GARDEN GROVE

A G E N D A

GARDEN GROVE PLANNING COMMISSION

SEPTEMBER 5, 2024 - 7:00 PM

COMMUNITY MEETING CENTER
11300 STANFORD AVENUE

Meeting Assistance: Any person requiring auxiliary aids and services, due to a disability, to address the Planning Commission, should contact the Community Development Department at (714) 741-5312 or email planning@ggcity.org 72 hours prior to the meeting to arrange for special accommodations. (Government Code §5494.3.2).

Agenda Item Descriptions: Are intended to give a brief, general description of the item. The Planning Commission may take legislative action deemed appropriate with respect to the item and is not limited to the recommended action indicated in staff reports or the agenda.

Documents/Writings: Any revised or additional documents/writings related to an item on the agenda distributed to all or a majority of the Planning Commission within 72 hours of a meeting, are made available for public inspection at the same time (1) in the Planning Services Division Office at 11222 Acacia Parkway, Garden Grove, CA 92840, during normal business hours; and (1) at the Community Meeting Center at the time of the meeting.

Public Comments: Members of the public who attend the meeting in-person and would like to address the Planning Commission are requested to complete a yellow speaker card indicating their name and address, and identifying the subject matter they wish to address. This card should be given to the Recording Secretary before the meeting begins. General comments are made during "Oral Communications" and are limited to three (3) minutes and to matters the Planning Commission has jurisdiction over. Persons wishing to address the Planning Commission regarding a Public Hearing matter will be called to the podium at the time the matter is being considered. Members of the public who wish to comment on matters before the Commission, in lieu of doing so in person, may submit comments by emailing public-comment@ggcity.org no later than 3:00 p.m. the day of the meeting. The comments will be provided to the Commission as part of the meeting record.

PLEASE SILENCE YOUR CELL PHONES DURING THE MEETING.

REGULAR MEETING AGENDA

ROLL CALL: CHAIR LINDSAY, VICE CHAIR RAMIREZ
COMMISSIONERS BEARD, CUEVA, CUNNINGHAM, LARICCHIA, PAREDES

PLEDGE OF ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA

A. ORAL COMMUNICATIONS - PUBLIC

B. APPROVAL OF MINUTES – August 15, 2024

C. PUBLIC HEARING(S) (Authorization for the Chair to execute Resolution shall be included in the motion.)

C.1. SITE PLAN NO. SP-142-2024

APPLICANT: JEFFREY AND TINA MULLEN

LOCATION: WEST SIDE OF JEFFERSON STREET, SOUTH OF LARSON STREET, AT 13171 JEFFERSON STREET

REQUEST: A request for Site Plan approval to construct eight (8) multiple-family rental units and associated site improvements on an approximately 0.23-acre lot. The proposal includes one (1) affordable housing unit for "very-low income" households. The inclusion of one (1) "very-low income" unit qualifies the project for a density bonus, concessions, waivers, and reduced parking, pursuant to the State Density Bonus Law. The site is in the R-3 (Multiple-Family Residential) zone. In conjunction with the requests, the Planning Commission will consider a determination that the project is categorically exempt from the California Environmental Quality Act (CEQA).

STAFF RECOMMENDATION: Approval of Site Plan No. SP-142-2024, pursuant to the recommended Conditions of Approval.

D. MATTERS FROM COMMISSIONERS

E. MATTERS FROM STAFF

F. ADJOURNMENT

GARDEN GROVE PLANNING COMMISSION
Community Meeting Center
11300 Stanford Avenue, Garden Grove, CA 92840

Meeting Minutes
Thursday, August 15, 2024

CALL TO ORDER: 7:02 p.m.

ROLL CALL:

Commissioner Beard
Commissioner Cueva
Commissioner Cunningham
Commissioner Laricchia
Commissioner Lindsay
Commissioner Paredes
Commissioner Ramirez

Absent: Cunningham

PLEDGE OF ALLEGIANCE: Led by Commissioner Beard

ORAL COMMUNICATIONS – PUBLIC – None.

