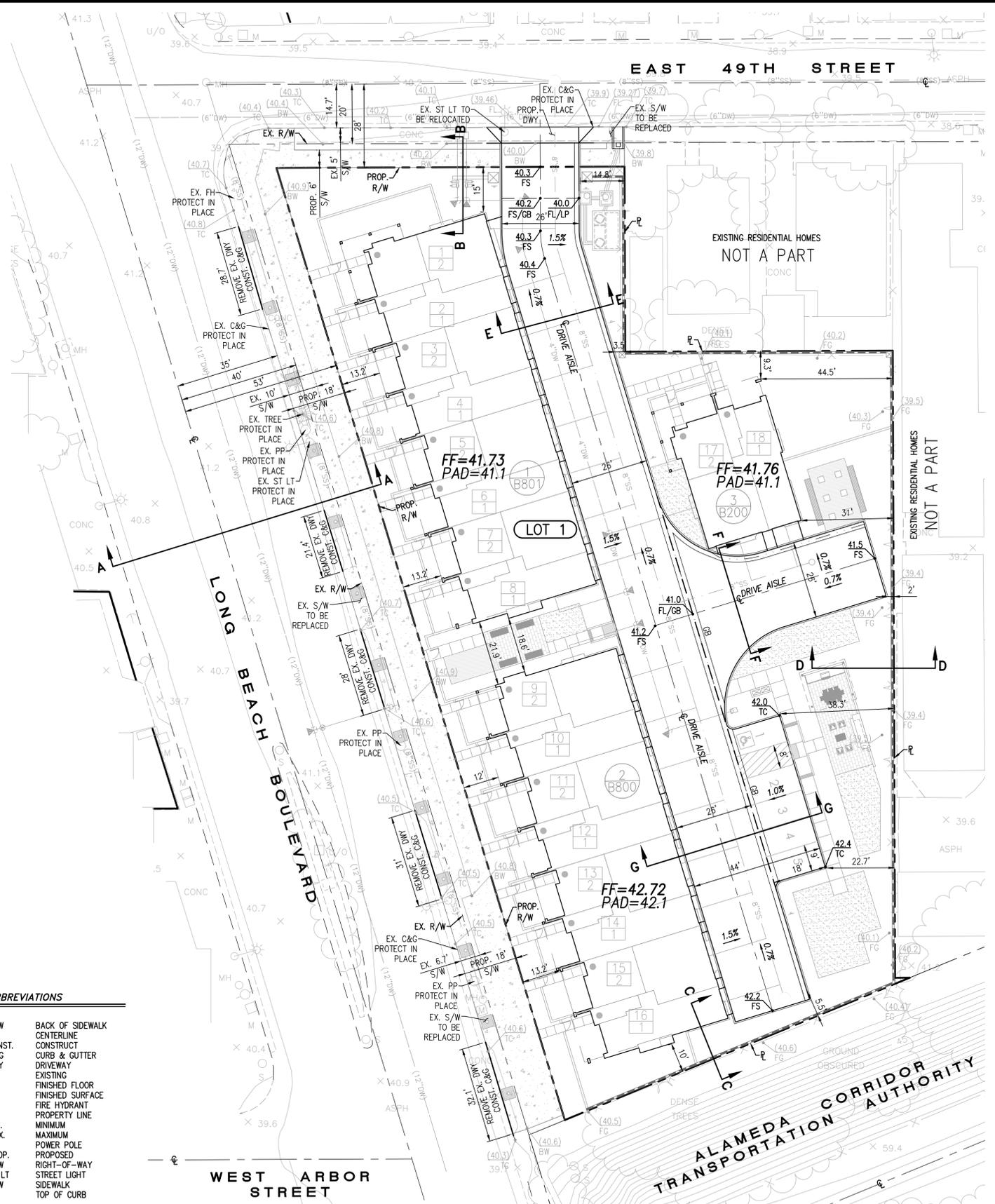
**SECTION F-F
26' INTERIOR STREET**
NOT TO SCALE



**SECTION G-G
26' INTERIOR STREET**
NOT TO SCALE

ABBREVIATIONS

B/W	BACK OF SIDEWALK
C	CENTERLINE
CONST.	CONSTRUCT
C&G	CURB & GUTTER
DWY	DRIVEWAY
EX.	EXISTING
FF	FINISHED FLOOR
FS	FINISHED SURFACE
FH	FIRE HYDRANT
P	PROPERTY LINE
MIN.	MINIMUM
MAX.	MAXIMUM
PP	POWER POLE
PROP.	PROPOSED
R/W	RIGHT-OF-WAY
ST LT	STREET LIGHT
S/W	SIDEWALK
TC	TOP OF CURB



REVISIONS		
REV	DATE	DESCRIPTION

PREPARED FOR:



CITY VENTURES
3121 MICHELSON DRIVE, SUITE 150
IRVINE, CA 92660
(949) 258-7555

PREPARED BY:



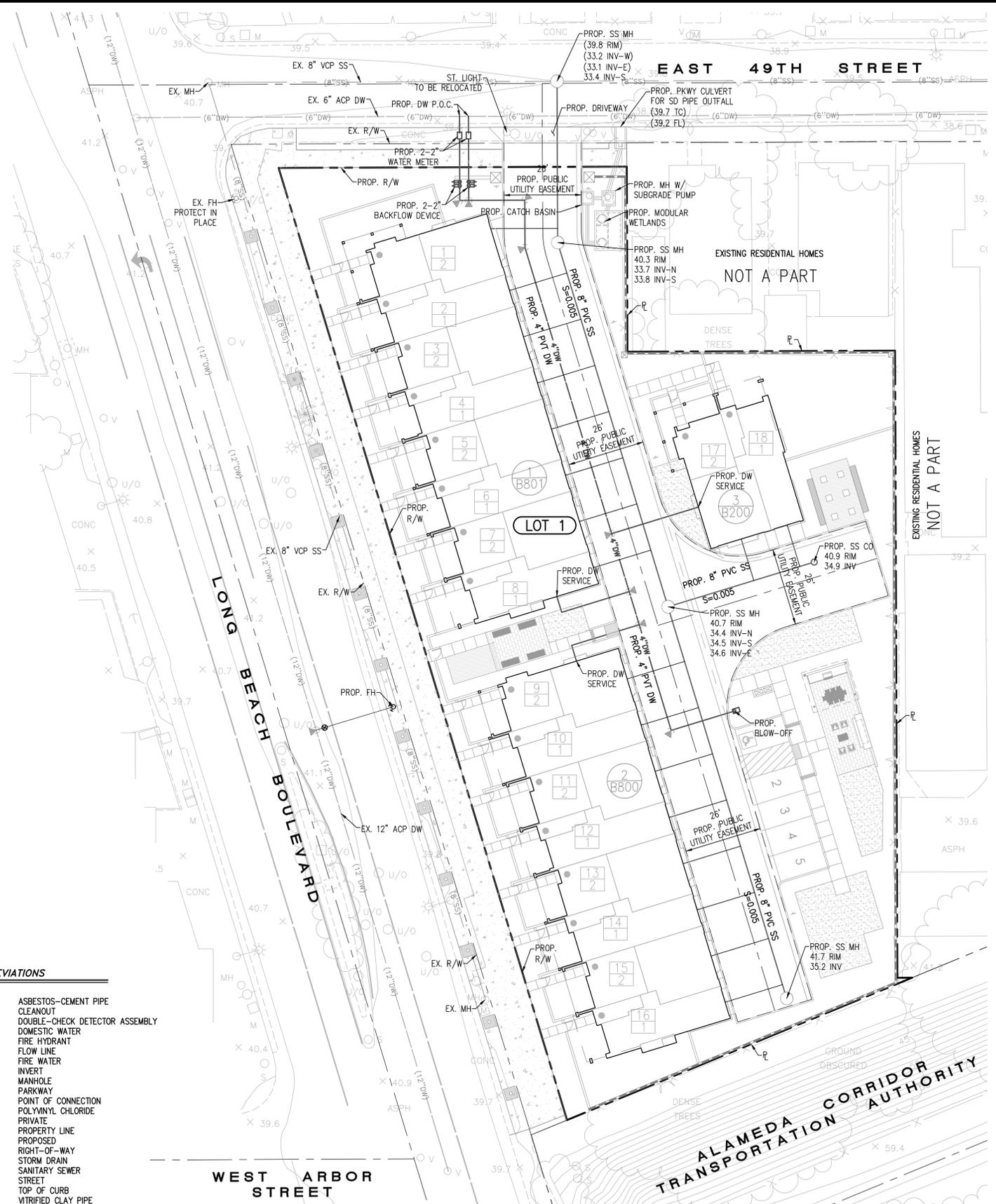
6 ORCHARD, SUITE 200
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CVC-INC.NET



CITY OF LONG BEACH
DEPARTMENT OF DEVELOPMENT SERVICES / PLANNING DIVISION

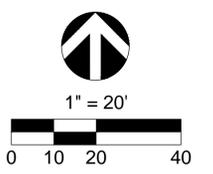
VESTING TENTATIVE TRACT MAP NO. 77097
4800 LONG BEACH BOULEVARD
PRELIMINARY GRADING PLAN

3 OF 5 SHEETS



ABBREVIATIONS

ACP	ASBESTOS-CEMENT PIPE
CO	CLEANOUT
DCDA	DOUBLE-CHECK DETECTOR ASSEMBLY
DW	DOMESTIC WATER
FH	FIRE HYDRANT
FL	FLOW LINE
FW	FIRE WATER
INV	INVERT
MH	MANHOLE
PKWY	PARKWAY
POC	POINT OF CONNECTION
PVC	POLYVINYL CHLORIDE
PVT	PRIVATE
PL	PROPERTY LINE
PROP	PROPOSED
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
SS	SANITARY SEWER
ST	STREET
TC	TOP OF CURB
VCP	VITRIFIED CLAY PIPE



REVISIONS		
REV	DATE	DESCRIPTION

PREPARED FOR:



City Ventures
REAL ESTATE INVESTMENT

CITY VENTURES
3121 MICHELSON DRIVE, SUITE 150
IRVINE, CA 90660
(949) 258-7555

PREPARED BY:



CONSULTING, INC.
CIVIL ENGINEERING
LAND PLANNING & SURVEYING

6 ORCHARD, SUITE 200
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CITY OF LONG BEACH
DEPARTMENT OF DEVELOPMENT SERVICES / PLANNING DIVISION

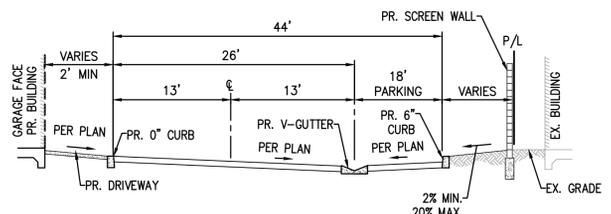
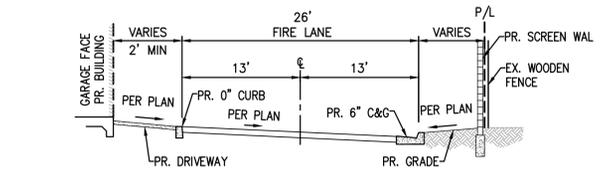
VESTING TENTATIVE TRACT MAP NO. 77097
4800 LONG BEACH BOULEVARD
PRELIMINARY UTILITY PLAN

SHEET
4
OF
5

PLAN SET: P508
DATE: 05/21/2024

PROJECT GENERAL NOTES:

1. ALL FIRE ACCESS LANES MEET CITY OF LONG BEACH MUNICIPAL CODE MINIMUM REQUIREMENTS 28' & 54' RADII.
2. THIS PROJECT DOES NOT HAVE ANY FUEL MODIFICATION OR WILD LAND EXPOSURES AND IS NOT IN A VERY HIGH FIRE HAZARD ZONE.
3. THIS PROJECT IS DESIGNED IN CONFORMANCE WITH THE CBC, 2016 EDITION.
4. ALL FIRE ACCESS ROADS SHALL BE ALL WEATHER, MEET THE CRITERIA OF AN ALL WEATHER DRIVING SURFACE AND COMPLY WITH LACoFD GUIDELINE FOR FIRE APPARATUS ROADS.
5. LARGEST BUILDING SQ. FOOTAGE = 5,562 SQ. FT.
6. BUILDINGS ARE DESIGNATED TYPE V-B.
7. ALL BUILDING OCCUPANCIES ARE R-3.
8. THE BUILDING HEIGHTS ARE APPROXIMATELY 38 FEET MAX.
9. ALL BUILDINGS ON THE SITE WILL BE SPRINKLERED PER NFPA-13D.
10. BUILDING ADDRESS NUMBER SHALL BE PROVIDED AND MAINTAINED SO AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. THE NUMBERS SHALL BE A MINIMUM 3 INCHES HIGH, 1 INCH WIDE WITH A 3/8 INCH STROKE. FOR BUILDINGS SET BACK MORE THAN 150 FEET FROM THE STREET, THE NUMBERS SHALL BE A MINIMUM 5 INCHES HIGH, 2 INCHES WIDE WITH A 1/2 INCH STROKE. FIRE CODE 908.4.4.
11. A KEY BOX SHALL BE PROVIDED AT THE MAIN ENTRANCE, IN ACCORDANCE WITH FIRE CODE 902.4, AND AS SET FORTH IN FIRE DEPARTMENT REGULATION 5.
12. THE REQUIRED FIRE FLOW FOR PUBLIC FIRE HYDRANTS AT THIS LOCATION IS _____ GALLONS PER MINUTE, AT 20 PSI RESIDUAL PRESSURE, FOR A DURATION OF 2 HOURS OVER AND ABOVE MAXIMUM DAILY DOMESTIC DEMAND. FIRE CODE 903.2 AND FIRE DEPARTMENT REGULATION 8.
13. THE REQUIRED FIRE FLOW FOR ON-SITE FIRE HYDRANTS AT THIS LOCATION IS _____ GPM AT 20 PSI RESIDUAL PRESSURE. WHEN TWO OR MORE ON-SITE HYDRANTS ARE REQUIRED, THE FIRE FLOW SHALL BE _____ GPM, WITH EACH ON-SITE FIRE HYDRANT BEING CAPABLE OF FLOWING _____ GPM AT 20 PSI RESIDUAL PRESSURE. FIRE CODE 903.2 AND FIRE DEPARTMENT REGULATION 8.
14. ALL FIRE HYDRANTS SHALL MEASURE 6"x4"x2-1/2", BRASS OR BRONZE, CONFORMING TO AMERICAN WATER WORKS ASSOCIATION STANDARD C503, OR APPROVED EQUAL, AND SHALL BE INSTALLED IN COMPLIANCE WITH FIRE DEPARTMENT REGULATION 8. FIRE CODE 903.2.1.
15. ALL ON-SITE FIRE HYDRANTS SHALL BE INSTALLED, TESTED AND APPROVED PRIOR TO BUILDING OCCUPANCY. FIRE CODE 1001.4.
16. THE INSPECTION, HYDROSTATIC TEST AND FLUSHING OF THE UNDERGROUND FIRE PROTECTION PIPING SHALL BE WITNESSED BY AN AUTHORIZED FIRE DEPARTMENT REPRESENTATIVE AND NO UNDERGROUND PIPING OR THRUST BLOCKS SHALL BE COVERED WITH EARTH OR HIDDEN FROM VIEW UNTIL THE FIRE DEPARTMENT REPRESENTATIVE HAS BEEN NOTIFIED AND GIVEN NOT LESS THAN 48 HOURS IN WHICH TO INSPECT SUCH INSTALLATIONS. FIRE CODE 1001.4.

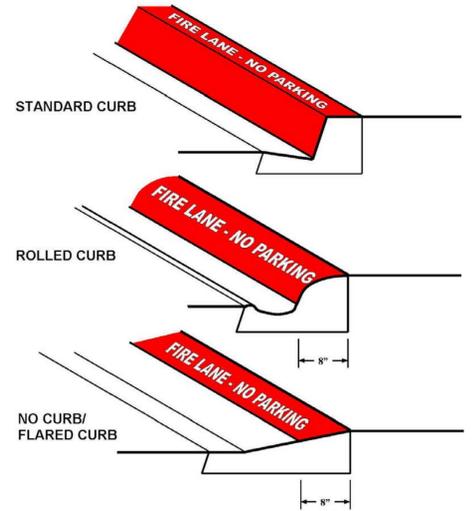


CONSTRUCTION NOTES:

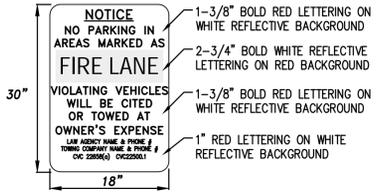
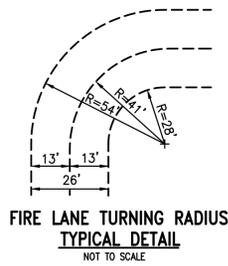
1. INSTALL "FIRE LANE" SIGN PER DETAIL 1 HEREON.
2. FIRE LANE IDENTIFICATION-RED CURBS PER DETAIL 2 HEREON.
3. INSTALL "FIRE LANE" ENTRANCE SIGN PER DETAIL 3 HEREON.
4. PROPOSED PRIVATE FIRE HYDRANT LOCATION.

ATTACHMENT 9

Fire Lane Identification - Red Curbs



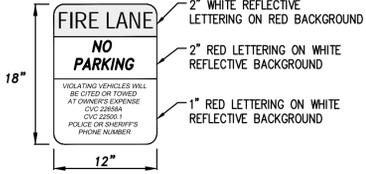
1. Fire lane entrance sign(s) shall also be provided per Attachment 10 or 11.
2. Curbs shall be painted OSHA safety red.
3. "FIRE LANE - NO PARKING" shall be painted on top of curb in 3" white lettering at a spacing of 30" on center or portion thereof.



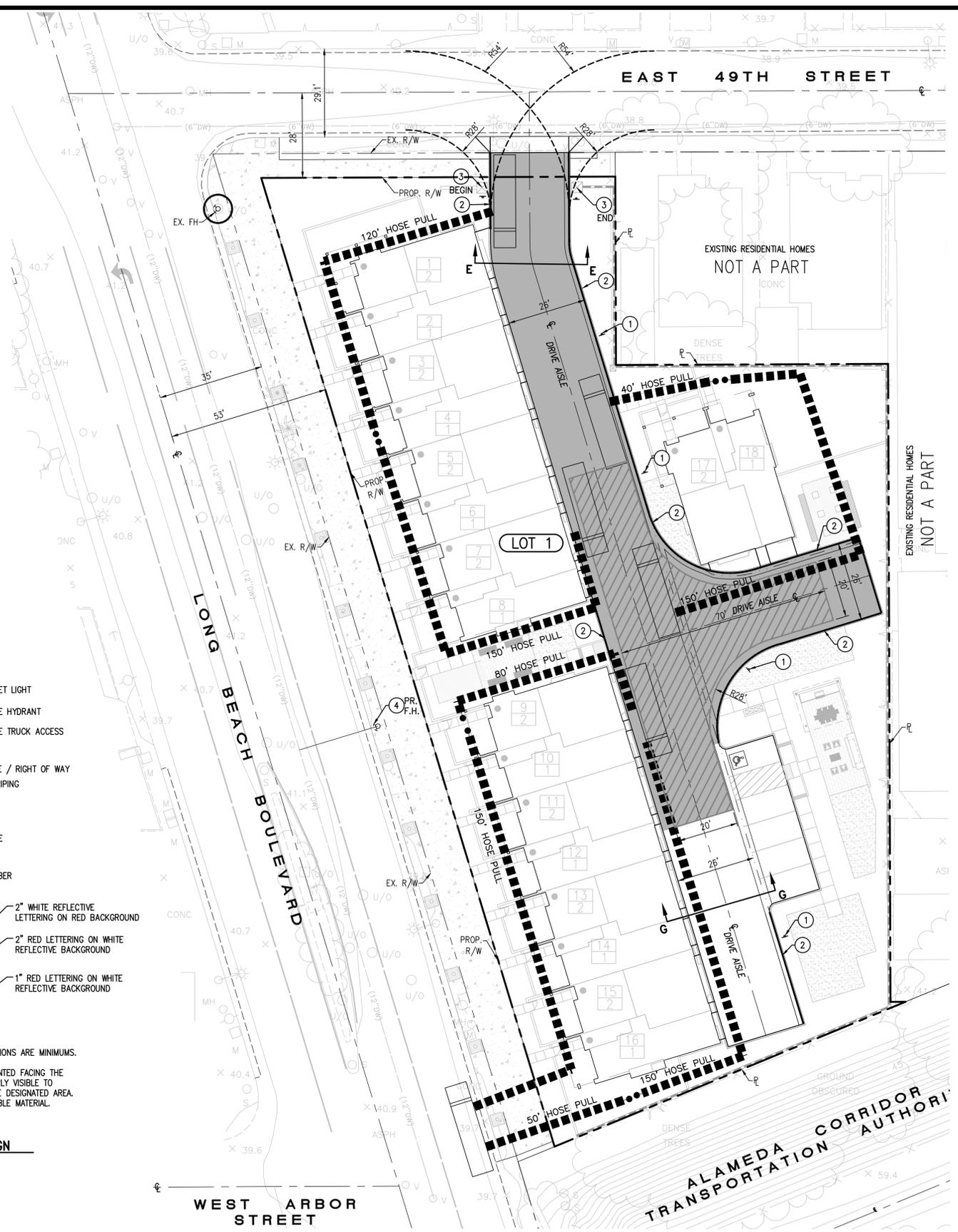
3 FIRE LANE ENTRANCE SIGN NOT TO SCALE

LEGEND

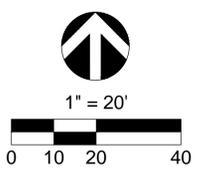
- ☀ EXISTING STREET LIGHT
- ⊕ PROPOSED FIRE HYDRANT
- ▬ PROPOSED FIRE TRUCK ACCESS
- ▬ HOSE PULL
- ▬ PROPERTY LINE / RIGHT OF WAY
- ▬ RED CURB STRIPING
- FH FIRE HYDRANT
- PR. PROPOSED
- EX. EXISTING
- R/W PROPERTY LINE
- R/W RIGHT OF WAY
- TYP. TYPICAL
- ☐ BUILDING NUMBER



1 NO PARKING SIGN NOT TO SCALE



ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY



REVISIONS		
REV	DATE	DESCRIPTION

PREPARED FOR:

City Ventures
REAL ESTATE INVESTMENT

CITY VENTURES
3121 MICHELSON DRIVE, SUITE 150
IRVINE, CA 90660
(949) 258-7555

PREPARED BY:

C&V CONSULTING, INC.
LAND PLANNING & SURVEYING

6 ORCHARD, SUITE 200
LAKE FOREST, CA 92630
T. 949.916.3800
F. 949.916.3805
CVC-INC.NET

PROFESSIONAL LAND SURVEYOR
J. P. MCCOY
L.S. 9297
STATE OF CALIFORNIA

CITY OF LONG BEACH
DEPARTMENT OF DEVELOPMENT SERVICES / PLANNING DIVISION

VESTING TENTATIVE TRACT MAP NO. 77097
4800 LONG BEACH BOULEVARD
FIRE ACCESS & HYDRANT LOCATION PLAN

SHEET 5 OF 5

DATE: 05/21/2024

ALTA / NSPS LAND TITLE SURVEY

4800 LONG BEACH BOULEVARD

LONG BEACH, CALIFORNIA

LEGAL DESCRIPTION:
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1: THAT PORTION OF LOT 41, TRACT 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT 41, THENCE EASTERLY 143.97 FEET ALONG THE NORTHERLY LINE OF SAID LOT 41, TO A POINT IN THE NORTHERLY LINE OF THE 135 FEET RIGHT OF WAY OF THE LOS ANGELES AND SALT LAKE RAILROAD COMPANY; THENCE WESTERLY IN A DIRECT LINE 138.52 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE TO A POINT IN THE WESTERLY LINE OF SAID LOT 41, DISTANT SOUTHERLY THEREON 54.38 FEET FROM THE POINT OF BEGINNING; THENCE NORTHERLY 54.35 FEET ALONG THE SAID WESTERLY LINE TO THE POINT OF BEGINNING, EXCEPT THEREFROM ALL MINERALS AND ALL MINERAL RIGHTS OF EVERY KIND AND CHARACTER NOW KNOWN TO EXIST OR HEREAFTER DISCOVERED INCLUDING, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, OIL AND GAS AND RIGHTS THEREIN, TOGETHER WITH THE SOLE, EXCLUSIVE AND PERPETUAL RIGHT TO EXPLORE FOR, REMOVE AND DISPOSE OF SAID MINERALS BY ANY MEANS OR METHODS SUITABLE TO THE FIRST PARTY, ITS SUCCESSORS AND ASSIGNS, BUT WITHOUT ENTERING UPON OR USING THE SURFACE OF SAID LAND, AND IN SUCH MANNER AS NOT TO DAMAGE THE SURFACE OF SAID LAND OR TO INTERFERE WITH THE USE THEREOF BY THE SECOND PARTY, ITS SUCCESSORS OR ASSIGNS, AS EXCEPTED AND RESERVED BY LOS ANGELES AND SALT LAKE RAILROAD COMPANY, A CORPORATION, IN DEED RECORDED APRIL 15, 1953 AND AS EXCEPTED AND RESERVED BY UNION PACIFIC RAILROAD COMPANY, A CORPORATION, IN DEED RECORDED APRIL 15, 1953.

PARCEL 2: THAT PORTION OF LOT 42, TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF LOT 42; THENCE NORTH 17° 28' 30" WEST 73.09 FEET; THENCE NORTH 89° 14' 20" EAST 160 FEET; THENCE SOUTH 0° 45' 40" EAST 70 FEET; THENCE WEST 138.99 FEET TO THE POINT OF BEGINNING.

PARCEL 3: THAT PORTION OF LOT 42, OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 73.09 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST AND PARALLEL WITH THE SOUTH LINE OF SAID LOT, 160 FEET; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE 73.08 FEET TO THE POINT OF BEGINNING.

PARCEL 4: THAT PORTION OF LOT 42 OF TRACT 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT, THENCE EAST ALONG THE NORTH LINE OF SAID LOT 229.07 FEET THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID LOT, 90 FEET TO THE NORTHEAST CORNER OF THE LAND CONVEYED TO THE MUTUAL BUILDING OF AND LOAN ASSOCIATION OF LONG BEACH, A CORPORATION, BY DEED RECORDED IN BOOK 2346, PAGE 103 OFFICIAL RECORDS, THENCE WEST ALONG THE NORTH LINE OF LAND SO CONVEYED, 202.04 FEET TO THE WESTERLY LINE OF SAID LOT; THENCE NORTHWESTERLY ALONG THE WESTERLY LINE OF SAID LOT 93.07 FEET TO THE POINT OF BEGINNING, EXCEPT THEREFROM THE EAST 90 FEET.

PARCEL 5A: THAT PORTION OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET; THENCE NORTH, PARALLEL WITH THE SOUTH LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE, 73.09 FEET TO THE POINT OF BEGINNING, EXCEPT THE NORTH 25 FEET THEREOF.

PARCEL 5B: THE NORTH 25 FEET OF THE EAST 72.04 FEET OF THAT PORTION OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST, PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET; THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE, 73.09 FEET TO THE POINT OF BEGINNING.

PARCEL 5C: THE NORTH 25 FEET OF THAT PART OF LOT 42 OF TRACT NO. 3554, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 38, PAGES 44 AND 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT, DISTANT 146.17 FEET NORTHWESTERLY FROM THE SOUTHWEST CORNER THEREOF; THENCE EAST, PARALLEL WITH THE SOUTH LINE OF SAID LOT, 181.02 FEET THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID LOT, 70 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID LOT, 202.04 FEET TO THE WESTERLY LINE THEREOF; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE 73.09 FEET TO THE POINT OF BEGINNING, EXCEPT THEREFROM THE EASTERLY 72.04 FEET THEREOF, EXCEPT ALL RIGHT, TITLE AND INTEREST IN AND TO ALL CRUDE OIL, PETROLEUM, GAS, BREA, ASPHALTUM AND ALL KINDRED SUBSTANCES AND MINERALS UNDER SAID LAND BUT WITHOUT THE RIGHT OF SURFACE ENTRY TO PARCELS 1, 2, 3 MENTIONED HEREIN BY DEED RECORDED AUGUST 23, 1965 AS INSTRUMENT NO. 2897, IN FAVOR OF MARIAN R. WILLIAMS, A MARRIED WOMAN AND WALTER T. STARKEY AND FRED A. STARKEY, HUSBAND AND WIFE, MOTHER, SON AND HIS WIFE, ALL AS JOINT TENANTS.

TITLE INFORMATION:

THE FOLLOWING TITLE INFORMATION WAS DERIVED FROM FIRST AMERICAN TITLE COMPANY ORDER NUMBER 05A-5200896 (50), DATED 5/23/16, AT THE DATE HEREOF EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

Ⓢ DENOTES PLOTTED ITEM.

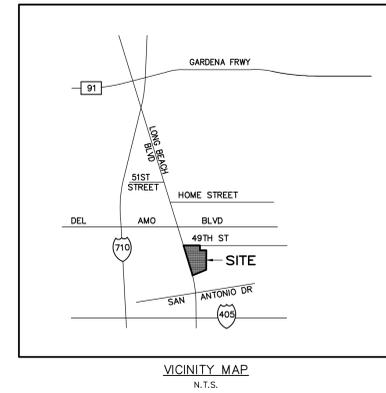
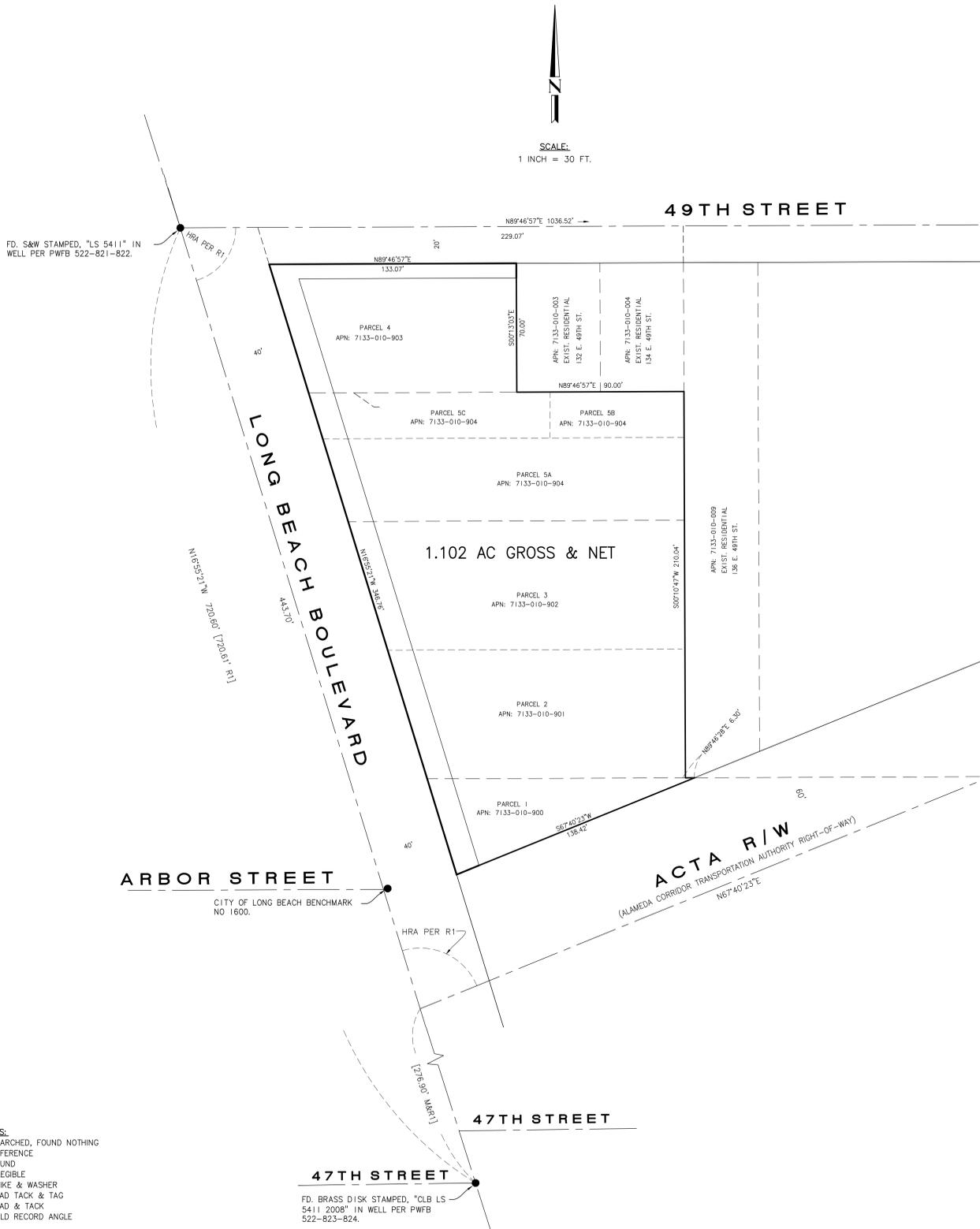
- TAX ITEMS.
- COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS IN THE DOCUMENT RECORDED IN BOOK 2346, PAGE 125 OF OFFICIAL RECORDS. SAID DOCUMENT DOES NOT APPLY TO THIS SITE.
- AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED IN BOOK 5363, PAGE 264 AND RE-RECORDED IN BOOK 5614, PAGE 241 OF OFFICIAL RECORDS, IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY AFFECTS: AS DESCRIBED THEREIN THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION. AFFECTS: PARCELS 3, 5
- AN EASEMENT FOR STREET AND HIGHWAY AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED IN BOOK 6121, PAGE 288 OF OFFICIAL RECORDS. THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
- COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS IN THE DOCUMENT RECORDED AS BOOK 7133, PAGE 117 OF DEEDS, WHICH PROVIDE THAT A VIOLATION THEREOF SHALL NOT DEFEAT OR RENDER INVALID THE LIEV OF ANY FIRST MORTGAGE OR DEED OF TRUST MADE IN GOOD FAITH AND FOR VALUE, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, GENETIC INFORMATION, GENDER, GENDER IDENTITY, GENDER EXPRESSION, SOURCE OF INCOME (AS DEFINED IN CALIFORNIA GOVERNMENT CODE § 12955 (P)) OR ANCESTRY, TO THE EXTENT SUCH COVENANTS, CONDITIONS OR RESTRICTIONS VIOLATE 42 U.S.C. § 3604(C), OR CALIFORNIA GOVERNMENT CODE § 12955. LAWFUL RESTRICTIONS UNDER STATE AND FEDERAL LAW ON THE AGE OF OCCUPANTS IN SENIOR HOUSING OR HOUSING FOR OLDER PERSONS SHALL NOT BE CONSTRUED AS RESTRICTIONS BASED ON FAMILIAL STATUS; DOCUMENT(S) DECLARING MODIFICATIONS THEREOF RECORDED AS BOOK 2351, PAGE 125 OF OFFICIAL RECORDS. NO EASEMENTS ARE DESCRIBED IN SAID DOCUMENTS.
- COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS IN THE DOCUMENT RECORDED MARCH 9, 2011 AS INSTRUMENT NO. 2011036084 OF OFFICIAL RECORDS, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, GENETIC INFORMATION, GENDER, GENDER IDENTITY, GENDER EXPRESSION, SOURCE OF INCOME (AS DEFINED IN CALIFORNIA GOVERNMENT CODE § 12955 (P)) OR ANCESTRY, TO THE EXTENT SUCH COVENANTS, CONDITIONS OR RESTRICTIONS VIOLATE 42 U.S.C. § 3604(C), OR CALIFORNIA GOVERNMENT CODE § 12955. LAWFUL RESTRICTIONS UNDER STATE AND FEDERAL LAW ON THE AGE OF OCCUPANTS IN SENIOR HOUSING OR HOUSING FOR OLDER PERSONS SHALL NOT BE CONSTRUED AS RESTRICTIONS BASED ON FAMILIAL STATUS.
- WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT SHOWN BY THE PUBLIC RECORDS.

ABBREVIATIONS:

SFN SEARCHED, FOUND NOTHING
REF. REFERENCE
FD. FOUND
ILL. ILLEGIBLE
S&W SPIKE & WASHER
L&T LEAD TACK & TAG
L&T LEAD & TACK
HRA HELD RECORD ANGLE

LEGEND:

● MONUMENT FOUND (AS NOTED)
R1 RS 170-27



VESTED OWNER:
CITY OF LONG BEACH, A CALIFORNIA MUNICIPAL CORPORATION.

BASIS OF BEARINGS:
THE BEARINGS SHOWN HEREON ARE BASED ON THE Q BEARING OF LONG BEACH BLVD. BEING N16°55'21"W AS SHOWN ON A MAP FILED IN BOOK 170, PAGES 27-32, INCLUSIVE, OF RECORD OF SURVEY IN THE OFFICE THE LOS ANGELES COUNTY RECORDER.

BENCHMARK STATEMENT:
CITY OF LONG BEACH BENCH MARK NUMBER 1600 DESCRIBED AS: "BRASS DISC IN WELL STAMPED "L.A. CO. SURV. TRAV STA CLEARWTR A-7, RE 2177, 1940" 2.2' E / L & T @ INTER ARBOR & LONG BEACH BLVD. ELEVATION = 40.019' 1985 ADJ. NGVD 29 MSL

FLOOD NOTE:
THE SUBJECT PROPERTY FALLS WITHIN "ZONE X" OF PANEL 1955F OF 2350 OF FLOOD INSURANCE RATE MAP NUMBER 060136, EFFECTIVE SEPTEMBER 26, 2006.

PARKING SPACE COUNT:
TOTAL: 0 - NO PARKING SPACES VISIBLE - VACANT LAND
HANDICAP: 0 -

TOPOGRAPHY NOTE:
TOPOGRAPHY AND CONTOURS SHOWN HEREON ARE BASED ON 1' CONTOUR INTERVALS FROM AERIAL PHOTOGRAMETRY.

SURVEYOR'S NOTES:

UNLESS THIS PLAN HAS THE SEAL AND SIGNATURE OF THE SURVEYOR RESPONSIBLE FOR ITS PREPARATION, THIS IS NOT AN AUTHENTIC COPY OF THE ORIGINAL SURVEY AND SHALL NOT BE DEMAED RELIABLE.

- DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF. NO DISTANCES OR ANGLES SHOWN HEREON MAY BE ASSUMED BY SCALING.
- NO OBSERVED EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS.
- FUTURE CHANGES IN STREET RIGHT OF WAY LINES WERE FOUND & ARE SHOWN ON TENTATIVE TRACT MAP NO. 77097 BY CITY VENTURES AND C&V CONSULTING.
- NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION, OR REPAIRS.
- NO OBSERVED EVIDENCE OF A SUBSTANTIAL AREA OF REFUSE.
- NO OBSERVED WETLAND DELINEATION MARKERS.

THIS ALTA/ACSM LAND LAND SURVEY IS FOR TITLE INSURANCE PURPOSES ONLY. NOT TO BE USED FOR CONSTRUCTION, DESIGN OR ENGINEERING FOR FUTURE DEVELOPMENT OF SITE.

THIS SURVEY DOES NOT CONTAIN SUFFICIENT DETAIL FOR DESIGN PURPOSES. THE BOUNDARY DATA AND TITLE MATTERS AS SHOWN HEREON HAVE BEEN DEVELOPED FROM THE REFERENCED TITLE REPORT ONLY. ADDITIONAL RESEARCH, FIELD AND OFFICE SURVEY WILL BE REQUIRE FOR SITE DESIGN.

THE RELATIVE POSITIONAL ACCURACY OF CALLED OUT IMPROVEMENTS SHOWN ON THE SURVEY IS WITHIN 0.1' +/- OF THEIR ACTUAL LOCATIONS.

C&V CONSULTING ASSUMES NO LIABILITY FOR THE ACCURACY OR COMPLETENESS OF ANY THIRD PARTY INFORMATION REFERENCED OR REPRESENTED HEREON, ANY OF SAID INFORMATION SHOWN HEREON HAS BEEN PROVIDED FOR REFERENCE PURPOSES ONLY.

SURVEYOR'S CERTIFICATE:
TO CITY VENTURES HOME BUILDING & FIRST AMERICAN TITLE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 8, 11, 13, 15, 16, AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 31, 2016.

DATE OF MAP: MAY 29, 2020

DRAFT

DANE P. MCDUGALL, L.S. 9297
DMCDUGALL@CVC-INC.NET



DRAFTED	CHECKED	DATE	PREPARED BY:
1	NR	9/8/2016	

C&V CONSULTING, INC.
CIVIL ENGINEERING
LAND PLANNING & SURVEYING

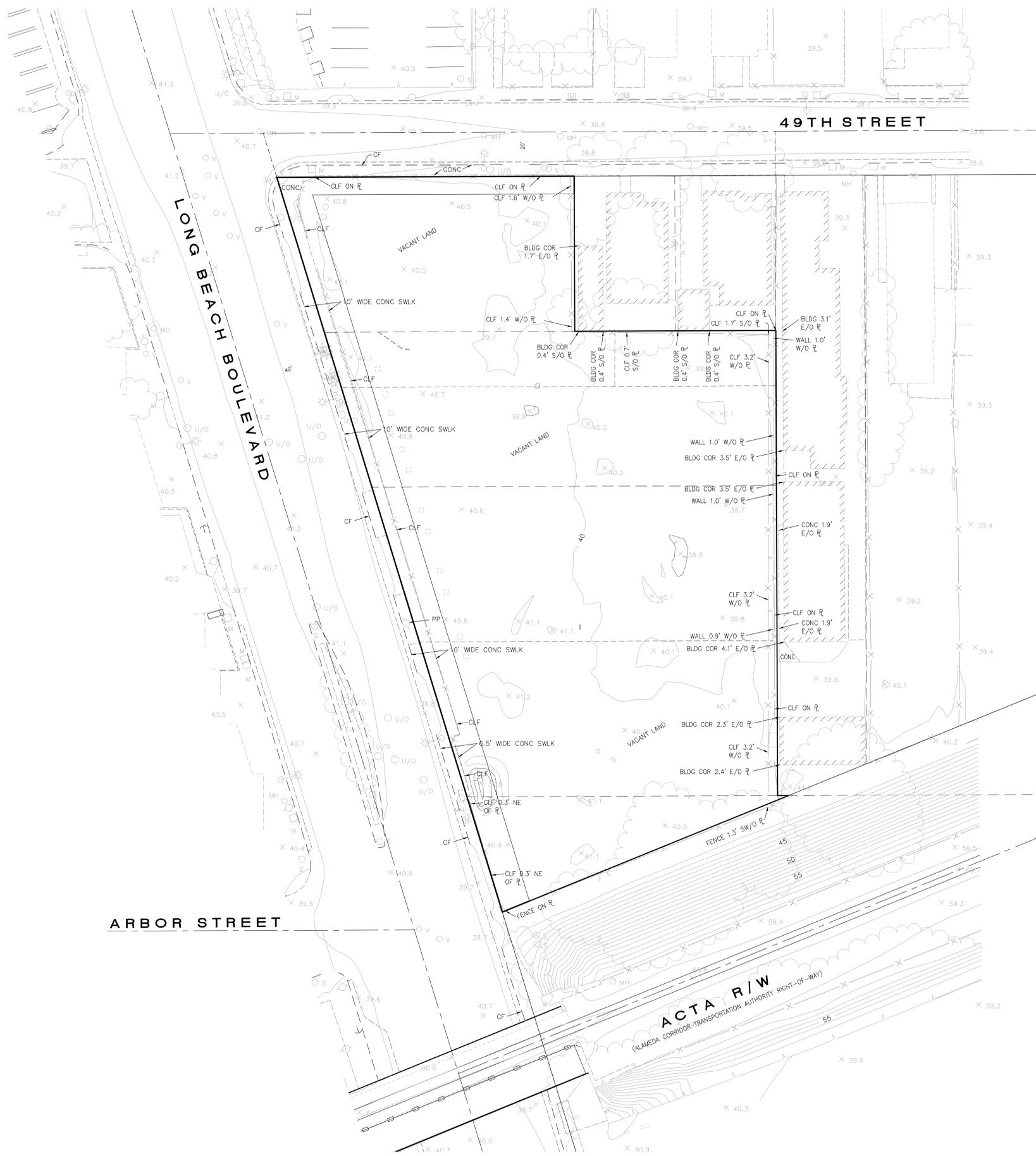
8 ORCHARD, SUITE 200
LAKE FOREST, CA 92630
T: 949.916.3800
F: 949.916.3805
CVC-INC.NET

ALTA / NSPS LAND TITLE SURVEY

4800 LONG BEACH BLVD.
LONG BEACH, CALIFORNIA

PROJECT NO: **CVEN-106**
SHEET **1** OF **2**

Drawing Name: C:\Users\lshayes\AppData\Local\Temp\lshayes_3440\ALTA-106.dwg



SCALE:
1 INCH = 20 FT.

- LEGEND**
- | | | | |
|-------|--------------------------|------|----------------------------|
| AP | ANGLE POINT | PIV | POST INDICATOR VALVE |
| ASPH | ASPHALT PAVING | PKL | PARKING LOT LIGHT |
| BFP | BACKFLOW PREVENTOR | PL | PROPERTY LINE |
| BC | BUILDING CORNER | PLT | PLANTER |
| BG | BEGIN | PM | PARKING METER |
| BLDG. | BUILDING | PP | POWER POLE |
| BW | BLOCK WALL | SCO | SEWER CLEANOUT |
| CATV | CABLE T.V. BOX | SDMH | STORM DRAIN MANHOLE |
| CB | CATCH BASIN | SL | STREET LIGHT |
| CF | CURB FACE | SLPB | STREET LIGHT PULL BOX |
| CL | CENTERLINE | SMH | SEWER MANHOLE |
| CLF | CHAIN LINK FENCE | SWLK | SIDEWALK |
| CONC | CONCRETE | RW | RETAINING WALL |
| DI | DROP INLET | R/W | RIGHT-OF-WAY |
| DRWY | DRIVEWAY | TFB | TELEPHONE PULL BOX |
| EMH | ELECTRICAL MANHOLE | TFP | ELECT. TRANSFORMER PAD |
| EPB | ELECTRICAL PULL BOX | TMH | TELEPHONE MANHOLE |
| ELEV | ELEVATION | TS | TRAFFIC SIGNAL |
| EP | EDGE OF PAVEMENT | TSCB | TRAFFIC SIGNAL CONTROL BOX |
| FC | FIRE CONNECTION | T/E | TRASH ENCLOSURE |
| FH | FIRE HYDRANT | UB | UTILITY BOX |
| FR | FIRE RISER | WD | WOOD |
| EVL | ELECTRICAL VAULT | WFI | WROUGHT IRON FENCE |
| GA | GUY ANCHOR | WM | WATER METER |
| GM | GAS METER | WV | WATER VALVE |
| GP | GUARD POST | WVLT | WATER VAULT |
| GUT | GUTTER | N | NORTH |
| HP | HIGH POINT | S | SOUTH |
| ICB | IRRIGATION CONTROL BOX | E | EAST |
| ICV | IRRIGATION CONTROL VALVE | W | WEST |
| MB | MAILBOX | VG | V-GUTTER |
| MH | MANHOLE | | |
| O-H | BLDG OVERHANG | | |

- SYMBOLS**
- | | | | |
|-------|---------------------|---------|------------------------|
| CONC | CONCRETE | —X—X—X— | FENCE |
| ASPH | ASPHALT | ===== | BLOCK WALL |
| ○ | TREE | ===== | RETAINING WALL |
| ○ | BUSH | ~~~~~ | TREE LINE |
| ○ | PALM TREE | ~~~~~ | BRUSH LINE |
| ○ M/B | MAIL BOX | —OH—E— | OVERHEAD ELECTRIC LINE |
| ○ | LIGHT STANDARD | ⊙ | WATER VALVE |
| ○ TS | TRAFFIC SIGNAL | □ CB | CATCH BASIN |
| ○ | STREET LIGHT | □ DI | DROP INLET |
| ○ | SIGN (10') | ○ LP | LIGHT POLE |
| ○ | SIGN (5') | ○ SDMH | SEWER MANHOLE |
| ○ | STORM DRAIN MANHOLE | ○ S | GAS VALVE |
| ○ | SIGN | ○ V | VALVE |
| ○ F/H | FIRE HYDRANT | ○ MH | MANHOLE |
| ○ | POWER POLE | ○ | HANDICAP |
| ○ | TRANSFORMER BOX | ○ | UTILITY BOX |
| ○ | GUYWIRE/ANCHOR | ○ SP | STAND PIPE |
| ○ | METER | | |
| ○ | POST (NO LABEL) | | |

ARBOR STREET

ACTA R/W
(ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY RIGHT-OF-WAY)

DRAFTED	CHECKED	DATE	PREPARED BY:
1	NR	9/8/2016	

C&V CONSULTING, INC.
CIVIL ENGINEERING
LAND PLANNING & SURVEYING

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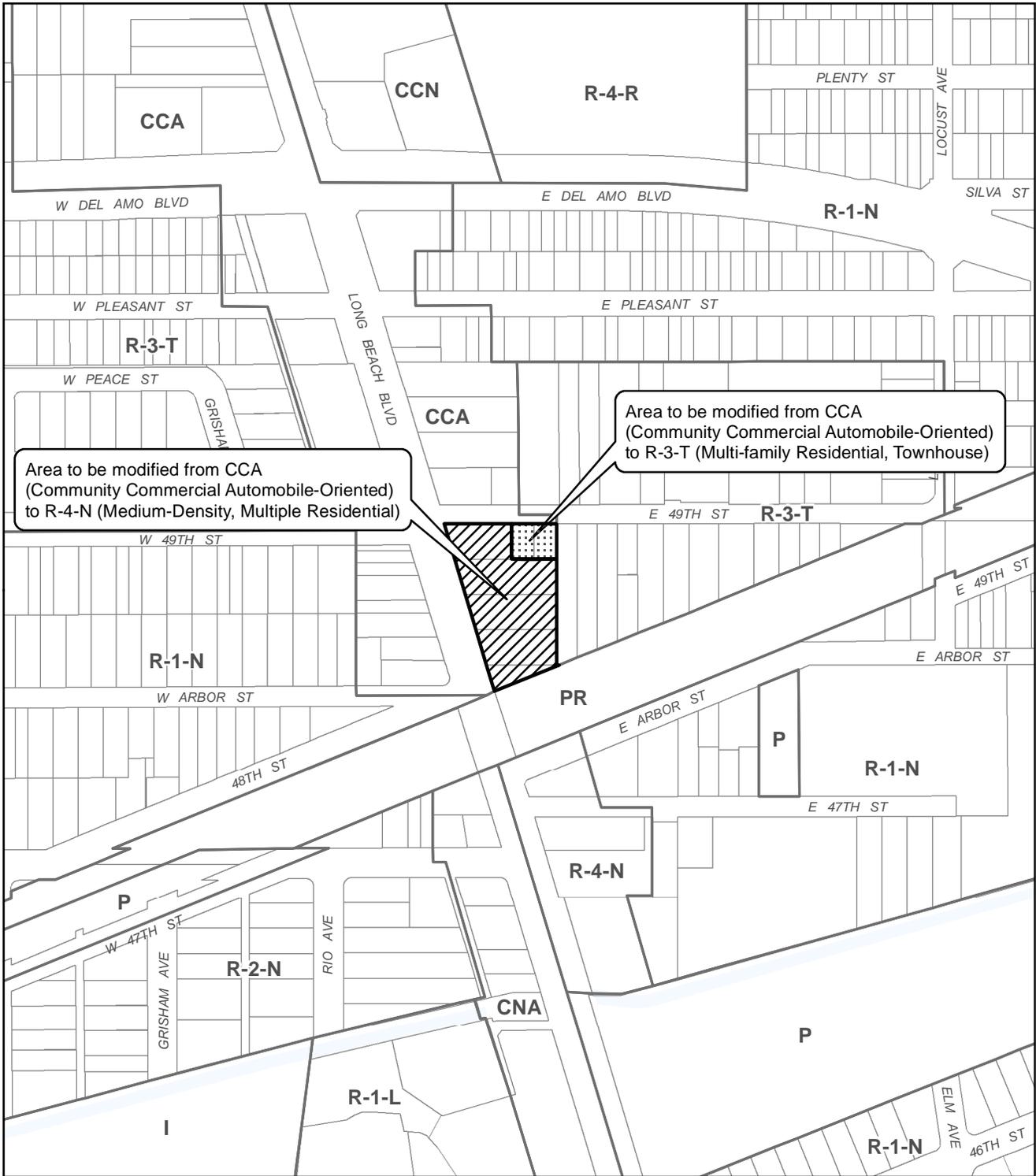
PROJECT NO. **CVEN-106**

ALTA / NSPS LAND TITLE SURVEY

**4800 LONG BEACH BLVD.
LONG BEACH, CALIFORNIA**

SHEET **2**
OF **2**

Drawing Name: C:\Users\lfraymond\appdata\local\temp\AutoCAD\AutoCAD_3440\AUTOCAD_106.dwg



Area to be modified from CCA
(Community Commercial Automobile-Oriented)
to R-4-N (Medium-Density, Multiple Residential)

Area to be modified from CCA
(Community Commercial Automobile-Oriented)
to R-3-T (Multi-family Residential, Townhouse)

 Area to be modified from CCA (Community Commercial Automobile-Oriented) to R-4-N (Medium-Density, Multiple Residential)

 Area to be modified from CCA (Community Commercial Automobile-Oriented) to R-3-T (Multi-family Residential, Townhouse)



**PROPOSED
AMENDMENT TO A PORTION OF PART 22
OF THE USE DISTRICT MAP**

Rezoning Case
1707-10
(ZCHG17-009)



NEW HOME RATING SYSTEM, VERSION 6.0

MULTIFAMILY

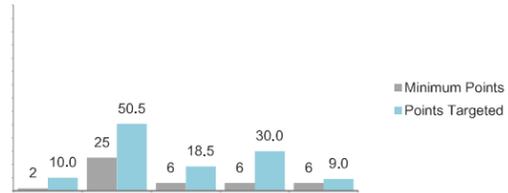
The GreenPoint Rated checklist tracks green features incorporated into the home. GreenPoint Rated is administered by Build It Green, a non-profit whose mission is to promote healthy, energy and resource efficient buildings in California. The minimum requirements of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum points per category: Community (3) Energy (22), Indoor Air Quality/Health (6), Resources (6), and Water (8); and meet the prerequisites CALGreen Mandatory, E5.2, H6.1, J5.1, O1, O7.