July 18, 2024 MINUTES:

Action: Received and filed.

Motion: Laricchia Second: Cueva

Ayes:	(4)	Beard, Cueva, Laricchia, Ramirez
Noes:	(0)	None
Abstain:	(2)	Lindsay, Paredes
Absent:	(1)	Cunningham

PUBLIC HEARING – SITE PLAN NO. SP-070-2019 (REINSTATEMENT 2024) AND VARIANCE NO. V-023-2019 (REINSTATEMENT 2024) FOR PROPERTY LOCATED ON THE NORTHWEST CORNER OF WESTMINSTER AVENUE AND ATLANTIS WAY AT 9191 WESTMINSTER AVENUE.

Applicant: DR. MICHAEL DAO
Date: August 15, 2024

Request: A request to reinstate the approval for Site Plan No. SP-070-2019 to construct a 7,140 square foot third floor addition to an existing two-story 29,000 square foot medical office building, and to reinstate the approval of Variance No. V-023-2019 to deviate from the maximum stories and

height permitted in the O-P (Office Professional) zone to facilitate the construction of the new third floor addition. The site is in the O-P (Office Professional) zone. In conjunction with the requests, the Planning Commission will consider a determination that the project is categorically exempt from the California Environmental Quality Act (CEQA).

Action: Resolution No. 6094-24 was approved. One letter of concern was submitted by Jorge B. citing concerns with automobile accidents, no proper traffic controls in the area, insufficient parking, and increased traffic.

Motion: Ramirez Second: Lindsay

Ayes: (6) Beard, Cueva, Laricchia, Lindsay, Ramirez, Paredes
Noes: (0) None
Absent: (1) Cunningham

PUBLIC HEARING – SITE PLAN NO. SP-141-2024, LOT LINE ADJUSTMENT NO. LLA-031-2024, AND CONDITIONAL USE PERMIT NO. CUP-493-00 (REV. 2024) FOR PROPERTY LOCATED NORTH OF ORANGEWOOD AVENUE, EAST OF MAC STREET, AT 8811 AND 8791 ORANGEWOOD AVENUE.

Applicant: WINSTON LIU
Date: August 15, 2024

Request: A request to expand an existing religious facility by incorporating an approximately 0.42-acre adjoining parcel into the development's site area, and constructing a new ancillary building. The Planning Commission will consider approval of (i) a Site Plan to construct a new 4,285 square foot two-story ancillary building to serve the existing religious facility site, along with associated site improvements; (ii) a Lot Line Adjustment to remove an existing lot line for the purpose of consolidating two (2) adjoining lots into one (1) lot to accommodate the religious facility expansion; and (iii) a modification to Conditional Use Permit No. CUP-493-00 to allow the expansion of the religious use. Upon approval and exercise of the subject request, the Conditional Use Permit previously governing the subject religious facility, CUP-493-00, would be replaced by the modified Conditional Use Permit No. CUP-493-00 (REV. 2024). The site is in the R-1 (Single Family Residential) zone. In conjunction with the requests, the Planning Commission will consider a determination that the project is categorically exempt from the California Environmental Quality Act (CEQA).

Action: Resolution No. 6095-24 was approved with an amendment to add Condition No. 27, as indicated below, and to renumber the remaining conditions accordingly.

27. The applicant shall install 'STOP' signs adjacent to all driveway approaches on Orangewood Avenue.

One letter was submitted by Elaine Lizaola citing concerns with any possible living quarters at the religious facility, increased traffic, the facility's paint color, and the number of religious facilities allowed in neighborhoods. Charlene Manning spoke in regard to the almost daily amplified prayer services, and the possibility of extending the existing tree line to buffer noise and help with privacy to adjacent residential areas.