The criteria for the green building practices listed below are described in the GreenPoint Rated Single Family Rating Manual. For more information please visit www.builditgreen.org/greenpointrated
Build It Green is not a code enforcement agency.
A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater through Build It Green.

New Home Multifamily v. 6.0.2

Points Targeted: 118.0

Certification Level: Gold



4800 & 5100 Long Beach Blvd. 03.11.2020		Points Targeted	Possible Points					Notes
Measures			Community	Energy	IAQ/Health	Resources	Water	
CALGreen								
Yes	CALGreen Res (REQUIRED)	4		1	1	1	1	
A. SITE								
No	A1. Construction Footprint	0			1			
A2. Job Site Construction Waste Diversion								
No	A2.1 65% C&D Waste Diversion (Including Alternative Daily Cover)	0			2			
Yes	A2.2 65% C&D Waste Diversion (Excluding Alternative Daily Cover)	2			2			
Yes	A2.3 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility	1			1			
No	A3. Recycled Content Base Material	0			1			
TBD	A4. Heat Island Effect Reduction (Non-Roof)		1				50% of the hardscape SRI of 29%. Uncolored concrete is assumed to have solar reflectance of 0.3	
No	A5. Construction Environmental Quality Management Plan Including Flush-Out	0		1				
A6. Stormwater Control: Prescriptive Path								
No	A6.1 Permeable Paving Material	0				1		
Yes	A6.2 Filtration and/or Bio-Retention Features	0				1	Onsite stormwater will be directed to the offsite development bio-retention area.	
Yes	A6.3 Non-Leaching Roofing Materials	0				1	TPO - Roofing material (non-leaching)	
No	A6.4 Smart Stormwater Street Design	0	1					
Yes	A7. Stormwater Control: Performance Path	0				3	Provide plans that indicate stormwater being directed to bioswale. Provide calculations showing that 85% of the total annual stormwater is being captured and treated.	
B. FOUNDATION								
No	B1. Fly Ash and/or Slag in Concrete	0			1			
No	B2. Radon-Resistant Construction	0		2				
No	B3. Foundation Drainage System	0			2			
No	B4. Moisture Controlled Crawlspace	0		1				
B5. Structural Pest Controls								
No	B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	0			1		requires all plants, shrubs, trees, turf and ground covers to be a minimum distance 36 in. from the exterior wall to the center of the plant.	
No	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation	0			1			
C. LANDSCAPE								
0.03%	Enter the landscape area percentage							
Yes	C1. Plants Grouped by Water Needs (Hydrozoning)	1				1	Group plants and turf in low, medium and high water use.	
Yes	C2. Three Inches of Mulch in Planting Beds	1				1	Add note for 3 inch. Of mulch for planting beds.	
C3. Resource Efficient Landscapes								
Yes	C3.1 No Invasive Species Listed by CalHPC	1			1		Use CalHPC when making plant selections. We will review based of the current list.	
Yes	C3.2 Plants Chosen and Located to Grow to Natural Size	0			1			
Yes	C3.3 Drought Tolerant, California Native, Mediterranean Species, or Other Appropriate Species	0				3	Provide 75% drought tolerant plants based on quantity of plants installed.	
C4. Minimal Turf in Landscape								
Yes	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide	0				2		
TBD	C4.2 Turf on a Small Percentage of Landscaped Area	0				2	Less than 10% or 25% of Landscape Area?	
No	C5. Trees to Moderate Building Temperature	0	1	1		1		
Yes	C6. High-Efficiency Irrigation System	0				2	Will there be pop up sprinklers?	
Yes	C7. One Inch of Compost in the Top Six to Twelve Inches of Soil	0				2		
No	C8. Rainwater Harvesting System	0				3		
No	C9. Recycled Wastewater Irrigation System	0				1	Purple pipe for landscape irrigation	
Yes	C10. Submeter or Dedicated Meter for Landscape Irrigation	0				2		
≤0.5 ETo	C11. Landscape Meets Water Budget	0				2		
C12. Environmentally Preferable Materials for Site								
No	C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing	0			1			
No	C12.2 Play Structures and Surfaces Have an Average Recycled Content ≥20%	0			1			
No	C13. Reduced Light Pollution	0	1					
No	C14. Large Stature Tree(s)	0	1					
No	C15. Third Party Landscape Program Certification	0				1		
No	C16. Maintenance Contract with Certified Professional	0				1		
No	C17. Community Garden	0	2					
D. STRUCTURAL FRAME AND BUILDING ENVELOPE								
D1. Optimal Value Engineering								
No	D1.1 Joists, Rafters, and Studs at 24 Inches on Center	0		1	2			
Yes	D1.2 Non-Load Bearing Door and Window Headers Sized for Load	1			1			
No	D1.3 Advanced Framing Measures	0			2			
No	D2. Construction Material Efficiencies	0			1			
D3. Engineered Lumber								
No	D3.1 Engineered Beams and Headers	0			1			
Yes	D3.2 Wood I-Joists or Web Trusses for Floors	1			1			
Yes	D3.3 Engineered Lumber for Roof Rafters	1			1			
No	D3.4 Engineered or Finger-Jointed Studs for Vertical Applications	0			1			
Yes	D3.5 OSB for Subfloor	0.5			0.5			
Yes	D3.6 OSB for Wall and Roof Sheathing	0.5			0.5			
No	D4. Insulated Headers	0	1					
D5. FSC-Certified Wood								
No	D5.1 Dimensional Lumber, Studs, and Timber	0			6			
No	D5.2 Panel Products	0			3			
D6. Solid Wall Systems								
No	D6.1 At Least 90% of Floors	0			1			
No	D6.2 At Least 90% of Exterior Walls	0	1		1			
No	D6.3 At Least 90% of Roofs	0	1		1			
No	D7. Energy Heels on Roof Trusses	0	1					
No	D8. Overhangs and Gutters	0	1		1			
D9. Reduced Pollution Entering the Home from the Garage								
No	D9.1 Detached Garage	0		2				
TBD	D9.2 Mitigation Strategies for Attached Garage			1				
D10. Structural Pest and Rot Controls								
No	D10.1 All Wood Located At Least 12 Inches Above the Soil	0			1			
Yes	D10.2 Wood Framing Treating With Borates or Factory-Impregnated, or Wall Materials Other Than Wood	1			1			
No	D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)	0		1	1			
E. EXTERIOR								
No	E1. Environmentally Preferable Decking	0			1			
Yes	E2. Flashing Installation Third-Party Verified	2			2			
No	E3. Rain Screen Wall System	0			2			
Yes	E4. Durable and Non-Combustible Cladding Materials	1			1		Traditional 3 coat stucco system qualifies.	
E5. Durable Roofing Materials								
Yes	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1			1		Flat roof, 10 year material warranty and a 3-year workmanship warranty.	
Yes	E5.2 Roofing Warranty for Shingle Roofing	Y	R	R	R	R		
No	E6. Vegetated Roof	0	2	2				
F. INSULATION								
F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content								
TBD	F1.1 Walls and Floors				1		Knauf EcoBatt Glasswool Insulation qualifies.	
TBD	F1.2 Ceilings				1		Knauf EcoBatt Glasswool Insulation qualifies.	
F2. Insulation that Meets the CDPH Standard Method—Residential for Low Emissions								
TBD	F2.1 Walls and Floors			1			Knauf EcoBatt Glasswool Insulation qualifies.	
TBD	F2.2 Ceilings			1			Knauf EcoBatt Glasswool Insulation qualifies.	
F3. Insulation That Does Not Contain Fire Retardants								

4800 & 5100 Long Beach Blvd.

		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	F3.1 Cavity Walls and Floors	0			1			
No	F3.2 Ceilings	0			1			
No	F3.3 Interior and Exterior Insulation	0			1			
G. PLUMBING								
G1. Efficient Distribution of Domestic Hot Water								
Yes	G1.1 Insulated Hot Water Pipes	1		1				1 in. foam on entire run of pipe less than 2 in. in diameter. 1.5in foam on pipe greater than 2 in.
TBD	G1.2 WaterSense Volume Limit for Hot Water Distribution						1	
TBD	G1.3 Increased Efficiency in Hot Water Distribution						2	
G2. Install Water-Efficient Fixtures								
Yes	G2.1 WaterSense Showerheads with Matching Compensation Valve	2					2	
Yes	G2.2 WaterSense Bathroom Faucets	1					1	
Yes	G2.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams	1					1	
No	G2.4 Urinals with Flush Rate of ≤ 0.1 Gallons/Flush	0					1	check if we can get the credit.
No	G3. Pre-Plumbing for Graywater System	0					1	
No	G4. Operational Graywater System	0					3	
No	G5. Submeter Water for Tenants	0					2	
H. HEATING, VENTILATION, AND AIR CONDITIONING								
H1. Sealed Combustion Units								
No	H1.1 Sealed Combustion Furnace	0			1			Electric heat pumps
No	H1.2 Sealed Combustion Water Heater	0			2			Open air facility on roof
No	H2. High Performing Zoned Hydronic Radiant Heating System	0		1	1			N/A
H3. Effective Ductwork								
Yes	H3.1 Duct Mastic on Duct Joints and Seams	1		1				Section 150.0(m)1 of 2013 BEES
No	H3.2 Pressure Balance the Ductwork System	0		1				
TBD	H4. ENERGY STAR® Bathroom Fans Per HVI Standards with Air Flow Verified				1			
H5. Advanced Practices for Cooling								
No	H5.1 ENERGY STAR Ceiling Fans in Living Areas and Bedrooms	0		1				1079LED-ES Contempo Ceiling Fan/Light Kit
No	H5.2 Operable Windows and Skylights Located to Induce Cross Ventilation in At Least One Room in 80% of Units	0		1				N/A
H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality								
Yes	H6.1 Meet ASHRAE Standard 62.2-2012 Ventilation Residential Standards	Y	R	R	R	R	R	
Yes	H6.2 Advanced Ventilation Standards	1			1			Continuous operation, HVI Rated fan 1cfm/watt @ 0.25 static pressure.
TBD	H6.3 Outdoor Air Ducted to Bedroom and Living Areas				2			
H7. Effective Range Design and Installation								
TBD	H7.1 Effective Range Hood Ducting and Design				1			
No	H7.2 Automatic Range Hood Control	0			1			
I. RENEWABLE ENERGY								
Yes	I1. Pre-Plumbing for Solar Water Heating	0		1				
Yes	I2. Preparation for Future Photovoltaic Installation	0		1				
100.00%	I3. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)	0		25				
I4. Net Zero Energy Home								
TBD	I4.1 Near Zero Energy Home			2				
TBD	I4.2 Net Zero Electric			4				
No	I5. Solar Hot Water Systems to Preheat Domestic Hot Water	0		4				
≥60% of common area	I6. Photovoltaic System for Multifamily Projects	0		12				
J. BUILDING PERFORMANCE AND TESTING								
Yes	J1. Third-Party Verification of Quality of Insulation Installation	1			1			
No	J2. Supply and Return Air Flow Testing	0		1	1			
No	J3. Mechanical Ventilation Testing and Low Leakage	0			1			
No	J4. Combustion Appliance Safety Testing	0			1			
J5. Building Performance Exceeds Title 24 Part 6								
19.00%	J5.1 Home Outperforms Title 24	43		30				
0.00%	J5.2 Non-Residential Spaces Outperform Title 24	0		15				
Yes	J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst	1		1				
No	J7. Participation in Utility Program with Third-Party Plan Review	0		1				
No	J8. ENERGY STAR for Homes	0		1				
No	J9. EPA Indoor airPlus Certification				1			
K. FINISHES								
K1. Entryways Designed to Reduce Tracked-In Contaminants								
Yes	K1.1 Entryways to Individual Units	1			1			
No	K1.2 Entryways to Buildings	0			1			
Yes	K2. Zero-VOC Interior Wall and Ceiling Paints	2			2			
Yes	K3. Low-VOC Caulks and Adhesives	1			1			
K4. Environmentally Preferable Materials for Interior Finish								
≥80%	K4.1 Cabinets	2				2		
≥50%	K4.2 Interior Trim	1				2		
≥80%	K4.3 Shelving	2				2		
≥80%	K4.4 Doors	2				2		
Yes	K4.5 Countertops	1				1		
K5. Formaldehyde Emissions in Interior Finish Exceed CARB								
Yes	K5.1 Doors	1			1			
Yes	K5.2 Cabinets and Countertops	2			2			specs/ submittal
Yes	K5.3 Interior Trim and Shelving	2			2			
Yes	K6. Products That Comply With the Health Product Declaration Open Standard	2			2			
Yes	K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion	2			2			
No	K8. Comprehensive Inclusion of Low Emitting Finishes				1			
TBD	K9. Durable Cabinets				2			
TBD	K10. At Least 25% of Interior Furniture Has Environmentally Preferable Attributes				1			
L. FLOORING								
≥50%	L1. Environmentally Preferable Flooring	2				3		
≥50%	L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential	2			3			
No	L3. Durable Flooring	0				1		
No	L4. Thermal Mass Flooring	0		1				
M. APPLIANCES AND LIGHTING								
Yes	M1. ENERGY STAR® Dishwasher	1					1	
No	M2. CEE-Rated Clothes Washer	0		1			2	
No	M3. Size-Efficient ENERGY STAR Refrigerator	0		2				
M4. Permanent Centers for Waste Reduction Strategies								
No	M4.1 Built-In Recycling Center	0				1		
No	M4.2 Built-In Composting Center	0				1		
M5. Lighting Efficiency								
Yes	M5.1 High-Efficacy Lighting	2		2				
No	M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by Lighting Consultant	0		2				
No	M6. Central Laundry	0					1	
No	M7. Gearless Elevator	0		1				Traction Elevator -
N. COMMUNITY								
N1. Smart Development								
Yes	N1.1 Infill Site	2	1			1		
No	N1.2 Designated Brownfield Site	0	1		1			
>20	N1.3 Conserve Resources by Increasing Density	1		2		2		
No	N1.4 Cluster Homes for Land Preservation	0	1			1		
	N1.5 Home Size Efficiency	4				9		Based on the average largest unit type.
1,579	Enter the area of the home, in square feet							
3	Enter the number of bedrooms							
No	N2. Home(s)/Development Located Within 1/2 Mile of a Major Transit Stop	0	2					
N3. Pedestrian and Bicycle Access								
N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services								
	Enter the number of Tier 1 services							
	Enter the number of Tier 2 services							
Yes	N3.2 Connection to Pedestrian Pathways	1	1					
No	N3.3 Traffic Calming Strategies	0	2					
Yes	N3.4 Sidewalks Buffered from Roadways and 5-8 Feet Wide	1	1					
No	N3.5 Bicycle Storage for Residents	0	1					
No	N3.6 Bicycle Storage for Non-Residents	0	1					
No	N3.7 Reduced Parking Capacity	0	2					back check team thinks they will get it
N4. Outdoor Gathering Places								
Yes	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents	1	1					
No	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services	0	1					
N5. Social Interaction								
Yes	N5.1 Residence Entries with Views to Callers	1	1					two peepholes
Yes	N5.2 Entrances Visible from Street and/or Other Front Doors	1	1					
Yes	N5.3 Porches Oriented to Street and Public Space	1	1					
Yes	N5.4 Social Gathering Space	1	1					
N6. Passive Solar Design								
No	N6.1 Heating Load	0		2				
No	N6.2 Cooling Load	0		2				
N7. Adaptable Building								
No	N7.1 Universal Design Principles in Units	0	1		1			
No	N7.2 Full-Function Independent Rental Unit	0	1					
N8. Affordability								
No	N8.1 Dedicated Units for Households Making 80% of AMI or Less	0	2					Owner to provide AMI info
No	N8.2 Units with Multiple Bedrooms for Households Making 80% of AMI or Less	0	1					Owner to provide AMI info

4800 & 5100 Long Beach Blvd.		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	N8.3 At Least 20% of Units at 120% AMI or Less are For Sale	0	1					
N9. Mixed-Use Developments								
No	N9.1 Live/Work Units Include a Dedicated Commercial Entrance	0	1					
No	N9.2 At Least 2% of Development Floor Space Supports Mixed Use	0	1					
No	N9.3 Half of the Non-Residential Floor Space is Dedicated to Community Service	0	1					
O. OTHER								
Yes	O1. GreenPoint Rated Checklist in Blueprints	Y	R	R	R	R	R	
No	O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors	0		0.5		1	0.5	
Yes	O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs	2		0.5	0.5	0.5	0.5	O&M, pamphlet
No	O4. Builder's or Developer's Management Staff are Certified Green Building Professionals	0		0.5	0.5	0.5	0.5	
No	O5. Home System Monitors	0		2			1	
O6. Green Building Education								
Yes	O6.1 Marketing Green Building	2	2					
Yes	O6.2 Green Building Signage	1		0.5			0.5	
No	O7. Green Appraisal Addendum	N	R	R	R	R	R	Green Rater to put together Green Information about the property
No	O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation	0				1		
No	O9. Residents Are Offered Free or Discounted Transit Passes	0	2					
No	O10. Vandalism Deterrence Practices and Vandalism Management Plan	0				1		
P. DESIGN CONSIDERATIONS								
P1. Acoustics: Noise and Vibration Control								
0	Enter the number of Tier 1 practices	0	1		1			
0	Enter the number of Tier 2 practices							
P2. Mixed-Use Design Strategies								
No	P2.1 Tenant Improvement Requirements for Build-Outs	0			1		1	
No	P2.2 Commercial Loading Area Separated for Residential Area	0			1			
No	P2.3 Separate Mechanical and Plumbing Systems	0			1			
P3. Commissioning								
No	P3.1 Design Phase	0		1	1			
No	P3.2 Construction Phase	0		1	1			
No	P3.3 Post-Construction Phase	0		1	1			
No	P4. Building Enclosure Testing	0		1	1	1		
INNOVATIONS								
No	Enter Innovation 1 description here. Enter up to four points at right.	0						
No	Enter Innovation 2 description here. Enter up to four points at right.	0						
No	Enter Innovation 3 description here. Enter up to four points at right.	0						
No	Enter Innovation 4 description here. Enter up to four points at right.	0						
Summary								
Total Available Points in Specific Categories		381	43	138	61	86	53	
Minimum Points Required in Specific Categories		50	2	25	6	6	6	
Total Points Targeted		118.0	10.0	50.5	18.5	30.0	9.0	

CONDITIONS OF APPROVAL
SITE PLAN REVIEW (SPR17-06), ZONE CHANGE (ZCHG17-009),
VESTING TENTATIVE TRACT MAP (VTTM17-001)

4800 Long Beach Boulevard

Application No. 1707-10

June 18, 2020

Special Conditions:

1. The following approvals are granted for this project:
 - a. Adoption of an Initial Study/Mitigated Negative Declaration (IS/MND-04-20, State Clearinghouse No. 2020050229).
 - b. Zone Change: from Community Commercial Automobile-Oriented (CCA) to Medium-Density Multiple Residential (R-4-N).
 - c. Site Plan Review approval for the project as depicted on plans submitted to the Department of Development Services, consisting of:
 - i. Eighteen (18) three-story townhomes within three buildings that would be a maximum height of 38’;
 - ii. Forty-one (41) on-grade parking spaces consisting of 36 garage spaces (Eighteen (18) of which are in tandem configuration) and five (5) designated guest parking stalls;
 - iii. A total of 10,880 square feet of open space provided as 6,856 square feet of common open space and 4,024 square feet of private open space.
 - d. Vesting Tentative Tract Map for the consolidation of five existing parcels into a single 48,003-square-foot parcel and the subdivision of airspace for the 18 for-sale townhome units.
2. The code standards waived for this project through the Site Plan Review process include Parking Configuration – Flexibility in proposing tandem parking as required parking (18 of the 36 garage spaces) provided a commitment to LEED Gold equivalency is provided.
3. The project applicant shall provide for compliance with all mitigation measures of the Initial Study/Mitigated Negative Declaration (IS/MND) (IS/MND-04-20) that apply to this project. These mitigation measures are included, as part of the IS/MND, and by this reference, made a part of the conditions of approval.

4. The project shall maintain a minimum 14'7" setback for buildings along the northern interior property line shared by the adjacent residential properties at 132 and 134 E. 49th Street. Any projection into this setback shall be consistent with Municipal Code Chapter 21.31, Table 31-3, Permitted Projections and Structures in Required Yard Areas. The setback area shall serve as a buffer and shall be improved with ample landscaping and full-grown trees with a minimum box size of 48" to the satisfaction of the Director of Development Services or designee. The landscaping buffer must be maintained for the life of the project. In the event that replacement trees need to be planted in the setback area, the trees shall also be full-grown trees with a minimum box size of 48" to the satisfaction of the Director of Development Services or designee.
5. This permit and all development rights hereunder shall terminate 36 months from the effective date of this permit unless construction is commenced or a time extension is granted, based on a written request submitted to and approved by the Zoning Administrator prior to the expiration of the 36 month period as provided in Section 21.21.406 of the Long Beach Municipal Code.
6. This permit shall be invalid if the owner(s) and/or applicant(s) have failed to return written acknowledgment of their acceptance of the conditions of approval on the *Conditions of Approval Acknowledgment Form* supplied by the Planning Bureau. This acknowledgment must be submitted within 30 days from the effective date of approval (final action date or, if in the appealable area of the Coastal Zone, 21 days after the local final action date).
7. Tandem parking is allowed for 18 of the 36 garage parking stalls in accordance with LBMC §21.25.508.A.3 and LBMC §21.45.400.H of the Zoning Ordinance, provided that:
 - a. A commitment to LEED gold equivalency or higher certification is made through provision of the following green building features. The full extent of the features are provided in Exhibit E – Green Scorecard:
 - i. Onsite renewable energy generation through rooftop solar panels (net zero electric homes);
 - ii. Bioswales for 85% capture and treatment of total annual stormwater;
 - iii. 75% of total landscaping comprised of drought tolerant plants;
 - iv. Water-efficient fixtures; and
 - v. EnergyStar appliances.
8. Pursuant to LBMC 21.42.050, the developer shall provide one (1) large canopy street tree, of not less than 24" box size, for each 25 feet of street frontage in the public right of way adjacent to the project site.
9. Stucco used on the exterior walls of the approved buildings shall consist of a sand finish type to the satisfaction of the Zoning Administrator.

10. A front wall or fence proposed within the 15' front yard setback shall be limited to 3' in height with design and materials reviewed to the satisfaction of the Director of Development Services or designee.
11. The applicant shall comply with Technical Advisory Committee (TAC) In-Lieu comments imposed by other departments, as applicable.
12. Prior to the issuance of a building permit for each phase of construction, the applicant shall notify all adjacent property owners and occupants in writing of when the start of grading/construction is to occur. The letter shall include a name and phone number of a responsible person who has the authority to resolve concerns.
13. Prior to issuance of a grading or building permit (whichever occurs first), the developer shall submit a proposed haul route/trucking route for all construction truck trips for review by the Director of Development Services and the City Engineer. The Director of Development Services and/or City Engineer may modify this proposed haul route/trucking route prior to its approval, as they deem necessary to protect the public safety and welfare, and to prevent negative impacts upon neighboring uses. Said modifications (if any) and approval shall be binding upon all hauling activities and construction truck trips by the developer.
14. Prior to the issuance of grading and building permits, the applicant shall submit a pedestrian access and protection plan to the Department of Development Services and the Department of Public Works for review and approval. The plan shall detail all pedestrian access closures and detail detours for safe navigation around the project site during construction. Sidewalk closures shall be avoided to the maximum extent feasible. The approved pedestrian access and protection plan shall be maintained on-site at all times during project construction activities.
15. In accordance with the comments received from the City of Long Beach, Energy Resources Department (LBER) during the In-Lieu Technical Advisory Committee (TAC) review process, the developer is to review and obtain approval for the proposed meter(s) locations and gas service line routing with LBER. The developer shall provide new total gas loads for the proposed development and confirm that the new meter(s) locations meet all LBER requirements. Per the Municipal Code, any structure or obstruction is not allowed to be built above the existing gas lines deterring access to those facilities. The developer shall contact LBER to obtain information on the cost and schedule impacts associated with relocation work associated with the project.
16. The landscaping plan submitted for plan check purposes shall list the common names of each tree, shrub, and plant in addition to their scientific names.
17. The project shall maintain LEED Gold equivalency per the Green Scorecard, submitted as part of the application, in perpetuity.

18. Any street lights and exterior building lights to be provided within the private development shall be subject to review by the Director of Development Services prior to issuance of building and electrical permits. All lights shall be adequately shielded so as to prevent the intrusion of light and glare upon any residential property or structure.
19. All street lights and exterior building lights within the private development shall be Illuminating Engineering Society of North America (IESNA)-certified full-cutoff fixtures, or meeting IESNA specifications for full-cutoff fixtures.
20. The Department of Development Services, the Department of Community Development, and the Long Beach Police Department shall have the authority to review the site for security problems, and said departments shall have the power to require additional security measures including, but not limited to, security guards, fencing, and additional security lighting if problems develop at the site.
21. The project shall be developed in substantial compliance with the plans approved by the Site Plan Review Committee on December 11, 2019. Each structure shall be designed and constructed as depicted on these plans, maintaining the same architectural style, quality of materials, and consistency of design. Minor changes to these approved plans, in keeping with the intent and spirit of the project approvals, may be approved at the discretion of the Director of Development Services. For any major changes, including changes to building/architectural materials, on-site improvements, site plan or layout, landscaping, or other significant items (including deviations from any of these conditions of approval), the developer shall be required to submit an application for a Modification of Approved Permit.
22. The developer shall provide a sample of all final exterior finish materials selected for construction for review by the Director of Development Services, prior to issuance of a building permit. If these materials are found to be below the standards approved in concept, the developer shall propose a different finish material and provide samples, to the satisfaction of the Director of Development Services.
23. The developer shall provide verification any easement requirement as indicated in the ALTA/NSPS Land Title Survey has been resolved prior to the submission for project plan check review.

Standard Conditions:

24. Site development, including landscaping, shall conform to the approved plans on file with Long Beach Development Services. At least one set of approved plans containing Planning, Building, Fire, and, if applicable, Health Department

stamps shall be maintained at the job site at all times for reference purposes during construction and final inspection.

25. All conditions of approval shall be printed verbatim on all plans submitted for plan review to the Department of Development Services. These conditions shall be printed on the site plan or a subsequent reference page.
26. The project shall comply with the water efficient landscaping standards set forth by the State Model Water Efficient Landscape Ordinance (MWELO) and LBMC 21.42.035.
27. All structures shall conform to the Long Beach Building Code requirements. Notwithstanding this subject permit, all other required permits from the Building Bureau must be secured.
28. Separate building permits are required for signs, fences, retaining walls, trash enclosures, flagpoles, pole-mounted yard lighting foundations and planters.
29. If, for any reason, there is a violation of any of the conditions of this permit or if the use/operation is found to be detrimental to the surrounding community, including public health, safety or general welfare, environmental quality or quality of life, such shall cause the City to initiate revocation and termination procedures of all rights granted herewith.
30. This approval is required to comply with these conditions of approval as long as the use is on the subject site. As such, the site shall allow periodic re-inspections, at the discretion of city officials, to verify compliance. The property owner shall reimburse the City for the inspection cost as per the special building inspection specifications established by City Council (Sec. 21.25.412, 21.25.212).
31. In the event of transfer of ownership of the property involved in this application, the new owner shall be fully informed of the permitted use and development of said property as set forth by this permit together with all conditions that are a part thereof. These specific requirements must be recorded with all title conveyance documents at time of closing escrow.

Vesting Tentative Map, Final Map, and CC&Rs

32. The Final Map is to be prepared in accordance with the approved Vesting Tentative Tract Map and shall be filed within thirty-six (36) months from the date of approval by the City Council of the Vesting Tentative Map, unless prior to expiration of the thirty-six month period, developer submits a written request for an extension of time, which receives approval from the Zoning Administrator.

33. The Final Map shall be prepared to conform to all conditions, exceptions and requirements of Title 20 (Subdivision Ordinance) of the City of Long Beach, unless specified otherwise herein.
34. Prior to approval of the Final Map, the subdivider shall deposit sufficient funds with the City to cover the cost of processing the Final Map through the Department of Public Works. Furthermore, the subdivider shall pay the Planning processing fees for the Final Map.
35. All County property taxes and all outstanding special assessments shall be paid in full prior to approval of the Final Map.
36. All required off-site improvements shall be financially provided for to the satisfaction of the Director of Public Works prior to approval of the Final Map.
37. The developer shall cause to be prepared Covenants, Conditions, and Restrictions (CC&Rs) for this project. A copy of the CC&Rs are to be provided to the Director of Development Services for review and approval prior to transmittal to the California Department of Real Estate or recordation with the County Recorder.
38. The CC&Rs shall be executed and recorded against the title of the parcel(s) and shall contain the following provisions, which shall also be noted on the Final Map:
 - a. The subject residential project consists of 18 condominium subdivisions for 18 for-sale townhomes;
 - b. A minimum of two (2) garage parking spaces shall be permanently maintained as parking facilities for each dwelling unit in the project. Parking spaces must be used solely for the parking of personal vehicles. Parking spaces may not be leased, subleased, rented, or sold, and are to be used exclusively by the residents of the respective townhome where each garage is located;
 - c. A minimum of five (5) guest parking spaces shall be permanently maintained, as shown on the approved plans, within the development. These spaces shall be reserved solely for visitors and shall not be used by residents of the development;
 - d. A clear, detailed and concise written description of the common areas and facilities of the community shall be provided. The common space areas and their amenities, as shown in the approved plans, shall be maintained in perpetuity;
 - e. The Homeowners' Association shall be responsible for the operation and maintenance of the following, and such responsibilities shall be provided for in the CC&Rs:

1. The private sewer connection(s) to the public sewer in the public right-of-way;
 2. The site drainage system(s);
 3. The maintenance of all common areas, common landscaping, community buildings, facilities, and amenities;
 4. A provision for the maintenance of the exterior of each residence and the private landscaping associated with each residence;
 5. All private streets, sidewalks, parkways, and driveways;
 6. All perimeter fences, walls, and gates, and interior fences, walls, and gates;
 7. All adjacent public right-of-way street trees, parkways, sidewalks, and drive aprons;
 8. Enforcement of parking restrictions for the guest parking spaces;
 9. Any costs or corrections due to building or property maintenance code enforcement actions.
- f. A parking restriction plan shall be provided for the guest parking spaces for trash pickup day. Trash pickup shall be minimized as feasible to reduce the impact on guest parking.
- g. Graffiti removal shall be the responsibility of the Homeowner's Association. Graffiti shall be removed within 24 hours of its discovery. This responsibility shall include graffiti on the outside of the perimeter walls in addition to any graffiti within the development.

Operation and Maintenance

39. All residential trash receptacles shall be stored in the designated trash areas shown on approved plans. The intent of this condition is that trash receptacles shall be stored within each dwelling's garage or inside of a fenced yard area, concealed from view from the access road and neighboring dwellings.
40. All exterior on-site newsstands and racks (including free publications, classifieds, etc.), vending machines, donation bins, and publicly-accessible telephones shall be prohibited, and any existing ones shall be removed.
41. Prior to issuance of a building permit, the developer shall submit a landscaping plan to the Planning Bureau for review. Turf shall be limited to less than 50% of the total landscaped area. The turf shall not be composed of bluegrass, fescue, rye, or other grasses with high water needs. 50% or more of the planted area (as measured in square feet of landscape) shall be comprised of drought-tolerant plants, to the satisfaction of the Zoning Administrator.
42. All landscaping irrigation systems shall use high efficiency sprinkler nozzles. The models used and flow rates shall be specified on the landscaping plan. For

residential-type or small-scale sprinkler systems, sprinkler head flow rates shall not exceed 1.00 GPM and shall be of the rotating type. Where feasible, drip irrigation shall be used instead. If an in-ground irrigation system is to be installed, such system shall be controlled by an automatic self-adjusting weather-based irrigation controller.

43. All outdoor fountains or water features shall utilize water recycling or re-circulation systems. The plans submitted for review shall specifically identify such systems.
44. Exterior security bars and roll-up doors applied to windows and pedestrian building entrances shall be prohibited.
45. Any graffiti found on site must be removed within 24 hours of its appearance.
46. Prior to the issuance of a building permit, the applicant must depict all utility apparatus, such as, but not limited to, backflow devices and Edison transformers, on both the site plan and the landscape plan. These devices shall not be located in any front, side, or rear yard area that is adjacent to a public street. Furthermore, this equipment shall be properly screened by landscaping or any other screening method approved by the Director of Development Services.
47. All rooftop mechanical equipment shall be fully screened from public view. Said screening must be architecturally compatible with the building in terms of theme, materials, colors and textures. If the screening is not specifically designed into the building, a rooftop mechanical equipment plan must be submitted showing screening and must be approved by the Director of Development Services prior to the issuance of a building permit.
48. Approval of this development project is expressly conditioned upon payment (prior to building permit issuance or prior to Certificate of Occupancy, as specified in the applicable Ordinance or Resolution for the specific fee) of impact fees, connection fees and other similar fees based upon additional facilities needed to accommodate new development at established City service level standards, including, but not limited to, sewer capacity charges, Park Fees and Transportation Impact Fees.
49. Demolition, site preparation, and construction activities are limited to the following (except for the pouring of concrete which may occur as needed):
 - a. Weekdays and federal holidays: 7:00 a.m. to 7:00 p.m.;
 - b. Saturday: 9:00 a.m. - 6:00 p.m.; and
 - c. Sundays: not allowed
50. Grading and construction activities shall conform to Rule 403 of the South Coast Air Quality Management District and shall include the following:

- a. Use water trucks and hoses to wet exposed and graded areas at least twice daily with complete coverage on all active areas and periodic wash-downs of public streets in the vicinity of all entrances and exits to the project site. Increase frequency of watering to three or more times per day whenever winds exceed 15 miles per hour, and cease grading activities during period of winds greater than 30 miles per hour.
 - b. Water all material being excavated and stockpiled.
 - c. Water all grading and cover materials being transported.
 - d. Properly maintain all grading and construction equipment propulsion systems to avoid excess emissions.
 - e. Schedule truck trips to avoid peak hours (7-9 a.m. and 4-6 p.m., weekdays).
 - f. Discontinue construction during Stage 2 smog alerts (ozone greater than or equal to 0.35 ppm.)
51. All trash and refuse containers shall be fully screened from public view to the satisfaction of the Director of Development Services.
52. The applicant shall defend, indemnify, and hold harmless the City of Long Beach, its agents, officers, and employees from any claim, action, or proceeding against the City of Long Beach or its agents, officers, or employees brought to attack, set aside, void, or annul an approval of the City of Long Beach, its advisory agencies, commissions, or legislative body concerning this project. The City of Long Beach will promptly notify the applicant of any such claim, action, or proceeding against the City of Long Beach and will cooperate fully in the defense. If the City of Long Beach fails to promptly notify the applicant of any such claim, action or proceeding or fails to cooperate fully in the defense, the applicant shall not, thereafter, be responsible to defend, indemnify, or hold harmless the City of Long Beach.
53. The applicant shall provide the following to the satisfaction of the Director of Public Works:

GENERAL REQUIREMENTS

- a. The final map shall be based upon criteria established by the California Subdivision Map Act and/or Title 20 of the Long Beach Municipal Code.
- b. Prior to final map approval, the Subdivider shall obtain utility clearance letters for any public entity or public utility holding any interest in the subdivision as required by the Subdivision Map Act.
- c. All required facilities, required by the Department of Public Works, not in place and accepted prior to final map approval must be guaranteed by instrument of credit or bond to the satisfaction of the Director of Public Works.

- d. Prior to the start of any on-site/off-site excavation, demolition or construction, the Subdivider shall submit a construction plan for pedestrian protection, construction area perimeter fencing with custom-printed screen(s), street lane closures, construction staging, shoring excavations and the routing of construction vehicles (excavation hauling, concrete and other deliveries, etc.).
- e. All door openings swinging into public rights-of-way shall be eliminated or set back outside of the public right-of-way, to the satisfaction of the Director of Public Works. Construction plans shall be submitted to the Department of Public Works for all encroachments over the public right-of-way, to be reviewed for approval as to compliance with California Building Code Chapter 32, to the satisfaction of the Director of Public Works.
- f. All refuse and recycling receptacles shall be subject to the standards and requirement of Long Beach Municipal Code Chapter 8.60.

PUBLIC RIGHT-OF-WAY

- g. The Subdivider shall dedicate and improve 13 feet of right-of-way for future street widening purposes along Long Beach Boulevard adjacent to the project site.

Note: Per the submitted site plan the Subdivider is proposing private improvements (decorative entry walkways) within the dedication area. These shall be deleted from the plans since the dedication areas will be improved with Portland cement concrete sidewalks per the latest City Standards and to satisfaction of the Director of Public Works.

- h. The Subdivider shall dedicate and improve 8 feet of right-of-way for future street widening purposes along East 49th Street adjacent to the project site. Sidewalk improvements shall be constructed with Portland cement concrete to the satisfaction of the Director of Public Works.
- i. The Subdivider shall relocate or provide easements to the City of Long Beach for any existing public utility facilities within the private property, to the satisfaction of the City Department or public agency with interest. All easements shall show on the subdivision map.
- j. The Subdivider shall provide easements to the City of Long Beach for any proposed or required public utility facilities, to the satisfaction of the concerned City Department or public agency and shall show on the map.
- k. The Subdivider shall provide the necessary storm drain easements to the County of Los Angeles on the final map or successor final maps. If additional storm drain easements are required by the County of Los Angeles and provided by separate instrument, recorded copies of same shall be provided to the Director of Public Works for our records.

- l. Unless approved by the Director of Public Works, easements shall not be granted to third parties within areas proposed to be granted, dedicated, or offered for dedication to the City of Long Beach for public streets, alleys, utility or other public purposes until the final map filing with the County Recorder. If easements are granted after the date of tentative map approval and prior to final map recordation, a notice of subordination must be executed by the third-party easement holder prior to the filing of the final map.
- m. The Subdivider shall construct all off-site improvements needed to provide full Americans with Disabilities Act (ADA) accessibility compliance within the adjacent public right-of-way to the satisfaction of the Director of Public Works. If a dedication of additional right-of-way is necessary to satisfy ADA requirements, the right-of-way dedication way shall be provided.

OFF-SITE IMPROVEMENTS

- n. Subject to the improvement limits of the proposed driveway on East 49th Street, the Subdivider shall provide for the relocation of the existing public facilities in conflict with the new point of access, to the satisfaction of the Director of Public Works. The Subdivider shall contact the appropriate City Department or agency of interest to schedule the relocation work prior to submitting on-site grading plans. Utility plans for relocation shall be submitted to Public Works along with the on-site grading plans, to review and approve.
- o. The Subdivider shall remove unused driveways and replace with full-height curb, curb gutter and sidewalk to the satisfaction of the Director of Public Works. Sidewalk improvements shall be constructed with Portland cement concrete.
- p. The Subdivider shall reconstruct the sidewalk, curb and curb gutter, and improve the dedicated area along East 49th Street adjacent to the project site. Sidewalk improvements shall be constructed with Portland cement concrete to the satisfaction of the Director of Public Works. All sidewalk removal limits shall consist of entire panel replacements (from joint line to joint line).
- q. The Subdivider shall reconstruct the sidewalk, curb and curb gutter, and improve the dedicated area along Long Beach Boulevard adjacent to the project site. Sidewalk improvements shall be constructed with Portland cement concrete to the satisfaction of the Director of Public Works. All sidewalk removal limits shall consist of entire panel replacements (from joint line to joint line).
- r. The Subdivider shall provide for new tree wells and street trees with root barriers along Long Beach Boulevard, adjacent to the project site, per Section 21.42.050 of the Long Beach Municipal Code. The Subdivider and/or successors shall privately maintain all street trees, landscaping and sprinkler systems required in connection with this project. The Subdivider shall contact the Street Tree Division of the Department of

Public Works, at (562) 570-2770, prior to beginning the tree planting, landscaping, and irrigation system work on Long Beach Boulevard. The Street Tree Division will assist with the size, type and manner in which the street trees are to be installed.

- s. The Subdivider shall install Custom Printed Flex Mesh screen(s) along the perimeter of the development site, such as FenceScreen.com Series 311, or equivalent, fence screening, and provide for the printed graphic to the satisfaction of the Director of Public Works. The graphics shall depict positive images of the City or other artistic concepts. Prior to submitting the graphic design for printing, the Subdivider shall consult with the Department of Public Works to review and approve.
- t. All rough grading shall be completed prior to the approval of the final map, otherwise, the Subdivider shall be responsible for processing an appropriate grading bond. No cross-lot drainage will be permitted. Existing cross-lot drainage problems shall be corrected to the satisfaction of the Director of Public Works prior to the approval of the final map.
- u. The Subdivider shall submit grading and related storm drain plans with hydrology and hydraulic calculations showing building elevations and drainage pattern and slopes for review and approval by the Director of Planning and Building Services, and the Director of Public Works prior to approval of the final map.
- v. The Subdivider shall construct the required storm drain system in connection with the proposed development in accordance with approved plans. An excavation permit issued by the Department of Public Works is required for all work in the public right-of-way. Contact Construction Services for additional information about excavation permits, at (562) 570-2035. The Subdivider shall provide plans of the storm drain system to the Director of Public Works for review, prior to approval of the final map.
- w. The Subdivider shall be responsible for the maintenance, repair and replacement of off-site improvements abutting the project boundary during construction of the on-site improvements until final inspection of the on-site improvements by the City. Any such off-site improvements found damaged by the construction activities of the on-site improvements and along the truck route shall be repaired or replaced by the Subdivider to the satisfaction of the Director of Public Works.
- x. The Subdivider shall provide for the resetting to grade of existing manholes, pull boxes, meters and other existing facilities in conjunction with the required off-site improvements to the satisfaction of the Director of Public Works.
- y. All work within the public right-of-way must be performed by a contractor holding a valid State of California Contractor's License and City of Long Beach Business License, sufficient to qualify the contractor to do work. The Contractor shall have on file with the City Engineer a Certificate of General Liability insurance, and endorsement evidencing minimum City of Long Beach limits of required general liability insurance.

- z. Public improvements shall be constructed in accordance with Public Works construction standards, and per plans reviewed and approved by the Department of Public Works. The City's Public Works Engineering Standard Plans are available online at www.longbeach.gov/pw/resources/engineering/standard-plans. Prior to issuance of a building permit, detailed off-site improvement plans shall be prepared by a licensed Civil Engineer, stamped, signed and submitted to the Department of Public Works for review and approval. This is in addition to any plan check required by the Department of Development Services. Work, including hauling soils or other debris, is not allowed within the right of way without a valid Public Works permit.
- aa. All conditions of approval, including cover letter signed by the Planning Officer and Case Planner, must be printed verbatim on all plans submitted for plan review to the Department of Public Works.
- bb. Prior to approving an engineering plan, all projects greater than 1 acre in size must demonstrate coverage under the State Construction General NPDES Permit. To meet this requirement, the applicant must submit a copy of the letter from the State Water Resource Control Board acknowledging receipt of the Notice of Intent (NOI) and a certification from the Subdivider or engineer that a Storm Water Pollution Prevention Plan (SWPPP) has been prepared. Should you have any questions regarding the State Construction General NPDES Permit or wish to obtain an application, please call the State Regional Board Office at (213) 576-6600 or visit their website for complete instructions at www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml Left-click on the Construction General Permit Order 2009-0009-DWQ link.

TRAFFIC AND TRANSPORTATION

At the discretion of the City Traffic Engineer, the Subdivider shall be responsible to implement the most recent Bicycle Master Plan of the City at its frontage blocks.

- cc. The size and configuration of all proposed driveways serving the project site shall be subject to review and approval of the City Traffic Engineer. The proposed driveway on East 49th Street shall be subject to the standards and requirement of Section 21.41.251 of the Long Beach Municipal Code. Driveways greater than 28 feet in width require a variance; contact the Transportation Mobility Bureau, at (562) 570-6331, to request additional information regarding driveway construction requirements.
- dd. The Subdivider shall salvage and reinstall all traffic signs that require temporary removal to accommodate new construction within the public right-of-way. All traffic signs shall be reinstalled to the satisfaction of the City Traffic Engineer.
- ee. The Subdivider shall replace all traffic signs and mounting poles damaged or misplaced as result of construction activities to the satisfaction of the City Traffic Engineer.

- ff. The Subdivider shall repaint all traffic markings obliterated or defaced by construction activities to the satisfaction of the City Traffic Engineer.
- gg. The Subdivider shall contact the Transportation Mobility Bureau, at (562) 570-6331, to modify the existing curb marking zones, adjacent to the project site.
- hh. All traffic control device installations, including pavement markings within the private street/ parking lot, shall be installed in accordance with the provisions of the California Manual On Uniform Traffic Control Devices (CA MUTCD), 2012 or current edition (i.e., white parking stalls, stop signs, entry treatment signage, handicapped signage, etc.).

LONG TERM MAINTENANCE

- ii. The Subdivider and successors shall be responsible for the maintenance of the site drainage system, the operation and maintenance of any private sewer connection to the public sewer in the abutting public right-of-way, and for the maintenance of the sidewalk, parkway, street trees and other landscaping, including irrigation, within and along the adjacent public right-of-way. Such responsibilities shall be enumerated and specified in the project "Conditions, Covenants and Restrictions", and a recorded copy of said document shall be provided to the Director of Public Works.

SITE PLAN REVIEW FINDINGS

4800 Long Beach Boulevard
Application No. 1707-10 (SPR17-06)
December 11, 2019

Pursuant to Section 21.25.506 of the Long Beach Municipal Code (LBMC), the Site Plan Review Committee or the Planning Commission shall not approve a Site Plan Review unless the following findings are made. These findings and staff analysis are presented for consideration, adoption, and incorporation into the record of proceedings:

- 1. THE DESIGN IS HARMONIOUS, CONSISTENT AND COMPLETE WITHIN ITSELF AND IS COMPATIBLE IN DESIGN, CHARACTER AND SCALE, WITH NEIGHBORING STRUCTURES AND THE COMMUNITY IN WHICH IT IS LOCATED;**

The project site is a former redevelopment property located on the east side of Long Beach Boulevard between E. 49th Street to the north and the Union Pacific Railroad to the south. Long Beach Boulevard is primarily a commercial corridor with abutting residential uses. The site is located in the Addams Neighborhood area in North Long Beach. The prevailing height of residential and commercial buildings in the vicinity is generally one and two-story.

The applicant seeks to construct 18 three-story townhomes within three buildings that are a maximum height of 38' (three-stories) with 41 on-grade parking spaces.

The project site is zoned Community Commercial Automobile-Oriented (CCA) and R-1-N Single-Family Residential and requires a zone change to CCN (Community R-4-N) to facilitate development of the townhomes.

The design of the proposed townhome development reflects a modern architectural style with a flat roof and parapet consisting of two color schemes that help achieve both variety and cohesiveness among the seven townhome buildings. More than half of the townhomes are oriented toward Long Beach Boulevard, and access is provided to the townhomes through pedestrian walkways accessible from the sidewalk on Long Beach Boulevard. Private open space in front of each townhome also punctuates the sidewalk along Long Beach Boulevard, which contributes positively to the pedestrian environment.

The townhome development project would serve as an appropriate transition between the existing commercial uses that flank Long Beach Boulevard and the single-family and multi-family residences that frame such uses. While a single-family residence, located immediately east of the project site, shares a side property line with the project site, the proposed townhome development along this property line will be set back 23' to provide a buffer to the single-family residence, and such setback area has been conditioned to be improved with mature landscaping to help screen views and address potential noise impacts.

All seven buildings will be 38' in height, which is the maximum allowed under CCN standards, and have been designed with ample articulation through the use of decks; windows of varying sizes; and diverse design materials and colors, such as horizontal lap siding and high-quality stucco with accent colors. Such design features break up the massing of the project to ensure compatibility and harmony with neighboring structures.

2. THE DESIGN CONFORMS TO ANY APPLICABLE SPECIAL DESIGN GUIDELINES ADOPTED BY THE PLANNING COMMISSION OR SPECIFIC PLAN REQUIREMENTS, SUCH AS THE DESIGN GUIDELINES FOR R-3 AND R-4 MULTI-FAMILY DEVELOPMENT, THE DOWNTOWN DESIGN GUIDELINES, PD GUIDELINES OR THE GENERAL PLAN;

The project conforms to the development standards of the proposed zone, R-4-N. The General Plan's Land Use Element, adopted in December 2019, designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density). This PlaceType is a mixed-use land use designation that allows neighborhood-serving, low-intensity commercial uses and low-density apartment and condominium buildings. The proposed townhome project is consistent with the intent of the PlaceType and objective to encourage low-density apartment and condominium buildings up to 44 units/acre maximum, ranging from three to five stories in height.

The project includes 18 three-bedroom townhouse units, for which there has been an expressed need in the City. The townhome project will not only redevelop a vacant site, but it would also help contribute to increasing the supply of housing to combat the regional and state-wide housing shortage. The project's inclusion of three-bedroom units helps to satisfy a local shortage of units for larger families as identified in the Housing Element of the City's adopted General Plan. Specifically, the project implements the following Urban Design Element and Housing Element Goals and Policies:

- Urban Design Element Policy UD 21-3: Promote pedestrian activity by establishing well-designed streetscapes, active ground floor uses, and tree canopied sidewalks that are unique to the individual neighborhood and transit stations;
- Housing Element Policy 4.1: Encourage a balance of rental and homeownership opportunities, including high quality apartments, townhomes, condominiums, and single-family homes to accommodate the housing needs of all socioeconomic segments of the community, including large families;
- Housing Element Policy 4.2: Encourage new high quality rental and ownership housing through the implementation of design review guidelines, and architectural and green building standards;
- Housing Element Policy 4.5: Encourage residential development along transit corridors, in the downtown and close to employment, transportation and activity

- centers; and encourage infill and mixed-use developments in designated districts;
- Housing Element Policy 4.6: Maintain a vacant and underutilized residential sites inventory, including City-owned sites, and assist residential developers in identifying land suitable for residential development; and
- Housing Element Goal 6: Provide increased opportunities for home ownership.

3. THE DESIGN WILL NOT REMOVE SIGNIFICANT MATURE TREES OR STREET TREES, UNLESS NO ALTERNATIVE DESIGN IS POSSIBLE;

There are no existing mature trees or street trees on the project site. The existing site consists of ruderal vegetation. As part of the landscaping plan for the proposed project, the applicant proposes to improve the site with new landscaping, including planting the following trees:

- Purple Orchid;
- Brisbane Box;
- Raywood Ash;
- Canary Island Pine;
- Grape Myrtle; and
- Giant Timber Bamboo.

Additionally, new street trees along Long Beach Boulevard will be planted by the applicant in accordance with LBMC 21.42.050.

4. THERE IS AN ESSENTIAL NEXUS BETWEEN THE PUBLIC IMPROVEMENT REQUIREMENTS ESTABLISHED BY THIS ORDINANCE AND THE LIKELY IMPACTS OF THE PROPOSED DEVELOPMENT; AND

Improvements to the public right-of-way adjacent to the project will include several dedications required by the Code and conditions of approval to offset the capital improvements to public infrastructure necessary to support the 18-unit townhome project. These improvements include construction of off-site improvements needed to provide full Americans with Disabilities Act (ADA) accessibility compliance within the public right-of-way adjacent to the project; removal of unused driveways and curb cuts and replacement with full-height curb, curb gutter and sidewalk; reconstruction of sidewalk, curb, and curb gutter; new street trees with root barriers; and irrigation systems adjacent to the project site (See App no. 1707-10 for Conditions of Approval).

The most significant of the improvements are the following dedications and improvements required by Public Works:

- 8' for right-of-way purposes along 49th Street adjacent to the project site;
- 13' for right-of-way purposes along Long Beach Boulevard adjacent to the project site.

Due to the size of the development and the projected increased use of the public right-of-way adjacent to the project site, by automobiles, bicyclists, and pedestrians, an essential nexus exists for these public improvements.

5. THE PROJECT CONFORMS WITH ALL REQUIREMENTS SET FORTH IN CHAPTER 21.64 (TRANSPORTATION DEMAND MANAGEMENT), WHICH REQUIREMENTS ARE SUMMARIZED IN TABLE 25-1 AS FOLLOWS:

Table 25-1
Transportation Demand Management Ordinance Requirements

TDM Requirements	New Nonresidential Development		
	25,000+ Square Feet	50,000+ Square Feet	100,000+ Square Feet
Transportation Information Area	◆	◆	◆
Preferential carpool/vanpool parking		◆	◆
Parking designed to admit vanpools		◆	◆
Bicycle parking		◆	◆
Carpool/vanpool loading zones			◆
Efficient pedestrian access			◆
Bus stop improvements			◆
Safe bike access from street to bike parking			◆
Transit review	For all residential and nonresidential projects subject to EIR		

The project is wholly residential in nature and does not include non-residential development; therefore, the project is exempt from Transportation Demand Management requirements.

6. THE APPROVAL IS CONSISTENT WITH THE GREEN BUILDING STANDARDS FOR PUBLIC AND PRIVATE DEVELOPMENT, AS LISTED IN SECTION 21.45.400.

The project consists of a new private residential project with under 50 dwelling units (a total of 18 townhouse dwelling units) in three buildings and is not subject to the Green Building Standards for public and private development contained in LBMC 21.45.400.

The applicant, however, has made a commitment for the project to achieve LEED Gold equivalency in order to be granted flexibility to provide 18 of the required parking stalls in tandem configuration in accordance with LBMC §21.25.508.A.3 and LBMC §21.45.400.H. Such green building features are detailed in Exhibit E – Green Scorecard, which also provides the calculations of the proposed features in achieving LEED Gold equivalency.

ZONE CHANGE FINDINGS
4800 Long Beach Boulevard
Application No. 1707-10 (ZCHG17-09)
June 18, 2020

Pursuant to Section 21.25.106 of the Long Beach Municipal Code, in all cases, the Planning Commission and the City Council shall be required to make the following findings of fact before rezoning a parcel. These findings and staff analysis are presented for consideration, adoption, and incorporation into the record of proceedings:

1. THE PROPOSED CHANGE WILL NOT ADVERSELY AFFECT THE CHARACTER, LIVABILITY OR APPROPRIATE DEVELOPMENT OF THE SURROUNDING AREA; AND

The project site is currently zoned Community Commercial Automobile-Oriented (CCA). The CCA is a commercial zone that permits retail and service uses. Multi-family residential uses are not permitted in the CCA zone. The site would be rezoned to R-4-N (Medium-Density Multiple Residential) to facilitate development of the townhomes. Two adjacent lots located east of the project site at 132 and 134 E. 49th Street are also zoned Community Commercial Automobile-Oriented (CCA). The adjacent lots have one existing single-family residence per lot. No new development is proposed on the two adjacent lots. The existing single-family residential structures are legal, nonconforming uses. The City proposed rezoning to R-3-T (Multi-family Residential, Townhouse) will recognize the existing residential land use and be consistent with the existing zoning (R-3-T) of the neighborhood east of the project site. Both the R-4-N zone and the R-3-T zone are consistent with the General Plan's Land Use Designation, NSC-L PlaceType (Neighborhood Serving Center or Corridor – Low Density).

The site is surrounded by properties zoned CCA to the north, CCA to the west, R-3-T to the east, and R-4-N to the south. The areas surrounding the project site would not be substantially affected by this proposed rezoning as the townhome development project would serve as an appropriate transition between the existing commercial uses that flank Long Beach Boulevard and the residential areas to the east and south. The Initial Study/Mitigated Negative Declaration (IS/MND-04-20, State Clearinghouse No. 2020050229) for the project found that, by implementing identified mitigation measures, the project will not result in significant effects to the environment (Exhibit H– IS/MND-03-20). Construction of the project would not negatively affect the character of the existing neighborhood, nor would it adversely affect its livability. The project site is located within the Addams Neighborhood of North Long Beach. This area is characterized by single-family houses as the most common use with multi-family housing and commercial uses along major avenues, such as Long Beach Boulevard. As such, the project would be consistent with the

existing character and fabric of the neighborhood, and construction of the townhomes would not adversely affect appropriate development of the surrounding area.

2. THE PROPOSED CHANGE IS CONSISTENT WITH THE GOALS, OBJECTIVES AND PROVISIONS OF THE GENERAL PLAN.

The Land Use Element of the General Plan states that the City of Long Beach is committed to continuing its tradition of improving the physical environment by achieving multiple and interrelated land use goals including, but not limited to, offering broad-based housing opportunities.

The Land Use Element identifies the development of new multifamily housing along commercial corridors as an important strategy in this area of Long Beach. The project would be consistent with the City's General Plan by creating new multifamily housing in the vicinity of commercial uses and that would be consistent with the character of surrounding neighborhood.

The General Plan's Land Use Element, adopted in December 2019, designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density). This PlaceType is a mixed-use land use designation that allows neighborhood-serving, low-intensity commercial uses and low-density apartment and condominium buildings. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre), depending on lot size.

The applicant seeks a Zone Change to R-4-N (Medium-Density Multiple Residential) to allow for the construction of the proposed townhomes in accordance with the R-4-N development standards. Long Beach Boulevard located south of the project area is also zoned R-4-N.

The proposed R-4-N zone will better align the existing zoning designations of the parcels to their PlaceType outlined in the Land Use Element and facilitate the construction of housing on otherwise vacant lots. The Land Use Element identifies the development of new multifamily housing along commercial corridors as an important strategy in this area of Long Beach. The project would be consistent with the City's General Plan by creating new multifamily housing in the vicinity of commercial uses and that would be consistent with the character of surrounding neighborhood.

The City proposed Zone Change of the adjacent two lots (132 and 134 E. 49th Street) from CCA to R-3-T is to bring the existing zoning to reflect the residential land use. The existing single-family residential structures are legal, nonconforming uses. The City proposed rezoning to R-3-T (Multi-family Residential, Townhouse) will recognize the existing residential land use and be consistent with the existing zoning (R-3-T) of the neighborhood located east of the project site.

3. **IF THE PROPOSED CHANGE IS A REZONING OF AN EXISTING MOBILE HOME PARK, THAT THE REQUIREMENTS OF SECTION 21.25.109 HAVE BEEN OR WILL BE FULLY MET.**

The proposed change is not a rezoning of an existing mobile home park.

VESTING TENTATIVE MAP FINDINGS

4800 Long Beach Boulevard
Application No. 1707-10 (TTM17-001)
June 18, 2020

Pursuant to Section 20.12.100 of the Long Beach Municipal Code, a Tentative Map approval can be granted only when positive findings are made consistent with the following criteria set forth in the Subdivision Ordinance. These findings and staff analysis are presented for consideration, adoption and incorporation into the record of proceedings.

A TENTATIVE MAP SHALL BE APPROVED IF THE MAP COMPLIES WITH STATE AND LOCAL REGULATIONS AND IF ALL OF THE FOLLOWING FINDINGS ARE MADE:

1. THAT THE PROPOSED MAP IS CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS;

The Housing Element of the General Plan includes Policy 4.1: Encourage a balance of rental and homeownership opportunities, including high quality apartments, townhomes, condominiums, and single-family homes to accommodate the housing needs of all socioeconomic segments of the community, including large families, and Housing Element Goal 6: Provide increased opportunities for home ownership. The proposed map is consistent with the policy and goal by allowing the sale of eighteen new townhomes adding to the variety of new housing stock with the City.

Page 168 of the Land Use Element of the General Plan states, "Proposed subdivisions are considered consistent when the density of the proposed subdivision meets the PlaceTypes residential density..." The proposed map is consistent with the Land Use Element of the General Plan, which designates the project site as NSC-L (Neighborhood Serving Center or Corridor - Low Density). This PlaceType is a mixed-use land use designation that allows neighborhood-serving, low-intensity commercial uses and low-density apartment and condominium buildings. It would establish a low-density townhome development project consistent with the standards of the PlaceType, while resulting in slightly less than half of the maximum allowable density of this PlaceType (18.24 dwelling units/acre where up to 44 dwelling units/acre is allowed). No specific plan applies to the subject site.

2. THAT THE DESIGN OR IMPROVEMENT OF THE PROPOSED SUBDIVISION IS CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS;

The design of the proposed subdivision is consistent with the standards set forth for residential development by the NSC-L PlaceType. The Neighborhood-Serving Centers and Corridors PlaceType strategically designates small-scale centers for

local users...where they exist today, where they have a foothold but need encouragement, and where they may be lacking but should be established. This PlaceType encourages mixed-use, commercial and apartment buildings and condominiums ranging from three to five stories in height. Preferred development standards for the PlaceType include low-density apartment and condominium buildings up to 44 units/acre maximum and buildings not to exceed three stories in height. The proposed project is closely aligned with all of these policy objectives: it will increase the supply of housing stock; recycle an under utilized site that has been vacant; bring much-needed three-bedroom units to the City; and make use of high-quality architecture that is both varied and cohesive across the project. No specific plan applies to the subject site.

3. THAT THE SITE IS PHYSICALLY SUITABLE FOR THE TYPE OF DEVELOPMENT;

The site currently consists of land that is vacant. The site is physically suitable for consolidation of five parcels into one and the subdivision of airspace to create 18 individual for-sale townhomes for sale as the 1.1-acre site is relatively flat and can sufficiently accommodate the proposed density of the townhome development project. All required development standards for the project would be met and would continue to be met by the proposed subdivision.

4. THAT THE SITE IS PHYSICALLY SUITABLE FOR THE PROPOSED DENSITY OF DEVELOPMENT;

The project will have a density of approximately 18.24 dwelling units/acre, which is slightly less than half of that allowed by the PlaceType and the proposed R-4-N zone, both which permit up to 44 dwelling units/acre. The site will be improved with 18, three-story townhomes with 41 at-grade parking spaces accessible from an on-site internal driveway that takes access from E. 49th Street.

The site also provides 604 square feet of usable open space per townhome for a total of 10,880 square feet, which is more than four times the required 150 square feet of usable open space per townhome (total of 2,700 square feet).

5. THAT THE DESIGN OF THE SUBDIVISION OR THE PROPOSED IMPROVEMENTS ARE NOT LIKELY TO CAUSE SUBSTANTIAL ENVIRONMENTAL DAMAGE OR SUBSTANTIAL AND AVOIDABLE INJURY TO FISH AND WILDLIFE OR THEIR HABITAT;

The site has been vacant and is covered in ruderal vegetation. The design of the subdivision or the proposed improvements are not anticipated to cause substantial environmental damage or substantial and avoidable injury to fish and wildlife or

their habitat because the site is in an urbanized area, surrounded by commercial and residential uses.

Pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, an Initial Study/Mitigated Negative Declaration (IS/MND-04-20, State Clearinghouse No. 2020050229) has been prepared for the project and finds that, by implementing identified mitigation measures, the project will not result in significant effects to the environment. The development of the site with the townhome project will require compliance with the conditions of approval and the adopted Mitigation Monitoring Program adopted as part of the project's Initial Study/Mitigated Negative Declaration. The proposed subdivision would not result in any new significant impacts not already analyzed in the IS/MND.

6. THAT THE DESIGN OF THE SUBDIVISION OR THE TYPE OF IMPROVEMENT IS NOT LIKELY TO CAUSE SERIOUS PUBLIC HEALTH OR SAFETY PROBLEMS; AND

The design of the subdivision is not likely to cause serious public health or safety problems. The project will consist of a residential development, which is not a type of land use that will cause negative public health impacts. Regarding safety issues, the Long Beach Police and Fire Departments have reviewed the proposal, and their comments and design requirements have been incorporated into the project, to ensure the site will have adequate access points and routes for emergency vehicles. No serious public safety impacts or problems will result from the proposed project.

7. THAT THE DESIGN OF THE SUBDIVISION OR THE TYPE OF IMPROVEMENTS WILL NOT CONFLICT WITH EASEMENTS ACQUIRED BY THE PUBLIC AT LARGE FOR ACCESS THROUGH OR USE OF PROPERTY WITHIN THE PROPOSED SUBDIVISION.

The ALTA/NSPS Land Title Survey submitted as part of the project identifies an easement for pole lines and incidental purposes with Southern California Edison Company, but the location of the easement cannot be determined by said records. A project condition of approval requires the developer to resolve any easement requirements prior to the submission of project plan check.

All concerned City Departments have reviewed the Vesting Tentative Tract Map in conjunction with the plans for overall development of the site. As stated in the conditions of approval, the applicant will be required to provide all necessary public access easements, relocate utility facilities, and/or provide utility easements required in connection with this development. Therefore, no conflict with respect to easements will result from the Vesting Tentative Tract Map.

Attachment H



4800 Long Beach Boulevard Project

Initial Study – Mitigated Negative Declaration

prepared by

City of Long Beach

411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Anita Juhola-Garcia, Planner

prepared with the assistance of

Rincon Consultants, Inc.

250 East 1st Street, Suite 1400
Los Angeles, California 90012

May 2020



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

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Appendices

Appendix A	Air Quality/Greenhouse Gas Emissions Modeling Results
Appendix B	Noise Measurement and Analyses Data

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Initial Study

1. Project Title

4800 Long Beach Boulevard Project

2. Lead Agency Name and Address

City of Long Beach
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802

3. Contact Person and Phone Number

Anita Juhola-Garcia, Planner
(562) 570-6469

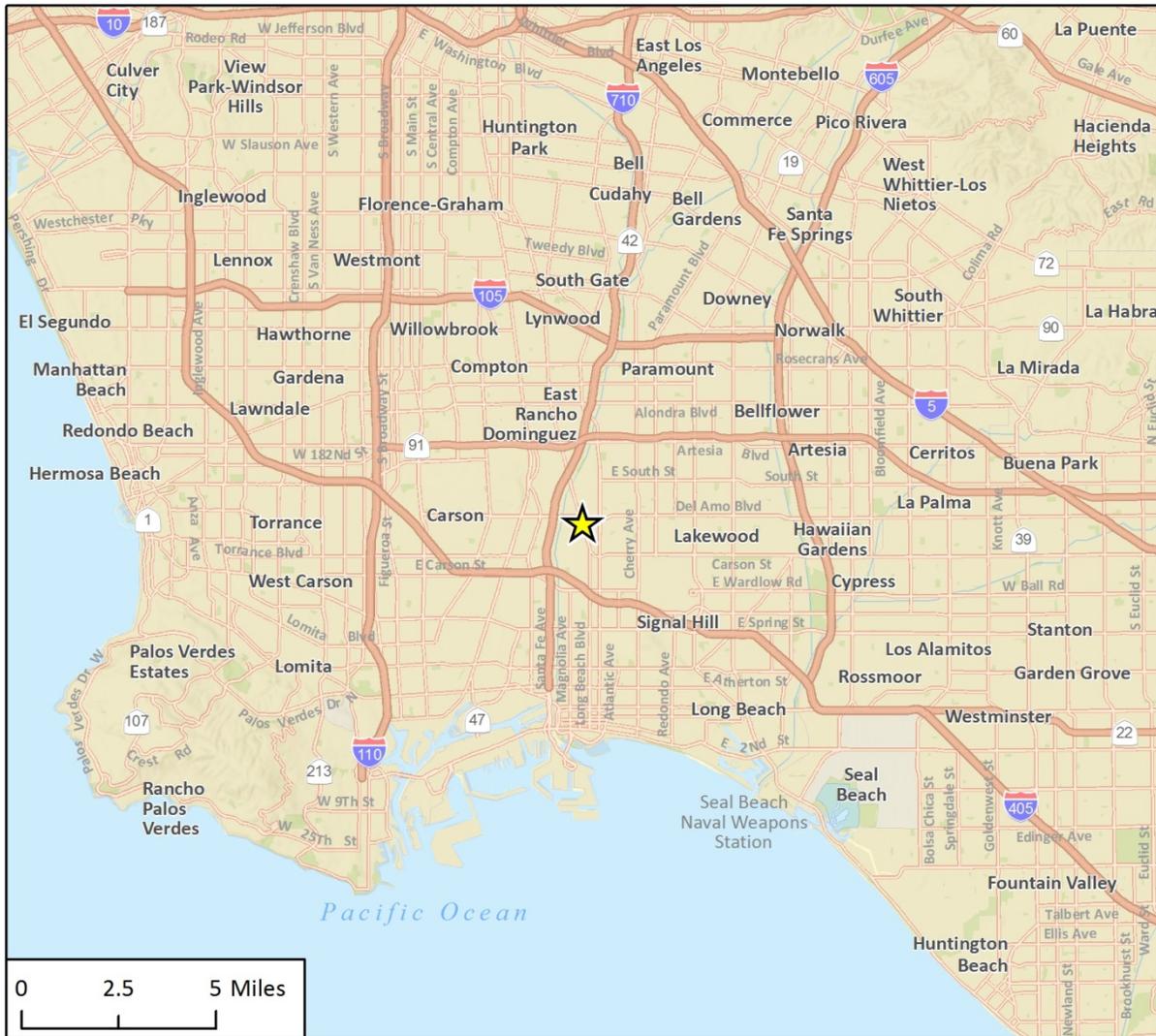
4. Project Sponsor's Name and Address

City Ventures
3121 Michelson Drive, Suite 150
Irvine, California 92612

5. Project Location

The project site is located at 4800 Long Beach Boulevard, Long Beach, California. The project site encompasses 1.102 acres (approximately 48,003 square feet [sf]) and includes five parcels that are identified as Assessor Parcel Numbers (APNs) 7133-010-900, -901, -902, -903, and -904. The project site is bordered by 49th Street to the north, residential uses to the east, commercial and residential uses, and the Union Pacific Railroad to the south, and Long Beach Boulevard to the west. Additionally, the project includes a zone change for two parcels located immediately to the east of the project site, which are identified as APN 7133-010-003 (132 E. 49th Street – Adjacent Lot 1) and APN 7133-010-004 (134 E. 49th Street – Adjacent Lot 2) (“Adjacent Lots 1 and 2”). Figure 1 shows the location of the project site in the region and Figure 2 shows the project site and adjacent Lots 1 and 2 in their neighborhood context.

Figure 1 Regional Location



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★ Project Location N

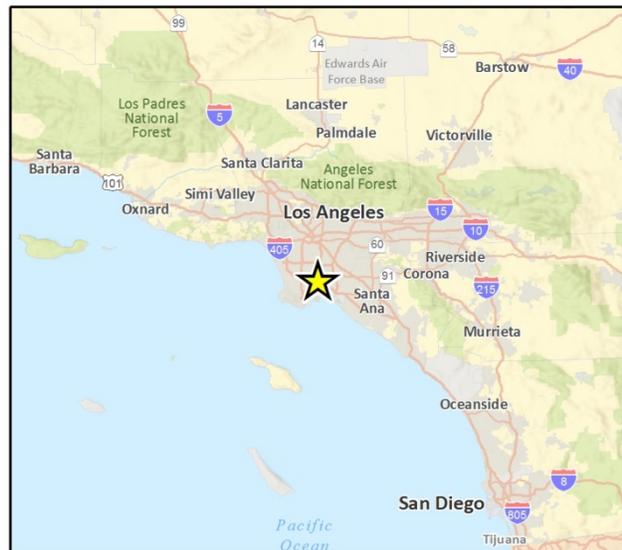
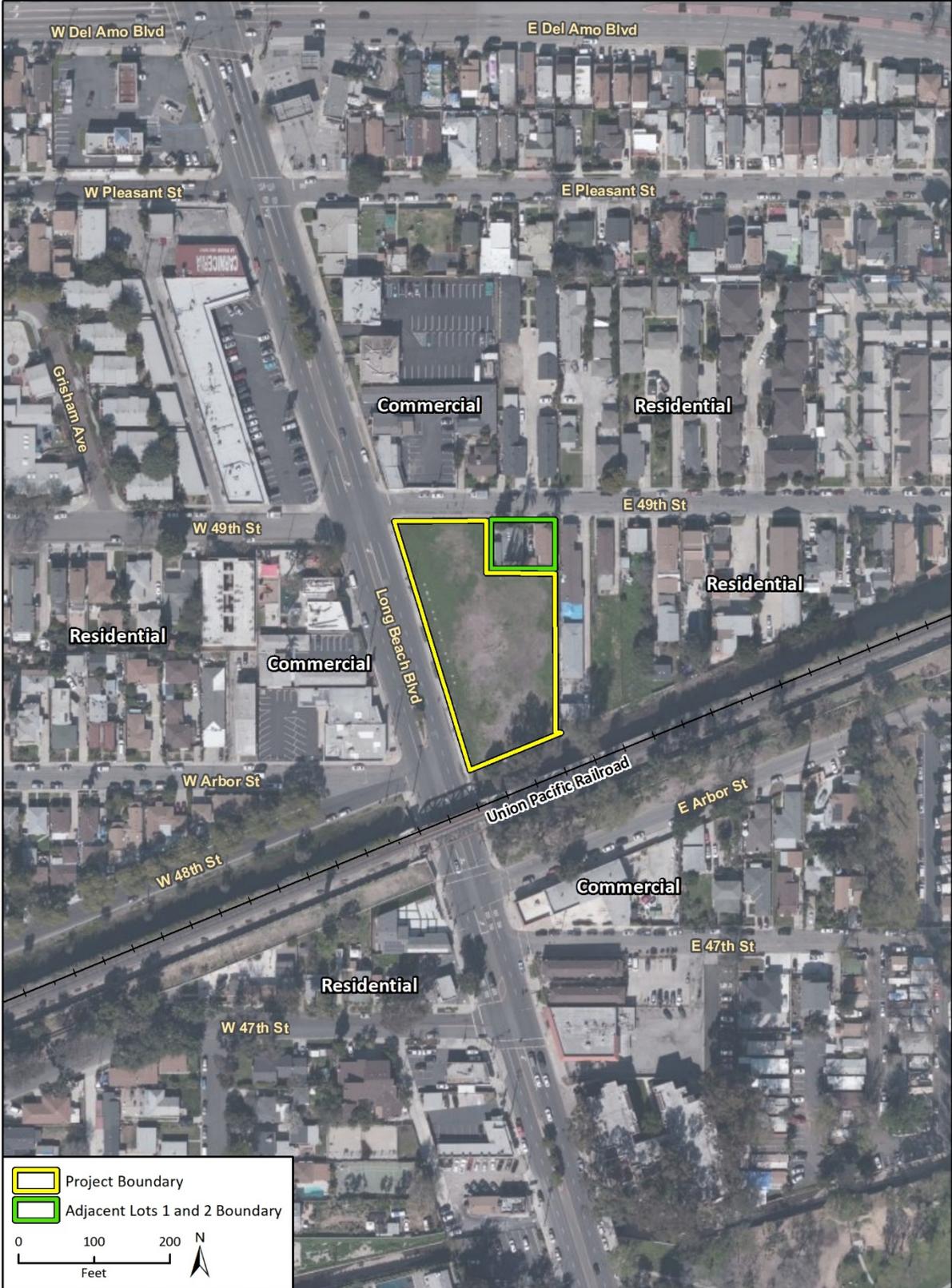


Fig 1 Regional Location

Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig. 2 Project Location

6. Existing Setting

The project site consists of five vacant, undeveloped parcels that have been previously disturbed and graded. The project site is covered with ruderal vegetation. No trees are present on site. Existing concrete slabs are present on site. Figure 3 includes photos of the existing conditions at the project site. Adjacent Lots 1 and 2, located immediately east of the project site, are occupied by one single-story, single-family residence per lot, as shown in Figure 4.

7. General Plan Designation

Project Site: NSC-L (Neighborhood Serving Center or Corridor Low Density)

Adjacent Lots 1 and 2: NSC-L (Neighborhood Serving Center or Corridor Low Density)

8. Zoning

Project Site: CCA (Community Commercial Automobile-Oriented)

Adjacent Lots 1 and 2: CCA (Community Commercial Automobile-Oriented)

9. Description of Project

The 4800 Long Beach Boulevard Project (“proposed project” or “project”) involves development of 18, three-story townhomes that would be a maximum height of 38 feet. Nine of the proposed units would consist of 1,411 square feet (sf) and nine would be 1,747 sf. The site would include two buildings with eight townhomes each and one building with two townhomes. Pursuant to the Long Beach Municipal Code (LBMC), the allowable density on site is 44 homes per acre. The total site area is 48,003 sf (1.102 acres) and the net site area is 42,558 sf (0.977 acres). The density of the proposed project would be 18.24 homes per acre.

The proposed project would require and provide 41 parking spaces, including 36 residential spaces (two spaces per home) and five guest spaces (0.25 spaces per home). The proposed project requires 2,700 sf of open space, including 1,350 sf of common space (75 sf per home) and 1,350 sf of private space (75 sf per home). The proposed project would provide 10,880 sf of open space, including 6,856 sf of common open space and 4,024 sf of private open space. The proposed project would exceed Title 24 standards by 19 percent and would incorporate a number of green building features, including the following:

- 75% of landscaping comprised of drought tolerant plants
- 1-1.5-inch foam insulation on hot water pipes
- Low-flow plumbing fixtures
- Rooftop solar panels (net zero energy townhomes)
- EnergyStar appliances
- High-efficiency lighting

Figure 5 through Figure 9 show the proposed site plan, building elevations, and landscape plan, while Table 1 details of the proposed residences. Additionally, as discussed further below, the proposed project requires the rezoning of the project site.

Figure 3 Views of the Project Site



View of the project site, looking south from the east side of Long Beach Boulevard.



View of the project site, looking east from the northern portion of the project site.

Figure 4 View of the Adjacent Lots 1 and 2



View of adjacent Lots 1 and 2 to the east of the project site.

Figure 5 Project Site Plan



Source: William Hezmalhalch Architects, Inc., March 2020.

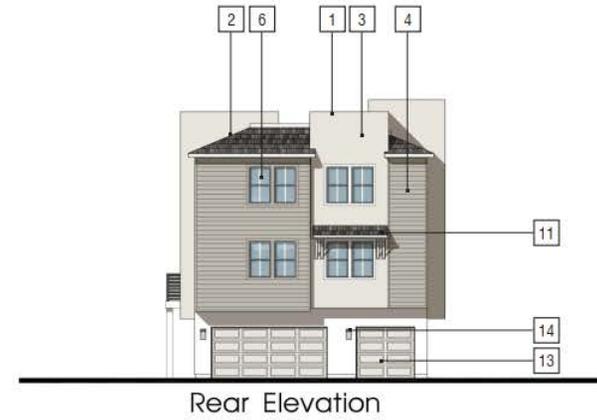
Figure 6 Project Elevations – Building 200, Duplex



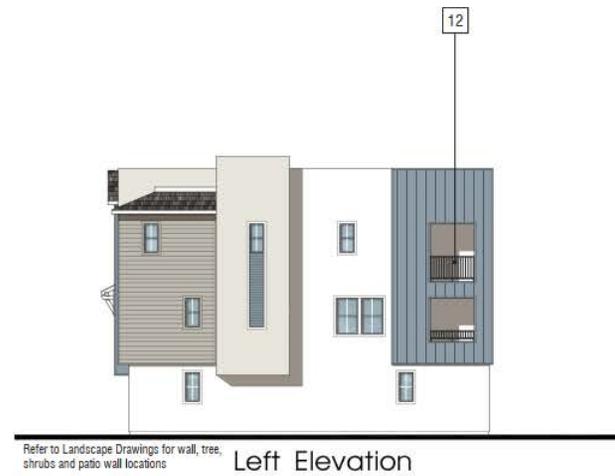
Note: Artist's conception, colors, materials and application may vary.

Right Elevation

- MATERIALS:**
- 1 Roof: Flat With Parapet
 - 2 Roof: Composite Shingles
 - 3 Stucco
 - 4 Horizontal Lap Siding
 - 5 Board and Batt
 - 6 Vinyl Windows
 - 7 Entry Door
 - 8 Stucco Column
 - 9 Horizontal Wood Like Railing
 - 10 Vertical Metal Railing
 - 11 Awning w/Wood Brackets
 - 12 Metal Awning
 - 13 Metal Sectional Roll-Up Garage Door
 - 14 Coach Light And Illuminated Address Panel
 - 15 Utility Cabinet



Rear Elevation



Refer to Landscape Drawings for wall, tree, shrubs and patio wall locations

Left Elevation



Front Elevation

Scheme 1

Source: William Hezmalchal Architects, Inc., March 2020.

Figure 7 Project Elevations – Building 800, 8 Plex



Source: William Hezmalhalch Architects, Inc., March 2020.

Figure 8 Landscape Plan



LEGEND

- 1** Vehicular Entry
- 2** Entry Monuments
- 3** Private Yard
 - Patio Walls - 48" ht. Stucco Low Wall with Fence Panel
 - Patio Gate - 48" ht. Gate to Match Fence Panel
- 4** Social Event Gardens
 - Enhanced Paving
 - Event Lawn for Active Play or Passive Activities
 - Community Seating Areas
 - Formal Tree Rows
- 5** Outdoor Living Space
 - Shade Structure with Decor Backdrop Wall
 - Enhanced Paving
 - Decomposed Granite Paving
 - Event Lawn for Active Play or Passive Activities
 - Community Fire Place with Lounge Seating
 - Barbecue Kitchen with Harvest Table
- 6** Rear Yard/Property Line Wall
- 7** Property Line Wall with Hedged Espaliers
- 8** Community Mailboxes
- 9** Accessible Parking
- 10** Motorcourt
- 11** Accessible Community Sidewalks
- 12** City Sidewalk
- 13** New Street Trees and Tree Wells at 25" o.c. with Root Barrier

Root Barrier:
 Provide root control barriers for street trees planted along Long Beach Boulevard according to the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.

Irrigation Note:
 All planting areas shall have a fully automatic irrigation system. Utilization water conserving features such as low-precipitation rate heads; low-flow micro sprays or drip irrigation, water sensors and multi-program controllers with weather station capability and drip circuit features. "Water Efficient Landscapes" irrigation system, scheduling and water use WELCO calculations shall be designed to meet the requirements of the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.

. A N



Source: William Hezmalchal Architects, Inc., February 2020.

Table 1 Project Details

Lot Area (sf)	48,003
Height	3 stories (38 feet)
Density	18.24 homes per acre
Floor Plan 1 (3 bedrooms, 3 bathrooms)	1,411 sf per unit
Floor Plan 2 (3 bedrooms, 3 bathrooms + den)	1,747 sf per unit
Residential Parking Spaces	36
Guest Parking Spaces	5
Private Open Space (sf)	4,024
Common Open Space (sf)	6,856
Setbacks	
Front Yard (ft)	15
Street Side Yard (ft)	15
Interior Side Yard (ft)	10
Rear Yard (ft)	20-foot setback for two-story buildings/ 30-foot for three-story buildings
Zone Change	
Proposed R-4-N zone designation ("Project Site")	APNs 7133-010-900, -901, -902, -903, and -904
Proposed R-3-T zone designation ("Adjacent Lots 1 and 2")	APNs 7133-010-003 and -004
sf = square feet; ft = feet	

Zone Change

The project site is currently zoned CCA (Community Commercial Automobile-Oriented) and has a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). The CCA zone permits retail and service uses. Multi-family residential uses are not permitted in the CCA zone. The NSC-L General Plan land use designation encourages development of mixed-use smaller scale retail and low-density apartment and condominium buildings. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre) depending on lot size. As such, the proposed project would be consistent with the General Plan designation but would not be consistent with the current zoning designation. Project entitlements include a Zone Change to R-4-N (Medium-density Multiple Residential) to allow for the development of the proposed townhomes. The R-4-N zone allows for a high density, multifamily residential district. It is intended to meet the demand of a broad segment of the population which provides a diversity of housing choices.

The project also includes the rezoning of the two parcels located immediately to the east of the project site. Currently, the two parcels are zoned CCA and have a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). As discussed above, the CCA zone does not allow for residential uses. The two parcels would be rezoned to the R-3-T (Multi-family Residential, Townhouse) designation. The proposed R-3-T zone designation allows for the development of multi-family residential uses. Pursuant to Section 21.31 of the LBMC, the allowable density under the R-3-T for both parcels would be one unit per lot, as both lots are less than 3,200 sf. Additionally the height limit for the R-3-T would be 28 feet (two stories), which is the same as what is currently allowed under the CCA Zone. Given that the two parcels are currently occupied by single-family

residences and that under the R-3-T zoning designation the maximum density allowed is one residential unit per lot, the rezone of the two properties would not facilitate development at a greater density than what is currently existing. Additionally, the proposed R-3-T zone designation would not facilitate development at a greater height than what is currently allowed under the CCA zone designation (28 feet, two stories). No new development or physical or operational changes to the existing buildings are proposed on these two parcels. Table 2 shows the development standards associated with the applicable zoning designations.

Table 2 Zoning Development Standards

Standard	CCA	R-4-N	R-3-T
Allowable Uses	Retail and commercial	High density, multi-family residential	Multi-family residential
Density	Residential uses not allowed	1 unit per 975 sf for lot areas of 22,501 sf or more ¹	1 unit per lot for lots of 0 – 3,200 sf ²
Maximum Building Height	28 ft (two stories)	38 ft (three stories)	28 ft (two stories)

sf = square feet

¹ Pursuant to Section 21.31 of the LBMC, the allowable density under the R-4-N zone for the project site would be 44 homes as the total net site area is 42,558 sf.

² Pursuant to Section 21.31 of the LBMC, the allowable density under the R-3-T zone for APNs 7133-010-003 and 004 would be one unit per lot, as both lots are less than 3,200 sf.

Source: City of Long Beach Municipal Code Chapter 21 Zoning

Construction and Grading

Construction of the proposed project is anticipated to occur over an approximately 17-month period that would begin in July 2020 and end in December 2021. Construction phasing would include site preparation, grading, building construction, asphalt paving and architectural coating. The graded soil would be utilized onsite for construction of the building pads and foundations. No new development or construction is proposed on adjacent Lots 1 and 2.

Access

Access to the project site would be provided via 49th Street, which would lead to an internal driveway that would provide access to the individual garages and surface parking. Access to the existing single-family residences on adjacent Lots 1 and 2 is provided from private driveways via 49th street; no changes to these driveways are proposed under the zone change.

10. Surrounding Land Uses and Setting

The project site and adjacent Lots 1 and 2 are located in an urban area. Land uses to the east of the project site and adjacent Lots 1 and 2 include one- and two-story, single- and multi-family residences. Land uses to the north of the project site, across 49th Street, include one- and two-story commercial uses and one- and two-story single- and multi-family residences. Land uses to the west of the project site, across Long Beach Boulevard, include one-story commercial uses and one- and two-story residential uses. Land uses to the south of the project site, across the Union Pacific Railroad, include one-story commercial uses and one- and two-story residential uses.

11. Required Approvals

Project entitlements include a Site Plan Review, Vesting Tentative Tract Map, and Zone Change. The proposed zoning for the project site is R-4-N. The proposed zone change for the adjacent Lots 1 and 2 located to the east of the project site is R-3-T.

12. Other Public Agencies Whose Approval is Required

The City of Long Beach is the lead agency with responsibility for approving the proposed project. Approval from other public agencies is not required. There are no responsible or trustee agencies for the project.

13. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

As part of the process of identifying cultural resources issues in or near the project site, the City sent letters inviting tribes to consult with the City on August 21, 2018. The City requested a response within 30 days of receipt as specified by AB 52. The City received a request for consultation from the Gabrieleño Band of Mission Indians on August 30, 2018. Consultation was held on November 1, 2018.

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Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

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

Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potential 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.

Anita Juhola-Garcia

5/7/2020

Signature

Date

Anita Juhola-Garcia

Planner

Printed Name

Title

Environmental Checklist

1 Aesthetics

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

Except as provided in Public Resources Code Section 21099, would the project:

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

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

The project site is located on the southeast corner of Long Beach Boulevard and 48th Street in an urbanized area of Long Beach. The project would result in the construction of 18 three-story townhomes on a vacant 1.1-acre site. Additionally, the project would include the rezoning of Lots 1 and 2 located immediately east of the project site from CCA to R-3-T. There are no scenic vistas that can be viewed from the project site or adjacent Lots 1 and 2, or scenic vistas that would be obstructed by the project. Views from the project site and adjacent lots 1 and 2 include one- and two-story residential and commercial uses. Views of the project site and adjacent Lots 1 and 2 consist of undeveloped property and single-family residences, respectively. No new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2. According to the City's General Plan Scenic Routes Element, cultural assets in the project's vicinity include the downtown Civic Center Complex which is approximately 4.7 miles south. Historical assets in the project's vicinity include two preserved ranches: Rancho Los Cerritos and Rancho Los Alamitos, which are 0.35 miles south and 6.8 miles southeast of the project site, respectively. Additionally, American Legion Post #560, which is a historic structure designated by the City of Long Beach, is located 1.6

miles southwest of the project site. Development of the proposed project would not obstruct public views of these cultural or historical resources because no views of these resources are available in the project site vicinity. Therefore, no impact to scenic vistas would occur.

NO IMPACT

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

The California Scenic Highway System indicates that no existing or proposed State scenic highways are located in the vicinity of the project site or adjacent Lots 1 and 2 (Caltrans, 2011). In addition, development of the proposed townhomes would not affect any trees, rock outcroppings, historic buildings, or other identified scenic resources. Existing vegetation on the project site consists of ruderal vegetation. Adjacent Lots 1 and 2 are occupied by one-story single-family residential buildings. Adjacent Lots 1 and 2 contain ornamental vegetation and mature ornamental trees onsite. No new development or physical changes to the existing buildings are proposed on adjacent Lots 1 and 2. Development of the proposed project would not result in the obstruction of public views of cultural or historical resources in the project vicinity, as no views of these resources are provided in the project vicinity. The project would not result in substantial damage to scenic resources in a state scenic highway and no impact would occur.

NO IMPACT

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

The proposed project involves development of 18 housing units on an undeveloped site. Implementation of the project would change the visual character of the project site by introducing new structures; however, the proposed structures would be similar to the existing residences surrounding the site and would not substantially change the existing visual character of the site or vicinity. As shown in Figure 3 of the *Project Description*, the project site is located in an urbanized area. Land uses to the east of the project site include one-story single-family residences. Land uses to the north, across East 49th Street include one-story commercial and single-family residential uses. Land uses to the west, across Long Beach Boulevard, include one-story commercial uses such as the Walls Motel Long Beach, the Word of God Ministries, and Bundle of Joy Daycare. Land uses to the south include one-story single-family residences, one- to two- story multi-family residences and one-story commercial uses.

Project entitlements include a Zone Change from CCA to R-4-N (Medium-density Multiple Residential), which would allow for the development of the proposed townhomes. The R-4 N zone allows for a high density, multifamily residential district and is intended to meet the demand of a broad segment of the population by providing a diversity of housing choices.

The project would also include the rezoning of the adjacent Lots 1 and 2 located to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed would also be one residential unit per lot and no changes to the allowable building height would occur. Thus, the rezone of the two properties would not facilitate

development at a greater density or height than what is currently allowed. Additionally, as no new development or physical changes to existing buildings are proposed on adjacent Lots 1 and 2, no change would occur with respect to the visual character of these two properties.

Upon approval of the requested discretionary actions, development would comply with City zoning standards, including maximum height limits, yards, and front and side setbacks. Therefore, the addition of the three-story townhomes would not degrade the existing visual character or quality of the site and its immediate surroundings and would be consistent with the City's envisioned visual character and quality of the project site. Additionally, the project would include mitigation measure AES-1, which would reduce temporary construction impacts by screening public views of construction equipment, to the extent feasible, during construction of the project. With implementation of mitigation, impacts would be less than significant.

Mitigation Measure

AES-1 Construction Staging Areas

Construction equipment staging areas shall be located, to the greatest extent feasible, away from nearby existing residential uses, and utilize appropriate screening (i.e., temporary fencing with opaque material) to shield public views of construction equipment and material. Prior to issuance of a grading permit, the City Engineer shall verify that staging areas are identified on final grading/development plans and that appropriate perimeter screening is included as a construction specification.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site is located in an urbanized area, with existing sources of light and glare. Construction of the project would introduce construction vehicles and equipment during daytime hours that could potentially create glare for surrounding land uses. However, pursuant to Sections 8.80.202A through 8.80.202C of the Long Beach Municipal Code (LBMC), construction activities are prohibited between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday. These limits would reduce impacts from vehicle headlamps and any associated impacts to nighttime views during construction. Since proposed construction would be required to adhere to the timing restrictions laid out in the LBMC, no construction would occur at night when lighting would potentially be required. In addition, any lighting or glare during construction would be temporary.

Operation of the proposed project would not substantially increase lighting and glare in the surrounding area relative to existing levels. The project site lies in an urban area on a commercialized intersection that includes single- and multi-family residences, restaurants and other commercial buildings. Operation of the proposed project would include the use of nighttime security lighting, and general lighting associated with mixed-use development. Lighting fixtures would be aimed downwards, generally contained in the project site, and would not create a substantial source of light or glare. Operational lighting sources generated by the project would be similar to and consistent with the surrounding uses in the area and would not adversely affect day or nighttime views. Additionally, because no new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2, no changes would occur with respect to light or glare on the

adjacent Lots 1 and 2 as compared to existing conditions. Implementation of mitigation measure AES-2 would require that any exterior lighting would not spill over onto adjacent uses. Because the project would not generate substantial sources of light or glare, impacts would be less than significant.

Mitigation Measure

AES-2 Outdoor Lighting Plan

Exterior lighting shall not spill over onto adjacent uses. Prior to issuance of any building permit, the project applicant shall prepare and submit an Outdoor Lighting Plan to the City of Long Beach Development Services Department, for review and approval, that includes a foot-candle map illustrating the amount of light from the project at adjacent light sensitive receptors. All exterior light fixtures (including street lighting) shall be shielded or directed away from adjoining uses. Landscape light levels and fixtures shall be appropriate for the purpose and location. Design and placement will consider the type, intensity, and location of uses. Safety and security lighting for pedestrians and vehicular movements shall be provided.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

2 Agriculture and Forestry Resources

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

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

The project site and adjacent Lots 1 and 2 are located in an urbanized area in the City of Long Beach. The project site is presently vacant and the rezoning of adjacent Lots 1 and 2 are occupied by single-family residences. The California Department of Conservation’s 2014 map of Los Angeles County Important Farmland shows that the project site and adjacent Lots 1 and 2 are within an area that does not consist of Farmland. Therefore, the project would not have an impact on farmland.

NO IMPACT

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

Neither the project site nor the adjacent Lots 1 and 2 are zoned for agricultural use or under any Williamson Act contract (California Department of Conservation, 2015-2016). The project site is currently zoned CCA (Community Commercial Automobile-Oriented) and has a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). The two parcels included in the zone change are currently zoned CCA. The proposed project would involve the development of three-story townhomes and a parking lot and the rezone of two parcels immediately west of the project site. The proposed project does not include the conversion of farmland to non-agricultural uses. Therefore, the proposed project would have no impact with respect to agricultural zoning or other conversion of farmland to non-agricultural use.

NO IMPACT

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

Neither the project site, adjacent Lots 1 and 2, nor the surrounding area are zoned for forest land or timberland. Accordingly, the project would not conflict with forest land or timberland zoning. Additionally, the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

NO IMPACT

- 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?*

The proposed project would involve the development of the three-story townhomes and a parking lot and the rezoning of two properties to the immediate east of the project site. The project site does not include the conversion of farmland to non-agricultural uses. Therefore, the proposed project would have no impact with respect to agricultural zoning or other conversion of farmland to non-agricultural use.

NO IMPACT

3 Air Quality

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

Air Quality Standards and Attainment

The project site is located in the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that state and federal ambient air quality standards (AAQS) are met and, if they are not met, to develop strategies to meet the AAQS.

Depending on whether or not the AAQS are met or exceeded, the SCAB is designated “attainment,” “maintenance,” or “nonattainment.” Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAQMD is designated nonattainment for the federal AAQS for ozone and PM_{2.5} and a CO maintenance area. Areas of the SCAB located in Los Angeles County are also federally designated nonattainment for lead. Under state AAQS, the SCAB is designated nonattainment for ozone, PM₁₀, and PM_{2.5}. The SCAB is designated unclassifiable or in attainment for all other federal and state standards. Characteristics of O₃, CO, NO₂, SO₂, and particulate matter are described in Table 3.

Table 3 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) Aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO ₂)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO ₂)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Inhalable particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ^a
Fine particulate matter (PM _{2.5})	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. ¹

¹ More detailed discussion on the health effects associated with exposure to suspended particulate matter can be found in the following documents: Office of Environmental Health Hazard Assessment, Particulate Matter Health Effects and Standard Recommendations, www.oehha.ca.gov/air/toxic_contaminants/PM10notice.html#may, May 9, 2002; and EPA, Air Quality Criteria for Particulate Matter, October 2004.

Source: U.S. EPA 2015

Air Quality Management

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is designated nonattainment. The latest Air Quality Management Plan (AQMP) from 2016 was adopted on March 3, 2017. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Government’s (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP. The 2016 AQMP builds

upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also demonstrates strategies for attainment of the new federal eight-hour ozone standard and vehicle miles travelled (VMT) emissions offsets, pursuant to recent United States Environmental Protection Act (USEPA) requirements (Appendix A).

Air Emission Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 4.

Table 4 SCAQMD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of ROG ¹	55 pounds per day of ROG
100 pounds per day of NO _x	55 pounds per day of NO _x
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO _x	150 pounds per day of SO _x
150 pounds per day of PM ₁₀	150 pounds per day of PM ₁₀
55 pounds per day of PM _{2.5}	55 pounds per day of PM _{2.5}

Notes: ROG = reactive organic compounds, NO_x = nitrogen oxides, CO = carbon monoxide, SO_x = sulfur oxides, PM₁₀ = inhalable particulate matter with a diameter of 10 microns or less, and PM_{2.5} = fine particulate matter with a diameter of 2.5 microns or less.

¹Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, two groups are important from an air quality perspective: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC). SCAQMD uses the term VOC to denote organic precursors.

Source: SCAQMD 2019

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO₂, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions within construction areas up to five acres in size. Additionally, LSTs only apply to onsite emissions and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). As such, LSTs are typically applied only to construction emissions because the majority of operational air quality emissions from

residential and retail developments are associated with project-generated vehicle trips. Therefore, operational LSTs are not discussed further below.

LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The project site encompasses 1.1 acres. Therefore, this analysis utilizes the one-acre LSTs. LSTs are provided for receptors at a distance of 82 to 1,640 feet from the project site boundary. Construction activity would occur approximately 25 feet south from the closest sensitive receptor, which is a single-family residential property. According to the SCAQMD’s publication, *Final LST Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet. Therefore, the analysis below uses the LST values for 82 feet.

The project site is located in SRA-4 (South Coastal Los Angeles County). LSTs for construction in SRA-4 on a 1-acre site with a receptor 82 feet away are shown in Table 5.

Table 5 SCAQMD LSTs for Construction Emissions

Pollutant	Allowable Emissions from a 1-acre Site in SRA-4 for a Receptor 82 Feet Away
Gradual conversion of NO _x to NO ₂	57
CO	585
PM ₁₀	4
PM _{2.5}	3

Source: SCAQMD 2009

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

A project may be inconsistent with the AQMP if it would generate population, housing or employment growth exceeding the forecasts used in the development of the AQMP. The 2016 AQMP relies on local general plans and the SCAG Regional Transportation Plan’s (RTP) forecasts of regional population, housing, and employment growth in its own projections for managing air quality in the Basin.

The growth projections used by the SCAQMD to develop the AQMP emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by SCAG in the development of the regional transportation plans and sustainable communities strategy. As such, projects that propose development that is consistent with the growth anticipated by SCAG’s growth projections and/or the General Plan would not conflict with the SCAQMD AQMP.

As mentioned in Section 11, *Land Use and Planning*, the proposed project involves development of 18 three-story townhomes. The project site has a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). The NSC-L General Plan land use designation encourages development of mixed-use smaller scale retail uses and low-density apartment and condominium buildings. The proposed project would be consistent with the General Plan designation.

As discussed in Section 14, *Population and Housing*, according to the California Department of Finance (DOF), the City of Long Beach has an estimated population of 475,013 with an average household size of 2.82 persons (DOF 2019). The Southern California Association of Governments (SCAG) estimates a population increase to 484,500 by 2040 which is an increase of approximately two percent or 9,487 persons (SCAG 2016). Development of 18 new townhomes would increase the

existing population by approximately 51 residents (approximately 0.01 percent) to 475,063, which would be within SCAG's 2040 population forecast. In addition, SCAG's estimate for existing households in 2012 is 163,800. SCAG estimates a housing increase to 175,500 by 2040, which is an increase of approximately seven percent, or 11,700 housing units (SCAG 2016). Construction of the proposed 18 housing units would represent approximately 0.1 percent of the projected housing stock increase, which would not exceed SCAG's 2040 housing units forecast. The City has identified that it needs to build approximately 28,000 additional housing units by 2040 (Beacon Economics 2018). The 18 townhomes proposed by the project would help fill the City's regional housing allocation needs and residents would likely come from within the community, rather than from outside the region.