Motion: Lindsay Second: Ramirez

Ayes:	(6)	Beard, Cueva, Laricchia, Lindsay, Ramirez, Paredes
Noes:	(0)	None
Absent:	(1)	Cunningham

MATTERS FROM COMMISSIONERS: Commissioner Laricchia asked if affordable units remain affordable if sold. Staff responded that affordable rental units remain deed-restricted for 55 years. For-sale units under the Density Bonus Law, require the initial buyer to qualify as an affordable household. When the initial buyer decides to sell, they enter into an agreement with the City, and either sell to another qualified buyer, or sell at market-rate with the subsidy going into a City low-income housing fund.

Chair Lindsay congratulated all those who applied to run for positions with the City and wished them luck.

MATTERS FROM STAFF: Staff gave a brief description of the agenda item(s) for the September 5th meeting.

ADJOURNMENT: At 8:05 p.m.

_____

Judith Moore
Recording Secretary

COMMUNITY DEVELOPMENT DEPARTMENT PLANNING STAFF REPORT

AGENDA ITEM NO.: C.1.	**SITE LOCATION:** West side of Jefferson Street, south of Larson Street, at 13171 Jefferson Street
HEARING DATE: September 5, 2024	**GENERAL PLAN:** MDR (Medium Density Residential)
CASE NO.: Site Plan No. SP-142-2024	**ZONE:** R-3 (Multiple-Family Residential)
APPLICANT: Jeffrey & Tina Mullen	**APN:** 097-201-13
PROPERTY OWNER: Same as Applicant	**CEQA DETERMINATION:** Exempt - Section 15332 "In-Fill Development Projects"

REQUEST:

A request for Site Plan approval to construct an eight (8) unit, three-story multiple-family residential building and associated site improvements on an approximately 0.23-acre lot. The proposal includes one (1) affordable housing unit for "very low-income" households, qualifying the project for a 38.75% density bonus, incentives or concessions, waivers or reductions of development standards, and reduced parking ratios, pursuant to the State Density Bonus Law and Garden Grove Municipal Code (GGMC) Section 9.60.040 (collectively, the "Density Bonus Law" or "DBL"). The project has been designed to incorporate certain incentives / concessions and waivers / reductions of development standards pursuant to the DBL.

BACKGROUND:

The project site is an approximately 10,125 square-foot (0.23-acre) lot, located on the west side of Jefferson Street, south of Larson Street, at 13171 Jefferson Street. The subject site has a General Plan Land Use designation of MDR (Medium Density Residential), and is zoned R-3 (Multiple-Family Residential). The property abuts R-3 zoned properties to the north, south, west, and east, across Jefferson Street. Surrounding uses include single-family and multiple-family residential developments.

The subject site is currently improved with a single-story, two-bedroom single-family residence that was originally constructed in 1942. The existing structure has not been identified as a part of any historical record. All existing site improvements would be demolished to accommodate the proposed project.

The applicant is proposing eight (8) multiple-family apartment units. Other site features include, but are not limited to: drive aisles, walkways, garden spaces, and recreation areas to be shared amongst the units. The subject sites' General Plan Land Use designation of MDR is intended to create, maintain and enhance residential areas characterized by mostly traditional multiple-family apartments, condominiums, townhomes, and single-family small-lot subdivisions. The MDR is implemented by

the R-3 zone, which allows residential developments with densities of up to thirty-two (32) units per acre. The proposed project, as designed, is consistent with numerous goals and policies of the General Plan Land Use Element and Housing Element, including the following:

1. Policy LU-1.3: Support the production of housing citywide that is affordable to lower- and moderate-income households consistent with the policies and targets set forth in the Housing Element.
2. Goal LU-2: Stable, well-maintained residential neighborhoods in Garden Grove.
3. Policy LU-2.4: Assure that the type and intensity of land use shall be consistent with that of the immediate neighborhood.
4. Policy LU-3.2: Support development of multi-family housing that provides a diversity of densities, types, and prices that meet the needs of all household income levels.
5. Policy LU-3.3: Encourage developers to build housing projects at or above maximum allowable densities.
6. Goal LU-4: Uses compatible with one another.
7. Policy H-2.1: Preserve and expand the City's supply of affordable rental and ownership housing for lower-income households.
8. Policy H-2.3: Provide density bonuses and other financial and regulatory incentives to facilitate the development of affordable housing.
9. Policy H-3.7: Encourage infill housing development that is compatible in character with established residential neighborhoods.

With the inclusion of one (1) affordable housing units for "very low-income" households, pursuant to the DBL, the project qualifies for a density bonus of up to 38.75% over the base density, reduced parking ratios, and the following one (1) incentive / concession and two (2) waivers / reductions of development standards set forth in the Garden Grove Municipal Code (GGMC):

1. An incentive / concession to reduce the interior side setback at the first and second floors from the required ten feet (10'-0"), and at the third floor from the required fifteen feet (15'-0"), to a minimum five feet (5'-0") (GGMC Section 9.12.040.020.A);
2. A reduction of the required minimum front setback requirements for the third floor from the minimum twenty-five feet (25'-0") to a minimum twenty-foot (20'-0") setback (Section 9.12.040.020.A); and
3. A reduction of the required minimum vertical clearance for common open spaces from fifteen feet (15'-0") to a minimum nine feet (9'-0") (Section 9.12.040.050.I.8).

An Affordable Housing Regulatory Agreement consistent with the DBL and Section 9.60.050 of the GGMC would be recorded to ensure affordability of the very low-income units for the occupants of said units.

PROJECT STATISTICS:

Standard	Provided	Code Requirement[1]	Meets Code
Lot Size	10,125 s.f. (0.23 acres)	7,200 s.f. (0.17 acres)	Yes
Density	8 units (32 units per acre)	8 units maximum[2] (32 units per acre)	Yes
Lot coverage	48.6%	50% maximum	Yes
Total Parking	11 spaces	10 spaces[3]	Yes
Recreation Area Total	2,404 s.f.	2,400 s.f. (8 units x 300 s.f.)	Yes
Private Area	584 s.f.		
Common Area - Outdoor	1,340 s.f.		
Common Area - Covered	480 s.f.		
Common Recreation Area & Dimensions	480 s.f., 15'-0" in any direction	225 s.f., 15'-0" in any direction	Yes
Private Recreation Area & Dimensions	60 s.f., 6'-0" in any direction	60 s.f., 6'-0" in any direction	Yes
Building Height	33'-2"	35'-0" maximum	Yes
Common Open Space Vertical Clearance	9'-0"	15'-0"	**DBL Waiver**
Private Open Space Vertical Clearance	9'-0"	8'-0"	Yes
Stories – Maximum	3 stories	3 stories	Yes
Building Setbacks			
1st & 2nd floors East (Front)	20'-0"	20'-0"	Yes
3rd floor East (Front)	20'-0"	25'-0"	**DBL Waiver**
1st & 2nd floor West (Rear)	40'-0" (1st floor) & 37'-6" (2nd floor)	10'-0"	Yes
3rd floor West (Rear)	37'-6"	15'-0"	Yes
1st & 2nd floor North & South (Side)	5'-0"	10'-0"	**DBL Incentive / Concession**
3rd floor North & South (Side)	5'-0"	10'-0"	**DBL Incentive / Concession**
Unit Size			
1-bedroom unit	750-764 s.f.	750 s.f.	Yes
2-bedroom unit	912 s.f.	900 s.f.	Yes

DISCUSSION:

DENSITY BONUS LAW:

The State Density Bonus Law (Government Code Section 65915 et seq.) (collectively, "Density Bonus Law" or "DBL") and Garden Grove Municipal Code (GGMC) Section 9.60.040 (Residential Density Bonus) entitles applicants to a density bonus, incentives or concessions, waivers or reductions of development standards, and reduced parking ratios to encourage the construction of affordable housing units. The

[1] All Code Requirements are listed as minimums, unless otherwise specified.

[2] The DBL requires all fractional units for affordable housing projects to be rounded up to the next whole number. In this case, the base density is calculated at 7.4 units; thus, it would be rounded up to 8 units per State law.