The project would also include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed would also be one residential unit per lot. No new development or physical or operational changes to the existing buildings are proposed on Lots 1 and 2. The rezoning of Lots 1 and 2 would serve to reflect existing conditions on these lots. Therefore, the rezoning of these two parcels would not result in a change to population or housing. The potential population and housing increase generated by the proposed project would not substantially alter air quality conditions in the Basin and would not generate emissions that would adversely affect regional air quality; therefore, the project would not conflict with the SCAQMD's AQMP. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Consistent with CEQA Guidelines Section 15064(h)(3), the SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. If the mass regional emissions calculated for a project exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards, that project can be considered cumulatively considerable.

While the proposed project includes the rezone of the two properties to the east of the project site, no new development or physical changes to the existing buildings are proposed on adjacent Lots 1 and 2. Therefore, the rezone of the two additional properties to the east of the project site would not result in the generation of air quality emissions and thus the focus of this air quality analysis is on the proposed residential development.

Construction Emissions

Project construction would generate temporary air pollutant emissions during the 17-month construction period. These emissions would include fugitive dust, exhaust emissions from heavy construction vehicles, as well as off-gassing from the application of architectural coatings and paving. Grading, excavation, hauling, and site preparation would generally involve the highest use of heavy equipment and the greatest generation of emissions.

Project-related air pollutant emissions from construction activities were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. For the purposes of modeling, it was assumed that the project would comply with SCAQMD Rule 403 to reduce fugitive dust and Rule 1113 to limit volatile organic compound (VOC) content in architectural coating. Specifically, Rule 403, Rule 1113, and other applicable Regulatory Compliance Measures are listed below.

Table 6 summarizes the estimated maximum daily emissions of pollutants during construction on the project site. As shown construction emissions would not exceed SCAQMD regional thresholds or LSTs. Therefore, impacts to regional air quality and local receptors due to construction emissions would be less than significant.

Table 6 Construction Emissions

Construction Phase	Estimated Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2020 Maximum (lbs/day)	3.2	35.9	22.3	<0.1	3.8	2.6
2021 Maximum (lbs/day)	3.7	23.4	23.4	<0.1	1.5	1.2
SCAQMD Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum Onsite Emissions (lbs/day)	3.5	34.6	22.8	<0.1	3.7	2.5
Local Significance Thresholds (LSTs) (onsite only)	N/A	57	585	N/A	4	3
Threshold Exceeded?	N/A	No	No	N/A	No	No

See Appendix A for modeling details and CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Due to rounding, numbers may not add up precisely to the totals indicated. Emission data is pulled from "mitigated" results, which include measures that will be implemented during project construction, such as watering of soils during construction as required under SCAQMD Rule 403.

Regulatory Compliance Measures

Compliance with the following SCAQMD standard regulatory requirements was included in CalEEMod:

Demolition, Grading, and Construction Activities: Compliance with Provisions of South Coast Air Quality Management District (SCAQMD) Rule 403

Rule 403 includes the following provisions:

- All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403.
- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.

- All dirt/soil shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.
- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Trucks having no current hauling activity shall not idle but be turned off.
- Exposed unpaved surfaces shall be maintained at a minimum soil moisture of 12 percent and vehicle speeds shall be limited to 15 miles per hour on unpaved roads.

Engine Idling

In accordance with Section 2485 of Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.

Emission Standards

In accordance with Section 93115 of Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Architectural Coatings

SCAQMD Rule 1113 limits the volatile organic compound (VOC) content of architectural coatings.

In addition, the model included project-specific features discussed under *Description of the Project*, above (see page 4 of this report).

Operational Emissions

Long-term emissions associated with project operation, as shown in Table 7, would include emissions from vehicle trips (mobile sources) and landscape maintenance equipment, consumer products, and architectural coating (area sources). The proposed townhomes would not include natural gas and would be net zero energy due to the rooftop solar panels; therefore, there would be no emissions associated with energy sources. As indicated in Table 7, emissions during operation of the proposed project would not exceed SCAQMD thresholds for any criteria pollutant. Therefore, operational air quality impacts would be less than significant.

Table 7 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	0.7	<0.1	1.5	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.6	1.5	<0.1	0.8	0.2
Total Project Emissions	0.8	0.6	3.0	<0.1	0.8	0.2
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: Emissions modeling was completed using CalEEMod. See Appendix A for modeling results. Due to rounding, numbers may not add up precisely to the totals indicated. Emission data is pulled from “mitigated” results that include compliance with regulations and mitigation measures that will be included in the project.

LESS THAN SIGNIFICANT IMPACT

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

Local Significance Thresholds (LSTs)

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. As shown in Table 6, project construction generated emissions would not exceed localized significance thresholds. Additionally, no new development or construction is proposed on adjacent Lots 1 and 2. Therefore, the project would not expose local sensitive receptors to substantial pollutant concentrations from onsite activities during construction. Impacts would be less than significant.

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO one-hour or eight-hour AAQS of 35.0 parts per million (ppm) and 9.0 ppm, respectively (CARB 2016). Localized CO hotspots generally occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic volumes are high with high congestion.

The SCAB is a federal CO maintenance area and a state attainment area. CO concentrations have been reduced to low levels of the past 10 years such that most air quality monitoring stations in the SCAB no longer report CO levels. No stations within the vicinity of the project site have monitored CO in the last four years. In 2012, the Long Beach-2425 Webster Street monitoring station detected an eight-hour maximum CO concentration of 2.6 ppm, which is substantially below the state and federal standard of 9.0 ppm (CARB 2018). Based on the low background level of CO in the project area, improving vehicle emissions standards for new cars, and the project’s low level of traffic, the project would not create new hotspots or contribute substantially to existing hotspots. Localized air quality impacts related to CO hotspots would not occur.

Toxic Air Contaminants – Diesel Particulate Matter

Construction

Construction of the project is expected to occur over a 17-month period and would result in the generation of diesel-exhaust Diesel Particulate Matter (DPM) emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor were 17 months, the exposure would be approximately five percent of the total exposure period used for health risk calculation. Therefore, DPM generated by project construction is not expected to create conditions that expose sensitive receptors to substantial pollutant concentration over an extended period of time. Additionally, with ongoing implementation of USEPA and CARB requirements for cleaner fuels; off-road diesel engine retrofits; and new, low-emission diesel engine types, the DPM emissions of individual equipment would be substantially reduced. In addition, the project would include the rezoning of the adjacent Lots 1 and 2 located to the east of the project site. The two parcels are currently occupied by single-family residences. No new development or construction is proposed on the adjacent Lots 1 and 2. The maximum density allowed under the R-3-T zoning designation for adjacent Lots 1 and 2 would also be one residential unit. Therefore, the rezoning of the two properties would not facilitate development at a greater density than what is currently existing. Localized air quality impacts from construction related DPM emissions would be less than significant.

Operation

In addition to criteria pollutant emissions, a project may impact sensitive receptors by emitting toxic air contaminants (TAC). The project proposes residential uses, which are not emitters of substantial TAC concentrations. The project itself does not include any significant source of TACs that would potentially affect sensitive receptors. Land uses surrounding the project are residential developments, hotels, and institutional uses. None of these land uses are typically associated with the emission of TACs. Additionally, the project would include the rezoning of the adjacent Lots 1 and 2 located to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed would also be one residential unit per lot. No new development or operational changes are proposed on the adjacent Lots 1 and 2. For these reasons, exposure of persons on the project site would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. During construction, potential odor sources associated with the project include diesel exhaust associated with construction equipment. Diesel exhaust may be noticeable temporarily; however, construction activities would be temporary. Therefore, the diesel exhaust odors would result in less than significant impacts.

Common sources of operational odor complaints include sewage treatment plants, landfills, recycling facilities, and agricultural uses. The proposed project, and rezone of the two properties to the east, would not include any of these uses that are known to generate odors. In addition, solid waste generated by the proposed onsite uses would be collected by a contracted waste hauler, ensuring that odors resulting from onsite waste would be managed and collected in a manner to prevent the proliferation of odors. In addition, no new development or physical or operational changes are proposed on adjacent Lots 1 and 2, which are currently occupied by single-family residences. Therefore, the project would have a less than significant impact on operational odors.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

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

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

The project site is presently vacant and is located in an urbanized area in the City of Long Beach. Existing vegetation onsite consists of ruderal vegetation. Additionally, the adjacent Lots 1 and 2 contain ornamental vegetation and mature ornamental trees onsite. The vegetation present on the project site and adjacent Lots 1 and 2 could provide nesting habitat for common resident birds that were observed during the field survey. In addition, there are several large ornamental trees on adjacent properties that could provide potential habitat for nesting raptors, such as red-tailed hawk (*Buteo jamaicensis*). Nesting birds are protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGF), and violation of these provisions would be considered a potentially significant impact. Although raptor nesting potential occurs outside of the project footprint, the project could directly (e.g. vegetation removal) and indirectly (e.g., construction noise and motion) affect nesting of these species. Implementation of mitigation measure BIO-1 would avoid potential conflicts with the MBTA and CFGF, thereby reducing potential impacts to a less than significant level.

Mitigation Measure

BIO-1 Nesting Bird Avoidance

If site preparation/construction activities including vegetation clearing, vegetation trimming, grading or other ground disturbing activities are initiated during the nesting bird season (February 1-August 31 for passerines, January 1 – August 31 for raptors), a preconstruction nesting bird survey shall be conducted by a qualified biologist to determine the presence/absence, location, and status of any active nests onsite or within 100 feet of the site for nesting passerines, or within 250 feet of the site for nesting raptors. In areas where site access is limited or prohibited (e.g. private property) the area will be surveyed using binoculars. Nesting bird surveys shall be completed not more than 14 days before the start of construction activities.

If active nests are discovered on the project site, a qualified biologist will establish a species-specific avoidance buffer around the nest where no construction activity is allowed until a qualified biologist has determined that the nest is no longer active. Encroachment into the buffer can occur at the discretion of the qualified biologist with the City's consent.

The City shall be provided with a preconstruction nesting bird survey results report within 48 hours of completion of the survey, if required, prior to obtaining the City issued grading permit, or within 2 weeks if not required for permit issuance. The report shall include date of the survey, date of the report, authors and affiliations, contact information, methods, study location, results, and discussion/recommendations. If nesting birds are found, a map must be included with locations, buffers, and recommended measures to avoid impacts to the nests.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, including sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in California Natural Diversity Database. Riparian habitats typically exist to a very limited extent along streams and flood channels where disturbance is (City of Long Beach 1973). There are no water bodies or riparian habitat on the project site, rezone properties, or in the immediate vicinity. The Los Angeles River approximately 0.6 mile to the west and two small man-made ponds are located in the Virginia Country Club (approximately 0.5 mile southwest of the project site) and Sherer Park (approximately 0.3 mile southeast of the project site). According to The City of Long Beach’s General Plan and a site visit conducted August 29, 2018, no riparian habitats or other sensitive natural communities are present in the project site vicinity. Therefore, no impact would occur.

NO IMPACT

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

No wetlands are located on or adjacent to the project site or adjacent Lots 1 and 2. The project would not directly or indirectly have adverse effects on state or federally protected wetlands. No impact would occur.

NO IMPACT

- 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?*

The project site and adjacent Lots 1 and 2 are in an urban area that is not within an established native resident or migratory wildlife corridor. The project would not impede the use of native wildlife nursery sites. No impact would occur.

NO IMPACT

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

There are no existing trees located on the project site. Construction of the proposed project is not expected to result in the removal of mature trees that are protected by the City’s Tree Protection Ordinance. No construction is proposed on the adjacent Lots 1 and 2, which contain mature trees. Therefore, no impact would occur.

LESS THAN SIGNIFICANT IMPACT

- 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?*

The project site and adjacent Lots 1 and 2 are not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan area. No impact would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

The project site is currently vacant and surrounded by a mix of commercial and residential buildings. No historic resources are located in the immediate vicinity of the project site (City of Long Beach 2010). The closest historic structure to the project site that is designated by the City of Long Beach is the American Legion Post #560, located 1.6 miles southwest of the project site. Additionally, the adjacent Lots 1 and 2 are currently occupied by single-story single-family residential buildings. No new development or physical changes to the existing buildings are proposed by the rezoning on these two properties. Therefore, no impact would occur.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*
- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The project site and the adjacent lots 1 and 2 to be rezoned are located in an urbanized area. There is no evidence that archaeological resources or human remains are present onsite. No new development or changes to the existing buildings are proposed on the rezoned properties. However, cultural resources may be encountered during project-related development and ground-disturbing activities associated with construction of the townhomes on the project site. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important cultural or paleontological resources. The activities may include grading, excavation, or any other activity that disturbs the surface of the site. As a result of the tribal consultation held on November 1, 2018, mitigation measures CR-1 and CR-2 were incorporated into this document. The mitigation measures would address the potentially significant impacts relating to the unanticipated discovery of archeological or paleontological resources and human remains during project

development. These measures would apply to all phases of project construction and would provide for the assessment and disposition of resources found onsite. Implementation of mitigation measures CR-1 and CR-2 would reduce potential impacts to the unanticipated discovery of archeological or paleontological resource and human remains, respectively, to a less than significant level.

Mitigation Measures

CR-1 Unanticipated Discovery of Archaeological Resources

If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.

CR-2 Unanticipated Discovery of Human Remains

If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Electricity and Natural Gas

In 2018, California used 285,488 gigawatt-hours (GWh) of electricity, of which 31 percent were from renewable resources (California Energy Commission [CEC] 2019a). California also consumed approximately 23,834.3 million U.S. therms (MMthm) of natural gas in 2018 (U.S. Energy Information Administration [EIA] 2020). The project site would be provided electricity by Southern California Edison (SCE) and natural gas by Southern California Gas Company (SCG). Table 8 and Table 9 show the electricity and natural gas consumption by sector and total for SCE and SCG. In 2018, SCE provided approximately 29.9 percent of the total electricity used in California. Also, in 2018, SCG provided approximately 23.2 percent of the total natural gas usage in California.

Table 8 Electricity Consumption in the SCE Service Area in 2018

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
2,975.4	31,573.8	4,367.4	13,391.6	2,390.0	29,865.0	496.0	85,276.0

Notes: Usage expressed in GWh

Source: CEC 2020a

Table 9 Natural Gas Consumption in SCG Service Area in 2018

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
77.6	913.0	74.5	1,714.5	229.2	2,147.4	5,156.1

Notes: All usage expressed in MMThm

Source: CEC 2020b

Petroleum

In 2016, approximately 40 percent of the state’s energy consumption was used for transportation activities (EIA 2018). Californians presently consume over 19 billion gallons of motor vehicle fuels per year (CEC 2018b). Though California’s population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030, a 20 percent to 22 percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles (CEC 2018b).

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Construction Energy Demand

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod used to estimate construction air emissions in the Air Quality and Greenhouse Gas Emission Report (Appendix A). Table 10 presents the estimated construction phase energy consumption, indicating construction equipment, vendor trips, and worker trips would consume approximately 63,535 gallons of fuel over the project construction period. Construction equipment would consume an estimated 57,938 gallons of fuel; vendor and hauling trips would consume approximately 923 gallons of fuel; and worker trips would consume approximately 4,674 gallons of fuel over the combined phases of project construction.

Table 10 Estimated Fuel Consumption during Construction

Fuel Type	Gallons of Fuel	MMBtu ⁴
Diesel Fuel (Construction Equipment) ¹	57,938	7,385
Diesel Fuel (Hauling & Vendor Trips) ²	923	118
Other Petroleum Fuel (Worker Trips) ³	4,674	513
Total	63,535	8,016

¹ Fuel demand rate for construction equipment is derived from the total hours of operation, the equipment’s horse power, the equipment’s load factor, and the equipment’s fuel usage per horse power per hour of operation, which are all taken from CalEEMod outputs (see Appendix A), and from compression-ignition engine brake-specific fuel consumption factors for engines between 0 to 100 horsepower and greater than 100 horsepower (U.S. EPA 2018). Fuel consumed for all construction equipment is assumed to be diesel fuel.

² Fuel demand rate for hauling and vendor trips (cut material imports) is derived from hauling and vendor trip number, hauling and vendor trip length, and hauling and vendor vehicle class from “Trips and VMT” Table contained in Section 3.0, *Construction Detail*, of the CalEEMod results (see Appendix A). The fuel economy for hauling and vendor trip vehicles is derived from the United States Department of Transportation (DOT 2018). Fuel consumed for all hauling trucks is assumed to be diesel fuel.

³ The fuel economy for worker trip vehicles is derived from the U.S. Department of Transportation National Transportation Statistics (24 mpg) (DOT 2018). Fuel consumed for all worker trips is assumed to be gasoline fuel.

⁴ CaRFG CA-GREET 2.0 fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for worker trips specified above (California Air Resources Board [CARB] 2015). Low-sulfur Diesel CA-GREET 2.0 fuel specification of 127,464 Btu/gallon used to identify conversion rate for fuel energy consumption for construction equipment specified above (CARB 2015). Due to rounding, numbers may not add up precisely to the totals indicated.

The construction energy estimates represent a conservative estimate because the construction equipment used in each phase of construction was assumed to be operating every day of construction. Construction equipment would be maintained to all applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is also reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. In addition, no new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2. Therefore, the rezone of the two additional properties to the east of the project site would not result in construction related energy demand. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operational Energy Demand

Operation of the project would increase area energy demand from greater electricity, natural gas, and gasoline consumption at a currently undeveloped site. Electricity would be used for heating and cooling systems, lighting, appliances, water use, and the overall operation of the project. Gasoline consumption would be attributed to the trips generated from people employed by the proposed project during normal operations, and patrons accessing the site. The estimated number of average daily trips associated with the project is used to determine the energy consumption associated with fuel use from the operation of the project. The majority of the fuel consumption would be from motor vehicles traveling to and from the project site. According to the CalEEMod calculations, the project would result in 347,612 annual VMT (Appendix A). Table 11 shows the estimated total annual fuel consumption of the project using the estimated trip generation (Appendix H) and VMT with the assumed vehicle fleet mix (Appendix A).

Table 11 Estimated Project Annual Transportation Energy Consumption

Vehicle Type ¹	Percent of Vehicle Trips ²	Annual Vehicle Miles Traveled ³	Average Fuel Economy (miles/gallon) ⁴	Total Annual Fuel Consumption (gallons) ⁶	Total Fuel Consumption (MMBtu) ⁶
Passenger Cars	55.46	192,781	24.0	8,032.56	881.86
Light/Medium Trucks	35.96	125,012	17.4	7,184.60	915.78
Heavy Trucks/Other	8.50	29,554	7.4	3,993.73	509.06
Motorcycles	0.08	264	44.0	6.02	0.66
Total	100.0	347,612	–	19,216.91	2,307.36

¹ Vehicle classes provided in CalEEMod do not correspond exactly to vehicle classes in DOT fuel consumption data, except for motorcycles. Therefore, it was assumed that passenger cars correspond to the light-duty, short-base vehicle class, light/medium trucks correspond to the light-duty long-base vehicle class, and heavy trucks/other correspond to the single unit, 2-axle 6-tire or more class.

² Percent of vehicle trips from Table 4.4 "Fleet Mix" in Air Quality and Greenhouse gas Emissions Study, CalEEMod output (see Appendix A).

³ Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in Air Quality and Greenhouse Gas Emissions Study CalEEMod output (see Appendix A).

⁴ Average Fuel Economy: U.S. Department of Energy, 2018.

⁵ U.S. Department of Transportation 2013

⁶ CaRFG fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption gasoline vehicles (CARB 2015), while one gallon of diesel is equivalent to approximately 127,460 Btu (Schremp 2017).

Notes: Due to rounding, numbers may not add up precisely to the totals indicated.

As shown in Table 11, the project would consume approximately 16,914 gallons of fuel, or 1,915 MBtu, each year for transportation uses from operation.

The project includes solar panels, which would provide for all energy used onsite and result in the townhomes being net zero energy. Therefore, the project would not consume electricity or natural gas in any significant quantities or represent a strain to SCE or SCG. SCE and SCG would have sufficient supplies for the project.

The project would exceed the standards set in California Building Code (CBC) Title 24 by 19 percent, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the Energy Commission. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. For example, according to the California Energy Commission (CEC), residences built with the 2019 standards will use about seven percent less energy due to energy efficiency measures versus those built under the 2016 standards, or 53 percent less energy with rooftop solar, and nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018a). Furthermore, the project would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SCE continues to increase to comply with state requirements through Senate Bill 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

In conclusion, the construction of the project would be temporary and typical of similar projects, and would not result in the wasteful, inefficient, or unnecessary consumption of energy. The operation of the project would increase the consumption of fuel, natural gas, and electricity from existing conditions of an undeveloped site; however, the increase would be in conformance with the latest version of California's Green Building Standards Code and the Building Energy Efficiency Standards. Additionally, the project would include the rezoning of the adjacent Lots 1 and 2 to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. The maximum density allowed under the R-3-T zoning designation for adjacent Lots 1 and 2 would also be one residential unit per lot. Therefore, the rezoning of the two properties would not facilitate development at a greater density than what is currently existing. No new development or operational changes to the existing buildings are proposed on adjacent Lots 1 and 2. Therefore, the rezoning of the two additional properties to the east of the project site would not result in a change to existing operation energy demand.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As discussed above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by onsite solar panels, the proposed project would not conflict with this statewide plan. Additionally, as discussed under Checklist Item *a.* above, the proposed project would be subject to more stringent energy efficiency standards pursuant to updated CALGreen requirements.

The City of Long Beach has not adopted specific renewable energy or energy efficiency plans with which the project could comply; however, a Climate Action and Adaptation Plan (CAAP) is currently under development. This plan would provide framework for updating policies, programs, practices, and incentives for residents and business to reduce emissions and will likely include various energy efficiency measures to that end. As demonstrated further in Section 8, *Greenhouse Gas Emissions*, the proposed project is consistent with and would not conflict with or obstruct the state plan for renewable energy; therefore, no impact would occur.

NO IMPACT

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7 Geology and Soils

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

- a.1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The project site and adjacent Lots 1 and 2 are located in a seismically active region of Southern California; however, there are no known faults on the project site (City of Long Beach 1988). The nearest known active fault is Newport-Inglewood Fault Zone which is approximately 1.38 miles away from the project site (California Department of Conservation 2018). Neither the project site nor adjacent Lots 1 and 2 are located in an Alquist-Priolo earthquake fault zone as defined by the State Geologist (DOC 2018). Furthermore, ground breakage has not been observed along the faults of the Newport-Inglewood Zone in historic times. The proposed project would comply with State of California standards for building design through the California Building Standards Code (California Code of Regulations, Title 24), which requires various measures of all construction in California to account for hazards from seismic shaking. Therefore, the proposed project would not directly or indirectly cause adverse impacts associated with surface fault rupture. No impact would occur.

NO IMPACT

- a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

The project site and adjacent Lots 1 and 2 are located in the highly seismic Southern California region where several fault systems are active or potentially active. Nearby active faults include the Newport-Inglewood Fault Zone which is approximately a mile away from the project site (DOC 2018). The Newport-Inglewood fault zone could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the City. However, the project site and adjacent Lots 1 and 2 are not subject to unusual levels of ground shaking.

The California Building Code (CBC) requires structural design and construction methods which will be employed to minimize adverse effects of seismic ground shaking. Because the project would comply with the CBC, impacts related to seismically induced ground shaking would be less than significant and the proposed project would not exacerbate ground shaking conditions.

LESS THAN SIGNIFICANT IMPACT

- a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. As shown in Plate 7, "Liquefaction Potential Areas," of the Seismic Safety Element of the Long Beach General Plan (City of Long Beach 1988), the project site and adjacent Lots 1 and 2 are in an area where the liquefaction potential is low. Compliance with the CBC would reduce impacts associated with seismic-related ground failure including liquefaction to less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

Per the City of Long Beach Seismic Safety Element, the City is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1-1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Long Beach Quadrangle indicates that earthquake induced landslide hazard areas are not present on the project site (DOC 1998). Additionally, the project site, adjacent Lots 1 and 2 and the surrounding area are flat. Therefore, there is no risk of landslides on the site or adjacent Lots 1 and 2.

NO IMPACT

- b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Ground-disturbing activities associated with the project implementation may result in the removal of some topsoil in order to construct the three-story townhomes. Standard construction best management practices (BMPs) would be implemented in order to avoid or minimize soil erosion associated with ground-disturbing activities. As discussed further in Section 10, Hydrology and Water Quality, implementation of erosion control measures stated in Chapter 98.02 of the LBMC, as well as adherence to requirements provided in the National Pollutant Discharge Elimination System (NPDES) permit for construction activities would avoid or minimize potential impacts. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?*

Per Plate 9, "Slope Stability Study Areas," the Long Beach General Plan Seismic Safety Element, the project site and adjacent Lots 1 and 2 are not located in an area of slope instability (City of Long Beach 1988). As discussed above, the project site is also located in an area with low liquefaction potential. No impact would occur.

NO IMPACT

- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Expansive soils are clay-based soils that tend to expand as they absorb water and shrink as water is drawn away. The project site and adjacent Lots 1 and 2 consist of loamy materials and Riverwash soils (City of Long Beach 1988). The project site and adjacent Lots 1 and 2 do not consist of expansive soils according to the General Plan Conservation Element and no impact would occur.

NO IMPACT

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

The proposed project would not include the installation of new septic tanks or alternative wastewater disposal systems. No impacts would be associated with wastewater conveyance.

NO IMPACT

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

The project site and adjacent Lots 1 and 2 are located in an urbanized area. There is no evidence that paleontological resources are present onsite. Additionally, no new development or physical changes to the existing sing-family residences are proposed on the adjacent Lots 1 and 2. However, paleontological resources may be encountered during project-related development and ground-disturbing activities associated with the proposed townhomes. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources. The activities may include grading, excavation, or any other activity that disturbs the surface of the site. The following mitigation measure would address the potentially significant impacts relating to the unanticipated discovery of paleontological resources during project implementation. These measures would apply to all phases of project construction and would provide for the assessment and disposition of any resources discovered onsite. Implementation of Mitigation Measure GEO-1 would reduce potential impacts to paleontological resources to a less than significant level.

Mitigation Measure

GEO-1 Unanticipated Discovery of Paleontological Resources

If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, a paleontologist certified by the County of Los Angeles shall evaluate the find. If warranted, the paleontologist shall prepare and implement a standard Paleontological Resources Mitigation Program for the salvage and curation of the identified resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHGs) that contribute to the “greenhouse effect,” a natural occurrence that takes place in Earth’s atmosphere to help regulate the temperature of the planet. The majority of radiation from the sun hits Earth’s surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. However, anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat. Emissions resulting from human activities thereby contribute to an average increase in Earth’s temperature.

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project’s contribution towards an impact would be cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

In late 2015, the California Supreme Court’s Newhall Ranch decision confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA, depending on the circumstances of a given project (Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 204). Given the legislative attention and judicial action regarding post-2020 goals and the scientific evidence that additional GHG reductions are needed through the year 2050, the Association of Environmental Professionals’ (AEP) Climate Change Committee published a white paper in October 2016 to provide guidance on defensible GHG thresholds for use in CEQA analyses and GHG reduction targets in climate action plans in light of the change in focus on the 2030 reduction target and questions raised in the Newhall Ranch case (AEP 2016).

The AEP Climate Change Committee white paper identified seven thresholds for operational emissions. The following four methods described are the most widely used evaluation criteria.¹

- (1) **Consistency with a Qualified GHG Reduction Plan.** For a project located within a jurisdiction that has adopted a qualified GHG reduction plan (as defined by CEQA Guidelines Section 15183.5), GHG emissions would be less than significant if the project is anticipated by the plan and fully consistent with the plan. However, projects with a horizon year beyond 2020 should not tier from a plan that is qualified up to 2020.
- (2) **Bright line Thresholds.** There are two types of bright line thresholds:
 - a. **Standalone Threshold.** Emissions exceeding standalone thresholds would be considered significant.
 - b. **Screening Threshold.** Emissions exceeding screening thresholds would require evaluation using a second-tier threshold, such as an efficiency threshold or other threshold concept to determine whether project emissions would be considered significant.

However, projects with a horizon year beyond 2020 should take into account the type and amount of land use projects and their expected emissions out to the year 2030.
- (3) **Efficiency Thresholds.** Land use sector efficiency thresholds are currently based on AB 32 targets and should not be used for projects with a horizon year beyond 2020. For projects with a horizon year beyond 2020, efficiency metrics should be adjusted for 2030 and include applicable land uses.
- (4) **Percent Below “Business as Usual” (BAU).** GHG emissions would be less than significant if the project reduces BAU emissions by the same amount as the statewide 2020 reductions. However, this method is no longer recommended following the Newhall Ranch ruling.

Operational emissions methods (1), (2), and (4) are not applicable. Method (3) is the most appropriate threshold based on guidance from the 2017 Scoping Plan, which identifies 2030 and 2050 per capita efficiency metrics that can be used to develop locally-appropriate project-specific efficiency thresholds (CARB 2017). The City of Long Beach is currently drafting a Climate Action and Adaptation Plan (CAAP), which is expected to be adopted by City Council in 2020 (City of Long Beach 2020). While, the CAAP has not yet been finalized or adopted by the City and cannot be used for project tiering, the emissions inventories and targets can be used in the development of a locally-appropriate project-specific efficiency threshold.

Efficiency thresholds are quantitative thresholds based on a measurement of GHG efficiency for a given project, regardless of the amount of mass emissions. These thresholds identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. A project that attains such an efficiency target, with or without mitigation, would result in less than significant GHG emissions.

¹ The three other thresholds are best management practices (BMP)/best available mitigation (BAM), compliance with regulations, and a hybrid threshold concept: separate transportation and non-transportation threshold. The BMP/BAM concept would require creation and implementation of an approved list of BMPs to ensure compliance with statewide reduction targets. No such list has been created/approved to date. Compliance with existing regulations is not recommended until the state has developed its regulatory framework to meet 2030 GHG reduction targets. Finally, the hybrid transportation and non-transportation thresholds approach is generally reserved for residential and/or mixed-use projects qualifying for relief from analysis GHG emissions from cars and light-duty trucks. As such, none of these thresholds specifically apply to this project.

Accordingly, consistent with the concerns raised in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the 2030 City inventory targets were modified to establish a locally appropriate, evidence-based, project-specific threshold consistent with California’s GHG reduction targets.

The Draft Climate Action Plan provides an inventory of the Community wide emissions and breaks the energy emissions into residential, commercial sectors, and industrial categories. The City also includes aggregated emissions from energy facilities, fugitive natural gas, transportation, and solid waste emissions. The aggregated emissions were assigned to the residential or commercial/industrial sectors based on SCAG’s 2030 population and employment projections included in the 2040 Regional Transportation Plan and Sustainable Communities Plan. Table 12 summarizes the project specific threshold for this analysis.

Table 12 2030 GHG Efficiency Thresholds by Land Use for the City of Long Beach

2030 Population	2030 Employment	2030 Emissions	Residential Emissions	Commercial/Industrial Emissions	Residential Threshold	Commercial/Industrial Threshold
483,355	189,524	3,125,564 MT CO ₂ e	1,787,091 MT CO ₂ e	1,332,699 MT CO ₂ e	3.70 MT CO ₂ e/ Resident	7.03 MT CO ₂ e/ Employee

Source: City of Long Beach 2019; SCAG 2016b

The proposed project is for the construction of townhomes. Therefore, the residential threshold of 3.7 MT CO₂e per resident is used for assessing the proposed project. In addition, the residential threshold of 3.70 MT CO₂e is the most stringent locally appropriate GHG emissions threshold and therefore represents the most conservative evaluation of project impacts. Emissions associated with the project were estimated using CalEEMod, version 2016.3.2. Complete CalEEMod results and assumptions can be viewed in Appendix A.

A project’s service population includes both its residents and employees. The proposed new townhomes would serve a population of approximately 51 residents. There would be no permanent employees associated with the proposed project.

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

Construction activities, energy use, daily operational activities, and mobile sources (traffic) due to the proposed project would generate GHG emissions. CalEEMod version 2016.3.2 was used to calculate emissions resulting from project construction and long-term operation. Adjustments to the CalEEMod model were made based upon project-specific sustainability features and updated requirements of Title 24 and other statewide GHG reduction initiatives that standard CalEEMod parameters do not account for. These include the following:

- Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2017). The project would be served by SCE. Therefore, SCE’s specific energy intensity factors (i.e., the amount of CO₂, CH₄, and N₂O per kilowatt-hour) are used in the calculations of GHG emissions. The energy intensity factors included in CalEEMod are based on 2012 data by default at which time SCE had only achieved a 20.6 percent procurement of renewable energy. Per SB 100, the statewide Renewable Portfolio Standard (RPS) Program requires electricity providers to increase procurement from eligible renewable energy sources to 60 percent by 2030. To account for the continuing effects of the

RPS, the energy intensity factors included in CalEEMod were reduced based on the percentage of renewables reported by SCE.

- Energy usage for the single-family residences was reduced by seven percent to account for the requirements of 2019 Title 24 standards (CEC 2019b).
- CalEEMod does not incorporate water use reductions achieved by CALGreen (Part 11 of Title 24). New development would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations for new development.
- According to a CalRecycle report to the Legislature, as of 2013 California had achieved a statewide 50 percent diversion of solid waste from landfills through “reduce/recycle/compost” programs (CalRecycle 2015). CalEEMod assumes this 50 percent diversion rate. However, as of 2018, the City of Long Beach has achieved a landfill diversion rate of 70 percent (CalRecycle 2020). Therefore, the solid waste diversion rate in CalEEMod was adjusted to reflect the City’s current diversion rate.
- Project-specific sustainability features including onsite solar panels that provide 100 percent of the project’s operational energy use, low-flow indoor water faucets and toilets, recycled water irrigation system, and a 19 percent exceedance of Title 24 were included in CalEEMod.

Emissions exceeding the 3.70 MT of CO₂e per resident threshold would be considered significant.

Additionally, while the proposed project includes the rezone of the two properties to the east of the project site; no new development or physical changes to the existing buildings are proposed on the adjacent Lots 1 and 2. Therefore, the rezone of the two additional properties to the east of the project site would not result in any new GHG emissions and is no longer evaluated in this GHG analysis.

Construction GHG Emissions

Although construction activity is addressed in this analysis, AEP does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity). Regardless, the SCAQMD has recommended amortizing construction-related emissions over a 30-year period in conjunction with the proposed project’s operational emissions to measures to be applied that can reduce all project related GHG emissions.

Based on CalEEMod results, construction of the project would generate an estimated 592.9 MT of CO₂e, as shown in Table 13.

Table 13 Estimated Construction GHG Emissions

Year	Project Emissions (CO ₂ e) in metric tons
2020	204.9
2021	388.0
Total	592.9
Total Amortized over 30 Years	19.76

See Appendix A for CalEEMod model output.

Operational GHG Emissions

The project’s proposed energy use, daily operational activities, and mobile sources (traffic) would generate GHG emissions. The project would include solar panels which would generate sufficient electricity annually to fully power the project. In addition, green building features such as the use of drought tolerant plants in 75 percent of the landscaping, and hot water pipe insulation would be included in the proposed project. As shown in Table 14, the project’s emissions would be approximately 151.4 MT of CO₂e or 2.97 MT CO₂e per person, which would not exceed the project specific threshold of 3.70 MT CO₂e per person.

Table 14 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO₂e) in metric tons
Construction	19.76
Operational	
Area	0.3
Energy	0.0
Solid Waste	2.5
Water	3.4
Mobile	
CO ₂ and CH ₄	118.3
N ₂ O	7.1
Total Emissions	151.4
Service Population (Residents)	51
Emissions per Service Population (MT CO₂e/SP/year)	2.97
Project-Specific Efficiency Threshold (MT CO ₂ e/SP/year)	3.70
Exceed Project-Specific Threshold?	No

Source: Appendix A (CalEEMod outputs)

Therefore, the GHG impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

There are numerous state plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall state plan and policy is AB 32, the California Global Warming Solutions Act of 2006, and the follow up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Statewide plans and regulations such as GHG emissions standards for vehicles (AB 1493), the Low Carbon Fuel Standard, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the statewide level;

as such, compliance at a project level is not addressed. Therefore, the project does not conflict with statewide plans and regulations.

Senate Bill 375, signed in August 2008, directs each of the State’s 18 major Metropolitan Planning Organizations (MPO) to prepare a SCS that contains a growth strategy to meet these emission targets for inclusion in the RTP. In April 2016, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. SCAG’s RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development to comply with SB 375. The City of Long Beach is developing its first Climate Action and Adaptation Plan (CAAP) which will provide a framework for creating or updating g policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City’s GHG footprint.

Table 15 illustrates the project’s consistency with relevant goals and strategies embodied in Chapter 5, *On the Road to Greater Mobility and Sustainable Growth*, of the 2016 RTP/SCS (SCAG 2016). As shown in Table 15, the project is consistent with the applicable strategies in the 2016 RTP/SCS. Therefore, the project would have a less than significant impact.

Table 15 Consistency with Applicable SCAG RTP/SCS GHG Emission Reduction Strategies

Strategy/Action	Project Consistency
Land Use and Transportation	
<p><i>Focus new growth around transit.</i> The 2016 RTP/SCS land use pattern reinforces the trend of focusing growth in the region’s High Quality Transit Areas (HQTAs). Concentrating housing and transit in conjunction concentrates roadway repair investments, leverages transit and active transportation investments, reduces regional life cycle infrastructure costs, improves accessibility, avoids greenfield development, and has the potential to improve public health and housing affordability. HQTAs provide households with alternative modes of transport that can reduce VMT and GHG emissions.</p>	<p>Consistent. The project would be within 0.25 mile of bus stops along Long Beach Boulevard and Del Amo Boulevard. The project site is also approximately one mile from the Metro Blue Line’s Del Amo Station.</p>
<p><i>Plan for growth around livable corridors.</i> The Livable Corridors strategy seeks to create neighborhood retail nodes that would be walking and biking destinations by integrating three different planning components:</p> <ol style="list-style-type: none"> 1. Transit improvements 2. Active transportation improvements (i.e., improved safety for walking and biking) 3. Land use policies that include the development of mixed-use retail centers at key nodes and better integrate different types of ritual uses. 	<p>Consistent. The project would be within 0.25 mile of bus stops along Long Beach Boulevard and Del Amo Boulevard. The project site is also approximately one mile from the Metro Blue Line’s Del Amo Station. As such, future residents would have access to public transit.</p>

Strategy/Action	Project Consistency
<p><i>Provide more options for short trips.</i> 38 percent of all trips in the SCAG region are less than three miles. The 2016 RTP/SCS provides two strategies to promote the use of active transport for short trips. Neighborhood Mobility Areas are meant to reduce short trips in a suburban setting, while “complete communities” support the creation of mixed-use districts in strategic growth areas and are applicable to an urban setting.</p>	<p>Consistent. The project would be within 0.25 mile of bus stops along Long Beach Boulevard and Del Amo Boulevard. The project site is also approximately one mile from the Metro Blue Line’s Del Amo Station. As such, alternative means of transportation would be available for access to and from the project site.</p>
<p><i>Protect Natural and Farm Lands.</i> Many natural and agricultural land areas near the edge of existing urbanized areas do not have plans for conservation and they are susceptible to the pressures of development. Many of these lands, such as riparian areas, have high per-acre habitat values and are host to some of the most diverse yet vulnerable species that play an important role in the overall ecosystem.</p>	<p>Consistent. The project would be in an urbanized area designated for residential land uses and thus would not add pressure to develop natural or agricultural lands.</p>
<p>Transit Initiatives</p>	
<p>Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other Zero Emission Vehicles (ZEV) options.</p>	<p>Consistent. The project would be within 0.25 mile of bus stops along Long Beach Boulevard and Del Amo Boulevard. The project site is also approximately one mile from the Metro Blue Line’s Del Amo Station. This would incentivize greater use of alternative transportation.</p>
<p>Other Initiatives</p>	
<p>Reduce emissions resulting from a project through implementation of project features, project design, or other measures. Incorporate design measures to reduce energy consumption and increase use of renewable energy.</p>	<p>Consistent. The design and implementation of the proposed project would comply with CALGreen Building Standards, which includes measures to reduce emissions. The project would also comply with SCAQMD Rule 1113 that limits VOCs from building architectural coatings.</p>

Source: SCAG 2016

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Project construction would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. No new development or construction are proposed on adjacent Lots 1 and 2. However, standard construction best management practices for the use and handling of such materials would be implemented to avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials utilized during construction of the proposed project would comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials. Operation and maintenance of the proposed residential project would not involve the routine transport, use, or disposal of hazardous materials. Materials used by the proposed project would be similar to those found in common household projects such as surface and floor cleaning products utilized for routine janitorial cleaning procedures. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

As described above, construction of the proposed project would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. No new development or construction are proposed on adjacent Lots 1 and 2. However, standard construction best management practices for the use and handling of such materials would be implemented to avoid or reduce the potential for such conditions to occur. The transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Adherence to these requirements would reduce impacts to a less than significant level. Additionally, operation of the proposed residential project would not create a significant hazard to the public or the environment and would not emit hazardous emissions. Potential impacts associated with upset or accident conditions would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The project site is located approximately 100 feet from the Bundle of Joy Daycare across Long Beach Boulevard, approximately 330 feet (0.5 mile) from Dorothy Ahrens Nursery School to the north, and approximately 1,050 feet (.20 mile) from Dooley Elementary School to the north. During construction of the proposed project, hazardous and potentially hazardous materials would be utilized for the transport and operation of vehicles and machinery. No new development or construction are proposed on adjacent Lots 1 and 2. As discussed above, the transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Additionally, operation of the proposed residential project would not involve the use or transport of large quantities of hazardous

materials. Therefore, impacts related to hazardous emissions or materials affecting local schools would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The following databases and listings compiled pursuant to Government Code Section 65962.5 were checked in September 2018 for known hazardous materials contamination at the project sites and adjacent Lots 1 and 2:

- **United States Environmental Protection Agency (U.S. EPA)**
 - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) / Superfund Enterprise Management System (SEMS)/Envirofacts database search
- **State Water Resources Control Board (SWRCB)**
 - GeoTracker search for leaking underground storage tanks (LUST) and other cleanup sites
- **Department of Toxic Substances Control (DTSC)**
 - EnviroStor database for hazardous waste facilities or known contamination sites
 - Cortese List of Hazardous Waste and Substances Sites

The project site and adjacent Lots 1 and 2 are not located on or directly adjacent to any known hazardous or contaminated sites that are actively being monitored. The U.S. EPA is retiring the CERCLIS database and is replacing it with SEMS. The SEMS database search did not produce any results associated with the project site, indicating that the site is free of known hazards and contaminants (U.S. EPA 2020). A search of the EnviroStor database showed that there are no contaminated sites within a one-mile radius of the project site (DTSC 2020). The GeoTracker database indicates that there are no active cleanup sites within a half-mile radius of the project site (SWRCB 2020). Since the proposed project is not located on or in the vicinity of hazardous materials sites or contaminated sites and the proposed project would not involve routine use of hazardous materials, no impact would occur due to the construction or operation of the proposed project.

NO IMPACT

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

The airport or airstrip nearest to the proposed project site and adjacent Lots 1 and 2 is the Long Beach Airport, located approximately 3.8 miles southeast of the project site. The project is not located within two miles of a public use airport or private airstrip and would not introduce associated hazards or excessive noise to people residing or working in the area. No impact would occur.

NO IMPACT

- f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No new development or changes to the existing single-family residences are proposed on adjacent Lots 1 and 2. In accordance with the Public Safety Element of the General Plan, emergency response and evacuation procedures would be developed through the City in coordination with the police and fire departments. The proposed project would not require the development of additional streets or introduce new features that would interfere with or obstruct an adopted emergency response plan. Implementation of the project would increase traffic to and from the project site; however, the project site is surrounded by major roadways including Long Beach Boulevard, which have sufficient capacity to provide access to and from the project site. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The project site and adjacent Lots 1 and 2 are not located in a wildland fire hazard area as defined by the Department of Forestry and Fire Protection (CalFire 2007). The project would not affect the potential for wildland fires to occur. No impact would occur.

NO IMPACT

10 Hydrology and Water Quality

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

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

Long Beach is serviced by three sewage treatment facilities that discharge treated effluent to marine waters. The project site and adjacent Lots 1 and 2 are located in an urban area and there are no surface water bodies in the project vicinity. The project site consists of five vacant parcels that have been previously disturbed and graded. Construction and grading are planned to occur and would include residential buildings and parking areas. No new development or construction are proposed on the rezoned properties. The proposed project would comply with current National Pollutant Discharge Elimination System (NPDES), which regulates discharges into surface waters, and Los Angeles County MS4 permit regulations pertaining to the prevention of erosion and detention of site runoff into storm drains and receiving waters and include storm water Low Impact Development (LID) Best Management Practices (BMPs). Additionally, Chapter 18.74 of the LBMC regulates the implementation of the LIDs and BMPs for projects in the City. Compliance with these requirements would reduce potential impacts to local storm water drainage facilities to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

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

The major aquifers beneath Long Beach are known as the 400-foot Gravel, the 200-foot Sand, and the Gaspar Zone (City of Long Beach 1973). These aquifers have a capacity for storing approximately 30 million acre-feet of water. The proposed project would involve construction of residential buildings with minimal excavation and includes a zone change for the two properties to the east of the project site. As discussed in *Utilities and Service Systems*, water supply requirements associated with the project would not deplete local groundwater supplies. Therefore, no impact would occur.

NO IMPACT

- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?*
- c.(iv) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

Development of the proposed townhomes would alter the existing drainage patterns on the undeveloped project site by introducing new structures and pervious surfaces, but implementation of the project would not alter the course of a stream or river. No new development or construction are proposed on the rezoned properties. The project would comply with Chapter 18.74 of the LBMC, which requires implementation of standard construction BMPs to avoid or minimize temporary adverse effects such as erosion and siltation. A LID Plan shall be prepared to demonstrate the following (LBDS 2013):

- 1 Stormwater runoff will be infiltrated, evapotranspired, and/or captured and used through stormwater management techniques as identified in Section 4.1. The onsite stormwater management techniques must be properly sized, at a minimum, to infiltrate, evapotranspire, store for use, without any stormwater runoff leaving the site to the maximum extent feasible, for at least the volume of water produced by the water quality design storm event that results from:
 - i. The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area using a 48- to 72-hour drawdown time, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
 - ii. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in the California Stormwater Best Management Practices Handbook –Industrial/Commercial, (2003); or
 - iii. The volume of runoff produced from a 0.75-inch storm event.

The proposed project would alter existing land uses on the project site and would include a site-specific drainage plan to guide surface water runoff to the existing municipal drainage system. As discussed above, the proposed project would comply with NPDES and Los Angeles County MS4 permit regulations and would comply with the City's LID BMP Manual. Compliance with these requirements would reduce potential impacts to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site and adjacent Lots 1 and 2 are not located in a 100-year flood zone (Map # 06037C1955F) (FEMA 2018). The dam nearest to the project site and adjacent Lots 1 and 2 is the Sepulveda Dam approximately 36 miles to the northwest. The project site is located 6.2 miles north from the Pacific Ocean; however, the project site is not located in an inundation or tsunami zone (DOC 2018). Additionally, the project site and adjacent Lots 1 and 2 are not located near a body of water that would be subject to seiche and is not located on or near slopes subject to mudflow events. The project would not result risk release of pollutants due to project inundation. No impact would occur.

NO IMPACT

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Potential water quality impacts associated with the proposed project are discussed above under checklist question a. and b. The project would not otherwise substantially degrade water quality. No impact would occur.

NO IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project physically divide an established community?

The proposed project would occur on a vacant site, surrounded by an established community. No new development or changes to existing buildings are proposed on the adjacent lots 1 and 2. The project does not propose any new roads or infrastructure that has the potential to divide any communities. No impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project involves development of 18 three-story townhomes. The project site is currently zone CCA (Community Commercial Automobile-Oriented) and has a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). The CCA zone permits retail and service uses. Multi-family residential uses are not permitted in the CCA zone. The NSC-L General Plan land use designation encourages development of mixed-use smaller scale retail and low-density apartment and condominium buildings. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre) depending on lot size. As such, the proposed project would not be consistent with the current zoning designation but would be consistent with the General Plan designation. Project entitlements include a Zone Change to R-4-N (Medium-density Multiple Residential), which would allow for the development of the proposed townhomes. The R-4 N zone allows for a high density, multifamily residential district. It is intended to meet the demand of a broad segment of the population and provide a diversity of housing choices.

The project also includes the rezoning of the adjacent lots 1 and 2 located immediately to the east of the project site. Currently, the two parcels are zoned CCA and have a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). As discussed above, the CCA zone does not allow for residential uses. The two parcels would be rezoned to the R-3-T (Multi-family Residential, Townhouse) designation. The R-3-T zone allows for the development of multi-family residential uses. Pursuant to Section 21.31 of the LBMC, "The R-3-T district is a townhouse or row

house residential district on small (especially shallow) lots. It is intended for residential lots located along significant traffic arteries where a lot line to lot line, high lot coverage, inward-oriented dwelling is appropriate. This district is typically appropriate in areas in transition from commercial to residential use.” The allowable density under the R-3-T zone would be one unit per lot because both lots are less than 3,200 sf. Additionally the height limit for the R-3-T would be 28 feet (two stories), which is the same as what is currently allowed under the CCA Zone. The two parcels are currently occupied by single-family residences. Under the proposed R-3-T zoning, the maximum density allowed would also be one residential unit per lot and no changes to the allowable building height would occur. Thus, the rezone of the two properties would not facilitate development a greater density or height than what is currently allowed. No new development or changes to operational use of the existing single-family residences is currently proposed on these two parcels.

According to the City’s General Plan Land Use Element, the project site is located within the Addams Neighborhood area, which is defined by Market Street to the north, Atlantic Boulevard to the east, the Union Pacific Railroad right-of-way on the south and Long Beach Boulevard on the west (City of Long Beach 1998). The mixed residential area is an older area where single family houses are the most common use, with multifamily housing and commercial uses along major avenues, such as Long Beach Boulevard (City of Long Beach 2019b). The Land Use Element identifies the development of new multifamily housing along commercial corridors as an important strategy in this area of Long Beach (City of Long Beach 2019b). The project would be consistent with the City’s General Plan by creating new multifamily housing in the vicinity of commercial uses and would be consistent with the character of surrounding neighborhood. Additionally, as discussed in Section 3, *Air Quality*, Section 7, *Geology and Soils*, and Section 13, *Noise*, the project would be consistent with the City’s Air Quality, Noise and Seismic Safety Elements, respectively.

Upon approval of the requested discretionary actions, development of the proposed project would be consistent with the current General Plan land use designation, and development would comply with City zoning standards, including maximum height limits, yards, and front and side setbacks. The proposed project would not conflict with any applicable land use plan, policy, or regulation. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. *Would the project 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. *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?*

The project site, adjacent Lots 1 and 2 and surrounding properties are located in an urban area. The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted to promote conservation and protection of significant mineral deposits. According to the California Department of Conservation Mineral Land Classification Maps, the project site is located in an area with an MRZ-1 designation, indicating that there is little to no likelihood for the presence of significant mineral deposits onsite (DOC 1983). Although oil deposits are abundant in the City of Long Beach, no oil extraction occurs on or adjacent to the project site (City of Long Beach 1973). Because there are no known mineral resources on the project site or in the vicinity of the site, the project would have no impact on the availability or recovery of mineral resources.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

General Noise Background

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0-dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the ambient noise level to be judged as twice as loud. In general, a 3 dBA change in the ambient noise level is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while areas adjacent to arterial streets are typically in the 50 to 60+ dBA range. Normal conversational levels are usually in the 60 to 65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise from point sources, such from individual pieces of machinery, typically attenuates (or drop off) at a rate of 6 dBA per doubling of distance from the noise source. Noise levels from lightly traveled roads typically attenuate at a rate of about 4.5 dBA per doubling of distance. Noise levels

from heavily traveled roads typically attenuate at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures. Generally, a single row of buildings between the receptor and the noise source reduces noise levels by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA (Federal Transit Administration [FTA] 2018). The manner in which buildings in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2018).

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest RMS (root mean squared) sound pressure level within the measurement period, and Lmin is the lowest RMS sound pressure level within the measurement period.

The time period in which noise occurs is also important since nighttime noise tends to disturb people more than daytime noise. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10:00 PM to 7:00 AM) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7:00 PM to 10:00 PM and a 10 dBA penalty for noise occurring from 10:00 PM to 7:00 PM. Noise levels described by Ldn and CNEL typically do not differ by more than 1 dBA. In practice, CNEL and Ldn are often used interchangeably.

The relationship between peak hourly Leq values and associated Ldn/CNEL values depends on the distribution of traffic over the entire day. There is no precise way to convert a peak hourly Leq to Ldn/CNEL. However, in urban areas near heavy traffic, the peak hourly Leq value is typically 2 to 4 dBA lower than the daily Ldn/CNEL value (California State Water Resources Control Board [SWRCB] 1999). The project site is located in an urban area. Therefore, the daily CNEL value at the project site would be 2 to 4 dBA higher than the peak hourly Leq.

Vibration

Vibration refers to groundborne noise and perceptible motion. Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. 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 (FTA 2018). Most perceptible indoor vibration is caused by sources within

buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

Project Area Noise Conditions

The primary off-site noise sources in the project area are motor vehicles (e.g., automobiles, buses, and trucks), particularly along Long Beach Boulevard. Motor vehicle noise is a concern because it is characterized by a high number of individual events that often create sustained noise levels. The railroad directly south of the project site would be an additional source of noise, as trains pass at various frequencies throughout the day. Ambient noise levels would be expected to be highest during the daytime and rush hour unless congestion slows speeds substantially.

To determine ambient noise levels in the project area, three 10-minute sound level measurements were taken using an Extech ANSI Type II sound level meter during morning peak traffic hours between 4:00 PM and 5:00 PM on August 29, 2018 (refer to Appendix B for sound measurement data). Measurement locations were selected based on the potential exposure of surrounding noise-sensitive receptors, mainly residences, to noise levels from construction and operation of the proposed project. See Figure 9 for the locations of sound measurements. As shown in Table 16, the ambient noise level at the project site was measured at a range between 61.7 and 70.0 dBA Leq.

Table 16 Sound Level Measurement Results

	Measurement Location	Primary Source of Noise	Approximate Distance to Centerline of Roadway (feet)	Sample Time	Leq[10] (dBA) ¹
1	East 49 th Street, northern boundary of the site	Vehicles on Long Beach Boulevard	175	4:24 PM – 4:34 PM	62.5
2	Onsite, eastern boundary of the site	Vehicles on Long Beach Boulevard	175	4:37 PM – 4:47 PM	61.7
3	Long Beach Boulevard, western boundary of the site	Vehicles on Long Beach Boulevard	40	4:49 PM – 4:59 PM	70.0

See Figure 9 for a map of sound level measurement locations. See Appendix B for noise monitoring data.

¹ The equivalent noise level (Leq) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). For this measurement, the Leq was over a 10-minute period (Leq[10]).

Source: Rincon Consultants, field measurements on August 29, 2018 using ANSI Type II Integrating sound level meter

Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. According to the Noise Element of the Long Beach General Plan (1975), noise-sensitive land uses include, but are not limited to, residences, schools, hospitals, and libraries.

Noise-sensitive receptors closest to the project site include existing multi-family residences northeast and east of the project site; the Travel King Motel located 40 feet north across East 49th Street; the Shield of Faith church located 185 feet north of the site; Bundle of Joy Daycare, Walls Motel Long Beach, and the Word of God Ministries church located 100 feet west of the site across Long Beach Boulevard; and single-family residences located 330 feet west of the site (see Figure 9). In addition, the proposed residences would also be considered noise-sensitive receptors.

Regulatory Setting

State of California

California Code of Regulations (CCR) Title 24 requires that the interior noise level attributable to exterior noise sources not exceed a CNEL of 45 dBA in any habitable room with windows closed.

City of Long Beach Standards

The City of Long Beach uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA Community Noise Equivalent Level (CNEL) for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible with ambient noise levels up to 70 dBA. The City has also adopted a Noise Ordinance (LBMC Chapter 8.80) that sets exterior and interior noise standards.

As outlined in Section 8.80.150 of the LBMC, maximum exterior noise levels are based on land use districts. According to the Noise District Map of the LBMC, the project site and surrounding area is located within District One, which is defined as “predominantly residential uses with other land use types also present” (LBMC Section 8.80.160). Sections 8.80.202A through 8.80.202C of the LBMC specifies that no person shall operate tools or equipment used for construction activities or any other related building activity between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays; between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday; or at any time on Sunday. Table 17 summarizes the exterior and interior noise limits for District One while Table 18 summarizes interior noise limits based on general land uses.

Table 17 Exterior Noise Limits

Time Period	Noise Level (dba) ¹
10:00 PM to 7:00 AM	45
7:00 AM to 10:00 PM	50

¹ Cannot be exceeded more than 30 minutes cumulatively in an hour.

Source: LBMC Section 8.80.160

Table 18 Interior Noise Limits

Receiving Land Use	Source Land Use	Time Period	Noise Level (dBA) ¹
All	Residential	10:00 PM to 7:00 AM	35
		7:00 AM to 10:00 PM	45
All	School	7:00 AM to 10:00 PM (while school is in session)	45
Hospital, designated quiet zones and noise sensitive zones		Anytime	40

Source: LBMC Section 8.80.170

¹ Cannot be exceeded by more than five minutes cumulatively in an hour.

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Although CEQA does not require analysis of potential impacts of the environment on the proposed project, the following impact analysis of the ambient noise environment on future residents at the project is provided for informational purposes to disclose existing noise conditions in the project site vicinity. The proposed project’s construction and operational noise impacts on adjacent off-site noise-sensitive receptors are discussed further below.

The predominant source of noise on the project site is traffic along Long Beach Boulevard. The proposed townhome development would be a noise-sensitive receptor to ambient noise. Existing ambient sound levels were measured during a site visit on August 29, 2018 (see Appendix B for measurement results and Figure 9 for sound measurement locations in the site vicinity). As shown in Table 16, the ambient noise level at the project site is 70.0 dBA Leq. As shown in Table 19, the modeled existing ambient noise level in the project area is approximately 71 CNEL.

According to the City’s land use compatibility standards, 65 CNEL is acceptable for residential development. Therefore, assuming a noise exposure level up to 71 CNEL, the proposed townhomes would be exposed to noise levels in excess of 65 CNEL. According to project plans, the proposed townhomes would include patio areas along Long Beach Boulevard. Although traffic noise levels at proposed patios areas would be a potential annoyance for project tenants, passing vehicles would generate an intermittent noise source and tenants would have the option of retiring indoors. Therefore, exterior noise levels at the project site would be less than significant. Furthermore, the manner in which buildings in California are constructed typically provides a reduction of exterior-to-interior noise levels of up to 25 dBA with closed windows (FTA 2018). Based on an exterior noise level up to 71 CNEL, interior noise at would be approximately 46 CNEL and in marginal excess of the CCR Title 24 interior noise standard of 45 CNEL. Mitigation Measure NOI-1 would require the provision of forced-air mechanical ventilation to enable the retention of adequate air quality with closed windows for new residents. In addition, installation of Sound Transmission Class (STC) 30-rated² exterior wall assemblies would be required to reduce interior noise in habitable rooms for compliance with CCR Title 24 such that the interior noise levels do not exceed a CNEL of 45 dBA.

² Exterior materials with an STC 30 rating would reduce exterior noise at a 500 Hz frequency by approximately 30 dBA in the interior environment. This STC rating is calculated for specific materials in a laboratory setting by measuring sound transmission loss in 1/3 octave increments between 125 Hz and 4,000 Hz. Although STC 30-rated materials would not perform equally at all frequencies of ambient noise, they would reduce overall exterior noise of up to 71 CNEL by about 30 dBA.

The project site is also located approximately 60 feet north of an operational Union Pacific railroad that serves passing freight trains. The U.S. Department of Transportation, Federal Railroad Administration's (FRA) Crossing Inventory System documents all rail movements and train safety throughout the U.S. According to the inventory report for main rail line section directly south of the project site, there is generally only one freight train per week that passes the site (FRA 2018). The project site would occasionally be exposed to noise associated with passing trains, including blaring horns and the movement of steel wheels on tracks. However, such occurrences would remain intermittent and, given the predominant source of noise at the project site is vehicle traffic, passing trains would not contribute to a perceptible increase in the daily noise level at the project site. Furthermore, using guidance from the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018) for calculating train vibration, a freight train passing near the site would generate a vibration level of 69 VdB at the nearest proposed townhome (refer to Appendix B for the vibration calculations). Compared to FTA vibration levels, train vibration at the site would not exceed 75 VdB, which is the threshold between barely perceptible and distinctly perceptible vibration levels, nor would train vibration reach levels that could cause damage (100 VdB) to proposed onsite townhomes. While a future increase in train services would potentially increase the number of passing trains, such occurrences would remain intermittent and temporary and would not combine to increase vibration levels at the project site. Additionally, the proposed project would comply with Mitigation Measure NOI-1, which would reduce interior noise in habitable rooms for compliance with CCR Title 24 such that the interior noise levels do not exceed a CNEL of 45 dBA. Therefore, the proposed project would not be exposed to significant noise or vibration impacts from passing freight trains.

Overall, as a residential project, implementation of the proposed project would not generate noise sources that would substantially increase ambient noise levels in the project site vicinity and expose future onsite, noise-sensitive residents to new and unusual noise and vibration. Nonetheless, the exposure of future onsite residents to ambient noise and vibration is an analysis of potential impacts of the environment on the project. Therefore, it is not an impact under CEQA and is only discussed in this section for informational purposes. Impacts would be less than significant.

The proposed project would introduce 18 new townhomes to the project area. Existing noise-sensitive uses near the project site may be subject to both onsite residential noise sources and off-site traffic noise associated with operation of the proposed project. The following discussion addresses each noise source separately.

Onsite Operational Noise

The primary onsite noise sources associated with operation of the proposed project would include vehicle circulation noise (e.g., engine startups, alarms, parking) associated with the onsite roads; heating, ventilation, and air conditioning (HVAC) equipment at proposed townhome buildings; outdoor recreational noise at common and private open space areas; and use of landscaping equipment. However, the project site is located along Long Beach Boulevard and is surrounded by single- and multi-family residences, motels, churches, a daycare, and commercial uses. Therefore, the project site vicinity is already exposed to typical vehicle circulation noise, HVAC noise, recreational noise, and landscape equipment noise associated with existing uses in the project vicinity. Operation of the proposed townhomes would not generate sources of noise that are new to the existing surrounding area. In addition, the primary off-site noise sources in the project area are motor vehicles (e.g., automobiles, buses, and trucks) along Long Beach Boulevard. Given that motor vehicle noise is characterized by a high number of individual events that often create sustained

noise levels, operational noise of the proposed townhomes would not generate a perceptible increase in noise above existing ambient noise. Furthermore, the proposed project would also be subject to the City's noise standards for residential uses, as shown in Table 17 and Table 18. Overall, the proposed project would not introduce unusual noise sources new to the project area and all noise generated by the project would be subject to the City's Noise Ordinance standards. Onsite operational noise would be less than significant.

Off-site Traffic Noise

The dominant source of noise in the project area is traffic on nearby roadways, particularly Long Beach Boulevard. The proposed project would generate new vehicle trips and increase traffic on area roadways. As discussed in Section 18, *Transportation*, full buildout of the proposed project would generate approximately 105 daily trips, including eight trips during the morning peak hour and nine trips during the afternoon peak hour. Access to the project site would be provided via East 49th Street. However, as the nearest arterial street abutting the project site, Long Beach Boulevard would receive the bulk of project-generated vehicle trips. To assess the effect of new vehicle trips on roadway noise, Long Beach Boulevard was modeled under Existing and Existing plus Project conditions. Based on the City's most recent available 24-hour traffic counts, Long Beach Boulevard between Del Amo Boulevard and Market Street had an average daily trip (ADT) count of 24,500 in 2014 (City of Long Beach 2014).

Traffic noise associated with existing and future traffic was estimated using the United States Department of Housing and Urban Development (HUD) Day/Night Noise Level (DNL) Calculator (HUD 2018). Traffic noise model data is provided in Appendix B. As shown in Table 19, model calculations indicate an existing noise level of approximately 71 dBA CNEL along Long Beach Boulevard. The California Department of Transportation (Caltrans) indicates that modeled noise is generally reflective of measured vehicle noise if modeled noise is within 3 dBA of the peak-hour measurement (Caltrans 2013). Since modeled results are within 3 dBA of measured noise levels (see Table 16), the HUD DNL Calculator appropriately reflects existing traffic noise.

Table 19 also compares existing and existing plus project-generated traffic noise. Since the City does not have a threshold for transportation noise, this analysis uses recommendations in the FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018) as guidance to determine whether or not a change in traffic would result in a substantial permanent increase in roadway noise. Using the FTA criteria, a significant noise exposure increase is 1 dBA CNEL where the existing ambient noise level is between 70 and 75 dBA CNEL (FTA 2018). As shown in Table 19 the addition of 105 project-generated daily trips would not generate a measurable increase of traffic noise. Therefore, the project's impact on traffic noise would be less than significant.

Table 19 Comparison of Existing and Existing plus Project Traffic Noise

Roadway Segment	Noise Level (dBA, CNEL)			Significance Threshold ¹ (dBA, CNEL)	Significant
	Existing [1]	Existing Plus Project [2]	Change in Noise Level [2] – [1]		
Long Beach Boulevard between Del Amo Boulevard and San Antonio Drive	71	71	+0	1	No

Source: City of Long Beach Public Works 2014. See Appendix B for HUD DNL Calculator results. Results are rounded to the nearest whole number.

Temporary noise levels caused by construction activity would be a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of noise-generating activities. Construction noise was estimated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) Version 1.1. The construction equipment included in RCNM are based on standard equipment assumptions for construction of the proposed project from CalEEMod (see Section 3, *Air Quality*, and Appendix A). To determine construction noise impacts, noise was modeled at the nearest noise-sensitive receptors, consisting of multi-family residences northeast and east of the project site; the Travel King Motel located 40 feet north across East 49th Street; the Shield of Faith church located 185 feet north of the site; Bundle of Joy Daycare, Walls Motel Long Beach, and the Word of God Ministries church located 100 feet west of the site across Long Beach Boulevard; and single-family residences located 330 feet west of the site.

Modeled construction noise assumes that onsite construction activities would occur, on average, 50 feet from the project site boundary in order to provide an overall estimate of average hourly construction noise. Therefore, modeled distances between construction activity and off-site noise-sensitive receptors were 50 feet for the adjacent multi-family residences northeast and east of the project site; 90 feet for the Travel King Motel; 235 feet for the Shield of Faith church; 150 feet for Bundle of Joy Daycare, Walls Motel Long Beach, and the Word of God Ministries church; and 380 feet for single-family residences west of the site. Table 20 shows the equipment assumed to be used during each construction phase, as well as the average hourly noise levels (dBA, Leq) at distances of 50 feet, 90 feet, 150 feet, 235 feet, and 380 feet from the source. Construction noise estimates are based on the assumption that multiple pieces of construction equipment would operate simultaneously, and do not account for the presence of intervening structures or topography, which could reduce noise at receptor locations. Therefore, the noise levels presented in Table 20 represent a reasonably conservative estimate of actual construction noise.

The City does not have specific quantitative noise standards or limits related to construction noise. As shown in Table 16, the ambient noise level at the project site was measured at a range between 61.7 and 70.0 dBA Leq. As shown in Table 20, construction would generate noise levels of up to an estimated 86 dBA Leq during construction of the project at the nearest noise-sensitive receptor. Although construction would generate temporary noise levels in excess of ambient noise levels in the project vicinity, construction noise would cease after the completion of the proposed project. In addition, Sections 8.80.202A through 8.80.202C of the LBMC prohibits construction activities between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday). Compliance with the LBMC would limit construction hours so that construction noise does not occur during nighttime sleep hours and disturb noise sensitive residential receptors.

Table 20 Construction Noise Levels by Phase

Construction Phase	Equipment	Approximate Leq, dBA				
		50 Feet ¹	90 Feet ²	150 Feet ³	235 Feet ⁴	380 Feet ⁵
Site Preparation and Grading	Grader, Tractor, Dozer	85	80	75	71	67
Building Construction	Generator Set, Crane, Forklift, Tractor, Welders (3)	86	81	76	72	68
Paving	Cement and Mortar Mixer, Paver, Roller, Tractor, Paving Equipment	86	80	76	72	68
Architectural Coating	Air Compressor	74	69	64	60	56

See Appendix B for RCNM data sheets and assumptions.

¹ Modeled distance for adjacent multi-family residences.

² Modeled distance for Travel King Motel across East 49th Street.

³ Modeled distance for Bundle of Joy Daycare, Walls Motel Long Beach, and Word of God Ministries church across Long Beach Boulevard.

⁴ Modeled distance for Shield of Faith church north of the site.

⁵ Modeled distance for single-family residences west of the site.

Additionally, the project would include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. No new development or changes to the existing buildings are proposed on the rezoned properties. Therefore, the rezoning of the two additional properties to the east of the project site would not result in construction-related noise or changes in operation noise as compared to the existing conditions. Additionally, the proposed project would implement Mitigation Measure NOI-2 during construction. Temporary construction noise would be less than significant.

Mitigation Measures

NOI-1 Sound Insulation

The applicant shall install exterior building materials with sufficient Sound Transmission Class (STC) ratings to reduce interior noise levels in habitable rooms of all residential units with direct exposure to Long Beach Boulevard and the adjacent Union Pacific Railroad to below 45 CNEL, as required by CCR Title 24. All residential windows, exterior doors, and exterior wall assemblies that face Long Beach Boulevard and the adjacent Union Pacific Railroad, shall meet an STC 30 rating to ensure the adequate attenuation of noise at a range of frequencies. The provision of forced-air mechanical ventilation, enabling new residents to retain adequate air quality with windows closed, and the installation of STC 30-rated residential windows, exterior doors, and exterior wall assemblies would substantially reduce interior noise in habitable rooms. Prior to approval of the development, the applicant shall demonstrate to the Department of Development Services how construction of the proposed residential units and chosen building materials will achieve an interior noise level of 45 CNEL.

NOI-2 Construction Noise

Prior to Grading Permit issuance, the project applicant shall demonstrate, to the satisfaction of the City of Long Beach City Engineer that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property owners and occupants located within 200 feet of the project boundary shall be sent a notice regarding the construction schedule of the proposed project, at least 15 days prior to commencement of construction of each phase. A sign, legible at a distance of 50 feet shall be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Long Beach Development Services Department, prior to mailing or posting, and shall indicate the dates and duration of construction activities, as well as provide a contact name and telephone number where residents can inquire about the construction process and register complaints.
- Prior to issuance of any Grading or Building Permit, the Contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present onsite during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Prior to issuance of any Grading or Building Permit, the Project Applicant shall demonstrate to the satisfaction of the City Engineer that construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools. Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities shall not take place outside of the allowable hours specified by the City's Municipal Code Section 8.80.202, Construction Activity (7:00 a.m. to 7:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays; construction activities are not permitted on Sundays or legal holidays).

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction activity associated with the project would create groundborne vibration. Operation of the proposed project would not generate significant ground-borne vibration as residences would not require the use of heavy industrial machinery. Therefore, this analysis considers vibration impacts only from project construction. To determine ground-borne vibration impacts, vibration

was modeled at the nearest sensitive receptors, consisting of multi-family residences northeast and east of the project site; the Travel King Motel located 40 feet north across East 49th Street; the Shield of Faith church located 185 feet north of the site; Bundle of Joy Daycare, Walls Motel Long Beach, and the Word of God Ministries church located 100 feet west of the site across Long Beach Boulevard; and single-family residences located 330 feet west of the site.

Construction activity would not operate exclusively along the project boundary of the site. Rather, stationary construction activity would occur at various locations on the project site and mobile construction equipment would operate throughout the site. To provide an overall estimate of construction vibration levels, modeled construction vibration assumes that onsite construction activities would occur, on average, 50 feet from the project site boundaries; therefore, modeled distances between construction activity and off-site noise-sensitive receptors were 50 feet for the adjacent multi-family residences northeast and east of the project site; 90 feet for the Travel King Motel; 235 feet for the Shield of Faith church; 150 feet for Bundle of Joy Daycare, Walls Motel Long Beach, and the Word of God Ministries church; and 380 feet for single-family residences west of the site. Vibration levels were calculated at these sensitive receptors using the VdB of the highest impact pieces of equipment that would be used during project construction, which are the roller and dozer. Table 21 lists ground-borne vibration levels from a roller and dozer at 50 feet, 90 feet, 150 feet, 235 feet, and 380 feet from the source.

Table 21 Vibration Levels for Construction Equipment

Equipment	Approximate VdB				
	50 Feet ¹	90 Feet ²	150 Feet ³	235 Feet ⁴	380 Feet ⁵
Roller	85	78	71	65	59
Dozer	78	70	64	58	51

See Appendix B for vibration modeling data sheets.

¹ Modeled distance for adjacent multi-family residences.

² Modeled distance for Travel King Motel across East 49th Street.

³ Modeled distance for Bundle of Joy Daycare, Walls Motel Long Beach, and Word of God Ministries church across Long Beach Boulevard.

⁴ Modeled distance for Shield of Faith church north of the site.

⁵ Modeled distance for single-family residences west of the site.

As shown in Table 21 operation of a loaded truck, dozer, and roller would generate peak vibration levels of approximately 85 VdB at the nearest noise-sensitive receptors. Although vibration would exceed 75 VdB (the threshold between barely perceptible and distinctly perceptible) such events would be intermittent and relatively short in duration. According to Sections 8.80.202A through 80.202C of the LBMC, construction activities are prohibited between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday. Compliance with the City's permitted hours of construction would prohibit construction vibration during nighttime sleep hours. Furthermore, according to FTA vibration levels, ground-borne vibration would not reach levels that could cause damage (100 VdB) to structures in the vicinity of the project site. Therefore, impacts from vibration would be less than significant.

The project would also include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels

are currently occupied by single-family residences. No new development or physical changes to the existing buildings are proposed on adjacent Lots 1 and 2. Therefore, the rezoning of the two additional properties to the east of the project site would not result in construction related ground-borne vibration.

LESS THAN SIGNIFICANT IMPACT

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

As discussed in Section 9, *Hazards and Hazardous Materials*, the nearest aircraft facility to the project site and adjacent Lots 1 and 2 is the Long Beach Airport approximately 3.8 miles southeast of the project site. According to the County of Los Angeles Airport Land Use Commission (ALUC), the project site is outside the noise contours of the airport (ALUC 2003). Although the project site would potentially be subject to occasional aircraft overflight noise, such occurrences would be intermittent and temporary. In addition, there are no private airstrips in the vicinity of the project site and adjacent Lots 1 and 2. Therefore, the project would not result in noise impacts related to airports for people residing or working at the project site and its vicinity. Impacts would not occur.

NO IMPACT

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14 Population and Housing

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

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

As discussed in Section 14, *Population and Housing*, according to the California Department of Finance (DOF), the City of Long Beach has an estimated population of 475,013 with an average household size of 2.82 persons (DOF 2019). The Southern California Association of Governments (SCAG) estimates a population increase to 484,500 by 2040 which is an increase two percent or 9,487 persons (SCAG 2016). Development of 18 new townhomes would increase the existing population by approximately 51 residents (approximately 0.01 percent) to 475,063. . In addition, SCAG’s estimate for existing households in 2012 is 163,800. SCAG estimates a housing increase to 175,500 by 2040, which is an increase of approximately seven percent, or 11,700 housing units (SCAG 2016). Construction of the proposed 16 housing units would represent approximately 0.1 percent of the projected housing stock increase, which would not exceed SCAG’s 2040 housing units forecast.

The project would also include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed on each of the rezone parcels would also be one residential unit per lot. No new development or physical changes to the existing buildings are proposed on the rezoned properties. Therefore, the rezoning of these two parcels would not result in a change to population. Therefore, the proposed project would not cause a substantial increase in population nor induce unplanned population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Because the project site is vacant, the proposed project would not displace existing housing or people and would not necessitate the construction of replacement housing elsewhere. Additionally, the project includes the rezoning of the two parcels located immediately to the east of the project site. The two parcels are currently each occupied by a single-family residence. No new development or physical changes to the existing buildings are proposed on the adjacent Lots 1 and 2. Therefore, the rezoning of these two parcels would not result in a change to housing and no impact would occur.

NO IMPACT

15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Fire protection is provided by the Long Beach Fire Department (LBFD). The nearest fire station to the project site is LBFD Station No. 11 located at 160 East Market Street, approximately one mile north. As identified in Chapter 18.48 of the LBMC, the City of Long Beach has adopted the California Fire Code (2016 edition). The Fire Code contains regulations related to construction, maintenance and design of buildings and land uses. The proposed project would be required to adhere to all Fire Code requirements.

The proposed project would involve construction of 16 residential townhomes in an urbanized area. Additionally, the project would include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. No new development or changes to the existing buildings are proposed on the rezoned properties. The proposed project would increase development intensity on the project site, which would incrementally increase demand for fire protection services. However, the proposed project is an infill development within the existing service area of the LBFD. Additionally, the project site is not located in a Fire Hazard Severity Zone

and thus would not be exposed to an increased risk of wildfires (Cal Fire 2007). The proposed project would not place an unanticipated burden on fire protection services and would therefore not affect response times or service ratios such that new or expanded fire facilities would be needed. Additionally, the LBFD would be required to sign off on project activities prior to implementation of the portions project that are in their respective jurisdictions. Based on verbal communication with the LBFD Fire Prevention Division, LBFD has adequate capabilities to serve the proposed townhomes (LBFD 2018). Therefore, the project would not create the need for new or expanded fire protection facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Police protection services in Long Beach are provided by the Long Beach Police Department (LBPD). LBPD consists of approximately 800 sworn police officers and total staffing of over 1,200 employees (LBPD 2018). Based on a current total population of 478,561 (DOF 2018), the current officer to population ratio is 1.7 sworn officers per 1,000 residents. The Patrol Bureau includes one specialized Field Support Division and three geographical divisions: North, East and West. The project site and adjacent Lots 1 and 2 are served by the LBPD North Division Station, located at 4891 Atlantic Avenue, approximately 0.5 mile east of the project site. The proposed townhomes would add an estimated 45 new residents to the City population. No new development or changes to the existing buildings are proposed on the rezoned properties. Based on verbal communication with LBPD Crime Prevention Division, the LBPD would have adequate capabilities to serve the proposed townhomes (LBPD 2018). The proposed project would not cause substantially delayed response times, degraded service ratios or necessitate construction of new facilities, due to the relatively small size of the development and the location in an already developed and well served area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site and rezoned properties are served by Long Beach Unified School District (LBUSD). LBUSD operates 85 facilities serving grade levels pre-K through high school and has a current enrollment of 72,000 students (LBUSD 2018a). Schools serving the project site include Dooley Elementary, located at 5075 Long Beach Boulevard, which serves grades K through 5th, Lindsey Academy, located at 5075 Daisy Avenue, which serves grades 6th through 8th, and Jordan High School, located at 6500 Atlantic Avenue, which serves grades 9th through 12th (LBUSD 2018b).

The proposed project would involve the construction of 18 new townhomes. A conservative assumption of one student per household was used to determine that the proposed project would generate approximately 18 additional students that would attend the schools within the LBUSD. No new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2. Based on verbal and written communication with LBUSD Facilities Development & Planning Department,

LBUSD has adequate capabilities to serve the proposed project (LBUSD 2018c). As shown in Table 22 below, enrollment for the schools serving the project site is below capacity. Therefore, the incremental increase in the number of students generated by the proposed townhomes would not result in the need for new or physically altered school facilities as sufficient capacity is available.

Table 22 Enrollment and Capacity at School Serving the Project Site

School	Enrollment	Capacity
Dooley Elementary School	903	956
Perry Lindsey Middle School	769	1,002
Jordan High School	2,449	4,038

Source: LBUSD Facilities Development & Planning Department, 2018

In accordance with State law, the applicant would be required to pay school impact fees. Pursuant to Section 65995 (3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Thus, payment of development fees is considered full mitigation for the modified project's impacts under CEQA.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Recreational amenities in the City of Long Beach include 170 parks and 26 community centers, providing more than 3,100 acres of developed for recreational space (DPRM 2018). Based on a population of 478,561 residents, the City's current parkland ratio is approximately 6.5 parkland acres per 1,000 residents. The desired standard stated in the 1975 Quimby Act is 3 acres of parkland per 1,000 residents. By this guideline standard, the City of Long Beach has an adequate amount of open space on a per population basis. The project site is located approximately 0.2 mile north of Scherer Park, which is a 26-acre park that includes a community center, picnic area, playground, basketball courts, tennis courts, and volleyball courts, and would serve residents associated with the proposed project.

The proposed townhomes would generate an estimated 51 residents and would incrementally increase the demand for usage of existing parks in the City. The proposed project would include 10,880 sf of open space, which would offset some demand on park and recreational facilities in the City. No new development or changes to the existing buildings are proposed on the rezoned properties. However, since the City is well served by open space on a per population basis, the proposed townhomes would not create unanticipated demand on city parks. Additionally, in accordance with the Quimby Act, the City assesses open space development fees for new residential development. Pursuant to Chapter 18.18 of the LBMC, all residential development is required to pay a park fee prior to the issuance of a certificate of occupancy. This fee is intended to be used for the

acquisition, improvement, and expansion of public parks and/or recreational facilities. The proposed project would be subject to park land dedication fees. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Implementation of the proposed townhomes would increase the local population by approximately 51 residents. No new development or changes to the existing buildings are proposed on the rezoned properties. The proposed project would contribute incrementally toward impacts to City public services and facilities such as storm drain usage (discussed in Section 10, *Hydrology and Water Quality*), public parks, solid waste disposal (discussed in Section 19, *Utilities and Service Systems*), water usage and wastewater disposal (discussed in more detail in Section 19, *Utilities and Service Systems*), and libraries. The project's contribution would be offset through payment of fees that are used to fund storm drain improvements, and school facility expansions, as well as by the project-specific features described in the individual resource section analyses described in this Initial Study. Additionally, the proposed project would be served by the Michelle Obama Public Library located at 5870 Atlantic Ave, approximately 1.7 miles north east of the project site. The Michelle Obama Neighborhood Library opened in September 2016 and includes a 24,655-sf facility with state-of-the-art amenities. The building also has three public community meeting spaces. The new library has expanded resources and programs to serve the community of north Long Beach (LBPL 2018). Therefore, increased demand would be nominal, and the addition of the Michelle Obama Library would continue to accommodate the needs of the residents. Overall, impacts to other public facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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?*

As discussed above under Section 15, *Public Services*, recreational amenities in the City of Long Beach include 170 parks and 26 community centers, providing more than 3,100 acres of developed for recreational space (DPRM 2018). Based on a population of 478,561 residents, the City’s current parkland ratio is approximately 6.5 parkland acres per 1,000 residents. The desired standard stated in the 1975 Quimby Act is three acres of parkland per 1,000 residents. By this guideline standard, the City of Long Beach has an adequate amount of open space on a per population basis. The project site is located approximately 0.2 mile north of Scherer Park, which is a 26-acre park that includes a community center, picnic area, playground, basketball courts, tennis courts, and volleyball courts, and would serve residents associated with the proposed project.

The proposed project would generate an estimated 51 residents and would incrementally increase the demand for usage of existing parks in the City. The proposed project would include 10,880 sf of open space, which would offset some demand on park and recreational facilities in the City. Additionally, the project would include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed on each of the rezoned parcels would also be one residential unit per lot. No new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2. Because the City is well served by open space on a per population basis, the proposed project would not create unanticipated demand on city parks or cause substantial deterioration of existing parks such that new park facilities would be needed. Additionally, in accordance with the Quimby Act, the City assesses open space development fees for new residential development. Pursuant to Chapter 18.18 of the LBMC, the project would require a park fee prior to the issuance of a certificate of

City of Long Beach
4800 Long Beach Boulevard Project

occupancy. This fee is intended to be used for the acquisition, improvement, and expansion of public parks and/or recreational facilities. The proposed project would be subject to park land dedication fees. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Construction of the proposed project would generate traffic for deliveries of equipment and materials to the project site and construction worker traffic. However, construction traffic would be temporary, and the movement of construction equipment would be limited to the project site for most of the construction period. Therefore, construction traffic would not substantially interfere with the City's circulation system. Additionally, the project would include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. The maximum density allowed under the R-3-T zoning designation for the rezoned properties would also be one residential unit per lot. Therefore, the rezoning of the two properties would not facilitate development at a greater density than what is currently existing. No new development or changes to the existing buildings are proposed on the rezoned properties.

Operation of the proposed project would generate new vehicle trips on the surrounding circulation system. Trip generation estimates were developed utilizing trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation 10th Edition. According to ITE rates for residential condo/townhouse, the proposed project would generate approximately 100 daily trips, including six AM peak hour trips and eight PM peak hour trips. Project-generated vehicle trips would incrementally increase existing traffic volumes of the surrounding circulation system.

Access to the project site would be provided via East 49th Street. However, as the nearest arterial street abutting the project site, it is reasonable to assume that Long Beach Boulevard would receive the bulk of project-generated vehicle trips. The City's most recent available 24-hour traffic counts for Long Beach Boulevard (between Del Amo Boulevard and Market Street) had an average daily trip

(ADT) count of 24,500 in 2014 (City of Long Beach 2014). Therefore, assuming all daily trips generated by the proposed project occur on Long Beach Boulevard, the addition of 100 daily trips generated by the proposed project would represent an increase of 0.4 percent above existing daily trip conditions. Such an increase would not affect service levels in a manner that would conflict with City plans or policies related to transportation system performance. Impacts would be less than significant.

The proposed project would be limited to site-specific improvements and would not damage the performance or safety of any public transit, bikeway or pedestrian facilities. Sidewalks are provided along all key roadways in the project site vicinity and pedestrian crosswalks with signalized intersections in the project area. The project would include a 13-foot dedication along Long Beach Boulevard and an eight-foot dedication along 49th Street for future street widening. Sidewalk improvements shall be in accordance with Public Works requirements. Existing transit lines along Long Beach Boulevard include Long Beach Transit, Metro and Orange County Transit Authority. The project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, and would not otherwise substantially reduce the performance or safety of such facilities. Therefore, there would be no impact of the proposed project.

Additionally, the Los Angeles County Congestion Management Program (CMP) requires an analysis of all arterial segments and arterial monitoring intersections on the CMP roadway network where the project adds 50 or more peak hour trips. In addition, the CMP requires evaluation of all mainline freeway-monitoring locations where the project adds 150 or more peak hour trips. The project would generate approximately six AM peak hour trips and eight PM peak hour trips. Therefore, it would not generate traffic exceeding CMP thresholds or otherwise conflict with the CMP. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??

CEQA Guidelines Section 15064.3(b) identifies appropriate criteria for evaluating transportation impacts. It states that land use projects with vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact, and that projects that decrease VMT compared to existing conditions should be presumed to have a less than significant transportation impact. Section 15064.3(c) states that the requirement to use these criteria only applies on and after July 1, 2020. The proposed project would be infill development, which generally generates lower VMT than “greenfield” development (new development in rural or agricultural areas on the periphery of communities, or lands otherwise not previously planned for development).

As discussed in Section 11, *Land Use and Planning*, project entitlements include a Zone Change to R-4-N (Medium-density Multiple Residential), which would allow for the development of the proposed townhomes. The R-4 N zone allows for a high density, multifamily residential district. It is intended to meet the demand of a broad segment of the population which provides a diversity of housing choices.

Additionally, the project includes the rezoning of the two parcels located immediately to the east of the project site. Currently, the two parcels are zoned CCA and have a Land Use Designation of 3A (Townhomes). The two parcels would be rezoned to the R-3-T (Multi-family Residential, Townhouse) designation. The rezoned properties are currently occupied by single-family residences. No new development or changes to the existing buildings are proposed on the rezoned properties.

Development of the proposed project would place high density multi-family residences near commercial uses located to the west and south of the project site, across Long Beach Boulevard. Additionally, the project would be developed within a quarter mile of bus stops along Long Beach Boulevard and Del Amo Boulevard. The project site and adjacent Lots 1 and 2 are also approximately one mile from the Metro Blue Line's Del Amo Station. The proposed project would therefore reduce VMT by developing high-density residential uses in walking distance to commercial uses and employment opportunities, and near public transit options. In addition, according to the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), land use projects such as the proposed project "that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact." For these reasons, the proposed project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and there would be no impact.

NO IMPACT

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

No roads would be permanently closed as a result of construction or operation of the proposed project and rezone of the properties to the east of the project site. During operation of the project, each of the proposed residences would have an individual access driveway leading to an internal driveway located off 49th Street. The proposed project would not result in inadequate emergency access or introduce any design features or incompatible uses, such as sharp curves or dangerous intersections, that would substantially increase hazards at the site and no impact would occur.

NO IMPACT

- d. *Would the project result in inadequate emergency access?*

The proposed project, and rezone of the two properties to the east of the project site, would not result in inadequate emergency access because it would be subject to the Long Beach Fire Department review and acceptance of site plans, and structures prior to occupancy to confirm that required fire protection safety features, including adequate driveway access to buildings and adequate emergency access, are implemented. Consequently, there would be no impact.

NO IMPACT

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 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)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 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?*

Tribal cultural resources are defined in Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1

As part of the process of identifying tribal cultural resources in or near the project site, the City sent letters inviting tribes to consult with the City on August 21, 2018. The City requested a response within 30 days of receipt as specified by AB 52. The City received a request for consultation from the Gabrieleño Band of Mission Indians on August 30, 2018. Consultation was held on November 1, 2018.

As discussed in Section 5, *Cultural Resources*, the project site is currently vacant and disturbed. There is no evidence that archaeological resources are present onsite or on the rezoned properties. No new development is proposed on the rezoned properties. Although it is not anticipated that intact tribal cultural resources are present in the project site there is the potential for the recovery of buried cultural materials during project construction activities associated with the proposed townhomes. Mitigation measures CR-1 and CR-2 and GEO-1 would address the potentially significant impacts relating to the unanticipated discovery of archeological or paleontological resources and human remains during project development.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

19 Utilities and Service Systems

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

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Water

The Long Beach Water Department (LBWD) primarily relies upon groundwater extracted locally from the Central Basin to meet customer water demands. Additionally, LBWD purchases imported water from Metropolitan Water District (MWD) to make up the difference between demand and groundwater supplies. LBWD also provides recycled water to an increasing number of customers to

replace the use of potable water (LBWD 2015). The City of Long Beach's 2015 Urban Water Management Plan (UWMP) reports total citywide water demand for 2015 at 55,206 acre feet. This is projected to increase by 3,900 acre feet (or 7.1 percent) to 59,106 acre feet in 2040. According to the Long Beach UWMP, the City expects to meet project demand needs for the next 25 years (LBWD 2015). The proposed project would demand an estimated 0.74 million gallons (2.3 acre-feet [AFY]) of water per year according to CalEEMod estimates (See Appendix A). Project water demand would represent approximately 0.05 percent of the projected increase in water demand of 3,900 AFY for 2040.

The project would also include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed on each of the rezoned parcels would also be one residential unit per lot. No new development or changes to the existing buildings are proposed on the rezoned properties. As such, no change with respect to water demand would occur of these parcels. Therefore, the proposed project's projected water demand is within forecasted water supply and would not require the construction of new water supply facilities, or expansion of existing facilities. Impacts would be less than significant.

Wastewater

A majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts (LACSD). The remaining portion is delivered to the Long Beach Water Reclamation Plant (LBWRP) of the LACSD. The JWPCP provides advanced primary and partial secondary treatment for 260 million gallons of wastewater per day (MGD), with a permitted capacity for 400 MGD of wastewater (LACSD 2018a), resulting in an available capacity of 140 MGD. The LBWRP provides primary, secondary, and tertiary treatment for 25 MGD of wastewater (LACSD 2018b).

The proposed project would create demand for an estimated 0.74 million gallons of water per year according to CalEEMod estimates (see Appendix A). Assuming that 100 percent of this water use would be treated as wastewater, 0.74 million gallons per year (2,027 gallons per day or 0.002 MGD) represents less than 0.01 percent of the remaining daily capacity of 140 MGD of wastewater at the JWPCP. Additionally, no new development or changes to the existing buildings are proposed on the adjacent Lots 1 and 2. As such, no change with respect to wastewater generation would occur of these parcels. The proposed project would not require the construction of new treatment facilities because the JWPCP would have adequate capacity to treat the wastewater produced by the proposed project. Impacts would be less than significant.

Stormwater Drainage As discussed in Section 10, *Hydrology and Water Quality*, the proposed project would comply with current NPDES and Los Angeles County MS4 permit regulations pertaining to the retention of erosion and detention of site runoff into storm drains and receiving waters and include storm water Low Impact Development (LID) Best Management Practices (BMPs). Additionally, the Chapter 18.74 of the LBMC regulates the implementation of the LIDs and BMPs for projects in the City. Compliance with these requirements would reduce potential impacts to local stormwater drainage facilities to a less than significant level.

Electric Power, Natural Gas, Telecommunications

The project site, and adjacent Lots 1 and 2, are located in the existing developed area of the City of Long Beach, which has existing infrastructure for electric power, natural gas, and

telecommunications services. The proposed project would be infill development consistent with long-range plans for the area (see Section 11, *Land Use and Planning*). The proposed project would not cause substantial unplanned population growth (see Section 14, *Population and Housing*), and would not result in wasteful or inefficient use of energy (see Section 6, *Energy*), nor would the project require or result in the construction of new electric power, natural gas, or telecommunication facilities or expansion of existing facilities. Additionally, no new development or changes to the existing buildings are proposed on adjacent Lots 1 and 2. As such, although the proposed project would create an incremental increase in demands on these facilities, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As shown in Table 23, LBWD projects that water supplies will be sufficient to meet all demands through the year 2040 during normal, single dry year, and multiple dry year hydrologic conditions.

Although historical precedent has consistently proven that water demands decrease in dry years due to voluntary and mandatory water use restrictions and a general increase in public awareness of the need for water conservation, the 2015 UWMP takes a conservative approach to planning by assuming that water demand will remain steady rather than decrease during dry years. LBWD supplies are projected to significantly exceed demands through 2040 even in future dry years if customers do not reduce their demand as they have done in recent droughts (LBWD 2015).

The proposed project would demand an estimated 0.74 million gallons (2.3 acre-feet [AFY]) of water per year according to CalEEMod estimations (See Appendix A). The proposed project would represent approximately 0.02 percent of the 15,154 AF surplus of water supply during normal, single and multiple dry year conditions for year 2040.

The project would also include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed on each of the rezone parcels would also be one residential unit per lot. No new development or changes to the existing buildings are proposed on the rezoned properties. As such, no change with respect to water demand would occur of these parcels. Because sufficient water is available to serve the project during normal, single and multiple dry year conditions, new sources of water would be not required to meet project water needs. The impact would be less than significant.

Table 23 Water Supply and Demand in Single and Multiple Dry Years (AF)

Year-Type	2020	2025	2030	2035	2040
Normal Year					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154
Single Dry Year					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154
Multiple Dry Year 1st, 2nd, and 3rd Year Supply					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154

Units in acre-feet (AF)
Source: LBWD 2015

LESS THAN SIGNIFICANT IMPACT

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

As discussed above, the proposed project would create demand for an estimated 0.74 million gallons of water per year according to CalEEMod estimations (see Appendix A). Assuming that 100 percent of this water use would be treated as wastewater, 0.74 million gallons per year (2,027 gallons per day or 0.002 MGD) represents less than 0.01 percent of the remaining daily capacity of 140 MGD of wastewater at the JWPCP. As discussed above under Checklist Item a., no new development or changes to the existing buildings are proposed on the rezoned properties; therefore, no change with respect to waste water generation would occur on these properties. The proposed project would not require the construction of new treatment facilities as the JWPCP would have adequate capacity to treat the wastewater produced by the proposed project. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The Long Beach Environmental Services Bureau and private permitted waste haulers provide solid waste service for the City. Waste generated from the Project Site would be disposed at various facilities based on the contract made between a permitted waste hauler and the building occupant. One such facility is the Republic Services Bel Art Transfer station located approximately three miles north of the project site. Additionally, as reported in the County of Los Angeles 2016 Countywide Integrated Waste Management Plan, 47 percent of the waste received at the Southeast Resource Recovery Facility is generated by the City of Long Beach (County of Los Angeles Department of Public Works [DPW] 2017). Materials leaving transfer stations could be transported to a variety of destinations. Savage Canyon (Class III) Landfill is the nearest to the project site, although this would not necessarily be the landfill accepting materials generated by the project site, as that would be determined in part by a contract with a waste hauler. The Savage Canyon landfill is located approximately 19 miles north east of the project site. The landfill has a 350 ton per day maximum permitted throughput capacity and receives approximately 293 tons per day. Additionally, the landfill has a remaining capacity of 4.89 million tons and an estimated remaining life of 39 years (DPW 2017).

According to CalEEMod (see Appendix A), the proposed project would generate about 4.97 tons of solid waste per year (0.01 tons per day). The 0.01 tons of solid waste generated by the project would be approximately 0.02 percent of the available daily capacity of 57 tons at the Savage Canyon landfill. Additionally, the project would include the rezoning of the two properties to the east of the project site from CCA (Community Commercial Automobile-Oriented) to R-3-T (Townhomes). The two parcels are currently occupied by single-family residences. Under the R-3-T zoning designation the maximum density allowed on each of the rezone parcels would also be one residential unit per lot. No new development or changes to the existing buildings are proposed on the rezoned properties and as such, no change with respect to waste generation would occur of these parcels. The proposed project would comply with federal, State, and local statutes and regulations related to solid waste and recycling, such as AB 939 and SB 1383, through participation in existing City waste diversion programs. As there is adequate remaining daily landfill capacity in the region to accommodate project-generated waste, impacts related to solid waste and waste facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The project site and adjacent Lots 1 and 2 are located in an urban area of the City of Long Beach. Undeveloped wildland areas are not located in proximity to the project site. According to CalFire the project site is not located in a “Fire Hazard Severity Zone” or “Very High Hazard Severity Zone” for wildland fires (CalFire 2007). Therefore, the project site is not located near a state responsibility area or classified as having a high fire hazard.

As discussed in Section 15, *Public Services*, the Lbfd provides fire prevention, fire protection, and emergency response for the project site and the surrounding Long Beach area. According to the City’s General Plan Public Safety Element, the Department of Emergency Preparedness has prepared and adopted citywide emergency procedures (City of Long Beach 1975c). In order to comply with these procedures, all development including the proposed project, in the City of Long Beach would consider existing emergency routes, response procedures and action plans. Construction of the

proposed project would maintain emergency access to the site and on area roadways and would not interfere with an emergency response plan or evacuation route as described in the Public Safety Element of the City's General Plan. No new development or construction are proposed on the adjacent Lots 1 and 2. No impact would occur.

NO IMPACT

- b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Long Beach is located directly east of the Palos Verdes Peninsula, and has a mostly south facing coastline along the Pacific Ocean. The city is largely characterized by flat topography, with the Palos Verdes hills to the west that generally block strong west to east wind patterns. Prevailing winds in the city and at the project site are influenced mainly by hilly terrain to the west and the coastline to the south, resulting in wind mostly from the west from February through November and from the north from November through January. The project site, adjacent Lots 1 and 2, and the surrounding area are not at risk to high windspeeds or slopes that may exacerbate wildfire risk.

There are no streams or rivers located on or adjacent to the project site, and the project site and surrounding areas are not at high risk of downslope or downstream flooding or landslides. The project site and adjacent Lots 1 and 2 are located in an urbanized area and is not located in a high fire hazard severity zone (CalFire 2007). Therefore, wildfire risks would not be exacerbated and risks to people or structures due to runoff, post-fire slope instability, or drainage changes would not occur. Residents and visitors of the project site and adjacent Lots 1 and 2 would not be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

NO IMPACT

- c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project site and adjacent Lots 1 and 2 are located in an urbanized area and are not located in or near a state responsibility area or land classified as a very high fire hazard severity zone (CalFire 2007). The project includes the development of 16 townhomes and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. Additionally, no new development or changes to the existing buildings are proposed on the adjacent Lots 1 and 2. project site would be adequately served by existing facilities and utilities. Therefore, the proposed project would not require additional roads, fuel breaks, emergency water sources, power lines or other utilities that would exacerbate fire risk and no temporary or ongoing impacts to the environment would occur.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Does the project:

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <p>a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>b. Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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

As discussed in Section 4, *Biological Resources*, the project site and adjacent Lots 1 and 2 are not included in any mapped essential habitat connectivity areas in the immediate vicinity. In addition, regional wildlife movement is restricted given the built-out nature of the project area surroundings, and no native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites exist on the project site. However, the project site currently has existing vegetation that would be removed for project construction, which may contain nesting or breeding birds. Therefore, implementation of Mitigation Measure BIO-1 would

require nesting bird surveys to be completed prior to construction activities and, therefore, would reduce potential impacts to a less than significant level.

Furthermore, as discussed in Section 5, *Cultural Resources*, Section 7, *Geology and Soils*, and Section 18, *Tribal Cultural Resources*, the proposed project would have a less than significant impact on unanticipated cultural resources, paleontological resources, and tribal cultural resources with implementation of mitigation measures CR-1, CR-2 and GEO-1, which would require adherence to existing local, State and federal regulations and specific monitoring procedures related to the discovery of any unanticipated cultural resources, paleontological resources, tribal cultural resources, and human remains during construction activity.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- 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)?*

As concluded in Sections 1 through 20, the project would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated with respect to all environmental issues considered in this document. Within a 1.5-mile radius of site, there are eight planned and pending projects as shown in Table 24

Table 24 Cumulative Projects List

Project No.	Project Location ¹	Land Use	Description ²
1	5100 Long Beach Blvd.	Multi-Family Residential	38 three-story townhomes
2	5721 Lime Ave.	Multi-Family Residential	14 new residential units with 1 very low-income unit
3	4700 Cherry Ave.	Commercial	5,300 sf commercial building
4	3849 Atlantic Ave.	Commercial	5,000 sf retail building
5	4251 Long Beach Blvd.	Commercial	8,559 sf commercial shell building
6	4747 Daisy Ave.	Multi-Family Residential	131 single-family residential units
7	3701 Pacific Place	Industrial	147,917 sf, 3-story self-storage facility and onsite, at grade RV parking storage
8	4000 Via Oro Ave.	Industrial	517,037 sf distribution center/warehouse

^{1,2}Cumulative project details were sourced from the City of Long Beach in March 2020

sf = square feet

The planned projects closest to the project site are the multifamily residential project at 5100 Long Beach Boulevard, approximately 0.31 miles north of the site, and the single-family residential subdivision located at 4747 Daisy Avenue approximately a half mile to the southwest of the project site. Cumulative impacts of several resource areas have been addressed in the individual resource sections, including Air Quality, Greenhouse Gases, and Noise. As discussed in Sections 1, *Air Quality*, the proposed project would result in less than significant impacts with respect to air quality emissions with incorporation of mitigation measures. As discussed in Sections 8, *Greenhouse Gas Emissions*, the proposed project would result in less than significant impacts with respect to greenhouse gas emissions. Therefore, the project would not contribute to cumulative impacts

related to these issues. The noise and traffic analyses (see Sections 13 and 17, respectively) both consider increases in transportation noise under Existing plus Project conditions. As discussed in Section 13, *Noise*, the proposed project would result in less than significant impacts with incorporation of mitigation measures. Section 17, *Transportation*, concluded that impacts would be less than significant. Some of the other resource areas (agricultural and mineral) were determined to have no impact in comparison to existing conditions. As such, the project would not contribute to cumulative impacts related to these issues. Other issues (e.g., geology, hazards, and hazardous materials) are by their nature project specific and impacts at one location do not add to impacts at other locations or create additive impacts. As such, cumulative impacts would be less than significant (not cumulatively considerable).