[3] Parking ratios are proposed as required in the DBL.

project qualifies for two (2) incentives / concessions, and unlimited waivers or reductions of development standards by providing one (1) very low-income unit.

Density Bonus

A maximum base density of thirty-two (32) units per acre is allowed in both the MDR General Plan Land Use Designation and in the R-3 zone pursuant to Section 9.12.040.020.A of the GGMC, which yields eight (8) units for the 0.23-acre lot. With the inclusion of one (1) affordable units for "very low-income" households, the project is providing 12% of its base density for affordable housing. Thus, pursuant to the Density Bonus Law, the applicant is entitled to a Density Bonus of up to 38.75%, or up to twelve (12) total units. While entitled to the aforementioned Density Bonus, the applicant is not proposing to exceed the maximum eight (8) unit base density.

Reduced Parking Ratio

As an affordable housing project, the project is entitled to the reduced parking ratios set forth in the DBL. The DBL requires a minimum of one (1) parking space for each zero- to one-bedroom unit, and one-and-a-half (1.5) parking spaces for each unit with two to three bedrooms. Based on the proposed plan, the project is required to provide a minimum of ten (10) spaces, as shown in Table A below.

Minimum Parking Spaces Required per Unit (Per DBL)			
Type of unit	**Number of units**	**Parking ratio**	**Required parking**
One-bedroom	4 units	1 space per unit	4
Two to three bedrooms	4 units	1.5 spaces per unit	6
Total	8 units	**Total**	10 spaces

The project has been designed to comply with the parking requirements of the DBL. The project proposes eleven (11) parking spaces, within a shared parking garage area. Thus, the project exceeds the minimum required parking under the DBL by one (1) parking space.

Concessions and Waivers

The applicant has proposed one (1) incentive / concession, and two (2) waivers / reductions of development standards pursuant to the DBL to facilitate the proposed development.

Concessions

A "concession or incentive" includes a reduction in site development standards or a modification of zoning code requirements or architectural design requirements, approval of mixed use zoning in conjunction with a housing project, and other regulatory incentives or concessions that result in a reduction in affordable housing costs. The DBL provides that a city must grant a proposed concession or incentive unless it makes a written finding, based upon substantial evidence, that the concession or incentive: (1) does not result in identifiable and actual cost reductions

to provide for affordable housing costs for the targeted units; (2) would have a specific, adverse impact upon public health and safety or on any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact without rendering the development unaffordable to low-income and moderate-income households; or (3) would be contrary to state or federal law.

The DBL provides that an applicant is entitled to two (2) "concessions or incentives" if it offers to restrict 10% of the housing units for very low-income households. The project would provide one (1) very low-income unit, or 12% of the base density, making the project eligible for two (2) concessions. The applicant, however, is proposing only one (1) concession, as follows:

Incentive / Concession 1:

GGMC Section 9.12.040.020.A generally requires projects in the R-3 zone to provide a minimum ten-foot (10'-0") interior side setback for the first and second floors, and a minimum fifteen-foot (15'-0") interior side setback for third floors. Utilizing an incentive / concession provided for under the DBL, the proposed project would provide a five-foot (5'-0") interior side setback for all floors. The applicant contends this incentive / concession is needed to reduce construction costs in order to provide the affordable units.

Waivers or Reductions in Development Standards

The DBL provides that, in addition to a density bonus and concessions or incentives, an applicant may propose waivers or reductions of development standards that will have the effect of physically precluding the construction of the proposed development, with the required density bonus and concessions or incentives permitted by the DBL. Similar to a concession or incentive, a city must waive or reduce a development standard that would physically preclude construction of the proposed development unless the waiver or reduction: (1) would have a specific, adverse impact upon health or safety, and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact; (2) would have an adverse impact on any real property that is listed in the California Register of Historical Resources; or (3) would be contrary to state or federal law.

The proposed project incorporates the following two (2) waivers or reductions of development standards, which the applicant contends would physically preclude construction of the project as proposed:

Waiver / Reduction 1:

GGMC Section 9.12.040.020.A generally requires residential projects in the R-3 zone to provide a minimum twenty-foot (20'-0") front setback for the first and second floor, and a minimum twenty-five foot (25'-0") front setback for the third floor. The project is proposing to waive / reduce the third-floor front setback to twenty feet

(20’-0”) to match the first and second floors. The applicant contends that given the limited size of the property, the application of the third-floor setback requirements would make it infeasible to construct the proposed project at the desired density.

Waiver / Reduction 2:

GGMC Section 9.12.040.050.I.8 generally requires residential projects in the R-3 zone to provide a minimum fifteen-foot (15’-0”) vertical clearance for common open space areas. The second floor of the building would include a covered open space area. The project proposes to reduce the vertical clearance requirement for this open space area to nine feet (9’-0”) to match the ceiling height in the remainder of the second floor. The applicant contends it is not possible to achieve the full fifteen-foot (15’-0”) vertical clearance for the space, given the density, and lot size, and height restrictions.

Concessions and Waivers Justification

The applicant’s justification for the proposed incentives and concessions and waivers and reductions of development standards incorporated into the proposed project is that application of all of the Municipal Code standards for multiple-family developments, in combination, would either severely limit the amount of open space provided on-site, or reduce the size of units. The applicant contends that the proposed design strikes a balance between the two by providing open spaces as required by the GGMC, and also providing units that are of an adequate size to be marketed and rented. Conceding and/or waiving certain development standards can help strike this balance. A copy of the Density Bonus Application for the project is attached as Attachment 3, and includes the applicant’s justification for granting the concessions and waivers to facilitate the development of the project.

SITE PLAN:

Site Design and Circulation

The property is an approximately 10,125 square-foot (0.23-acre) property. A new, thirty-foot (30’-0”) wide driveway is proposed in the center of the property, providing access to Jefferson Street. Separate pedestrian walkways would be provided along both the north and south property lines, connecting to the public sidewalk along Jefferson Street.

A shared parking garage would be provided on the ground-level. The garage would feature ten (10) parking spaces, and one (1) additional exterior parking space at the very rear (west) of the garage. A vehicular turnaround area is also located exterior to the garage, at the end of the drive aisle. Included inside the parking garage is one (1) accessible parking space. Also located within the garage is an elevator and stairwell to access the units above, and a shared trash enclosure serving all units. The location of the trash enclosure has been reviewed by Republic Services, and they are supportive of the design.

Above the garage on the upper floors are eight (8) residential rental units. The upper floors would be flush with the ground-level, with the exception of balconies to the rear of the building, which extend approximately two-and-a-half feet (2'-6") beyond the footprint of the garage. With the inclusion of the aforementioned incentive / waiver and waivers / reductions, the building would comply with the setback requirements of the R-3 zone.

A common recreation area improved with lounge seating, a barbecue station, a community garden, and perimeter landscaping would be located in the rear of the garage, toward the western (rear) property line. The open space area complies with the setback requirements of the R-3 zone. This recreation area would be connected to the building via pedestrian pathways along the northern and southern property lines.

Parking

The project provides a total of eleven (11) parking spaces, which exceeds the minimum parking requirements under the DBL by one (1) space. The project proposes a shared ground-level parking garage to serve the entire building. Ten (10) parking spaces, including an accessible space, would be located within the garage, and one (1) guest parking space would be provided exterior to the garage, to the rear (west).

Unit Design

The proposed project would provide four (4) one-bedroom units, and four (4) two-bedroom units, for a total of eight (8) units.

The units would range in size from 750 square feet to 912 square feet. Four (4) of the provided units would provide one (1) bedroom and two bathrooms. The remaining four (4) units would provide two (2) bedrooms and two (2) bathrooms. Each unit would also provide a kitchen, living room, laundry, and storage spaces. Each unit also provides a private open space in the form of a balcony, varying in size between 60 square feet for the two-bedroom units, and 86 square feet for the one-bedroom unit.