LESS THAN SIGNIFICANT IMPACT

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in analyses for air quality, hazards and hazardous materials, and noise, the proposed project would not result, either directly or indirectly, in adverse hazards related to air quality, hazardous materials or noise. Compliance with applicable rules, regulations, and recommended mitigation measures would reduce potential impacts on human beings to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Long Beach. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Appendix A

Air Quality/Greenhouse Gas Emissions Modeling Results

4800 Long Beach Blvd - South Coast Air Basin, Annual

4800 Long Beach Blvd
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	18.00	Dwelling Unit	1.10	28,422.00	51

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	353.87	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

4800 Long Beach Blvd - South Coast Air Basin, Annual

Project Characteristics - Adjusted for 2030 RPS

Land Use - taken from project plan

Construction Phase - Per client provided info

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Per client information

Off-road Equipment - per client provided info

Off-road Equipment - Per client information

Grading - per lot size and client info

Architectural Coating - architectural and area code compliance with Rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No fireplaces per client info

Area Coating - compliance w rule 1113

Energy Use - 7% reduction per 2019 building code; net zero energy emissions

Water And Wastewater - City served by sanitary sewer only. 20% reduction per 2016 CALGreen

Solid Waste - Updated to reflect City diversion rate of 70%

Construction Off-road Equipment Mitigation - compliance w rule 403- watering twice a day

Mobile Land Use Mitigation -

Area Mitigation - zero VOC paints for interiors

Energy Mitigation - Per GPR Scorecard

Water Mitigation - Low flow appliances

Waste Mitigation -

Fleet Mix -

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Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	228.00
tblConstructionPhase	NumDays	200.00	314.00
tblConstructionPhase	NumDays	4.00	27.00
tblConstructionPhase	NumDays	10.00	221.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	243.83	226.76
tblEnergyUse	T24NG	10,792.56	0.00
tblFireplaces	NumberGas	15.30	0.00
tblFireplaces	NumberNoFireplace	1.80	18.00
tblFireplaces	NumberWood	0.90	0.00
tblGrading	AcresOfGrading	37.13	1.10
tblGrading	AcresOfGrading	13.00	1.10
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	18,000.00	28,422.00
tblLandUse	LotAcreage	1.13	1.10
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	8.28	4.97

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tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,172,772.46	938,217.97
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

4800 Long Beach Blvd - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2020	9-30-2020	0.7421	0.7421
2	10-1-2020	12-31-2020	0.9480	0.9480
3	1-1-2021	3-31-2021	0.9949	0.9949
4	4-1-2021	6-30-2021	0.9986	0.9986
5	7-1-2021	9-30-2021	0.7208	0.7208
		Highest	0.9986	0.9986

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	14.5122	14.5122	6.2000e-004	1.2000e-004	14.5643
Mobile	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Waste						0.0000	0.0000		0.0000	0.0000	1.0089	0.0000	1.0089	0.0596	0.0000	2.4994
Water						0.0000	0.0000		0.0000	0.0000	0.3319	3.2794	3.6113	1.2800e-003	7.5000e-004	3.8668
Total	0.1369	0.1101	0.4509	1.2800e-003	0.1320	1.8100e-003	0.1338	0.0354	1.7500e-003	0.0371	1.3408	136.2333	137.5741	0.0665	8.7000e-004	139.4970

4800 Long Beach Blvd - South Coast Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Waste						0.0000	0.0000		0.0000	0.0000	1.0089	0.0000	1.0089	0.0596	0.0000	2.4994
Water						0.0000	0.0000		0.0000	0.0000	0.2656	2.8872	3.1528	1.0400e-003	6.0000e-004	3.3581
Total	0.1369	0.1101	0.4509	1.2800e-003	0.1320	1.8100e-003	0.1338	0.0354	1.7500e-003	0.0371	1.2744	121.3289	122.6033	0.0657	6.0000e-004	124.4240

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	10.94	10.88	1.29	31.03	10.81

3.0 Construction Detail

Construction Phase

4800 Long Beach Blvd - South Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/15/2020	6	13	
2	Grading	Grading	7/16/2020	8/16/2020	6	27	
3	Paving	Paving	10/1/2020	6/15/2021	6	221	
4	Building Construction	Building Construction	10/15/2020	10/15/2021	6	314	
5	Architectural Coating	Architectural Coating	2/15/2021	11/6/2021	6	228	

Acres of Grading (Site Preparation Phase): 1.1

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 57,555; Residential Outdoor: 19,185; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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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
Site Preparation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	125.00	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
Building Construction	7	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1901	0.1065	2.2000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988
Total	0.0169	0.1901	0.1065	2.2000e-004	0.0348	8.2500e-003	0.0431	0.0189	7.5900e-003	0.0265	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360
Total	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0157	0.0000	0.0157	8.5000e-003	0.0000	8.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1901	0.1065	2.2000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988
Total	0.0169	0.1901	0.1065	2.2000e-004	0.0157	8.2500e-003	0.0239	8.5000e-003	7.5900e-003	0.0161	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360
Total	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0616	0.0000	0.0616	0.0336	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.4665	0.2616	5.6000e-004		0.0200	0.0200		0.0186	0.0186	0.0000	49.1512	49.1512	0.0148	0.0000	49.5203
Total	0.0421	0.4665	0.2616	5.6000e-004	0.0616	0.0200	0.0816	0.0336	0.0186	0.0522	0.0000	49.1512	49.1512	0.0148	0.0000	49.5203

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3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0180	3.7300e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.7421	4.7421	3.4000e-004	0.0000	4.7507
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	1.0800e-003	8.3000e-004	9.2200e-003	3.0000e-005	2.6700e-003	2.0000e-005	2.6900e-003	7.1000e-004	2.0000e-005	7.3000e-004	0.0000	2.4024	2.4024	7.0000e-005	0.0000	2.4041
Total	1.5800e-003	0.0188	0.0130	8.0000e-005	3.7400e-003	8.0000e-005	3.8200e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	7.1444	7.1444	4.1000e-004	0.0000	7.1548

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0277	0.0000	0.0277	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.4665	0.2616	5.6000e-004		0.0200	0.0200		0.0186	0.0186	0.0000	49.1511	49.1511	0.0148	0.0000	49.5203
Total	0.0421	0.4665	0.2616	5.6000e-004	0.0277	0.0200	0.0478	0.0151	0.0186	0.0337	0.0000	49.1511	49.1511	0.0148	0.0000	49.5203

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3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0180	3.7300e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.7421	4.7421	3.4000e-004	0.0000	4.7507
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	1.0800e-003	8.3000e-004	9.2200e-003	3.0000e-005	2.6700e-003	2.0000e-005	2.6900e-003	7.1000e-004	2.0000e-005	7.3000e-004	0.0000	2.4024	2.4024	7.0000e-005	0.0000	2.4041
Total	1.5800e-003	0.0188	0.0130	8.0000e-005	3.7400e-003	8.0000e-005	3.8200e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	7.1444	7.1444	4.1000e-004	0.0000	7.1548

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3992	56.3992	0.0182	0.0000	56.8552
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3992	56.3992	0.0182	0.0000	56.8552

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3.4 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079
Total	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3991	56.3991	0.0182	0.0000	56.8551
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3991	56.3991	0.0182	0.0000	56.8551

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3.4 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079
Total	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3911	101.3911	0.0328	0.0000	102.2109
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3911	101.3911	0.0328	0.0000	102.2109

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3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968
Total	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3910	101.3910	0.0328	0.0000	102.2108
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3910	101.3910	0.0328	0.0000	102.2108

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3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968
Total	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8166	60.8166	0.0113	0.0000	61.0989
Total	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8166	60.8166	0.0113	0.0000	61.0989

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3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	7.1800e-003	1.8100e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.6391	1.6391	1.1000e-004	0.0000	1.6419
Worker	1.9400e-003	1.4900e-003	0.0165	5.0000e-005	4.7800e-003	4.0000e-005	4.8200e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3055	4.3055	1.2000e-004	0.0000	4.3086
Total	2.1700e-003	8.6700e-003	0.0183	7.0000e-005	5.2000e-003	8.0000e-005	5.2800e-003	1.3900e-003	6.0000e-005	1.4600e-003	0.0000	5.9446	5.9446	2.3000e-004	0.0000	5.9505

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8165	60.8165	0.0113	0.0000	61.0988
Total	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8165	60.8165	0.0113	0.0000	61.0988

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3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	7.1800e-003	1.8100e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.6391	1.6391	1.1000e-004	0.0000	1.6419
Worker	1.9400e-003	1.4900e-003	0.0165	5.0000e-005	4.7800e-003	4.0000e-005	4.8200e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3055	4.3055	1.2000e-004	0.0000	4.3086
Total	2.1700e-003	8.6700e-003	0.0183	7.0000e-005	5.2000e-003	8.0000e-005	5.2800e-003	1.3900e-003	6.0000e-005	1.4600e-003	0.0000	5.9446	5.9446	2.3000e-004	0.0000	5.9505

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2113	224.2113	0.0400	0.0000	225.2120
Total	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2113	224.2113	0.0400	0.0000	225.2120

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3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	0.0240	6.0700e-003	6.0000e-005	1.5600e-003	5.0000e-005	1.6100e-003	4.5000e-004	5.0000e-005	5.0000e-004	0.0000	5.9973	5.9973	3.9000e-004	0.0000	6.0070
Worker	6.6700e-003	4.9500e-003	0.0560	1.7000e-004	0.0176	1.3000e-004	0.0178	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	15.3591	15.3591	4.1000e-004	0.0000	15.3694
Total	7.3800e-003	0.0290	0.0621	2.3000e-004	0.0192	1.8000e-004	0.0194	5.1300e-003	1.7000e-004	5.3000e-003	0.0000	21.3564	21.3564	8.0000e-004	0.0000	21.3764

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2111	224.2111	0.0400	0.0000	225.2117
Total	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2111	224.2111	0.0400	0.0000	225.2117

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3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	0.0240	6.0700e-003	6.0000e-005	1.5600e-003	5.0000e-005	1.6100e-003	4.5000e-004	5.0000e-005	5.0000e-004	0.0000	5.9973	5.9973	3.9000e-004	0.0000	6.0070
Worker	6.6700e-003	4.9500e-003	0.0560	1.7000e-004	0.0176	1.3000e-004	0.0178	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	15.3591	15.3591	4.1000e-004	0.0000	15.3694
Total	7.3800e-003	0.0290	0.0621	2.3000e-004	0.0192	1.8000e-004	0.0194	5.1300e-003	1.7000e-004	5.3000e-003	0.0000	21.3564	21.3564	8.0000e-004	0.0000	21.3764

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0250	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570
Total	0.1139	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570

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3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740
Total	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0250	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570
Total	0.1139	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570

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3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740
Total	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Unmitigated	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	104.58	102.06	87.12	347,612	347,612
Total	104.58	102.06	87.12	347,612	347,612

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.554588	0.041680	0.206638	0.111313	0.012826	0.005773	0.022313	0.034878	0.002168	0.001490	0.004854	0.000717	0.000760

5.0 Energy Detail

Historical Energy Use: N

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	90411.7	14.5122	6.2000e-004	1.2000e-004	14.5643
Total		14.5122	6.2000e-004	1.2000e-004	14.5643

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105
Unmitigated	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1027					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6100e-003	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105
Total	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1027					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6100e-003	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105
Total	0.1172	2.1400e-003	0.1858	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3105

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

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.1528	1.0400e-003	6.0000e-004	3.3581
Unmitigated	3.6113	1.2800e-003	7.5000e-004	3.8668

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0.938218 / 0.739357	3.6113	1.2800e-003	7.5000e-004	3.8668
Total		3.6113	1.2800e-003	7.5000e-004	3.8668

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0.750574 / 0.739357	3.1528	1.0400e-003	6.0000e-004	3.3581
Total		3.1528	1.0400e-003	6.0000e-004	3.3581

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0089	0.0596	0.0000	2.4994
Unmitigated	1.0089	0.0596	0.0000	2.4994

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	4.97	1.0089	0.0596	0.0000	2.4994
Total		1.0089	0.0596	0.0000	2.4994

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	4.97	1.0089	0.0596	0.0000	2.4994
Total		1.0089	0.0596	0.0000	2.4994

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

4800 Long Beach Blvd - South Coast Air Basin, Summer

4800 Long Beach Blvd
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	18.00	Dwelling Unit	1.10	28,422.00	51

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	353.87	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

4800 Long Beach Blvd - South Coast Air Basin, Summer

Project Characteristics - Adjusted for 2030 RPS

Land Use - taken from project plan

Construction Phase - Per client provided info

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Per client information

Off-road Equipment - per client provided info

Off-road Equipment - Per client information

Grading - per lot size and client info

Architectural Coating - architectural and area code compliance with Rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No fireplaces per client info

Area Coating - compliance w rule 1113

Energy Use - 7% reduction per 2019 building code; net zero energy emissions

Water And Wastewater - City served by sanitary sewer only. 20% reduction per 2016 CALGreen

Solid Waste - Updated to reflect City diversion rate of 70%

Construction Off-road Equipment Mitigation - compliance w rule 403- watering twice a day

Mobile Land Use Mitigation -

Area Mitigation - zero VOC paints for interiors

Energy Mitigation - Per GPR Scorecard

Water Mitigation - Low flow appliances

Waste Mitigation -

Fleet Mix -

4800 Long Beach Blvd - South Coast Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	228.00
tblConstructionPhase	NumDays	200.00	314.00
tblConstructionPhase	NumDays	4.00	27.00
tblConstructionPhase	NumDays	10.00	221.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	243.83	226.76
tblEnergyUse	T24NG	10,792.56	0.00
tblFireplaces	NumberGas	15.30	0.00
tblFireplaces	NumberNoFireplace	1.80	18.00
tblFireplaces	NumberWood	0.90	0.00
tblGrading	AcresOfGrading	37.13	1.10
tblGrading	AcresOfGrading	13.00	1.10
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	18,000.00	28,422.00
tblLandUse	LotAcreage	1.13	1.10
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	8.28	4.97

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tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,172,772.46	938,217.97
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

4800 Long Beach Blvd - South Coast Air Basin, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1192	0.5920	1.5732	7.4500e-003	0.7593	4.4000e-003	0.7637	0.2031	4.0800e-003	0.2071		763.2497	763.2497	0.0294		763.9842
Total	0.7756	0.6092	3.0598	7.5300e-003	0.7593	0.0126	0.7719	0.2031	0.0123	0.2154	0.0000	765.9236	765.9236	0.0320	0.0000	766.7226

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1192	0.5920	1.5732	7.4500e-003	0.7593	4.4000e-003	0.7637	0.2031	4.0800e-003	0.2071		763.2497	763.2497	0.0294		763.9842
Total	0.7756	0.6092	3.0598	7.5300e-003	0.7593	0.0126	0.7719	0.2031	0.0123	0.2154	0.0000	765.9236	765.9236	0.0320	0.0000	766.7226

4800 Long Beach Blvd - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/15/2020	6	13	
2	Grading	Grading	7/16/2020	8/16/2020	6	27	
3	Paving	Paving	10/1/2020	6/15/2021	6	221	
4	Building Construction	Building Construction	10/15/2020	10/15/2021	6	314	
5	Architectural Coating	Architectural Coating	2/15/2021	11/6/2021	6	228	

Acres of Grading (Site Preparation Phase): 1.1

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 57,555; Residential Outdoor: 19,185; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

4800 Long Beach Blvd - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

4800 Long Beach Blvd - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	125.00	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
Building Construction	7	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3591	0.0000	5.3591	2.9061	0.0000	2.9061			0.0000			0.0000
Off-Road	2.6010	29.2449	16.3789	0.0340		1.2695	1.2695		1.1679	1.1679		3,297.0370	3,297.0370	1.0663		3,323.6952
Total	2.6010	29.2449	16.3789	0.0340	5.3591	1.2695	6.6285	2.9061	1.1679	4.0740		3,297.0370	3,297.0370	1.0663		3,323.6952

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4116	0.0000	2.4116	1.3078	0.0000	1.3078			0.0000			0.0000
Off-Road	2.6010	29.2449	16.3789	0.0340		1.2695	1.2695		1.1679	1.1679	0.0000	3,297.0370	3,297.0370	1.0663		3,323.6952
Total	2.6010	29.2449	16.3789	0.0340	2.4116	1.2695	3.6810	1.3078	1.1679	2.4757	0.0000	3,297.0370	3,297.0370	1.0663		3,323.6952

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5640	0.0000	4.5640	2.4880	0.0000	2.4880			0.0000			0.0000
Off-Road	3.1196	34.5545	19.3803	0.0415		1.4830	1.4830		1.3762	1.3762		4,013.3262	4,013.3262	1.2057		4,043.4681
Total	3.1196	34.5545	19.3803	0.0415	4.5640	1.4830	6.0470	2.4880	1.3762	3.8642		4,013.3262	4,013.3262	1.2057		4,043.4681

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0369	1.2899	0.2682	3.5900e-003	0.0809	4.1700e-003	0.0850	0.0222	3.9900e-003	0.0262		389.9999	389.9999	0.0276		390.6896
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	0.0807	0.0546	0.7336	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.8905	205.8905	5.9300e-003		206.0389
Total	0.1176	1.3444	1.0019	5.6600e-003	0.2821	5.7000e-003	0.2878	0.0755	5.4000e-003	0.0809		595.8905	595.8905	0.0335		596.7285

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0538	0.0000	2.0538	1.1196	0.0000	1.1196			0.0000			0.0000
Off-Road	3.1196	34.5545	19.3803	0.0415		1.4830	1.4830		1.3762	1.3762	0.0000	4,013.3262	4,013.3262	1.2057		4,043.4681
Total	3.1196	34.5545	19.3803	0.0415	2.0538	1.4830	3.5368	1.1196	1.3762	2.4958	0.0000	4,013.3262	4,013.3262	1.2057		4,043.4681

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0369	1.2899	0.2682	3.5900e-003	0.0809	4.1700e-003	0.0850	0.0222	3.9900e-003	0.0262		389.9999	389.9999	0.0276		390.6896
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	0.0807	0.0546	0.7336	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.8905	205.8905	5.9300e-003		206.0389
Total	0.1176	1.3444	1.0019	5.6600e-003	0.2821	5.7000e-003	0.2878	0.0755	5.4000e-003	0.0809		595.8905	595.8905	0.0335		596.7285

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134		1,573.9096	1,573.9096	0.5090		1,586.6355
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134		1,573.9096	1,573.9096	0.5090		1,586.6355

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.4 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0303	0.4076	1.1500e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		114.3836	114.3836	3.3000e-003		114.4660
Total	0.0449	0.0303	0.4076	1.1500e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		114.3836	114.3836	3.3000e-003		114.4660

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134	0.0000	1,573.9096	1,573.9096	0.5090		1,586.6355
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134	0.0000	1,573.9096	1,573.9096	0.5090		1,586.6355

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.4 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0303	0.4076	1.1500e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		114.3836	114.3836	3.3000e-003		114.4660
Total	0.0449	0.0303	0.4076	1.1500e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		114.3836	114.3836	3.3000e-003		114.4660

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670		1,574.1488	1,574.1488	0.5091		1,586.8766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670		1,574.1488	1,574.1488	0.5091		1,586.8766

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644
Total	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670	0.0000	1,574.1488	1,574.1488	0.5091		1,586.8766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670	0.0000	1,574.1488	1,574.1488	0.5091		1,586.8766

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644
Total	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6400e-003	0.2106	0.0512	5.1000e-004	0.0128	1.0400e-003	0.0138	3.6800e-003	1.0000e-003	4.6800e-003		54.5583	54.5583	3.4900e-003		54.6456
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	0.0650	0.2501	0.5811	2.0000e-003	0.1581	2.1500e-003	0.1603	0.0422	2.0200e-003	0.0442		203.2570	203.2570	7.7800e-003		203.4514

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6400e-003	0.2106	0.0512	5.1000e-004	0.0128	1.0400e-003	0.0138	3.6800e-003	1.0000e-003	4.6800e-003		54.5583	54.5583	3.4900e-003		54.6456
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	0.0650	0.2501	0.5811	2.0000e-003	0.1581	2.1500e-003	0.1603	0.0422	2.0200e-003	0.0442		203.2570	203.2570	7.7800e-003		203.4514

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6300e-003	0.1915	0.0465	5.1000e-004	0.0128	3.9000e-004	0.0132	3.6800e-003	3.7000e-004	4.0600e-003		54.1488	54.1488	3.3500e-003		54.2325
Worker	0.0544	0.0355	0.4881	1.4400e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		143.8968	143.8968	3.8800e-003		143.9937
Total	0.0600	0.2270	0.5346	1.9500e-003	0.1581	1.4700e-003	0.1596	0.0422	1.3600e-003	0.0436		198.0455	198.0455	7.2300e-003		198.2262

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6300e-003	0.1915	0.0465	5.1000e-004	0.0128	3.9000e-004	0.0132	3.6800e-003	3.7000e-004	4.0600e-003		54.1488	54.1488	3.3500e-003		54.2325
Worker	0.0544	0.0355	0.4881	1.4400e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		143.8968	143.8968	3.8800e-003		143.9937
Total	0.0600	0.2270	0.5346	1.9500e-003	0.1581	1.4700e-003	0.1596	0.0422	1.3600e-003	0.0436		198.0455	198.0455	7.2300e-003		198.2262

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.9989	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0126	8.1900e-003	0.1126	3.3000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		33.2070	33.2070	9.0000e-004		33.2293
Total	0.0126	8.1900e-003	0.1126	3.3000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		33.2070	33.2070	9.0000e-004		33.2293

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.9989	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

4800 Long Beach Blvd - South Coast Air Basin, Summer

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0126	8.1900e-003	0.1126	3.3000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		33.2070	33.2070	9.0000e-004		33.2293
Total	0.0126	8.1900e-003	0.1126	3.3000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		33.2070	33.2070	9.0000e-004		33.2293

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4800 Long Beach Blvd - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1192	0.5920	1.5732	7.4500e-003	0.7593	4.4000e-003	0.7637	0.2031	4.0800e-003	0.2071		763.2497	763.2497	0.0294		763.9842
Unmitigated	0.1192	0.5920	1.5732	7.4500e-003	0.7593	4.4000e-003	0.7637	0.2031	4.0800e-003	0.2071		763.2497	763.2497	0.0294		763.9842

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	104.58	102.06	87.12	347,612	347,612
Total	104.58	102.06	87.12	347,612	347,612

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.554588	0.041680	0.206638	0.111313	0.012826	0.005773	0.022313	0.034878	0.002168	0.001490	0.004854	0.000717	0.000760

5.0 Energy Detail

Historical Energy Use: N

4800 Long Beach Blvd - South Coast Air Basin, Summer

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4800 Long Beach Blvd - South Coast Air Basin, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

4800 Long Beach Blvd - South Coast Air Basin, Summer

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	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	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Unmitigated	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384

4800 Long Beach Blvd - South Coast Air Basin, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0487					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.5628					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Landscaping	0.0449	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		2.6739	2.6739	2.5800e-003			2.7384
Total	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000		2.7384

4800 Long Beach Blvd - South Coast Air Basin, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0449	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		2.6739	2.6739	2.5800e-003		2.7384
Total	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

4800 Long Beach Blvd - South Coast Air Basin, Summer

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

4800 Long Beach Blvd - South Coast Air Basin, Winter

4800 Long Beach Blvd
South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	18.00	Dwelling Unit	1.10	28,422.00	51

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	353.87	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

4800 Long Beach Blvd - South Coast Air Basin, Winter

Project Characteristics - Adjusted for 2030 RPS

Land Use - taken from project plan

Construction Phase - Per client provided info

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Per client information

Off-road Equipment - per client provided info

Off-road Equipment - Per client information

Grading - per lot size and client info

Architectural Coating - architectural and area code compliance with Rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No fireplaces per client info

Area Coating - compliance w rule 1113

Energy Use - 7% reduction per 2019 building code; net zero energy emissions

Water And Wastewater - City served by sanitary sewer only. 20% reduction per 2016 CALGreen

Solid Waste - Updated to reflect City diversion rate of 70%

Construction Off-road Equipment Mitigation - compliance w rule 403- watering twice a day

Mobile Land Use Mitigation -

Area Mitigation - zero VOC paints for interiors

Energy Mitigation - Per GPR Scorecard

Water Mitigation - Low flow appliances

Waste Mitigation -

Fleet Mix -

4800 Long Beach Blvd - South Coast Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	228.00
tblConstructionPhase	NumDays	200.00	314.00
tblConstructionPhase	NumDays	4.00	27.00
tblConstructionPhase	NumDays	10.00	221.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	243.83	226.76
tblEnergyUse	T24NG	10,792.56	0.00
tblFireplaces	NumberGas	15.30	0.00
tblFireplaces	NumberNoFireplace	1.80	18.00
tblFireplaces	NumberWood	0.90	0.00
tblGrading	AcresOfGrading	37.13	1.10
tblGrading	AcresOfGrading	13.00	1.10
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	18,000.00	28,422.00
tblLandUse	LotAcreage	1.13	1.10
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	8.28	4.97

4800 Long Beach Blvd - South Coast Air Basin, Winter

tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,172,772.46	938,217.97
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

4800 Long Beach Blvd - South Coast Air Basin, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1140	0.6000	1.4751	7.0900e-003	0.7593	4.4100e-003	0.7637	0.2031	4.0900e-003	0.2072		726.0970	726.0970	0.0295		726.8344
Total	0.7704	0.6171	2.9617	7.1700e-003	0.7593	0.0126	0.7719	0.2031	0.0123	0.2154	0.0000	728.7710	728.7710	0.0321	0.0000	729.5728

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1140	0.6000	1.4751	7.0900e-003	0.7593	4.4100e-003	0.7637	0.2031	4.0900e-003	0.2072		726.0970	726.0970	0.0295		726.8344
Total	0.7704	0.6171	2.9617	7.1700e-003	0.7593	0.0126	0.7719	0.2031	0.0123	0.2154	0.0000	728.7710	728.7710	0.0321	0.0000	729.5728

4800 Long Beach Blvd - South Coast Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/15/2020	6	13	
2	Grading	Grading	7/16/2020	8/16/2020	6	27	
3	Paving	Paving	10/1/2020	6/15/2021	6	221	
4	Building Construction	Building Construction	10/15/2020	10/15/2021	6	314	
5	Architectural Coating	Architectural Coating	2/15/2021	11/6/2021	6	228	

Acres of Grading (Site Preparation Phase): 1.1

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 57,555; Residential Outdoor: 19,185; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

4800 Long Beach Blvd - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

4800 Long Beach Blvd - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	125.00	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
Building Construction	7	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3591	0.0000	5.3591	2.9061	0.0000	2.9061			0.0000			0.0000
Off-Road	2.6010	29.2449	16.3789	0.0340		1.2695	1.2695		1.1679	1.1679		3,297.0370	3,297.0370	1.0663		3,323.6952
Total	2.6010	29.2449	16.3789	0.0340	5.3591	1.2695	6.6285	2.9061	1.1679	4.0740		3,297.0370	3,297.0370	1.0663		3,323.6952

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4116	0.0000	2.4116	1.3078	0.0000	1.3078			0.0000			0.0000
Off-Road	2.6010	29.2449	16.3789	0.0340		1.2695	1.2695		1.1679	1.1679	0.0000	3,297.0370	3,297.0370	1.0663		3,323.6952
Total	2.6010	29.2449	16.3789	0.0340	2.4116	1.2695	3.6810	1.3078	1.1679	2.4757	0.0000	3,297.0370	3,297.0370	1.0663		3,323.6952

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5640	0.0000	4.5640	2.4880	0.0000	2.4880			0.0000			0.0000
Off-Road	3.1196	34.5545	19.3803	0.0415		1.4830	1.4830		1.3762	1.3762		4,013.3262	4,013.3262	1.2057		4,043.4681
Total	3.1196	34.5545	19.3803	0.0415	4.5640	1.4830	6.0470	2.4880	1.3762	3.8642		4,013.3262	4,013.3262	1.2057		4,043.4681

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0378	1.3068	0.2865	3.5300e-003	0.0809	4.2400e-003	0.0851	0.0222	4.0500e-003	0.0262		383.3392	383.3392	0.0287		384.0554
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	0.0888	0.0600	0.6653	1.9400e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		193.1132	193.1132	5.5600e-003		193.2522
Total	0.1266	1.3667	0.9517	5.4700e-003	0.2821	5.7700e-003	0.2878	0.0755	5.4600e-003	0.0810		576.4524	576.4524	0.0342		577.3076

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0538	0.0000	2.0538	1.1196	0.0000	1.1196			0.0000			0.0000
Off-Road	3.1196	34.5545	19.3803	0.0415		1.4830	1.4830		1.3762	1.3762	0.0000	4,013.3262	4,013.3262	1.2057		4,043.4681
Total	3.1196	34.5545	19.3803	0.0415	2.0538	1.4830	3.5368	1.1196	1.3762	2.4958	0.0000	4,013.3262	4,013.3262	1.2057		4,043.4681

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0378	1.3068	0.2865	3.5300e-003	0.0809	4.2400e-003	0.0851	0.0222	4.0500e-003	0.0262		383.3392	383.3392	0.0287		384.0554
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	0.0888	0.0600	0.6653	1.9400e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		193.1132	193.1132	5.5600e-003		193.2522
Total	0.1266	1.3667	0.9517	5.4700e-003	0.2821	5.7700e-003	0.2878	0.0755	5.4600e-003	0.0810		576.4524	576.4524	0.0342		577.3076

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134		1,573.9096	1,573.9096	0.5090		1,586.6355
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134		1,573.9096	1,573.9096	0.5090		1,586.6355

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.4 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623
Total	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134	0.0000	1,573.9096	1,573.9096	0.5090		1,586.6355
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8016	8.6246	8.1671	0.0163		0.4494	0.4494		0.4134	0.4134	0.0000	1,573.9096	1,573.9096	0.5090		1,586.6355

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.4 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623
Total	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670		1,574.1488	1,574.1488	0.5091		1,586.8766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670		1,574.1488	1,574.1488	0.5091		1,586.8766

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670	0.0000	1,574.1488	1,574.1488	0.5091		1,586.8766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7411	7.9589	8.1200	0.0163		0.3989	0.3989		0.3670	0.3670	0.0000	1,574.1488	1,574.1488	0.5091		1,586.8766

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9400e-003	0.2106	0.0568	5.0000e-004	0.0128	1.0600e-003	0.0139	3.6800e-003	1.0100e-003	4.7000e-003		53.0755	53.0755	3.7300e-003		53.1688
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	0.0711	0.2539	0.5372	1.9000e-003	0.1581	2.1700e-003	0.1603	0.0422	2.0300e-003	0.0443		192.5462	192.5462	7.7400e-003		192.7398

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9400e-003	0.2106	0.0568	5.0000e-004	0.0128	1.0600e-003	0.0139	3.6800e-003	1.0100e-003	4.7000e-003		53.0755	53.0755	3.7300e-003		53.1688
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	0.0711	0.2539	0.5372	1.9000e-003	0.1581	2.1700e-003	0.1603	0.0422	2.0300e-003	0.0443		192.5462	192.5462	7.7400e-003		192.7398

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9100e-003	0.1911	0.0517	4.9000e-004	0.0128	4.0000e-004	0.0132	3.6800e-003	3.9000e-004	4.0700e-003		52.6748	52.6748	3.5800e-003		52.7642
Worker	0.0600	0.0390	0.4418	1.3500e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		134.9597	134.9597	3.6300e-003		135.0504
Total	0.0659	0.2301	0.4935	1.8400e-003	0.1581	1.4800e-003	0.1596	0.0422	1.3800e-003	0.0436		187.6344	187.6344	7.2100e-003		187.8146

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9100e-003	0.1911	0.0517	4.9000e-004	0.0128	4.0000e-004	0.0132	3.6800e-003	3.9000e-004	4.0700e-003		52.6748	52.6748	3.5800e-003		52.7642
Worker	0.0600	0.0390	0.4418	1.3500e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		134.9597	134.9597	3.6300e-003		135.0504
Total	0.0659	0.2301	0.4935	1.8400e-003	0.1581	1.4800e-003	0.1596	0.0422	1.3800e-003	0.0436		187.6344	187.6344	7.2100e-003		187.8146

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.9989	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0138	8.9900e-003	0.1020	3.1000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		31.1445	31.1445	8.4000e-004		31.1655
Total	0.0138	8.9900e-003	0.1020	3.1000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		31.1445	31.1445	8.4000e-004		31.1655

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.9989	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

4800 Long Beach Blvd - South Coast Air Basin, Winter

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0138	8.9900e-003	0.1020	3.1000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		31.1445	31.1445	8.4000e-004		31.1655
Total	0.0138	8.9900e-003	0.1020	3.1000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1200e-003		31.1445	31.1445	8.4000e-004		31.1655

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4800 Long Beach Blvd - South Coast Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1140	0.6000	1.4751	7.0900e-003	0.7593	4.4100e-003	0.7637	0.2031	4.0900e-003	0.2072		726.0970	726.0970	0.0295		726.8344
Unmitigated	0.1140	0.6000	1.4751	7.0900e-003	0.7593	4.4100e-003	0.7637	0.2031	4.0900e-003	0.2072		726.0970	726.0970	0.0295		726.8344

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	104.58	102.06	87.12	347,612	347,612
Total	104.58	102.06	87.12	347,612	347,612

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.554588	0.041680	0.206638	0.111313	0.012826	0.005773	0.022313	0.034878	0.002168	0.001490	0.004854	0.000717	0.000760

5.0 Energy Detail

Historical Energy Use: N

4800 Long Beach Blvd - South Coast Air Basin, Winter

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4800 Long Beach Blvd - South Coast Air Basin, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

4800 Long Beach Blvd - South Coast Air Basin, Winter

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	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	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384
Unmitigated	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384

4800 Long Beach Blvd - South Coast Air Basin, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0449	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		2.6739	2.6739	2.5800e-003		2.7384
Total	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384

4800 Long Beach Blvd - South Coast Air Basin, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0449	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		2.6739	2.6739	2.5800e-003		2.7384
Total	0.6564	0.0172	1.4866	8.0000e-005		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	2.6739	2.6739	2.5800e-003	0.0000	2.7384

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

4800 Long Beach Blvd - South Coast Air Basin, Winter

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

4800 Long Beach Blvd - South Coast Air Basin, Annual

4800 Long Beach Blvd
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	18.00	Dwelling Unit	1.10	28,422.00	51

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	353.87	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

4800 Long Beach Blvd - South Coast Air Basin, Annual

Project Characteristics - Adjusted for 2030 RPS

Land Use - taken from project plan

Construction Phase - Per client provided info

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Per client information

Off-road Equipment - per client provided info

Off-road Equipment - Per client information

Grading - per lot size and client info

Architectural Coating - architectural and area code compliance with Rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No fireplaces per client info

Area Coating - compliance w rule 1113

Energy Use - 7% reduction per 2019 building code; net zero energy emissions

Water And Wastewater - City served by sanitary sewer only. 20% reduction per 2016 CALGreen

Solid Waste - Updated to reflect City diversion rate of 70%

Construction Off-road Equipment Mitigation - compliance w rule 403- watering twice a day

Mobile Land Use Mitigation -

Area Mitigation - zero VOC paints for interiors

Energy Mitigation - Per GPR Scorecard

Water Mitigation - Low flow appliances

Waste Mitigation -

Fleet Mix -

4800 Long Beach Blvd - South Coast Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	228.00
tblConstructionPhase	NumDays	200.00	314.00
tblConstructionPhase	NumDays	4.00	27.00
tblConstructionPhase	NumDays	10.00	221.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	243.83	226.76
tblEnergyUse	T24NG	10,792.56	0.00
tblFireplaces	NumberGas	15.30	0.00
tblFireplaces	NumberNoFireplace	1.80	18.00
tblFireplaces	NumberWood	0.90	0.00
tblGrading	AcresOfGrading	37.13	1.10
tblGrading	AcresOfGrading	13.00	1.10
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	18,000.00	28,422.00
tblLandUse	LotAcreage	1.13	1.10
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	8.28	4.97

4800 Long Beach Blvd - South Coast Air Basin, Annual

tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,172,772.46	938,217.97
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

4800 Long Beach Blvd - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2020	9-30-2020	0.7421	0.7421
2	10-1-2020	12-31-2020	0.9480	0.9480
3	1-1-2021	3-31-2021	0.9949	0.9949
4	4-1-2021	6-30-2021	0.9986	0.9986
5	7-1-2021	9-30-2021	0.7208	0.7208
		Highest	0.9986	0.9986

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	14.5122	14.5122	6.2000e-004	1.2000e-004	14.5643
Mobile	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Waste						0.0000	0.0000		0.0000	0.0000	1.0089	0.0000	1.0089	0.0596	0.0000	2.4994
Water						0.0000	0.0000		0.0000	0.0000	0.3319	3.2794	3.6113	1.2800e-003	7.5000e-004	3.8668
Total	0.1368	0.1101	0.4502	1.2800e-003	0.1320	1.8100e-003	0.1338	0.0354	1.7500e-003	0.0371	1.3408	136.2333	137.5741	0.0665	8.7000e-004	139.4969

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Waste						0.0000	0.0000		0.0000	0.0000	1.0089	0.0000	1.0089	0.0596	0.0000	2.4994
Water						0.0000	0.0000		0.0000	0.0000	0.2656	2.8872	3.1528	1.0400e-003	6.0000e-004	3.3581
Total	0.1368	0.1101	0.4502	1.2800e-003	0.1320	1.8100e-003	0.1338	0.0354	1.7500e-003	0.0371	1.2744	121.3289	122.6033	0.0657	6.0000e-004	124.4239

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	10.94	10.88	1.29	31.03	10.81

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/15/2020	6	13	
2	Grading	Grading	7/16/2020	8/16/2020	6	27	
3	Paving	Paving	10/1/2020	6/15/2021	6	221	
4	Building Construction	Building Construction	10/15/2020	10/15/2021	6	314	
5	Architectural Coating	Architectural Coating	2/15/2021	11/6/2021	6	228	

Acres of Grading (Site Preparation Phase): 1.1

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 57,555; Residential Outdoor: 19,185; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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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
Site Preparation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	125.00	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
Building Construction	7	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1901	0.1065	2.2000e-004	8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003		0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988
Total	0.0169	0.1901	0.1065	2.2000e-004	0.0348	8.2500e-003	0.0431	0.0189	7.5900e-003	0.0265	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360
Total	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0157	0.0000	0.0157	8.5000e-003	0.0000	8.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1901	0.1065	2.2000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988
Total	0.0169	0.1901	0.1065	2.2000e-004	0.0157	8.2500e-003	0.0239	8.5000e-003	7.5900e-003	0.0161	0.0000	19.4416	19.4416	6.2900e-003	0.0000	19.5988

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360
Total	3.8000e-004	2.9000e-004	3.2100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8354	0.8354	2.0000e-005	0.0000	0.8360

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0616	0.0000	0.0616	0.0336	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.4665	0.2616	5.6000e-004		0.0200	0.0200		0.0186	0.0186	0.0000	49.1512	49.1512	0.0148	0.0000	49.5203
Total	0.0421	0.4665	0.2616	5.6000e-004	0.0616	0.0200	0.0816	0.0336	0.0186	0.0522	0.0000	49.1512	49.1512	0.0148	0.0000	49.5203

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3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0180	3.7300e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.7421	4.7421	3.4000e-004	0.0000	4.7507
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	1.0800e-003	8.3000e-004	9.2200e-003	3.0000e-005	2.6700e-003	2.0000e-005	2.6900e-003	7.1000e-004	2.0000e-005	7.3000e-004	0.0000	2.4024	2.4024	7.0000e-005	0.0000	2.4041
Total	1.5800e-003	0.0188	0.0130	8.0000e-005	3.7400e-003	8.0000e-005	3.8200e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	7.1444	7.1444	4.1000e-004	0.0000	7.1548

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0277	0.0000	0.0277	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.4665	0.2616	5.6000e-004		0.0200	0.0200		0.0186	0.0186	0.0000	49.1511	49.1511	0.0148	0.0000	49.5203
Total	0.0421	0.4665	0.2616	5.6000e-004	0.0277	0.0200	0.0478	0.0151	0.0186	0.0337	0.0000	49.1511	49.1511	0.0148	0.0000	49.5203

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3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0180	3.7300e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.7421	4.7421	3.4000e-004	0.0000	4.7507
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	1.0800e-003	8.3000e-004	9.2200e-003	3.0000e-005	2.6700e-003	2.0000e-005	2.6900e-003	7.1000e-004	2.0000e-005	7.3000e-004	0.0000	2.4024	2.4024	7.0000e-005	0.0000	2.4041
Total	1.5800e-003	0.0188	0.0130	8.0000e-005	3.7400e-003	8.0000e-005	3.8200e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	7.1444	7.1444	4.1000e-004	0.0000	7.1548

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3992	56.3992	0.0182	0.0000	56.8552
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3992	56.3992	0.0182	0.0000	56.8552

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3.4 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079
Total	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3991	56.3991	0.0182	0.0000	56.8551
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.3407	0.3226	6.4000e-004		0.0178	0.0178		0.0163	0.0163	0.0000	56.3991	56.3991	0.0182	0.0000	56.8551

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3.4 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079
Total	1.7600e-003	1.3500e-003	0.0150	4.0000e-005	4.3300e-003	3.0000e-005	4.3700e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.9051	3.9051	1.1000e-004	0.0000	3.9079

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3911	101.3911	0.0328	0.0000	102.2109
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3911	101.3911	0.0328	0.0000	102.2109

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3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968
Total	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3910	101.3910	0.0328	0.0000	102.2108
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0526	0.5651	0.5765	1.1500e-003		0.0283	0.0283		0.0261	0.0261	0.0000	101.3910	101.3910	0.0328	0.0000	102.2108

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3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968
Total	2.9500e-003	2.1900e-003	0.0248	8.0000e-005	7.7900e-003	6.0000e-005	7.8500e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	6.7922	6.7922	1.8000e-004	0.0000	6.7968

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8166	60.8166	0.0113	0.0000	61.0989
Total	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8166	60.8166	0.0113	0.0000	61.0989

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3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	7.1800e-003	1.8100e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.6391	1.6391	1.1000e-004	0.0000	1.6419
Worker	1.9400e-003	1.4900e-003	0.0165	5.0000e-005	4.7800e-003	4.0000e-005	4.8200e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3055	4.3055	1.2000e-004	0.0000	4.3086
Total	2.1700e-003	8.6700e-003	0.0183	7.0000e-005	5.2000e-003	8.0000e-005	5.2800e-003	1.3900e-003	6.0000e-005	1.4600e-003	0.0000	5.9446	5.9446	2.3000e-004	0.0000	5.9505

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8165	60.8165	0.0113	0.0000	61.0988
Total	0.0680	0.4954	0.4418	7.4000e-004		0.0267	0.0267		0.0258	0.0258	0.0000	60.8165	60.8165	0.0113	0.0000	61.0988

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3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	7.1800e-003	1.8100e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.6391	1.6391	1.1000e-004	0.0000	1.6419
Worker	1.9400e-003	1.4900e-003	0.0165	5.0000e-005	4.7800e-003	4.0000e-005	4.8200e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3055	4.3055	1.2000e-004	0.0000	4.3086
Total	2.1700e-003	8.6700e-003	0.0183	7.0000e-005	5.2000e-003	8.0000e-005	5.2800e-003	1.3900e-003	6.0000e-005	1.4600e-003	0.0000	5.9446	5.9446	2.3000e-004	0.0000	5.9505

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2113	224.2113	0.0400	0.0000	225.2120
Total	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2113	224.2113	0.0400	0.0000	225.2120

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3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	0.0240	6.0700e-003	6.0000e-005	1.5600e-003	5.0000e-005	1.6100e-003	4.5000e-004	5.0000e-005	5.0000e-004	0.0000	5.9973	5.9973	3.9000e-004	0.0000	6.0070
Worker	6.6700e-003	4.9500e-003	0.0560	1.7000e-004	0.0176	1.3000e-004	0.0178	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	15.3591	15.3591	4.1000e-004	0.0000	15.3694
Total	7.3800e-003	0.0290	0.0621	2.3000e-004	0.0192	1.8000e-004	0.0194	5.1300e-003	1.7000e-004	5.3000e-003	0.0000	21.3564	21.3564	8.0000e-004	0.0000	21.3764

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2111	224.2111	0.0400	0.0000	225.2117
Total	0.2238	1.6841	1.5931	2.7200e-003		0.0845	0.0845		0.0816	0.0816	0.0000	224.2111	224.2111	0.0400	0.0000	225.2117

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3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	0.0240	6.0700e-003	6.0000e-005	1.5600e-003	5.0000e-005	1.6100e-003	4.5000e-004	5.0000e-005	5.0000e-004	0.0000	5.9973	5.9973	3.9000e-004	0.0000	6.0070
Worker	6.6700e-003	4.9500e-003	0.0560	1.7000e-004	0.0176	1.3000e-004	0.0178	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	15.3591	15.3591	4.1000e-004	0.0000	15.3694
Total	7.3800e-003	0.0290	0.0621	2.3000e-004	0.0192	1.8000e-004	0.0194	5.1300e-003	1.7000e-004	5.3000e-003	0.0000	21.3564	21.3564	8.0000e-004	0.0000	21.3764

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0250	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570
Total	0.1139	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570

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3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740
Total	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0250	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570
Total	0.1139	0.1741	0.2072	3.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	29.1071	29.1071	2.0000e-003	0.0000	29.1570

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3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740
Total	1.4200e-003	1.0500e-003	0.0119	4.0000e-005	3.7500e-003	3.0000e-005	3.7800e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.2718	3.2718	9.0000e-005	0.0000	3.2740

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560
Unmitigated	0.0197	0.1079	0.2650	1.2700e-003	0.1320	7.8000e-004	0.1328	0.0354	7.2000e-004	0.0361	0.0000	118.1384	118.1384	4.7000e-003	0.0000	118.2560

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	104.58	102.06	87.12	347,612	347,612
Total	104.58	102.06	87.12	347,612	347,612

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.554588	0.041680	0.206638	0.111313	0.012826	0.005773	0.022313	0.034878	0.002168	0.001490	0.004854	0.000717	0.000760

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.5122	14.5122	6.2000e-004	1.2000e-004	14.5643
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	90411.7	14.5122	6.2000e-004	1.2000e-004	14.5643
Total		14.5122	6.2000e-004	1.2000e-004	14.5643

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104
Unmitigated	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1027					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5400e-003	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104
Total	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1027					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5400e-003	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104
Total	0.1171	2.1300e-003	0.1851	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3032	0.3032	2.9000e-004	0.0000	0.3104

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

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.1528	1.0400e-003	6.0000e-004	3.3581
Unmitigated	3.6113	1.2800e-003	7.5000e-004	3.8668

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0.938218 / 0.739357	3.6113	1.2800e-003	7.5000e-004	3.8668
Total		3.6113	1.2800e-003	7.5000e-004	3.8668

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0.750574 / 0.739357	3.1528	1.0400e-003	6.0000e-004	3.3581
Total		3.1528	1.0400e-003	6.0000e-004	3.3581

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0089	0.0596	0.0000	2.4994
Unmitigated	1.0089	0.0596	0.0000	2.4994

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	4.97	1.0089	0.0596	0.0000	2.4994
Total		1.0089	0.0596	0.0000	2.4994

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	4.97	1.0089	0.0596	0.0000	2.4994
Total		1.0089	0.0596	0.0000	2.4994

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

4800 Long Beach Blvd.

From CalEEMod v.2016.3.2 Vehicle Fleet Mix Output:

Annual VMT: 347,612

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	0.554588	0.04	0.0221835	0.04	0.022184
Light Truck < 3750 lbs	0.04168	0.05	0.002084	0.06	0.002501
Light Truck 3751-5750 lbs	0.206638	0.05	0.0103319	0.06	0.012398
Med Truck 5751-8500 lbs	0.111313	0.12	0.0133576	0.2	0.022263
Lite-Heavy Truck 8501-10,000 lbs	0.012826	0.12	0.0015391	0.2	0.002565
Lite-Heavy Truck 10,001-14,000 lbs	0.005773	0.09	0.0005196	0.125	0.000722
Med-Heavy Truck 14,001-33,000 lbs	0.022313	0.06	0.0013388	0.05	0.001116
Heavy-Heavy Truck 33,001-60,000 lbs	0.034878	0.06	0.0020927	0.05	0.001744
Other Bus	0.002168	0.06	0.0001301	0.05	0.000108
Urban Bus	0.00149	0.06	0.0000894	0.05	7.45E-05
Motorcycle	0.004854	0.09	0.0004369	0.01	4.85E-05
School Bus	0.000717	0.06	4.302E-05	0.05	3.59E-05
Motor Home	0.00076	0.09	0.0000684	0.125	0.000095
Total	100.0%		0.0542149		0.065854

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP
 1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	0.0229 metric tons N2O	7.10 metric tons CO2e
Project Total:	7.10 metric tons CO2e	

References

- * from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile). in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009. Assume Model year 2000-present, gasoline fueled.
- ** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
- *** CalEEMod v.2016.3.2 results for mobile sources.