Unit Types				
Unit #	**Bedrooms/Bathrooms**	**Living Area**	**Private Open Space**	**Total Number of Units**
1, 5	1 bedroom/2 bathroom	764 s.f.	86 s.f.	2 units
2, 6	1 bedroom/2 bathroom	750 s.f.	86 s.f.	2 units
3, 4, 7, 8	2 bedrooms/2 bathrooms	912 s.f.	60 s.f.	4 units

Open Space and Recreational Area

GGMC Section 9.12.040.050.I.2 requires the proposed development to provide a minimum of 2,400 square feet of open space (300 square feet per unit). As designed, the project would provide both approximately 584 square feet of private open space,

and approximately 1,820 square feet of common open spaces, for a total of 2,404 square feet.

Private open spaces would be provided as balconies for each unit. For one-bedroom units, the balconies would be eighty-six (86) square feet in size. For two-bedroom units, the balconies would be sixty (60) square feet in size. Balconies would be accessible via common spaces, either a hallway or a kitchen, within each respective unit. All balconies would meet the minimum sixty (60) square-foot size, minimum six-foot (6'-0") dimension, and minimum eight-foot (8'-0") vertical clearance, as required by Code.

Common open spaces are provided in three (3) separate areas on-site. Each common open space area would meet the minimum fifteen-foot (15'-0") dimension and the minimum 225 square-foot area required by Code. The first open space area is an approximately 860 square-foot open space area on the ground-level, behind the parking area. The ground-level open space area is located outside of required setback areas, and is connected to the proposed units via pedestrian walkways. Improvements to the subject open space area include seating, landscaping, and shared barbecues.

The second open space area would be an approximately 480 square-foot second-floor common space with lounge seating between Units #1 through #4. The common space area would be covered, and provide a connective space between the units, stairs, and elevators. The lounge space would not meet the minimum fifteen-foot (15'-0") vertical clearance required, and thus a waiver / reduction is proposed to reduce the vertical clearance to nine feet (9'-0').

The third common open space area would be an approximately 480 square-foot third-floor courtyard area between Units #5 through #8. The courtyard space would be open to the sky and meeting the minimum fifteen-foot (15'-0") vertical clearance requirement. Amenities in the courtyard include movable outdoor lounge furniture, and potted plants.

Amenities

The property does not meet the minimum size requirements to necessitate the amenities required in GGMC Section 9.12.040.050.J.7.d. Nonetheless, the applicant has voluntarily proposed to include the amenities prescribed by said GGMC Section within the common open space areas. The ground-level open space would include a community garden area, two (2) barbecues, and an outdoor dining area. Additionally, landscaped setback areas would contribute to the overall quality of open space. The second-floor common space area, and the third floor courtyard would both include lounge seating areas.

Site Landscaping

GGMC Section 9.12.040.090 (Landscaping Requirements) requires all areas that are not designated for walkways, parking spaces, drive aisles, and private recreation areas, to be fully landscaped and automatically irrigated. The project proposes landscaping in all required setbacks, with the exception of areas designated for the barbecue area, drive aisles or walkways, using a variety of plant materials. All of the landscaped areas would be fitted with automatic irrigation systems, and a planting palate that complies with the City's Water Efficiency Guidelines.

Building Architecture

The proposed multiple-family apartment building would be three (3) stories, and approximately thirty-three feet (33'-2") in height to the roof. The building parapet would extend to thirty-five feet (35'-0"), and the elevator penthouse would extend to thirty-seven feet (37'-0"). Per GGMC Section 9.12.040.010.E.2., penthouses and roof structures are permitted to extend an additional fifteen feet (15'-0") beyond the maximum height otherwise allowed by Code. The building, and all appurtenances, would comply with the GGMC requirements for maximum building height.

The proposed architecture generally features a contemporary design, with multiple façade planes, a predominantly flat roof with a variety of parapet heights, flat awnings, and a variety of materials and colors to provide intrigue. Towards the rear (west) of the property, the upper floor balconies would cantilever approximately two-and-a-half feet (2'-6") beyond the shared parking garage.