Appendix B

Noise Measurement and Analyses Data

Freq Weight : A
Time Weight : FAST
Level Range : 30-90
Max dB : 78.1 - 2018/08/29 16: 31: 40
Level Range : 30-90
SEL : 90.2
Leq : 62.5

No. s	Date Time	(dB)
1	2018/08/29 16: 23: 57	54.9
2	2018/08/29 16: 23: 58	60.9
3	2018/08/29 16: 23: 59	56.4
4	2018/08/29 16: 24: 00	57.2
5	2018/08/29 16: 24: 01	57.7
6	2018/08/29 16: 24: 02	58.6
7	2018/08/29 16: 24: 03	58.0
8	2018/08/29 16: 24: 04	58.6
9	2018/08/29 16: 24: 05	58.6
10	2018/08/29 16: 24: 06	58.8
11	2018/08/29 16: 24: 07	58.8
12	2018/08/29 16: 24: 08	61.0
13	2018/08/29 16: 24: 09	58.5
14	2018/08/29 16: 24: 10	58.3
15	2018/08/29 16: 24: 11	61.6
16	2018/08/29 16: 24: 12	59.4
17	2018/08/29 16: 24: 13	56.2
18	2018/08/29 16: 24: 14	57.0
19	2018/08/29 16: 24: 15	57.0
20	2018/08/29 16: 24: 16	57.0
21	2018/08/29 16: 24: 17	58.5
22	2018/08/29 16: 24: 18	54.7
23	2018/08/29 16: 24: 19	53.7
24	2018/08/29 16: 24: 20	55.1
25	2018/08/29 16: 24: 21	54.8
26	2018/08/29 16: 24: 22	54.0
27	2018/08/29 16: 24: 23	52.4
28	2018/08/29 16: 24: 24	52.3
29	2018/08/29 16: 24: 25	53.8
30	2018/08/29 16: 24: 26	55.1
31	2018/08/29 16: 24: 27	54.6
32	2018/08/29 16: 24: 28	53.6
33	2018/08/29 16: 24: 29	53.0
34	2018/08/29 16: 24: 30	53.9
35	2018/08/29 16: 24: 31	53.5
36	2018/08/29 16: 24: 32	53.8
37	2018/08/29 16: 24: 33	54.1
38	2018/08/29 16: 24: 34	56.3
39	2018/08/29 16: 24: 35	55.3
40	2018/08/29 16: 24: 36	55.6
41	2018/08/29 16: 24: 37	55.1
42	2018/08/29 16: 24: 38	56.0
43	2018/08/29 16: 24: 39	57.6
44	2018/08/29 16: 24: 40	55.1
45	2018/08/29 16: 24: 41	57.1
46	2018/08/29 16: 24: 42	59.0
47	2018/08/29 16: 24: 43	55.4
48	2018/08/29 16: 24: 44	56.5
49	2018/08/29 16: 24: 45	57.1
50	2018/08/29 16: 24: 46	53.8
51	2018/08/29 16: 24: 47	55.1
52	2018/08/29 16: 24: 48	54.2
53	2018/08/29 16: 24: 49	54.2
54	2018/08/29 16: 24: 50	54.6
55	2018/08/29 16: 24: 51	54.8
56	2018/08/29 16: 24: 52	54.3
57	2018/08/29 16: 24: 53	56.1
58	2018/08/29 16: 24: 54	53.5
59	2018/08/29 16: 24: 55	53.5
60	2018/08/29 16: 24: 56	54.4
61	2018/08/29 16: 24: 57	56.4
62	2018/08/29 16: 24: 58	57.3
63	2018/08/29 16: 24: 59	59.5
64	2018/08/29 16: 25: 00	58.2
65	2018/08/29 16: 25: 01	60.2
66	2018/08/29 16: 25: 02	56.6
67	2018/08/29 16: 25: 03	58.0
68	2018/08/29 16: 25: 04	62.3
69	2018/08/29 16: 25: 05	58.4
70	2018/08/29 16: 25: 06	57.7
71	2018/08/29 16: 25: 07	56.5
72	2018/08/29 16: 25: 08	57.5
73	2018/08/29 16: 25: 09	59.5
74	2018/08/29 16: 25: 10	57.0
75	2018/08/29 16: 25: 11	56.6
76	2018/08/29 16: 25: 12	58.0
77	2018/08/29 16: 25: 13	58.4
78	2018/08/29 16: 25: 14	57.7
79	2018/08/29 16: 25: 15	59.5
80	2018/08/29 16: 25: 16	62.6
81	2018/08/29 16: 25: 17	60.1
82	2018/08/29 16: 25: 18	62.2
83	2018/08/29 16: 25: 19	61.2
84	2018/08/29 16: 25: 20	58.2
85	2018/08/29 16: 25: 21	57.9

86	2018/08/29	16:25:22	59.7
87	2018/08/29	16:25:23	57.0
88	2018/08/29	16:25:24	57.1
89	2018/08/29	16:25:25	57.1
90	2018/08/29	16:25:26	57.7
91	2018/08/29	16:25:27	58.8
92	2018/08/29	16:25:28	56.5
93	2018/08/29	16:25:29	56.5
94	2018/08/29	16:25:30	57.2
95	2018/08/29	16:25:31	58.8
96	2018/08/29	16:25:32	58.5
97	2018/08/29	16:25:33	57.1
98	2018/08/29	16:25:34	57.4
99	2018/08/29	16:25:35	56.6
100	2018/08/29	16:25:36	57.2
101	2018/08/29	16:25:37	57.0
102	2018/08/29	16:25:38	57.3
103	2018/08/29	16:25:39	57.6
104	2018/08/29	16:25:40	58.8
105	2018/08/29	16:25:41	58.3
106	2018/08/29	16:25:42	59.2
107	2018/08/29	16:25:43	61.3
108	2018/08/29	16:25:44	67.0
109	2018/08/29	16:25:45	64.0
110	2018/08/29	16:25:46	59.0
111	2018/08/29	16:25:47	57.2
112	2018/08/29	16:25:48	56.3
113	2018/08/29	16:25:49	55.1
114	2018/08/29	16:25:50	55.9
115	2018/08/29	16:25:51	55.8
116	2018/08/29	16:25:52	59.0
117	2018/08/29	16:25:53	61.0
118	2018/08/29	16:25:54	65.3
119	2018/08/29	16:25:55	64.9
120	2018/08/29	16:25:56	61.3
121	2018/08/29	16:25:57	57.7
122	2018/08/29	16:25:58	58.3
123	2018/08/29	16:25:59	56.4
124	2018/08/29	16:26:00	55.6
125	2018/08/29	16:26:01	54.4
126	2018/08/29	16:26:02	54.1
127	2018/08/29	16:26:03	54.3
128	2018/08/29	16:26:04	55.3
129	2018/08/29	16:26:05	54.0
130	2018/08/29	16:26:06	54.1
131	2018/08/29	16:26:07	54.4
132	2018/08/29	16:26:08	54.4
133	2018/08/29	16:26:09	54.9
134	2018/08/29	16:26:10	54.1
135	2018/08/29	16:26:11	55.9
136	2018/08/29	16:26:12	57.8
137	2018/08/29	16:26:13	56.8
138	2018/08/29	16:26:14	59.2
139	2018/08/29	16:26:15	57.5
140	2018/08/29	16:26:16	59.8
141	2018/08/29	16:26:17	59.4
142	2018/08/29	16:26:18	60.4
143	2018/08/29	16:26:19	65.4
144	2018/08/29	16:26:20	65.3
145	2018/08/29	16:26:21	58.7
146	2018/08/29	16:26:22	65.3
147	2018/08/29	16:26:23	63.2
148	2018/08/29	16:26:24	64.2
149	2018/08/29	16:26:25	65.3
150	2018/08/29	16:26:26	64.7
151	2018/08/29	16:26:27	66.0
152	2018/08/29	16:26:28	66.3
153	2018/08/29	16:26:29	66.7
154	2018/08/29	16:26:30	67.6
155	2018/08/29	16:26:31	67.6
156	2018/08/29	16:26:32	68.2
157	2018/08/29	16:26:33	67.8
158	2018/08/29	16:26:34	69.6
159	2018/08/29	16:26:35	67.0
160	2018/08/29	16:26:36	69.5
161	2018/08/29	16:26:37	67.7
162	2018/08/29	16:26:38	67.5
163	2018/08/29	16:26:39	69.2
164	2018/08/29	16:26:40	66.8
165	2018/08/29	16:26:41	65.1
166	2018/08/29	16:26:42	66.2
167	2018/08/29	16:26:43	64.8
168	2018/08/29	16:26:44	71.9
169	2018/08/29	16:26:45	71.5
170	2018/08/29	16:26:46	67.4
171	2018/08/29	16:26:47	63.1
172	2018/08/29	16:26:48	61.8
173	2018/08/29	16:26:49	60.2
174	2018/08/29	16:26:50	58.8
175	2018/08/29	16:26:51	58.4
176	2018/08/29	16:26:52	57.0
177	2018/08/29	16:26:53	59.7
178	2018/08/29	16:26:54	58.8
179	2018/08/29	16:26:55	57.9
180	2018/08/29	16:26:56	59.1
181	2018/08/29	16:26:57	58.9
182	2018/08/29	16:26:58	61.8
183	2018/08/29	16:26:59	66.4
184	2018/08/29	16:27:00	66.3

185	2018/08/29	16:27:01	61.8
186	2018/08/29	16:27:02	57.9
187	2018/08/29	16:27:03	57.1
188	2018/08/29	16:27:04	57.1
189	2018/08/29	16:27:05	56.4
190	2018/08/29	16:27:06	56.5
191	2018/08/29	16:27:07	55.5
192	2018/08/29	16:27:08	56.4
193	2018/08/29	16:27:09	58.3
194	2018/08/29	16:27:10	56.3
195	2018/08/29	16:27:11	55.5
196	2018/08/29	16:27:12	56.1
197	2018/08/29	16:27:13	56.9
198	2018/08/29	16:27:14	56.1
199	2018/08/29	16:27:15	55.9
200	2018/08/29	16:27:16	58.9
201	2018/08/29	16:27:17	58.3
202	2018/08/29	16:27:18	58.3
203	2018/08/29	16:27:19	62.0
204	2018/08/29	16:27:20	62.7
205	2018/08/29	16:27:21	60.8
206	2018/08/29	16:27:22	58.7
207	2018/08/29	16:27:23	56.2
208	2018/08/29	16:27:24	56.5
209	2018/08/29	16:27:25	55.7
210	2018/08/29	16:27:26	54.8
211	2018/08/29	16:27:27	56.2
212	2018/08/29	16:27:28	55.5
213	2018/08/29	16:27:29	55.9
214	2018/08/29	16:27:30	61.4
215	2018/08/29	16:27:31	56.6
216	2018/08/29	16:27:32	55.9
217	2018/08/29	16:27:33	58.8
218	2018/08/29	16:27:34	55.7
219	2018/08/29	16:27:35	55.9
220	2018/08/29	16:27:36	56.1
221	2018/08/29	16:27:37	53.4
222	2018/08/29	16:27:38	53.7
223	2018/08/29	16:27:39	53.9
224	2018/08/29	16:27:40	61.2
225	2018/08/29	16:27:41	57.0
226	2018/08/29	16:27:42	61.0
227	2018/08/29	16:27:43	59.4
228	2018/08/29	16:27:44	60.6
229	2018/08/29	16:27:45	60.3
230	2018/08/29	16:27:46	61.4
231	2018/08/29	16:27:47	62.9
232	2018/08/29	16:27:48	60.9
233	2018/08/29	16:27:49	57.8
234	2018/08/29	16:27:50	57.4
235	2018/08/29	16:27:51	60.2
236	2018/08/29	16:27:52	58.1
237	2018/08/29	16:27:53	56.8
238	2018/08/29	16:27:54	59.1
239	2018/08/29	16:27:55	58.2
240	2018/08/29	16:27:56	57.2
241	2018/08/29	16:27:57	56.4
242	2018/08/29	16:27:58	56.7
243	2018/08/29	16:27:59	57.3
244	2018/08/29	16:28:00	61.9
245	2018/08/29	16:28:01	65.6
246	2018/08/29	16:28:02	64.0
247	2018/08/29	16:28:03	55.6
248	2018/08/29	16:28:04	56.1
249	2018/08/29	16:28:05	56.3
250	2018/08/29	16:28:06	55.4
251	2018/08/29	16:28:07	54.0
252	2018/08/29	16:28:08	54.7
253	2018/08/29	16:28:09	54.7
254	2018/08/29	16:28:10	54.5
255	2018/08/29	16:28:11	55.2
256	2018/08/29	16:28:12	57.2
257	2018/08/29	16:28:13	57.0
258	2018/08/29	16:28:14	59.0
259	2018/08/29	16:28:15	58.6
260	2018/08/29	16:28:16	55.7
261	2018/08/29	16:28:17	57.5
262	2018/08/29	16:28:18	54.3
263	2018/08/29	16:28:19	55.6
264	2018/08/29	16:28:20	57.1
265	2018/08/29	16:28:21	56.2
266	2018/08/29	16:28:22	60.2
267	2018/08/29	16:28:23	59.0
268	2018/08/29	16:28:24	58.0
269	2018/08/29	16:28:25	58.0
270	2018/08/29	16:28:26	59.0
271	2018/08/29	16:28:27	58.5
272	2018/08/29	16:28:28	58.0
273	2018/08/29	16:28:29	57.7
274	2018/08/29	16:28:30	60.1
275	2018/08/29	16:28:31	58.0
276	2018/08/29	16:28:32	58.5
277	2018/08/29	16:28:33	60.9
278	2018/08/29	16:28:34	63.4
279	2018/08/29	16:28:35	67.2
280	2018/08/29	16:28:36	69.1
281	2018/08/29	16:28:37	64.4
282	2018/08/29	16:28:38	65.7
283	2018/08/29	16:28:39	64.6

284	2018/08/29	16:28:40	62.8
285	2018/08/29	16:28:41	61.6
286	2018/08/29	16:28:42	60.1
287	2018/08/29	16:28:43	62.4
288	2018/08/29	16:28:44	59.6
289	2018/08/29	16:28:45	58.5
290	2018/08/29	16:28:46	58.0
291	2018/08/29	16:28:47	61.2
292	2018/08/29	16:28:48	60.3
293	2018/08/29	16:28:49	62.8
294	2018/08/29	16:28:50	62.2
295	2018/08/29	16:28:51	61.3
296	2018/08/29	16:28:52	60.4
297	2018/08/29	16:28:53	59.8
298	2018/08/29	16:28:54	59.7
299	2018/08/29	16:28:55	60.4
300	2018/08/29	16:28:56	60.6
301	2018/08/29	16:28:57	62.9
302	2018/08/29	16:28:58	66.8
303	2018/08/29	16:28:59	64.4
304	2018/08/29	16:29:00	66.9
305	2018/08/29	16:29:01	70.7
306	2018/08/29	16:29:02	67.1
307	2018/08/29	16:29:03	62.8
308	2018/08/29	16:29:04	61.8
309	2018/08/29	16:29:05	62.5
310	2018/08/29	16:29:06	61.0
311	2018/08/29	16:29:07	60.4
312	2018/08/29	16:29:08	61.0
313	2018/08/29	16:29:09	61.4
314	2018/08/29	16:29:10	62.4
315	2018/08/29	16:29:11	61.1
316	2018/08/29	16:29:12	62.0
317	2018/08/29	16:29:13	63.1
318	2018/08/29	16:29:14	63.6
319	2018/08/29	16:29:15	64.4
320	2018/08/29	16:29:16	65.7
321	2018/08/29	16:29:17	64.6
322	2018/08/29	16:29:18	62.4
323	2018/08/29	16:29:19	59.9
324	2018/08/29	16:29:20	57.9
325	2018/08/29	16:29:21	56.9
326	2018/08/29	16:29:22	56.9
327	2018/08/29	16:29:23	57.9
328	2018/08/29	16:29:24	57.6
329	2018/08/29	16:29:25	59.5
330	2018/08/29	16:29:26	59.4
331	2018/08/29	16:29:27	61.8
332	2018/08/29	16:29:28	62.9
333	2018/08/29	16:29:29	62.8
334	2018/08/29	16:29:30	64.1
335	2018/08/29	16:29:31	66.2
336	2018/08/29	16:29:32	68.9
337	2018/08/29	16:29:33	76.8
338	2018/08/29	16:29:34	65.4
339	2018/08/29	16:29:35	58.4
340	2018/08/29	16:29:36	57.3
341	2018/08/29	16:29:37	58.2
342	2018/08/29	16:29:38	56.0
343	2018/08/29	16:29:39	56.8
344	2018/08/29	16:29:40	57.1
345	2018/08/29	16:29:41	56.9
346	2018/08/29	16:29:42	56.1
347	2018/08/29	16:29:43	57.6
348	2018/08/29	16:29:44	57.3
349	2018/08/29	16:29:45	57.5
350	2018/08/29	16:29:46	58.1
351	2018/08/29	16:29:47	57.8
352	2018/08/29	16:29:48	59.7
353	2018/08/29	16:29:49	57.2
354	2018/08/29	16:29:50	59.4
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185	2018/08/29	16:39:24	56.9
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187	2018/08/29	16:39:26	56.3
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189	2018/08/29	16:39:28	57.4
190	2018/08/29	16:39:29	57.1
191	2018/08/29	16:39:30	57.3
192	2018/08/29	16:39:31	56.6
193	2018/08/29	16:39:32	56.8
194	2018/08/29	16:39:33	55.9
195	2018/08/29	16:39:34	55.9
196	2018/08/29	16:39:35	55.7
197	2018/08/29	16:39:36	56.5
198	2018/08/29	16:39:37	56.6
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201	2018/08/29	16:39:40	55.4
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203	2018/08/29	16:39:42	55.5
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205	2018/08/29	16:39:44	53.8
206	2018/08/29	16:39:45	54.3
207	2018/08/29	16:39:46	53.5
208	2018/08/29	16:39:47	54.5
209	2018/08/29	16:39:48	54.2
210	2018/08/29	16:39:49	54.2
211	2018/08/29	16:39:50	53.4
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213	2018/08/29	16:39:52	53.3
214	2018/08/29	16:39:53	53.4
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440	2018/08/29	16:56:24	57.8
441	2018/08/29	16:56:25	55.4
442	2018/08/29	16:56:26	53.1
443	2018/08/29	16:56:27	58.5
444	2018/08/29	16:56:28	52.3
445	2018/08/29	16:56:29	52.5
446	2018/08/29	16:56:30	53.0
447	2018/08/29	16:56:31	53.4
448	2018/08/29	16:56:32	54.5
449	2018/08/29	16:56:33	57.2
450	2018/08/29	16:56:34	60.8
451	2018/08/29	16:56:35	64.8
452	2018/08/29	16:56:36	67.7
453	2018/08/29	16:56:37	72.5
454	2018/08/29	16:56:38	75.0
455	2018/08/29	16:56:39	73.7
456	2018/08/29	16:56:40	74.0
457	2018/08/29	16:56:41	73.3
458	2018/08/29	16:56:42	65.6
459	2018/08/29	16:56:43	62.6
460	2018/08/29	16:56:44	61.4
461	2018/08/29	16:56:45	60.7
462	2018/08/29	16:56:46	62.5
463	2018/08/29	16:56:47	66.5
464	2018/08/29	16:56:48	68.9
465	2018/08/29	16:56:49	72.1
466	2018/08/29	16:56:50	73.6
467	2018/08/29	16:56:51	72.8
468	2018/08/29	16:56:52	74.8
469	2018/08/29	16:56:53	73.9
470	2018/08/29	16:56:54	76.4
471	2018/08/29	16:56:55	76.5
472	2018/08/29	16:56:56	68.3
473	2018/08/29	16:56:57	69.2
474	2018/08/29	16:56:58	71.8
475	2018/08/29	16:56:59	72.8
476	2018/08/29	16:57:00	72.2
477	2018/08/29	16:57:01	71.2
478	2018/08/29	16:57:02	72.0
479	2018/08/29	16:57:03	72.4
480	2018/08/29	16:57:04	73.9
481	2018/08/29	16:57:05	76.5

482	2018/08/29	16:57:06	73.5
483	2018/08/29	16:57:07	71.3
484	2018/08/29	16:57:08	70.4
485	2018/08/29	16:57:09	69.8
486	2018/08/29	16:57:10	69.1
487	2018/08/29	16:57:11	66.5
488	2018/08/29	16:57:12	65.9
489	2018/08/29	16:57:13	68.9
490	2018/08/29	16:57:14	73.1
491	2018/08/29	16:57:15	80.6
492	2018/08/29	16:57:16	71.9
493	2018/08/29	16:57:17	69.1
494	2018/08/29	16:57:18	70.8
495	2018/08/29	16:57:19	74.8
496	2018/08/29	16:57:20	79.7
497	2018/08/29	16:57:21	75.1
498	2018/08/29	16:57:22	76.5
499	2018/08/29	16:57:23	76.2
500	2018/08/29	16:57:24	73.9
501	2018/08/29	16:57:25	71.5
502	2018/08/29	16:57:26	68.7
503	2018/08/29	16:57:27	72.4
504	2018/08/29	16:57:28	76.6
505	2018/08/29	16:57:29	72.9
506	2018/08/29	16:57:30	69.0
507	2018/08/29	16:57:31	67.2
508	2018/08/29	16:57:32	65.6
509	2018/08/29	16:57:33	67.8
510	2018/08/29	16:57:34	69.2
511	2018/08/29	16:57:35	68.0
512	2018/08/29	16:57:36	66.5
513	2018/08/29	16:57:37	66.5
514	2018/08/29	16:57:38	64.9
515	2018/08/29	16:57:39	64.3
516	2018/08/29	16:57:40	60.5
517	2018/08/29	16:57:41	60.1
518	2018/08/29	16:57:42	60.0
519	2018/08/29	16:57:43	64.7
520	2018/08/29	16:57:44	64.7
521	2018/08/29	16:57:45	67.1
522	2018/08/29	16:57:46	66.5
523	2018/08/29	16:57:47	66.1
524	2018/08/29	16:57:48	65.9
525	2018/08/29	16:57:49	66.1
526	2018/08/29	16:57:50	67.6
527	2018/08/29	16:57:51	65.2
528	2018/08/29	16:57:52	64.6
529	2018/08/29	16:57:53	63.0
530	2018/08/29	16:57:54	61.6
531	2018/08/29	16:57:55	63.7
532	2018/08/29	16:57:56	69.4
533	2018/08/29	16:57:57	76.3
534	2018/08/29	16:57:58	73.1
535	2018/08/29	16:57:59	73.4
536	2018/08/29	16:58:00	76.1
537	2018/08/29	16:58:01	74.2
538	2018/08/29	16:58:02	76.5
539	2018/08/29	16:58:03	73.9
540	2018/08/29	16:58:04	72.8
541	2018/08/29	16:58:05	69.4
542	2018/08/29	16:58:06	69.8
543	2018/08/29	16:58:07	71.1
544	2018/08/29	16:58:08	73.7
545	2018/08/29	16:58:09	69.9
546	2018/08/29	16:58:10	72.0
547	2018/08/29	16:58:11	71.9
548	2018/08/29	16:58:12	70.7
549	2018/08/29	16:58:13	72.2
550	2018/08/29	16:58:14	72.4
551	2018/08/29	16:58:15	71.8
552	2018/08/29	16:58:16	72.3
553	2018/08/29	16:58:17	71.2
554	2018/08/29	16:58:18	72.9
555	2018/08/29	16:58:19	71.9
556	2018/08/29	16:58:20	70.4
557	2018/08/29	16:58:21	71.4
558	2018/08/29	16:58:22	71.6
559	2018/08/29	16:58:23	72.8
560	2018/08/29	16:58:24	71.7
561	2018/08/29	16:58:25	69.9
562	2018/08/29	16:58:26	71.3
563	2018/08/29	16:58:27	70.7
564	2018/08/29	16:58:28	70.0
565	2018/08/29	16:58:29	70.3
566	2018/08/29	16:58:30	69.0
567	2018/08/29	16:58:31	70.5
568	2018/08/29	16:58:32	70.2
569	2018/08/29	16:58:33	68.8
570	2018/08/29	16:58:34	72.4
571	2018/08/29	16:58:35	71.6
572	2018/08/29	16:58:36	71.2
573	2018/08/29	16:58:37	71.4
574	2018/08/29	16:58:38	72.8
575	2018/08/29	16:58:39	74.4
576	2018/08/29	16:58:40	72.5
577	2018/08/29	16:58:41	66.4
578	2018/08/29	16:58:42	65.6
579	2018/08/29	16:58:43	63.6
580	2018/08/29	16:58:44	64.6

581	2018/08/29	16:58:45	65.0
582	2018/08/29	16:58:46	63.7
583	2018/08/29	16:58:47	69.7
584	2018/08/29	16:58:48	69.6
585	2018/08/29	16:58:49	70.7
586	2018/08/29	16:58:50	70.2
587	2018/08/29	16:58:51	71.9
588	2018/08/29	16:58:52	74.9
589	2018/08/29	16:58:53	69.5
590	2018/08/29	16:58:54	72.4
591	2018/08/29	16:58:55	72.1
592	2018/08/29	16:58:56	70.2
593	2018/08/29	16:58:57	72.0
594	2018/08/29	16:58:58	71.4
595	2018/08/29	16:58:59	69.0
596	2018/08/29	16:59:00	68.7
597	2018/08/29	16:59:01	69.1
598	2018/08/29	16:59:02	68.3
599	2018/08/29	16:59:03	66.5
600	2018/08/29	16:59:04	63.5

Train Vibration Calculation - 4800 Long Beach Boulevard

Project Site Distance to Rail Road 60 Feet

Type of Development

Wood-Frame Houses	-5
1-2 Story Masonry	-7
3-4 Story Masonry	-10
Large Masonry on Piles	-10
Large Masonry on Spread-footings	-13
Foundations on Rock	0
Wood-Frame Houses	-5

Speed Correction

PT Speed	35 MPH
FT Speed	26 MPH
PT Speed Correction	-3.1 VdB
FT Speed Correction	-5.7 VdB

Locomotive Powered Passenger or Freight Curve

Initial Vibration at Distance	VdB	RMS	PPV
	83	0.014	0.057

Speed Reductions

	VdB	RMS	PPV
Passenger Adjusted VdB	80	0.010	0.040
Freight Adjusted VdB	74	0.005	0.021

Structure Reductions

	VdB	RMS	PPV
Passenger Adjusted VdB	75	0.006	0.022
Freight Adjusted VdB	69	0.003	0.012

Source: Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Assessment Manual*.

Vibration Analysis

$$PPV \text{ (in/sec)} = PPV \{ref\} * (25/D)^{1.5}$$

Where PPV = Peak Particle Velocity
 {ref} = PPV at the reference distance of 25 feet
 D = distance to the receptor

Equipment = Roller

$$PPV\{ref\} = 0.21 \text{ in/sec}$$

$$D = 50 \text{ feet}$$

$$PPV \text{ at receptor} = 0.074 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.019 \text{ in/sec}$$

$$Lv = 85 \text{ VdB}$$

Equipment = Dozer

$$PPV\{ref\} = 0.089 \text{ in/sec}$$

$$D = 50 \text{ feet}$$

$$PPV \text{ at receptor} = 0.031 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.008 \text{ in/sec}$$

$$Lv = 78 \text{ VdB}$$

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
Hydromill (slurry wall construction)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Bulldozer	large	0.089	87
	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Source: Chapter 12 Noise and Vibration During Construction in *Transit Noise and Vibration Assessment, April 1995*
 Harris Miller Miller & Hanson, Inc.
 Prepared For: USDOT Federal Transit Administration

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontal Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas. Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches. Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.
75	35	50	
85	45	60	
90	50	65	

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive			
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas			
Auditoriums	72	75	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only	75	78	83

Vibration Analysis

$$PPV \text{ (in/sec)} = PPV \{ref\} * (25/D)^{1.5}$$

Where PPV = Peak Particle Velocity
 {ref} = PPV at the reference distance of 25 feet
 D = distance to the receptor

Equipment = Roller

$$PPV\{ref\} = 0.21 \text{ in/sec}$$

$$D = 90 \text{ feet}$$

$$PPV \text{ at receptor} = 0.031 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.008 \text{ in/sec}$$

$$Lv = 78 \text{ VdB}$$

Equipment = Dozer

$$PPV\{ref\} = 0.089 \text{ in/sec}$$

$$D = 90 \text{ feet}$$

$$PPV \text{ at receptor} = 0.013 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.003 \text{ in/sec}$$

$$Lv = 70 \text{ VdB}$$

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
Hydromill (slurry wall construction)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Bulldozer	large	0.089	87
	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Source: Chapter 12 Noise and Vibration During Construction in *Transit Noise and Vibration Assessment, April 1995*
 Harris Miller Miller & Hanson, Inc.
 Prepared For: USDOT Federal Transit Administration

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontal Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas. Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches. Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.
75	35	50	
85	45	60	
90	50	65	

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive			
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas			
Auditoriums	72	75	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only			
	75	78	83

Vibration Analysis

$$PPV \text{ (in/sec)} = PPV \{ref\} * (25/D)^{1.5}$$

Where PPV = Peak Particle Velocity
 {ref} = PPV at the reference distance of 25 feet
 D = distance to the receptor

Equipment = Roller

$$PPV\{ref\} = 0.21 \text{ in/sec}$$

$$D = 150 \text{ feet}$$

$$PPV \text{ at receptor} = 0.014 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.004 \text{ in/sec}$$

$$Lv = 71 \text{ VdB}$$

Equipment = Dozer

$$PPV\{ref\} = 0.089 \text{ in/sec}$$

$$D = 150 \text{ feet}$$

$$PPV \text{ at receptor} = 0.006 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.002 \text{ in/sec}$$

$$Lv = 64 \text{ VdB}$$

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
Hydromill (slurry wall construction)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Bulldozer	large	0.089	87
	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Source: Chapter 12 Noise and Vibration During Construction in
Transit Noise and Vibration Assessment, April 1995
 Harris Miller Miller & Hanson, Inc.
 Prepared For: USDOT Federal Transit Administration

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontal Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas. Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches. Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.
75	35	50	
85	45	60	
90	50	65	

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive			
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas			
Auditoriums	72	75	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only			
	75	78	83

Vibration Analysis

$$PPV \text{ (in/sec)} = PPV \{ref\} * (25/D)^{1.5}$$

Where PPV = Peak Particle Velocity
 {ref} = PPV at the reference distance of 25 feet
 D = distance to the receptor

Equipment = Roller

$$PPV\{ref\} = 0.21 \text{ in/sec}$$

$$D = 235 \text{ feet}$$

$$PPV \text{ at receptor} = 0.007 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.002 \text{ in/sec}$$

$$Lv = 65 \text{ VdB}$$

Equipment = Dozer

$$PPV\{ref\} = 0.089 \text{ in/sec}$$

$$D = 235 \text{ feet}$$

$$PPV \text{ at receptor} = 0.003 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.001 \text{ in/sec}$$

$$Lv = 58 \text{ VdB}$$

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
Hydromill (slurry wall construction)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Bulldozer	large	0.089	87
	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Source: Chapter 12 Noise and Vibration During Construction in *Transit Noise and Vibration Assessment, April 1995*
 Harris Miller Miller & Hanson, Inc.
 Prepared For: USDOT Federal Transit Administration

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontal Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas. Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches. Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.
75	35	50	
85	45	60	
90	50	65	

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive	65	65	65
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas	72	75	80
Auditoriums	72	80	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only	75	78	83

Vibration Analysis

$$PPV \text{ (in/sec)} = PPV \{ref\} * (25/D)^{1.5}$$

Where PPV = Peak Particle Velocity
 {ref} = PPV at the reference distance of 25 feet
 D = distance to the receptor

Equipment = Roller

$$PPV\{ref\} = 0.21 \text{ in/sec}$$

$$D = 380 \text{ feet}$$

$$PPV \text{ at receptor} = 0.004 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.001 \text{ in/sec}$$

$$Lv = 59 \text{ VdB}$$

Equipment = Dozer

$$PPV\{ref\} = 0.089 \text{ in/sec}$$

$$D = 380 \text{ feet}$$

$$PPV \text{ at receptor} = 0.002 \text{ in/sec}$$

PPV is 1.7x to 6x larger than RMS velocity
 Assume typical conversion factor of 4 PPV:RMS

$$\text{Therefore estimated RMS velocity} = 0.000 \text{ in/sec}$$

$$Lv = 51 \text{ VdB}$$

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
Hydromill (slurry wall construction)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Bulldozer	large	0.089	87
	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of 4

Source: Chapter 12 Noise and Vibration During Construction in
Transit Noise and Vibration Assessment, April 1995
 Harris Miller Miller & Hanson, Inc.
 Prepared For: USDOT Federal Transit Administration

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontal Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas. Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches. Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.
75	35	50	
85	45	60	
90	50	65	

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive			
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas			
Auditoriums	72	75	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only			
	75	78	83

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DNL Calculator

WARNING: HUD recommends the use of Microsoft Internet Explorer for performing noise calculations. The HUD Noise Calculator has an error when using Google Chrome unless the cache is cleared before each use of the calculator. HUD is aware of the problem and working to fix it in the programming of the calculator.

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	4800 Long Beach Boulevard - Existing
Record Date	9/24/2018
User's Name	Rincon Consultants, Inc.

Road # 1 Name:	Long Beach Boulevard
-----------------------	-----------------------------

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	45	45	45
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	23765	490	245
Night Fraction of ADT	10	3	2
Road Gradient (%)			2
Vehicle DNL	67.8301	59.2232	66.3265
Calculate Road #1 DNL	70.4565	Reset	

Add Road Source **Add Rail Source**

Airport Noise Level

Loud Impulse Sounds?

Yes **No**

Combined DNL for all Road and Rail sources	<input type="text" value="0"/>
Combined DNL including Airport	<input type="text"/>
Site DNL with Loud Impulse Sound	<input type="text"/>

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

[Day/Night Noise Level Assessment Tool User Guide](/resource/3822/day-night-noise-level-assessment-tool-user-guide/) (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

[Day/Night Noise Level Assessment Tool Flowcharts](/resource/3823/day-night-noise-level-assessment-tool-flowcharts/) (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	4800 Long Beach Boulevard - Existing plus Project
Record Date	3/27/2020
User's Name	Rincon Consultants, Inc.

Road # 1 Name:	Long Beach Boulevard
-----------------------	-----------------------------

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	45	45	45
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	23870	490	245
Night Fraction of ADT	10	3	2
Road Gradient (%)			2
Vehicle DNL	67.8492	59.2232	66.3265
Calculate Road #1 DNL	70.4686	Reset	

Add Road Source	Add Rail Source
------------------------	------------------------

Airport Noise Level	
----------------------------	--

Loud Impulse Sounds?	<input type="radio"/> Yes <input type="radio"/> No
-----------------------------	--

Combined DNL for all Road and Rail sources	<input type="text" value="0"/>
Combined DNL including Airport	<input type="text"/>
Site DNL with Loud Impulse Sound	<input type="text"/>

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
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- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
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 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

[Day/Night Noise Level Assessment Tool User Guide \(/resource/3822/day-night-noise-level-assessment-tool-user-guide/\)](/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

[Day/Night Noise Level Assessment Tool Flowcharts \(/resource/3823/day-night-noise-level-assessment-tool-flowcharts/\)](/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

SP and G
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/24/2018
Case Description: Site Preparation/Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Multifamily Residences	Residential	65.0	65.0	65.0

Description	Impact Deviate	Usage (%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Dozer	No	40		81.7	50.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day Night		Evening		
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Equipment										
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Grader	N/A	N/A	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	85.0	84.6	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Travel King Motel	Residential	65.0	65.0	65.0

Description	Impact Deviate	Usage (%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85.0		90.0	0.0
Tractor	No	40	84.0		90.0	0.0
Dozer	No	40		81.7	90.0	0.0

SP and G

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day Night		Evening		
		Leq	Lmax	Leq	Lmax	Lmax	Leq	Lmax	Leq	Lmax
Grader			79.9	75.9	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor			78.9	74.9	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer			76.6	72.6	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Total		79.9	79.5	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	

**** Receptor #3 ****

Description	Land Use	Baselines (dBA)			
		Daytime	Evening	Night	
Daycare/ Motel	LB/ Ministries	Residential	65.0	65.0	65.0

Description	Impact Devi ce	Usage (%)	Equipment		Receptor Di stance (feet)	Estimated Shi el di ng (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85.0		150.0	0.0
Tractor	No	40	84.0		150.0	0.0
Dozer	No	40		81.7	150.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day Night		Evening		
		Leq	Lmax	Leq	Lmax	Lmax	Leq	Lmax	Leq	Lmax
Grader			75.5	71.5	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor			74.5	70.5	N/A	N/A	N/A	N/A	N/A	
N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Dozer			72.1	68.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	75.5	75.0	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Shield of Faith (church)	Residential	65.0	65.0	65.0

Description	Impact Devi ce	Usage (%)	Equipment		Receptor Di stance (feet)	Esti mated Shi el di ng (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85.0		235.0	0.0
Tractor	No	40	84.0		235.0	0.0
Dozer	No	40		81.7	235.0	0.0

Results

Noi se Li mi t Exceedance (dBA)

Noi se Li mi ts (dBA)

Night	Day	Cal cul ated (dBA)				Day Ni ght	Eveni ng		
		Eveni ng							
Equipment Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Grader			71.6	67.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			70.6	66.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer			68.2	64.2	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	71.6	71.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #5 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Single-Family Residences	Residential	65.0	65.0	65.0

Description	Impact Devi ce	Usage (%)	Equipment		Receptor Di stance (feet)	Esti mated Shi el di ng (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85.0		380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Dozer	No	40		81.7	380.0	0.0

SP and G

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Calculated (dBA)				Day		Evening		
	Day		Evening		Night				
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Grader	N/A	N/A	67.4	63.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	66.4	62.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	64.1	60.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	67.4	66.9	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

BC
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/24/2018
Case Description: Building Construction

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		Night
		Daytime	Evening	
Multifamily Residences	Residential	65.0	65.0	65.0

Estimated Shielding Description	Equipment		Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	(dBA)
	Impact Device	Usage (%)				
Generator 0.0	No	50		80.6	50.0	
Crane 0.0	No	16		80.6	50.0	
All Other Equipment > 5 HP 0.0	No	50	85.0		50.0	
Tractor 0.0	No	40	84.0		50.0	
Welder / Torch 0.0	No	40		74.0	50.0	
Welder / Torch 0.0	No	40		74.0	50.0	
Welder / Torch 0.0	No	40		74.0	50.0	

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day		Evening	
		Evening		Night		Night		Evening	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq								
Generator N/A	N/A	N/A	N/A	80.6	77.6	N/A	N/A	N/A	N/A
Crane N/A	N/A	N/A	N/A	80.6	72.6	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP N/A	N/A	N/A	N/A	85.0	82.0	N/A	N/A	N/A	N/A
Tractor N/A	N/A	N/A	N/A	84.0	80.0	N/A	N/A	N/A	N/A
Welder / Torch N/A	N/A	N/A	N/A	74.0	70.0	N/A	N/A	N/A	N/A
Welder / Torch N/A	N/A	N/A	N/A	74.0	70.0	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	BC	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch				74.0	70.0					N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total		85.0	85.6					N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)			Spec	Actual	Receptor	Distance	(dBA)
		Daytime	Evening	Night					
Travel King Motel	Residential	65.0	65.0	65.0					
Equipment									
Estimated		Impact	Usage	Lmax	Lmax				
Shelding Description		Device	(%)	(dBA)	(dBA)	(feet)			
Generator		No	50		80.6	90.0			
Crane		No	16		80.6	90.0			
All Other Equipment > 5 HP		No	50	85.0		90.0			
Tractor		No	40	84.0		90.0			
Welder / Torch		No	40		74.0	90.0			
Welder / Torch		No	40		74.0	90.0			
Welder / Torch		No	40		74.0	90.0			

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)			Day		Evening	
		Evening			Night			
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Generator			75.5	72.5	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane			75.4	67.5	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP			79.9	76.9	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			78.9	74.9	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch			68.9	64.9	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Welder / Torch				68.9	64.9	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch				68.9	64.9	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Total	79.9	80.5	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Land Use	Baselines (dBA)			Receptor Distance (feet)	(dBA)
		Daytime	Evening	Night		
Daycare/ Motel LB/ Mini stores	Residential	65.0	65.0	65.0		
Equipment						
Estimated	Impact	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	(dBA)
Shelding Description	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Generator 0.0	No	50		80.6	150.0	
Crane 0.0	No	16		80.6	150.0	
All Other Equipment > 5 HP 0.0	No	50	85.0		150.0	
Tractor 0.0	No	40	84.0		150.0	
Welder / Torch 0.0	No	40		74.0	150.0	
Welder / Torch 0.0	No	40		74.0	150.0	
Welder / Torch 0.0	No	40		74.0	150.0	

Results

Night	Day	Calculated (dBA)				Day Night		Evening	
		Evening				Lmax	Leq	Lmax	Leq
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Generator				71.1	68.1	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane				71.0	63.0	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP				75.5	72.4	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor				74.5	70.5	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch				64.5	60.5	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	BC	N/A	N/A	N/A	N/A	N/A
Welder / Torch	N/A	N/A	N/A	64.5	60.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	N/A	N/A	N/A	64.5	60.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Total	75.5	76.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Description	Land Use	Baselines (dBA)		Night		
		Daytime	Evening			
Shield of Faith (church)	Residential	65.0	65.0	65.0		
Equipment						
Estimated	Impact	Usage	Spec Lmax	Actual Lmax	Receptor Distance	
Shielding Description	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Generator 0.0	No	50		80.6	235.0	
Crane 0.0	No	16		80.6	235.0	
All Other Equipment > 5 HP 0.0	No	50	85.0		235.0	
Tractor 0.0	No	40	84.0		235.0	
Welder / Torch 0.0	No	40		74.0	235.0	
Welder / Torch 0.0	No	40		74.0	235.0	
Welder / Torch 0.0	No	40		74.0	235.0	

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day Night		Evening	
		Evening				Lmax	Leq	Lmax	Leq
Equipment Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Generator N/A	N/A	N/A	N/A	67.2	64.2	N/A	N/A	N/A	N/A
Crane N/A	N/A	N/A	N/A	67.1	59.1	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP N/A	N/A	N/A	N/A	71.6	68.5	N/A	N/A	N/A	N/A
Tractor N/A	N/A	N/A	N/A	70.6	66.6	N/A	N/A	N/A	N/A

Welder / Torch				60.6	56.6	BC	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch				60.6	56.6		N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A
Welder / Torch				60.6	56.6		N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A
			Total	71.6	72.2		N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A

**** Receptor #5 ****

Description	Land Use	Baselines (dBA)		Night		
		Daytime	Evening			
Single-Family Residences	Residential	65.0	65.0	65.0		
Equipment						
Estimated	Impact	Usage	Spec Lmax	Actual Lmax	Receptor Distance	
Shelding Description	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Generator 0.0	No	50		80.6	380.0	
Crane 0.0	No	16		80.6	380.0	
All Other Equipment > 5 HP 0.0	No	50	85.0		380.0	
Tractor 0.0	No	40	84.0		380.0	
Welder / Torch 0.0	No	40		74.0	380.0	
Welder / Torch 0.0	No	40		74.0	380.0	
Welder / Torch 0.0	No	40		74.0	380.0	

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)				Day		Evening	
		Evening		Night		Night		Evening	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Generator		63.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane		62.9	55.0	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP		67.4	64.4	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A

						BC				
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wel der	/ Torch			56.4	52.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wel der	/ Torch			56.4	52.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wel der	/ Torch			56.4	52.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total		67.4	68.0	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

P
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/24/2018
Case Description: Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Multifamily Residences	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	50.0	0.0
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Pavement Scarifier	No	20		89.5	50.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Day	Calculated (dBA)		Day		Evening			
		Evening	Evening	Night	Night	Lmax	Leq	Lmax	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarifier	89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	89.5	85.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Travel King Motel	Residential	65.0	65.0	65.0

Equipment

Spec Page 1 Actual Receptor Estimated

Description	Impact Device	Usage (%)	P Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	90.0	0.0
Paver	No	50		77.2	90.0	0.0
Roller	No	20		80.0	90.0	0.0
Tractor	No	40	84.0		90.0	0.0
Pavement Scarafier	No	20		89.5	90.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Equipment	Calculated (dBA)					Day Evening				
	Day		Evening			Day		Evening		
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Concrete Mixer Truck	N/A	N/A	73.7	69.7	N/A	N/A	N/A	N/A	N/A	
Paver	N/A	N/A	72.1	69.1	N/A	N/A	N/A	N/A	N/A	
Roller	N/A	N/A	74.9	67.9	N/A	N/A	N/A	N/A	N/A	
Tractor	N/A	N/A	78.9	74.9	N/A	N/A	N/A	N/A	N/A	
Pavement Scarafier	N/A	N/A	84.4	77.4	N/A	N/A	N/A	N/A	N/A	
Total		N/A	84.4	80.4	N/A	N/A	N/A	N/A	N/A	

**** Receptor #3 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Daycare/ Motel LB/ Ministries	Residential	65.0	65.0 65.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	150.0	0.0
Paver	No	50		77.2	150.0	0.0
Roller	No	20		80.0	150.0	0.0
Tractor	No	40	84.0		150.0	0.0
Pavement Scarafier	No	20		89.5	150.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

P

Ni ght	Day		Cal cul ated (dBA) Eveni ng		Day Ni ght		Eveni ng			
	Equi pment Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Concrete Mixer Truck	N/A	N/A	N/A	69.3	65.3	N/A	N/A	N/A	N/A	N/A
Paver	N/A	N/A	N/A	67.7	64.7	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	N/A	70.5	63.5	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	N/A	74.5	70.5	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	N/A	N/A	N/A	80.0	73.0	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	Total	80.0	76.0	N/A	N/A	N/A	N/A	N/A
	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Descr iption	Land Use	Basel i nes (dBA)		Ni ght
		Dayti me	Eveni ng	
Shi el d of Fai th (church)	Resi denti al	65.0	65.0	65.0

Descr iption	Equi pment		Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Di stance (feet)	Esti mated Shi el di ng (dBA)
	Impact Devi ce	Usage (%)				
Concrete Mixer Truck	No	40		78.8	235.0	0.0
Paver	No	50		77.2	235.0	0.0
Roller	No	20		80.0	235.0	0.0
Tractor	No	40	84.0		235.0	0.0
Pavement Scarafier	No	20		89.5	235.0	0.0

Resul ts

Noi se Li mi t Exceedance (dBA) Noi se Li mi ts (dBA)

Ni ght	Day		Cal cul ated (dBA) Eveni ng		Day Ni ght		Eveni ng			
	Equi pment Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Concrete Mixer Truck	N/A	N/A	N/A	65.4	61.4	N/A	N/A	N/A	N/A	N/A
Paver	N/A	N/A	N/A	63.8	60.8	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	N/A	66.6	59.6	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	P	N/A	N/A			
Tractor			70.6	66.6		N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A		N/A	N/A			
Pavement Scarafi er			76.1	69.1		N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A		N/A	N/A			
		Total	76.1	72.1		N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A		N/A	N/A			

**** Receptor #5 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Single-Family Residences	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	380.0	0.0
Paver	No	50		77.2	380.0	0.0
Roller	No	20		80.0	380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Pavement Scarafi er	No	20		89.5	380.0	0.0

Results

Noise Limit Exceedance (dBA)					Noise Limits (dBA)				
Night	Day	Calculated (dBA)			Day Night		Evening		
		Lmax	Leq	Evening	Lmax	Leq	Lmax	Leq	Lmax
Equipment	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	N/A	61.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	N/A	59.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	N/A	62.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafi er	N/A	71.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	71.9	67.9	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

AC
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/24/2018
Case Description: Architectural Coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Multifamily Residences	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Calculated (dBA)					Day Night		Evening		
	Day	Evening		Night		Lmax	Leq	Lmax	Leq	Lmax
Equipment	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)			77.7	73.7		N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Travel King Motel	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	90.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

AC

Night	Calculated (dBA)				Day Night		Evening		
	Day		Evening		Day Night		Evening		
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)	N/A	N/A	72.6	68.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	72.6	68.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Daycare/ Motel LB/ Ministries	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	150.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Calculated (dBA)				Day Night		Evening		
	Day		Evening		Day Night		Evening		
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)	N/A	N/A	68.1	64.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	68.1	64.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Shield of Faith (church)	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Compressor (air) No 40 AC 77.7 235.0 0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)			Day Night		Evening		
		Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)			64.2	60.2	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	64.2	60.2	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #5 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Single-Family Residences	Residential	65.0	65.0	65.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40	77.7	380.0	0.0	

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)			Day Night		Evening		
		Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)			60.1	56.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	60.1	56.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



4800 Long Beach Boulevard Project

Final Initial Study – Mitigated Negative Declaration

prepared by

City of Long Beach

411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Anita Juhola-Garcia, Planner

prepared with the assistance of

Rincon Consultants, Inc.

250 East 1st Street, Suite 1400
Los Angeles, California 90012

June 2020

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June 2020



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1 Introduction

This Final Initial Study – Mitigated Negative Declaration (IS-MND) has been prepared by Rincon Consultants, Inc. for the City of Long Beach (City) for the 4800 Long Beach Boulevard Project (project). This Final IS-MND has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Public Resources Code, Section 21000 et. seq., as amended) and implementing guidelines (Cal. Code Regulations, Title 14, Section 15000 et. seq.).

Before approving a project, CEQA requires the lead agency to prepare and certify a Final IS-MND. The City has the principal responsibility for approval of the proposed Project and is therefore considered the lead agency under CEQA Section 21067.

The Draft IS-MND was circulated for a 30-day public review period that began on May 22, 2020 and ended on June 9, 2020.

Format of the Final IS-MND

The Final IS-MND consists of the following four chapters:

- **Introduction.** This chapter summarizes the contents of the Final IS-MND, the environmental review process, and provides a summary of the Project characteristics.
- **Response to Comments.** During the public review period for the Draft IS-MND, written comment letters were received by the City. This chapter contains the comment letters for the Draft IS-MND, a summary of the oral testimony, and the City's responses to the comments.
- **Errata.** Two of the comment letters that are addressed in the Response to Comments resulted in minor revisions to the information contained in the May 2020 Draft IS-MND. These revisions are shown in strikeout and underline text in this chapter.
- **Mitigation Monitoring and Reporting Program.** This section of the Final IS-MND provides the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project. The MMRP is presented in table format and identifies mitigation measures for the proposed Project, the implementation period for each measure, the monitoring period for each measure, and the enforcing agency. The MMRP also provides a section for recordation of mitigation reporting.

Summary of the Project

The following is a summary of the full project description, which can be found in Section 9, *Description of Project*, of the Draft IS-MND.

The 4800 Long Beach Boulevard Project involves development of 18, three-story townhomes that would be a maximum height of 38 feet. Nine of the proposed units would consist of 1,411 square feet (sf) and nine would be 1,747 sf. The site would include two buildings with eight townhomes each and one building with two townhomes. Pursuant to the Long Beach Municipal Code (LBMC), the allowable density on site is 44 homes per acre. The total site area is 48,003 sf (1.102 acres) and the net site area is 42,558 sf (0.977 acres). The density of the proposed project would be 18.24 homes per acre.

The proposed project would require and provide 41 parking spaces, including 36 residential spaces (two spaces per home) and five guest spaces (0.25 spaces per home). The proposed project requires

2,700 sf of open space, including 1,350 sf of common space (75 sf per home) and 1,350 sf of private space (75 sf per home). The proposed project would provide 10,880 sf of open space, including 6,856 sf of common open space and 4,024 sf of private open space. The proposed project would exceed Title 24 standards by 19 percent and would incorporate a number of green building features, including the following:

- 75 percent of landscaping comprised of drought tolerant plants
- 1-1.5-inch foam insulation on hot water pipes
- Low-flow plumbing fixtures
- Rooftop solar panels (net zero energy townhomes)
- EnergyStar appliances
- High-efficiency lighting

Table 1 details of the proposed residences of the project.

Table 1 Project Details

Lot Area (sf)	48,003
Height	3 stories (38 feet)
Density	18.24 homes per acre
Floor Plan 1 (3 bedrooms, 3 bathrooms)	1,411 sf per unit
Floor Plan 2 (3 bedrooms, 3 bathrooms + den)	1,747 sf per unit
Residential Parking Spaces	36
Guest Parking Spaces	5
Private Open Space (sf)	4,024
Common Open Space (sf)	6,856
Setbacks	
Front Yard (ft)	15
Street Side Yard (ft)	15
Interior Side Yard (ft)	10
Rear Yard (ft)	20-foot setback for two-story buildings/ 30-foot for three-story buildings
Zone Change	
Proposed R-4-N zone designation ("Project Site")	APNs 7133-010-900, -901, -902, - 903, and -904
Proposed R-3-T zone designation ("Adjacent Lots 1 and 2")	APNs 7133-010-003 and -004

sf = square feet; ft = feet

Zone Change

The project site is currently zoned CCA (Community Commercial Automobile-Oriented) and has a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density). The CCA zone permits retail and service uses. Multi-family residential uses are not permitted in the CCA zone. The NSC-L General Plan land use designation encourages development of mixed-use smaller scale retail and low-density apartment and condominium buildings. The NSC-L designation allows up to three stories in height and residential densities of up to 44 dwelling units per acre (du/acre) depending on lot size. As such, the proposed project would be consistent with the General Plan

designation but would not be consistent with the current zoning designation. Project entitlements include a Zone Change to R-4-N (Medium-density Multiple Residential) to allow for the development of the proposed townhomes. The R-4-N zone allows for a high density, multifamily residential district. It is intended to meet the demand of a broad segment of the population which provides a diversity of housing choices.

The project also includes the rezoning of the two parcels located immediately to the east of the project site. Currently, the two parcels are zoned CCA and have a Land Use Designation of NSC-L (Neighborhood Serving Center or Corridor Low Density. As discussed above, the CCA zone does not allow for residential uses. The two parcels would be rezoned to the R-3-T (Multi-family Residential, Townhouse) designation. The proposed R-3-T zone designation allows for the development of multi-family residential uses. Pursuant to Section 21.31 of the LBMC, the allowable density under the R-3-T for both parcels would be one unit per lot, as both lots are less than 3,200 sf. Additionally the height limit for the R-3-T would be 28 feet (two stories), which is the same as what is currently allowed under the CCA Zone. Given that the two parcels are currently occupied by single-family residences and that under the R-3-T zoning designation the maximum density allowed is one residential unit per lot, the rezone of the two properties would not facilitate development at a greater density than what is currently existing. Additionally, the proposed R-3-T zone designation would not facilitate development at a greater height than what is currently allowed under the CCA zone designation (28 feet, two stories). No new development or physical or operational changes to the existing buildings are proposed on these two parcels. Table 2 shows the development standards associated with the applicable zoning designations.

Table 2 Zoning Development Standards

Standard	CCA	R-4-N	R-3-T
Allowable Uses	Retail and commercial	High density, multi-family residential	Multi-family residential
Density	Residential uses not allowed	1 unit per 975 sf for lot areas of 22,501 sf or more ¹	1 unit per lot for lots of 0 – 3,200 sf ²
Maximum Building Height	28 ft (two stories)	38 ft (three stories)	28 ft (two stories)

sf = square feet

¹ Pursuant to Section 21.31 of the LBMC, the allowable density under the R-4-N zone for the project site would be 44 homes as the total net site area is 42,558 sf.

² Pursuant to Section 21.31 of the LBMC, the allowable density under the R-3-T zone for APNs 7133-010-003 and 004 would be one unit per lot, as both lots are less than 3,200 sf.

Source: City of Long Beach Municipal Code Chapter 21 Zoning

Construction and Grading

Construction of the proposed project is anticipated to occur over an approximately 17-month period that would begin in July 2020 and end in December 2021. Construction phasing would include site preparation, grading, building construction, asphalt paving and architectural coating. The graded soil would be utilized onsite for construction of the building pads and foundations. No new development or construction is proposed on adjacent Lots 1 and 2.

Access

Access to the project site would be provided via 49th Street, which would lead to an internal driveway that would provide access to the individual garages and surface parking. Access to the

City of Long Beach
4800 Long Beach Boulevard Project

existing single-family residences on adjacent Lots 1 and 2 is provided from private driveways via 49th street; no changes to these driveways are proposed under the zone change.

2 Responses to Comments on the IS-MND

This section includes comments received during the circulation of the Draft Initial Study-Mitigated Negative Declaration (IS-MND) prepared for the 4800 Long Beach Boulevard Project (project).

The Draft IS-MND was recirculated for a 30-day public review period that began on May 11, 2020 and ended on June 9, 2020. The City of Long Beach received six comment letters on the Draft IS-MND. The commenters and the page number on which each commenter's letter appear are listed below.

Letter No. and Commenter		Page No.
Agencies (A)		
A-1	Miya Edmonson, IGR/CEQA Branch Chief, California Department of Transportation District 7 (June 8, 2020)	2-2
A-2	Adriana Raza, Customer Service Specialist, Los Angeles County Sanitation Districts (June 9, 2020)	2-8
Organizations (O)		
O-1	Gabrieleno Band of Mission Indians/Kizh Nation (June 8, 2020)	2-12
Individuals (I)		
I-1	Cholena Humphrey	2-15
I-2	Martin Bell	2-18
I-3	Abbe Wool	2-20

The comment letters have been numbered sequentially and each issue raised by the commenter has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response A-1.1, for example, indicates that the response is for the first issue raised in comment Letter A-1).

Any changes made to the text of the Draft IS-MND revising information, data, or intent, other than minor typographical corrections or minor working changes, are noted in the Final IS-MND as changes from the Draft IS-MND. Where a comment results in a change to the Draft IS-MND text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined font (underlined font) where text is added.

Letter A-1

DEPARTMENT OF TRANSPORTATION
DISTRICT 7- OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-0067
FAX (213) 897-1337
TTY 711
www.dot.ca.gov



June 8, 2020

Anita Juhola-Garcia, Planner
411 West Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

RE: 4800 Long Beach Boulevard Project –
Mitigated Negative Declaration (MND)
SCH# 2020050229
GTS# 07-LA-2020-03255
Vic. LA-710 PM 10.832

Dear Anita Juhola-Garcia,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project involves development of 18, three-story townhomes that would be a maximum height of 38 feet. The project site is located at 4800 Long Beach Boulevard and encompasses 1.1 acres. The project site would include two buildings with eight townhomes each and one building with two townhomes. The proposed project would provide 41 parking spaces, including 36 residential spaces (two spaces per home) and five guest spaces (0.25 spaces per home). The proposed project would provide 10,880 sf of open space, including 6,856 sf of common open space and 4,024 sf of private open space. Project entitlements include a Site Plan Review, Vesting Tentative Tract Map, and Zone Changes.

A-1.1

The nearest State facility to the proposed project site is I-710. After reviewing the MND, Caltrans has the following comments:

The MND states that significant transportation impacts are partially mitigated due to high potential use of the Del Amo light rail station. While this high-quality transit station is located only 1.2 miles from this residential development, popular mapping software estimates that it takes 1 hour and 43 minutes to make the trip via walking. People walking are routed down to Wardlow Road to cross the I-710 due to the lack of connectivity along Del Amo Blvd. The Lead Agency should strive to implement improvements that create a safe, convenient and viable route between the development and the station that the residents will be relying upon. Caltrans is available to discuss and plan the reallocation of space along Del Amo Blvd with the City of Long Beach so that current and future residents can conveniently walk or bike to this important regional public transit station.

A-1.2

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Anita Juhola-Garcia
June 8, 2020
Page 2

Additional considerations:

- Tree type shall be canopy shade trees, not small fruiting or decorative trees, thus providing a greater benefit to pedestrians and bicyclists.
- Exit/Entry Driveway shall be designed geometrically to ensure adequate sightlines to approaching bicycles and pedestrians. There are to be no walls or other obstacles blocking a clear sight-distance.
- Convenient and secure Bicycle Parking shall be provided for residents and visitors. Provide at least 2 bike parking spaces per unit. Provide additional spaces for cargo bikes. **Reference CALGreen's bike parking requirements for additional guidance:**
 - 5.106.4.1.1 Short-term bicycle parking:** If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for **5 percent of new visitor motorized vehicle parking spaces** being added, with a **minimum of one two-bike capacity rack**. Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.
 - 5.106.4.1.2 Long-term bicycle parking.** For new buildings with 10 or more tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for **5 percent of the tenant vehicular parking spaces** being added, with a **minimum of one space**. Acceptable parking facilities shall be convenient from the street and shall meet **one** of the following:
 - o Covered, lockable enclosures with permanently anchored racks for bicycles;
 - o Lockable bicycle rooms with permanently anchored racks; or Lockable, permanently anchored bicycle lockers.
- Install pedestrian-level lighting on transit stops/shelters on Long Beach Blvd in vicinity of the project. Improve bus shelters that are in poor condition.
- Consider the addition of a high visibility continental crossing with HAWK signal at the intersection 49th Street & Long Beach Blvd.
- Upgrade crosswalks to high visibility continental at the intersection of Del Amo Blvd. & Long Beach Blvd. and Arbor St. & Long Beach Blvd.
- With regards to parking, Caltrans supports reducing the amount of parking whenever possible. Research on parking suggests that abundant car parking enables and encourages driving. Research looking at the relationship between land-use, parking, and transportation indicates that the amount of car parking supplied can undermine a project's

A-1.3

A-1.4

A-1.5

A-1.6

A-1.7

A-1.8

A-1.9

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Anita Juhola-Garcia
June 8, 2020
Page 3

ability to encourage public transit and active modes of transportation. For any project to better promote public transit and reduce vehicle miles traveled, we recommend the implementation of Transportation Demand Management (TDM) strategies as an alternative to building unnecessary parking.

Please note that the transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will also need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods.

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS# 07-LA-2020-03255.

Sincerely,



MIYA EDMONSON
IGR/CEQA Branch Chief
cc: Scott Morgan, State Clearinghouse

A-1.9
Cont.

A-1.10

A-1.11

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Letter A-1

COMMENTER: Miya Edmonson, IGR/CEQA Branch Chief, California Department of Transportation (Caltrans) District 7

DATE: June 8, 2020

Response A-1.1

Caltrans restates the project description for the project.

This comment is noted and individual responses to Caltrans comments are provided below.

Response A-1.2

Caltrans recommends that street improvements be made to address the lack of connectivity along Del Amo Boulevard and to create a safe, convenient and viable route between the project site and the Metro Blue Line's Del Amo light rail station.

As discussed in Section 8, *Greenhouse Gas Emissions*, SCAG's RTP/SCS transit initiatives encourage accessibility to alternative modes of transportation such as public transit, bicycling, and walking, which the project would help accommodate due to the proximity to transit options. However, the request for street improvements to be included is beyond the scope of this project and this comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Response A-1.3

Caltrans recommends that the project uses canopy shade trees as an alternative to small fruiting and decorative trees to provide a greater benefit to pedestrians and bicyclists.

The project's landscape plans currently utilize six different types of trees as well as a variety of shrubs and groundcover. As shown in Figure 8 (Landscape Plan), the proposed street trees and trees that would line the front yards along Long Beach Boulevard would provide shade. However, this comment does not pertain to the adequacy of the Draft IS-MND.

Response A-1.4

Caltrans states that the exit/entry driveway should be designed to ensure adequate sightlines and avoid walls or other obstacles blocking a clear sight-distance.

Section 17, *Transportation*, of the Draft IS-MND states that during operation of the project, the project includes an individual access driveway leading to an internal driveway located off 49th Street. As shown in Figure 5 (Project Site Plan) and Figure 8 (Landscape Plan), there are no buildings or landscaping near or along the driveway, which provides adequate sightlines to the traffic on 49th Street. As such, the proposed project would not result in inadequate emergency access or introduce any design features or incompatible uses, such as sharp curves or dangerous intersections, that would substantially increase hazards.

Response A-1.5

Caltrans states that the City consider providing convenient and secure bicycle parking and additional spaces for cargo bikes consistent with CALGreen's requirements for short- and long-term bicycle parking.

CalGreen's bicycle parking requirements are not mandatory for residential developments. Nonetheless, the project site is located near transit options and each unit includes garages where bicycles can be stored. As such, alternative means of transportation would be available for access to and from the project site.

Response A-1.6

Caltrans asks the City to consider installing pedestrian-level lighting on transit stops/shelters on Long Beach Boulevard.

The request for lighting to be included on transit stops is beyond the scope of this project and this comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Response A-1.7

Caltrans recommends that the City consider adding a high visibility continental crossing with HAWK signal at the intersection of 49th Street and Long Beach Boulevard.

Caltrans' suggestion is noted. However, this request is beyond the scope of this project and this comment does not pertain to the adequacy of the Draft IS-MND. In addition, as discussed in Section 17, *Transportation*, of the Draft IS-MND, the addition of 100 daily trips generated by the proposed project would represent an increase of 0.4 percent above existing daily trip conditions. Such an increase would not affect service levels in a manner that would conflict with City plans or policies related to transportation system performance. Therefore, potential impacts would be less than significant and no mitigation measures pertaining to the local transportation system are necessary.

Response A-1.8

Caltrans recommends that the City consider upgrading crosswalks to high visibility at the intersection of Del Amo Boulevard and Long Beach Boulevard, and Arbor Street and Long Beach Boulevard.

Caltrans' suggestion is noted. However, this request is beyond the scope of this project and this comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Response A-1.9

Caltrans supports reducing parking whenever possible to encourage public transit and active modes of transportation. Additionally, Caltrans recommends the implementation of Transportation Demand Management (TDM) Strategies as an alternative to parking.

As required by the Long Beach Municipal Code, the project would consist of 41 parking spaces, which include 36 residential parking spaces and 5 guest parking spaces. However, potential impacts associated with parking availability is not an environmental issue and alternative strategies for

parking is not a required analysis under CEQA. Therefore, this comment does not pertain to the adequacy of the Draft IS-MND.

Response A-1.10

Caltrans states that any transportation of heavy construction equipment would need a Caltrans transportation permit.

In the event that oversized vehicles utilize State highways during project construction, the project applicant would comply with this requirement. The applicant would obtain Caltrans permits as required.

Response A-1.11

The commenter provides Caltrans contact information for any questions.

This information is noted.

Letter A-2

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Robert C. Ferrante
Chief Engineer and General Manager
1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

June 9, 2020

Ref. DOC 5720870

Ms. Anita Juhola-Garcia, Planner
Development Services Department
City of Long Beach
411 West Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

Dear Ms. Juhola-Garcia:

NOI Response for 4800 Long Beach Boulevard Project

The Los Angeles County Sanitation Districts (Districts) received a Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) for the subject project on May 11, 2020. The proposed project is located within the jurisdictional boundary of District No. 3. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Market Street Trunk Sewer, located in Silva Street just north of Del Amo Boulevard. The Districts' 25.56-inch diameter lined trunk sewer has a capacity of 5 million gallons per day (mgd) and conveyed a peak flow of 2.1 mgd when last measured in 2017.
2. The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 mgd and currently processes an average flow of 261.1 mgd.
3. The expected average wastewater flow from the project site, described in the notice as 18 townhomes, is 3,510 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the [Table 1, Loadings for Each Class of Land Use](#) link.
4. The Districts are empowered by the California Health and Safety Code to charge a fee to connect (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, the developer should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.
5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the

A-2.1

A-2.2

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A-2.4

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A-2.6

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Ms. Anita Juhola-Garcia

2

June 9, 2020

Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities.

A-2.6
cont.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717 or at araza@lacs.org.

A-2.7

Very truly yours,

Adriana Raza
Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

DOC 5754106.D03

Letter A-2

COMMENTER: Adriana Raza, Customer Service Specialist, Los Angeles County Sanitation Districts (Districts)

DATE: June 9, 2020

Response A-2.1

The commenter states that the proposed project is located within the jurisdictional boundary of District No.3.

This comment is noted and individual responses to comments made by the Districts are provided below.

Response A-2.2

The commenter states that wastewater generated from the project would discharge to a local sewer line not maintained by the Districts for conveyance to the Market Street Trunk Sewer. The comment also specifies the capacity and peak flow of the Districts' maintained sewer.

The comment is noted. See Response A-2.4, below, which includes the potential impacts to the Districts' Market Street Trunk Sewer.

Response A-2.3

The commenter states that wastewater generated by the proposed project would be treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson and has a daily capacity of 400 million gallons per day (MGD).

In Section 19, *Utilities and Services Systems*, the remaining daily capacity was reported to be 140 MGD of wastewater at the JWPCP. See Response A-2.4, below, which includes the revised amount of 400 MGD, as stated in this comment.

Response A-2.4

The commenter states that the project is expected to generate 3,510 gallons of wastewater per day.

According to CalEEMod estimates, the project would create 2,026 gallons per day or 0.002 MGD. In response to this comment, page 98 of the Draft IS-MND is revised as follows:

The proposed project would create demand for an estimated 0.74 1.28 million gallons of water per year according to CalEEMod estimates (see Appendix A) estimates from the Los Angeles County Sanitation Districts (Districts). Assuming that 100 percent of this water use would be treated as wastewater, 0.74 1.28 million gallons per year (2,026 3,510 gallons per day or 0.003 0.004 MGD) represents less than 0.001 percent of the remaining daily capacity of 140 400 MGD of wastewater at the JWPCP. In addition, the conveyance of wastewater to the JWPCP would occur through the Districts' Market Street Trunk Sewer which has a daily capacity of 5 MGD. The project would represent 0.07 percent of this daily capacity which would be an incremental increase that would not result in a significant impact.

These corrections do not alter the conclusions of the IS-MND that potential impacts associated with wastewater would occur such that new or expanded wastewater treatment facilities would be required.

Response A-2.5

The commenter discusses the District's ability to charge connection fees to the District's Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. The District notes that payment of a connection fee will be required before a permit to connect to the sewer is issued for the proposed project.

The project applicant would be required to pay a sewer connection fee to the Districts prior to the issuance of a sewer connection permit which would offset any project impacts to the sewer system. The project applicant will comply with this requirement; however, this comment does not that pertain to the adequacy of the Draft IS-MND.

Response A-2.6

The commenter states that this letter does not constitute a guarantee of wastewater service, and serves the purpose of advising the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the current existing capacity and any proposed expansion of the Districts' facilities.

This comment is noted; however, this comment does not pertain to the adequacy of the Draft IS-MND and raises no environmental issues specific to the proposed project.

Response A-2.7

The commenter provides the Districts' contact information for any questions.

This information is noted.

Letter O-1



GABRIELENO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Notice of Intent to Adopt An Initial Study/ Mitigated Negative Declaration

City of Long Beach
4800 Long Beach Boulevard, Long Beach, California
June 8, 2020

Project Name: 4800 Long Beach Boulevard Project

Dear Anita Juhola-Garcia,

We have received your Notice of Intent to adopt a Negative Declaration for the 4800 Long Beach Boulevard Project in the City of Long Beach. Our Tribal Government is requesting the retention of a Native American Tribal Consultant to monitor all ground disturbance conducted for this project.

Sincerely,
Gabrieleno Band of Mission Indians/Kizh Nation
(1844) 390-0787 Office

O-1

Andrew Salas, Chairman
Albert Perez, treasurer I

Nadine Salas, Vice-Chairman
Martha Gonzalez Lemos, treasurer II

Dr. Christina Swindall Martinez, secretary
Richard Gradias, Chairman of the council of Elders

PO Box 393 Covina, CA 91723

www.gabrielenoindians@yahoo.com

gabrielenoindians@yahoo.com

APPENDIX 1: Map 1-2; Bean and Smith 1978 map.

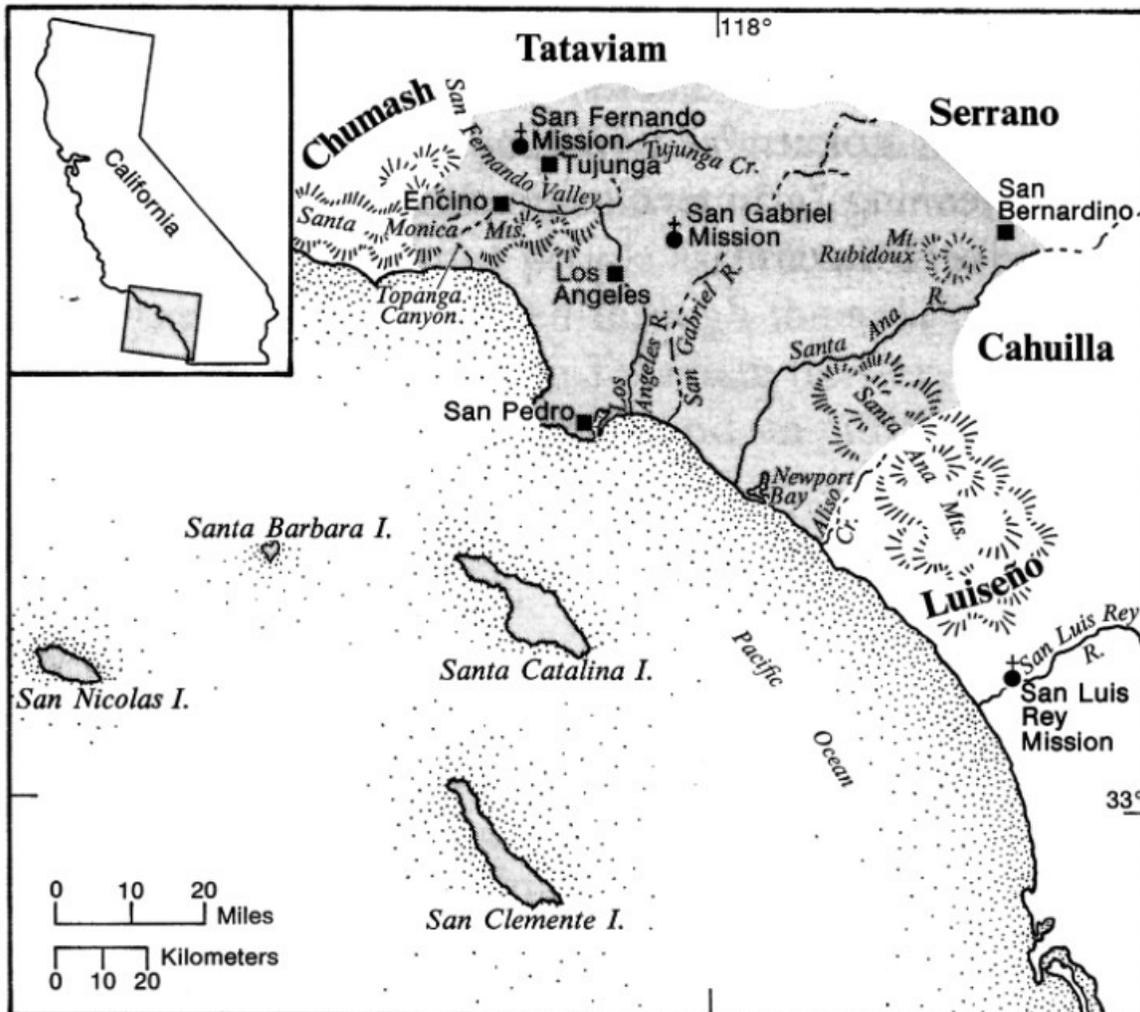


Fig. 1. Tribal territory.

The United States National Museum's Map of Gabrielino Territory:

Bean, Lowell John and Charles R. Smith
1978 Gabrielino IN *Handbook of North American Indians, California*, Vol. 8, edited by R.F. Heizer, Smithsonian Institution Press, Washington, D.C., pp. 538-549

Letter O-1

COMMENTER: Gabrieleno Band of Mission Indians/Kizh Nation

DATE: June 8, 2020

Response O-1.1

The commenter requests retention of a Native American Tribal Consultant to monitor all ground disturbances for this project and provides a map of the Gabrieleno territory that includes the project area.

As shown in the above map, the project is located in the tribal territory of the Gabrieleno Band of Mission Indians/Kizh nation. Although it is not anticipated that intact tribal cultural resources are present in the project site, there is the potential for the recovery of buried cultural materials during project construction activities associated with the proposed townhomes. Mitigation Measure CR-1 under Section 5, *Cultural Resources*, of the IS-MND would address the potentially significant impacts relating to the unanticipated discovery of archeological or paleontological resources and human remains during project development. Nonetheless, Mitigation Measure CR-1 has been revised as follows to address this comment.

CR-1 Unanticipated Discovery of Archaeological Resources and Monitoring for Tribal Cultural Resources

If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.

The project applicant shall also be required to retain and compensate for the services of a Tribal Monitor/consultant who is listed under the Native American Heritage Commission's (NAHC) Tribal Contact list for the area of the project location. The Native American monitor shall be on-site to monitor all project-related, ground-disturbing construction activities (i.e. boring, grading, excavation, potholing, trenching, etc.). Ground disturbing activities are defined as activities that may include, but are not limited to, pavement removal, pot-holing, or auguring, grubbing, tree removals, boring, grading, excavation, drilling and trenching within the project area. The Tribal Monitor/consultant shall complete daily monitoring logs, soil and provide descriptions of the day's activities, including construction activities, locations, soils, and any cultural materials identified. The on-site monitoring shall end when the grading and excavation activities are complete, or when the Tribal representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

Letter I-1

From: Cholena Hwmpfrey <cholena.1981@hotmail.com>
Sent: Thursday, May 21, 2020 11:55 AM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject: Re: Construction of New Housing

-EXTERNAL-

My new idea is this, I just went to Home Depot and saw that people love to build their own homes. You should sell property where people can build their own homes and I'm sure you will make some money on the sale of the property that is designated for home ownership and building. You could sell with a blank building permit and the person could design their own home. That way our town will have some creativity! People love to build their own homes.

I-1.1

Have a good day!

Cholena Humphrey
Long Beach City College Student and Resident

De: Cholena Hwmpfrey
Enviado: miércoles, 20 de mayo de 2020 08:31 p. m.
Para: anita.juhola-garcia@longbeach.gov <anita.juhola-garcia@longbeach.gov>
Asunto: Construction of New Housing

I think this project is a good idea. I feel that the layouts are too big and that rent will be higher than the average person can pay in Long Beach according to our wages here. Housing is always necessary it's just that this type of housing project will not affect the population that needs it most, the low income population. If you were to build for low income you would not have to make HUD houses, you could create a huge hotel like place where you just rent rooms. This would be similar to the YMCA where you used to be able to rent a room and then several people could share a bathroom on one hallway and there was a door man that made sure everyone was either working by presenting their work schedule or home at night before a certain curfew. Kids should be allowed to live with their mothers and fathers there too. Your housing project is just too expensive and will not even benefit the elderly whom needs available and affordable housing also. Revenue can be created in Long Beach in many ways, not just off of high rent. I'm assuming one of these place will be around 3,400\$ the month, not including bills. You can make money here off of providing housing so people can work and pay taxes. You could also make YMCA like rooms, studios with a shared bathroom and shower

I-1.2

City of Long Beach
4800 Long Beach Boulevard Project

area (men and women apart), or little one bedrooms (for retired people) where everyone has a right to a place to live and work. For the average person your development is just a dream to be able to afford and offers no value as an asset to people.

Cholena Humphrey
Long Beach Resident
Long Beach City College Student

I-1.2
Cont.

Letter I-1

COMMENTER: Cholena Humphrey

DATE: May 21, 2020

Response I-1.1

The commenter suggests that the City sell blank building permits and allow individuals to design and build their own homes.

The commenter's suggestion is noted. This comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Response I-1.2

The commenter suggests that project should be reconfigured to have smaller and more affordable residential units.

The commenter's suggestion is noted. This comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Letter I-2

From: Martin Bell <bellshirado@gmail.com>
Sent: Wednesday, May 20, 2020 8:25 PM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject: 4800 and 5100 Long Beach Blvd.

-EXTERNAL-

I am a resident in the Los Cerritos area of District 8. I have reviewed the two housing projects on Long Beach Blvd.

Both properties are quite dense and my concern regards parking availability. Allocating only 5 visitor spaces for the 4800 site and 10 visitor spaces for the 5100 site forces people with multiple vehicles to park offsite. And it seems unlikely that visitors will find parking onsite.

I can agree to a concentrated unit layout with minimal greenspace. But to force parking for residents and visitors on Long Beach Blvd or in the nearby residential streets is perilous, at best. Please see if the proposals can increase parking availability at each site.

Thank you,
Martin Bell

I-2

Letter I-2

COMMENTER: Martin Bell

DATE: May 20, 2020

Response I-2

The commenter expresses concerns regarding parking availability and notes potential dangers of parking on Long Beach Boulevard and in nearby residential streets.

As required by the Municipal Code, the proposed project would provide 41 parking spaces, including 36 residential spaces (two spaces per home) and five guest spaces (0.25 spaces per home).

However, potential impacts associated with parking availability is not an environmental issue and therefore is not a required analysis under CEQA. Nonetheless, the comment is noted and will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

Letter I-3

From: abbe wool <abbewool@charter.net>
Sent: Thursday, May 21, 2020 7:55 AM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject:

-EXTERNAL-

I have been reading of a proposal to build multi-family dwellings at 4800 and 5100 Long Beach Boulevard. Please tell me they will provide housing for people who earn minimum wage.

aw

I-3

Letter I-3

COMMENTER: Abbe Wool

DATE: May 21, 2020

Response I-3

The commenter asks if the project would provide affordable housing.

The commenter's question is noted. This comment raises no environmental issues specific to the proposed project pursuant to CEQA, but will be presented to the decisionmakers as part of the Final IS-MND for their consideration.

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3 Errata

This Errata addresses proposed refinements and revisions to the 4800 Long Beach Boulevard Project (Project) evaluated in the 4800 Long Beach Boulevard Draft Initial Study-Mitigated Negative Declaration (IS-MND). This Errata evaluates revisions incorporated in the Final IS-MND. In-text deletions are noted by ~~strikeout~~ and in-text insertions by underline. Individual typographical corrections are not specifically indicated here. The revisions are organized by section and page number. As discussed below, none of the conditions in Section 15073.5 of the CEQA Guidelines would be met because the revisions would not result in a significant change or an increase in the severity of any identified impact, and subsequent recirculation of the Draft IS-MND is not required.

Effect of In-Text Revisions

As demonstrated by the following discussion, the in-text revisions to the Project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts and therefore do not warrant recirculation of the IS-MND.

CEQA Guidelines Section 15073.5 requires that a MND that has been made available for public review, but not yet certified, be recirculated only if significant new information has been added to the IS-MND. The information contained in this Errata makes insignificant changes to the information that has already been presented in the Draft IS-MND. In addition, the minor refinements are not significant because the IS-MND is not changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project. Thus, none of the conditions in Section 1508735 of the CEQA Guidelines are met and recirculation is not required.

Cultural Resources

The following revisions were made in Section 5, *Cultural Resources*, of the IS-MND to address the public comment provided by the Gabrieleno Band of Mission Indians/Kizh Nation:

Section 5 – Page 38

CR-1 Unanticipated Discovery of Archaeological Resources and Monitoring for Tribal Cultural Resources

If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.

The project applicant shall also be required to retain and compensate for the services of a Tribal Monitor/consultant who is listed under the Native American Heritage Commission's (NAHC)

Tribal Contact list for the area of the project location. The Native American monitor shall be on-site to monitor all project-related, ground-disturbing construction activities (i.e. boring, grading, excavation, potholing, trenching, etc.). Ground disturbing activities are defined as activities that may include, but are not limited to, pavement removal, pot-holing, or auguring, grubbing, tree removals, boring, grading, excavation, drilling and trenching within the project area. The Tribal Monitor/consultant shall complete daily monitoring logs, soil and provide descriptions of the day's activities, including construction activities, locations, soils, and any cultural materials identified. The on-site monitoring shall end when the grading and excavation activities are complete, or when the Tribal representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

Utilities and Service Systems

The following revisions were made in Section 19, *Utilities and Service Systems*, of the IS-MND to address the public comment provided by Los Angeles County Sanitation Districts:

Section 19 – Page 98

The proposed project would create demand for an estimated ~~0.74~~ 1.28 million gallons of water per year according to ~~CalEEMod estimates (see Appendix A)~~ estimates from the Los Angeles County Sanitation Districts (Districts). Assuming that 100 percent of this water use would be treated as wastewater, ~~0.74~~ 1.28 million gallons per year (~~2,026~~ 3,510 gallons per day or ~~0.003~~ 0.004 MGD) represents less than 0.001 percent of the remaining daily capacity of ~~140~~ 400 MGD of wastewater at the JWPCP. In addition, the conveyance of wastewater to the JWPCP would occur through the Districts' Market Street Trunk Sewer which has a daily capacity of 5 MGD. The project would represent 0.07 percent of this daily capacity which would be an incremental increase that would not result in a significant impact.

Conclusion

Based on the information presented above, the revised mitigation measure and water demand calculations would not result in any new significant impacts or a substantial increase in severity of an impact already identified in the Draft IS-MND or disclose a feasible alternative or mitigation measure the Applicant has declined to adopt. Thus, none of the conditions in Section 15073.5 of the CEQA Guidelines are met and subsequent recirculation of the Draft IS-MND is not required.

4 Mitigation Monitoring and Reporting Program

CEQA requires adoption of a reporting or monitoring program for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This Mitigation Monitoring and Reporting Program (MMRP) is intended to track and ensure compliance with adopted mitigation measures during the project implementation phase. For each mitigation measure recommended in the Final Initial Study-Mitigated Negative Declaration (Final IS-MND), specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Aesthetics							
AES-1 Construction Staging Areas							
Construction equipment staging areas shall be located, to the greatest extent feasible, away from nearby existing residential uses, and utilize appropriate screening (i.e., temporary fencing with opaque material) to shield public views of construction equipment and material. Prior to issuance of a grading permit, the City Engineer shall verify that staging areas are identified on final grading/development plans and that appropriate perimeter screening is included as a construction specification.	Review final construction plans for compliance	Prior to issuance of a grading permit	Once	City of Long Beach Development Services Department			
AES-2 Outdoor Lighting Plan							
Exterior lighting shall not spill over onto adjacent uses. Prior to issuance of any building permit, the project applicant shall prepare and submit an Outdoor Lighting Plan to the City of Long Beach Development Services Department, for review and approval, that includes a foot-candle map illustrating the amount of light from the project at adjacent light sensitive receptors. All exterior light fixtures (including street lighting) shall be shielded or directed away from adjoining uses. Landscape light levels and fixtures shall be appropriate for the purpose and location. Design and placement will consider the type, intensity, and location of uses. Safety and security lighting for pedestrians and vehicular movements shall be provided.	Review final construction plans for compliance	Prior to issuance of any building permit	Once	City of Long Beach Development Services Department			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Biological Resources							
BIO-1 Nesting Bird Avoidance							
<p>If site preparation/construction activities including vegetation clearing, vegetation trimming, grading or other ground disturbing activities are initiated during the nesting bird season (February 1-August 31 for passerines, January 1 – August 31 for raptors), a preconstruction nesting bird survey shall be conducted by a qualified biologist to determine the presence/absence, location, and status of any active nests onsite or within 100 feet of the site for nesting passerines, or within 250 feet of the site for nesting raptors. In areas where site access is limited or prohibited (e.g., private property) the area will be surveyed using binoculars. Nesting bird surveys shall be completed not more than 14 days before the start of construction activities.</p> <p>If active nests are discovered on the project site, a qualified biologist will establish a species-specific avoidance buffer around the nest where no construction activity is allowed until a qualified biologist has determined that the nest is no longer active. Encroachment into the buffer can occur at the discretion of the qualified biologist with the City’s consent.</p> <p>The City shall be provided with a preconstruction nesting bird survey results report within 48 hours of completion of the survey, if required, prior to obtaining the City issued grading permit, or within 2 weeks if not required for permit issuance. The report shall include date of the survey, date of the report, authors and affiliations, contact information, methods, study location, results, and discussion/recommendations. If nesting birds are found, a map must be included with locations, buffers, and recommended measures to avoid impacts to the nests.</p>	<p>Verify completion of pre-construction nesting bird survey (if construction begins during the breeding season) prior to initiation of construction activities</p>	<p>Survey verification prior to issuance of grading permits; field verification as needed during construction activities</p>	<p>Once for bird survey; field verification periodically throughout construction</p>	<p>City of Long Beach Development Services Department</p>			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Cultural Resources							
CR-1 Unanticipated Discovery of Archaeological Resources							
<p>If evidence of subsurface archaeological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations, and cost estimates.</p> <p>The project applicant shall also be required to retain and compensate for the services of a Tribal Monitor/consultant who is listed under the Native American Heritage Commission's (NAHC) Tribal Contact list for the area of the project location. The Native American monitor shall be on-site to monitor all project-related, ground-disturbing construction activities (i.e. boring, grading, excavation, potholing, trenching, etc.). Ground disturbing activities are defined as activities that may include, but are not limited to, pavement removal, pot-holing, or auguring, grubbing, tree removals, boring, grading, excavation, drilling and trenching within the project area. The Tribal Monitor/consultant shall complete daily monitoring logs, soil and provide descriptions of the day's activities, including construction activities, locations, soils, and any cultural materials identified. The on-site monitoring shall end when the grading and excavation activities are complete, or when the Tribal representatives and monitor/consultant have</p>	<p>Verify that appropriate procedures are followed if cultural resources are identified during demolition, grading, and/or construction; verify that monitoring and reporting occurs for tribal cultural resources</p>	<p>During grading and ground disturbing activities for tribal cultural monitoring, and on an as-needed bases if archaeological resources are found</p>	<p>Continuous throughout grading and ground disturbing activities</p>	<p>City of Long Beach Development Services Department</p>			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
indicated that the site has a low potential for impacting Tribal Cultural Resources.							
CR-2 Unanticipated Discovery of Human Remains							
If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.	Verification that appropriate procedures are followed if human remains are identified during demolition, grading, and/or construction	As needed during grading and ground disturbing activities	As needed during grading and ground disturbing activities	City of Long Beach Development Services Department			
Geology and Soils							
GEO-1 Unanticipated Discovery of Paleontological Resources							
If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, a paleontologist certified by the County of Los Angeles shall evaluate the find. If warranted, the paleontologist shall prepare and implement a standard Paleontological Resources Mitigation Program for the salvage and curation of the identified resources.	Verification that appropriate procedures are followed if paleontological resources are identified during demolition, grading, and/or construction	As needed during grading and ground disturbing activities	As needed during grading and ground disturbing activities	City of Long Beach Development Services Department			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Noise							
NOI-1 Sound Insulation							
The applicant shall install exterior building materials with sufficient Sound Transmission Class (STC) ratings to reduce interior noise levels in habitable rooms of all residential units with direct exposure to Long Beach Boulevard and the adjacent Union Pacific Railroad to below 45 CNEL, as required by CCR Title 24. All residential windows, exterior doors, and exterior wall assemblies that face Long Beach Boulevard and the adjacent Union Pacific Railroad, shall meet an STC 30 rating to ensure the adequate attenuation of noise at a range of frequencies. The provision of forced-air mechanical ventilation, enabling new residents to retain adequate air quality with windows closed, and the installation of STC 30-rated residential windows, exterior doors, and exterior wall assemblies would substantially reduce interior noise in habitable rooms. Prior to approval of the development, the applicant shall demonstrate to the Department of Development Services how construction of the proposed residential units and chosen building materials will achieve an interior noise level of 45 CNEL.	Review final construction plans for compliance	Prior to issuance of construction permits	Once	City of Long Beach Development Services Department			
NOI-2 Construction Noise							
Prior to Grading Permit issuance, the project applicant shall demonstrate, to the satisfaction of the City of Long Beach City Engineer that the project complies with the following: <ul style="list-style-type: none"> ▪ Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices. ▪ Property owners and occupants located within 200 feet of the project boundary shall be sent a notice regarding the construction schedule of the proposed project, at least 15 days prior to commencement of 	Verify noticing has been conducted	Prior to issuance of demolition/grading permits	Once	City of Long Beach Development Services Department			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
	<p>construction of each phase. A sign, legible at a distance of 50 feet shall be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Long Beach Development Services Department, prior to mailing or posting, and shall indicate the dates and duration of construction activities, as well as provide a contact name and telephone number where residents can inquire about the construction process and register complaints.</p> <ul style="list-style-type: none"> ▪ Prior to issuance of any Grading or Building Permit, the Contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present onsite during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator. ▪ Prior to issuance of any Grading or Building Permit, the Project Applicant shall demonstrate to the satisfaction of the City Engineer that construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential 						

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
<p>areas, and electric air compressors and similar power tools. Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.</p> <ul style="list-style-type: none"> ▪ During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. ▪ Construction activities shall not take place outside of the allowable hours specified by the City’s Municipal Code Section 8.80.202, Construction Activity (7:00 a.m. to 7:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays; construction activities are not permitted on Sundays or legal holidays). 							

From: [Anita Juhola-Garcia](#)
To: [Cynthia de la Torre](#)
Subject: FW: Construction of New Housing
Date: Thursday, May 21, 2020 12:20:08 PM

From: Cholena Hwmpfrey [REDACTED]
Sent: Thursday, May 21, 2020 11:55 AM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject: Re: Construction of New Housing

-EXTERNAL-

My new idea is this, I just went to Home Depot and saw that people love to build their own homes. You should sell property where people can build their own homes and I'm sure you will make some money on the sale of the property that is designated for home ownership and building. You could sell with a blank building permit and the person could design their own home. That way our town will have some creativity! People love to build their own homes.

Have a good day!

Cholena Humphrey
Long Beach City College Student and Resident

De: Cholena Hwmpfrey
Enviado: miércoles, 20 de mayo de 2020 08:31 p. m.
Para: anita.juhola-garcia@longbeach.gov <anita.juhola-garcia@longbeach.gov>
Asunto: Construction of New Housing

I think this project is a good idea. I feel that the layouts are too big and that rent will be higher than the average person can pay in Long Beach according to our wages here. Housing is always necessary it's just that this type of housing project will not affect the population that needs it most, the low income population. If you were to build for low income you would not have to make HUD houses, you could create a huge hotel like place where you just rent rooms. This would be similar to the YMCA where you used to be able to rent a room and then several people could share a bathroom on one hallway and there was a door man that made sure everyone was either working by presenting their work schedule or home at night before a certain curfew. Kids should be allowed to live with their mothers and fathers there too. Your housing project is just too expensive and will not even benefit the elderly whom needs available and affordable housing also. Revenue can be created in Long Beach in many ways, not just off of high rent. I'm assuming one of these place will be around 3,400\$ the month, not including bills. You can make money here off of providing housing so people can work and pay taxes. You could also make YMCA like rooms, studios with a shared bathroom and shower

area (men and women apart), or little one bedrooms (for retired people) where everyone has a right to a place to live and work. For the average person your development is just a dream to be able to afford and offers no value as an asset to people.

Cholena Humphrey

Long Beach Resident

Long Beach City College Student

From: [Anita Juhola-Garcia](#)
To: [Cynthia de la Torre](#)
Subject: FW: 4800 and 5100 Long Beach Blvd.
Date: Thursday, May 21, 2020 7:41:49 AM

FYI

From: Martin Bell <b[REDACTED]>
Sent: Wednesday, May 20, 2020 8:25 PM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject: 4800 and 5100 Long Beach Blvd.

-EXTERNAL-

I am a resident in the Los Cerritos area of District 8. I have reviewed the two housing projects on Long Beach Blvd.

Both properties are quite dense and my concern regards parking availability. Allocating only 5 visitor spaces for the 4800 site and 10 visitor spaces for the 5100 site forces people with multiple vehicles to park offsite. And it seems unlikely that visitors will find parking onsite. I can agree to a concentrated unit layout with minimal greenspace. But to force parking for residents and visitors on Long Beach Blvd or in the nearby residential streets is perilous, at best. Please see if the proposals can increase parking availability at each site.

Thank you,
Martin Bell

From: [Anita Juhola-Garcia](#)
To: [Cynthia de la Torre](#)
Subject: FW:
Date: Thursday, May 21, 2020 8:00:00 AM

FYI

From: abbe wool <a [REDACTED]>
Sent: Thursday, May 21, 2020 7:55 AM
To: Anita Juhola-Garcia <Anita.Juhola-Garcia@longbeach.gov>
Subject:

-EXTERNAL-

I have been reading of a proposal to build multi-family dwellings at 4800 and 5100 Long Beach Boulevard. Please tell me they will provide housing for people who earn minimum wage.

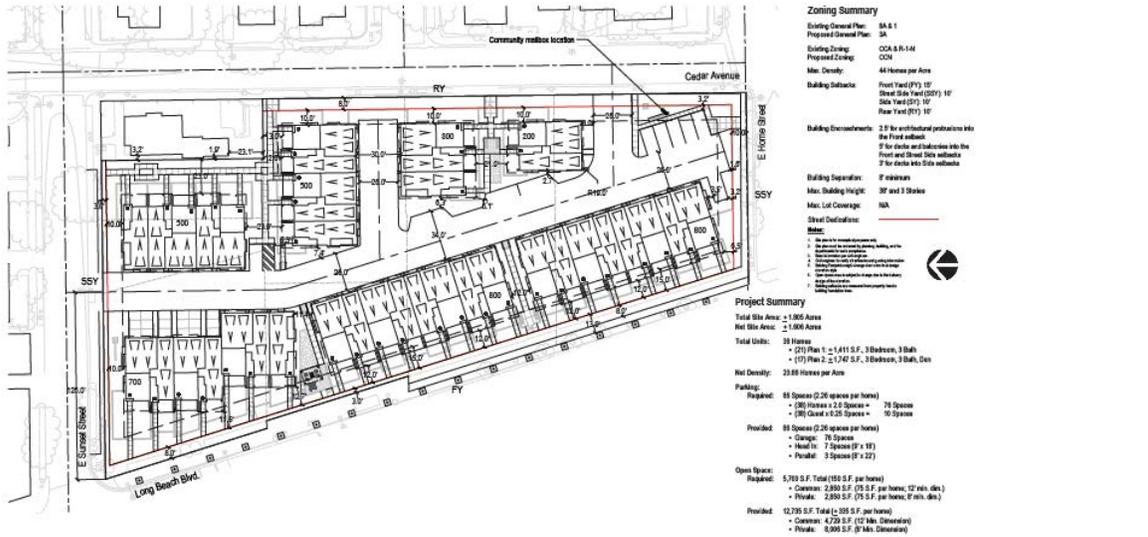
aw

From: Cynthia de la Torre
 To: [REDACTED]
 Cc: Anita Juhola-Garcia
 Subject: 5100 Long Beach Blvd Project
 Date: Friday, May 22, 2020 1:10:00 PM
 Attachments: image001.png
 image002.png
 image003.png
 image004.png
 image005.png
 image006.png
 image007.png
 image008.png

Hi Phillips,

As promised on the phone, please find the site plan and the conceptual landscape plan for the project at 5100 Long Beach Blvd below. You will see in the site plan that the proposed building is set back about 23' from your side property line. The landscape plan also shows additional landscaping in this area. The project will be conditioned to provide additional landscaping in the area abutting your neighboring residence to screen and buffer views. The third image below shows a cross-section of the 23' setback area with conceptual landscaping in the form of tall trees for screening.

Please let me know if you'd like to further discuss or would like to submit additional public comment,



CONCEPTUAL SITE PLAN

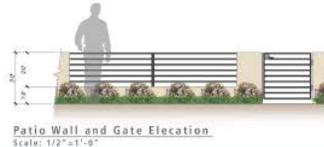


PRIVATE YARD PATIO WALL AND GATE

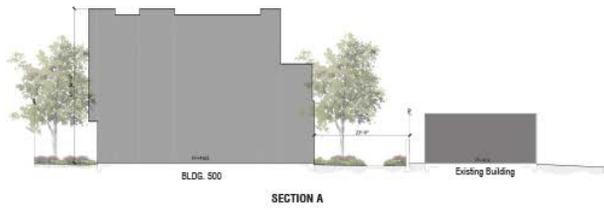
- 12" ht. Low wall with stucco finish.
- Color to match Architecture.
- 24" ht. Tubular Steel Fence to match Architecture.
- 36" ht. Tubular Steel Gate to match Architecture.

Note:

1. 24" tubular steel fence, 4" opening maximum in between TS members. All TS members shall be metalized and received (2) coats of paint- paint color to match architecture
2. 36" tubular steel fence, 4" opening maximum in between TS members. All TS members shall be metalized and received (2) coats of paint- paint color to match architecture



- LEGEND**
- 1 Vehicular Entry
 - 2 Entry Monuments
 - 3 Private Yard
 - Patio Walls - 36" ht. Stucco Low Wall with Fence Panel
 - Patio Gate - 36" ht. Gate to Match Fence Panel
 - 4 Social Event Gardens
 - Decomposed Granite Paving
 - Event Lawn for Active Play or Passive Activities
 - Small Shade Structures with Community Seating
 - Formal Tree Rows
 - Vegetable Planter
 - 5 Outdoor Living Space
 - Shade Structure with Decor Backdrop Wall
 - Enhanced Paving
 - Barbecue Kitchen with Harvest Table
 - Lounge Seating
 - Enhanced Landscaping
 - 6 Rear Yard/Property Line Wall
 - 7 Property Line Wall with Hedged Espaliers
 - 8 Community Mailboxes
 - 9 Accessible Parking
 - 10 Asphalt Motorcourt
 - 11 Accessible Community Sidewalks
 - 12 City Sidewalk
 - 13 Existing City Bus Stop
 - 14 New Street Trees and Tree Wells at 25' o.c. with Root Barrier
 - 15 Root Barrier: Provide root control barriers for street trees planted along Long Beach Boulevard according to the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.
- Irrigation Note:
All planting areas shall have a fully automatic irrigation system. Utilization water conserving features such as low-precipitation rate heads, low-flow emitters or drip irrigation, water sensors and multi program controllers with weather station capability and drip cycle features. "Water Efficient Landscaping" irrigation system, scheduling and water use WELCO calculations shall be designed to meet the requirements of the specifications of the Director of Public Works per Long Beach Municipal Code Section 21.42.050.



Cynthia de la Torre
Planner IV
Pronouns: She, Her, Hers, Ella

Long Beach Development Services | Planning Bureau
411 W. Ocean Blvd., 3rd Fl. | Long Beach, CA 90802
Office: 562-570-6559



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From: [Anita Juhola-Garcia](#)
To: fguyii@hotmail.com
Subject: 4800 Long Beach Blvd. Project
Date: Thursday, July 02, 2020 3:08:00 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Hello Mr. Guy,

Thank you for the correspondence that you sent to the Planning Commission email address on Monday, June 22, 2020. My name is Anita Juhola-Garcia, and I am the planner working on the proposed 18-unit townhouse development. The Planning Commission reviewed the project on June 18, 2020, with a recommendation of approval to City Council.

You mentioned that you attended a community meeting a few years ago. The project applicant, City Ventures, did meet with the community when the project was in the conceptual stages. You provided a series of questions, which I have responded to below:

From: FRANK GUY <fguyii@hotmail.com>
Sent: Monday, June 22, 2020 9:56 PM
To: PlanningCommissioners <PlanningCommissioners@longbeach.gov>
Subject: The 4800 Long Beach Blvd project:

-EXTERNAL-

The 4800 Long Beach Blvd project:

Hello,

My name is Frank Guy, 562-882-9571

I live in this community.

A couple of years ago, the builder held meetings at the church across the street from the proposed project site.

There were a group of us that expressed that we had the following concerns:

1. That buildings would not be constructed close to the sidewalk, but it should be set back several feet from the side walk. (So not to make the neighborhood appear more congested) The majority of the proposed townhomes have their orientation (front facing) Long Beach Blvd. The buildings facing Long Beach Blvd will be set back 15-feet from the property line and 15 feet from 49th Street. In addition, the Department of Public Works is requiring the developer to dedicate 13-feet on Long Beach Blvd and 8-feet on 49th Street for possible street widening in the future. Until that widening occurs, the buildings will be set back 28-feet along Long Beach Blvd. and 23-feet along 49th Street.

2. Residents on East 49th street should not feel closed off by the construction and by the completed project. The proposed project has conditions of approval that address site preparation and constructions activities. For example, the developer must submit a construction plan for pedestrian protection, construction area perimeter fencing with custom-printed screen(s), street lane closures, construction staging, shoring excavations and the routing of construction vehicles (excavation hauling, concrete and other deliveries, etc.). In addition, the South Coast Air Quality Management District provides additional oversight for construction related activities. As previously stated, the majority of the townhomes have orientation toward Long Beach Blvd in order to minimize impacts to 49th Street.

3. Parking, Parking and Parking enough not to impact an already impacted area.

The project provides the required number of parking spaces as required by the Municipal Code, which is two parking spaces for each unit and five additional guest spaces. The developer has agreed to include in the project's Covenants, Conditions, and Restrictions (CC&Rs) that garages can only be used for parking, and guest spaces cannot be used by tenants for long-term parking.

Please reply comment on each of these concerns

Please feel free to call me at (562) 570-6469 if you have further questions. Thank you.

Anita Juhola-Garcia
Planner

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