The building design would include a mixture of exterior materials, including: concrete, stucco, and wood siding. The building roof would generally be flat, with a parapet featuring an aluminum cap, and certain aluminum "shed" roof features for interest. The private balcony spaces would feature additional aluminum awnings and steel railings. The proposed color scheme would include cool tones, in shades of gray, white, and black. The proposed materials and colors would be complementary to the contemporary architecture.

The project has been designed and conditioned (Condition of Approval No. 71) to mitigate any potential visual intrusions into adjacent recreation areas of single-family developed properties located to the northwest, west, southwest, and south of the property. For example, along the southern property line, the property abuts a single-family residence. Units #3 and #7 on the second and third floors, specifically, have been designed with clerestory windows in the living room facing towards the single-family home. Other potential visual intrusions elsewhere would be further mitigated by windows oriented away from adjacent recreation areas, and/or proposed new landscape screening.

Along the remaining property lines to the north, the property is adjacent to multiple-family developments in the R-3 (Multiple-Family Residential) zone. Views from the upper floors of the proposed project would largely be limited to landscape setback

areas, parking, and rooftops. Therefore, specific privacy provisions are not proposed for any northward facing units.

California Environmental Quality Act (CEQA):

CEQA's Class 32 exemption applies to in-fill development projects (CEQA Guidelines §15332). A project can qualify for a Class 32 exemption if the proposed project: (1) is consistent with applicable General Plan designation and all general plan policies, as well as with applicable zoning designation and regulations; (2) the proposed development occurs within City limits on a project site of no more than five (5) acres substantially surrounded by urban uses; (3) the project site has no value as habitat for endangered, rare, or threatened species; (4) the approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and (5) the site can be adequately served by all required utilities and public services (CEQA Guidelines §15332).

The project is consistent with General Plan policies and regulations. The subject site is located fully within an urbanized area in the City, on a 0.23-acre site. The subject site was surveyed, and does not have any known habitat for endangered, threatened, or rare species of wildlife. Traffic, noise, air quality, and water quality studies have been prepared by licensed firms to study the impact of the proposed development, and no significant impacts have been identified. The traffic, noise, air quality, and water quality studies are appended to the Staff Report. Lastly, the Public Works Department has reviewed the proposed development, and found that it can be adequately served by all required utilities and public services. Consequently, it can be determined that the project can be exempted from further CEQA action under the Class 32 exemption.

No Net Loss:

The subject parcel is on the City's Housing Element Sites Inventory List with a realistic capacity for five (5) above moderate-income units. The project proposes one (1) very low-income unit, and seven (7) above moderate-income units. The proposed number of above moderate-income units and very low-income units exceeds the number of above moderate-income units contemplated in the Housing Element for the site. Therefore, the City is not required to make "No Net Loss" findings pursuant to Government Code Section 65863 and GGMC Section 9.60.030 in order to approve the proposed project.

Replacement Housing and Tenant Protections:

Pursuant to Government Code §66300.6(a), the City may not approve a housing development project that will require the demolition of residential dwelling units unless the project will create at least as many residential dwelling units as will be demolished. This proposed project satisfies this requirement because it will replace one (1) existing unit with eight (8) new dwellings.

In order to prevent new development projects from displacing existing lower-income rental households, Government Code §66300.6(b) also imposes several requirements that the City must require a developer to comply with when a proposed development project will require the demolition of occupied or vacant "protected units". "Protected units" include residential dwelling units that are or were occupied by lower or very low-income rental households within the past five (5) years. In the instances where tenant information is not readily available, the units are presumed to be rented at income levels proportional to the Citywide rental income levels. Any lower-income unit demolished shall be replaced by a unit of equal or lower income level.

In this case, the income of the current tenant(s) was not readily available. Therefore, it is presumed, based on the income levels proportional to the Citywide rental income levels that the tenant(s) was of lower income. The proposed project proposes one (1) very low-income unit, units of equal or lower income level, satisfying the replacement requirements of State law.

RECOMMENDATION:

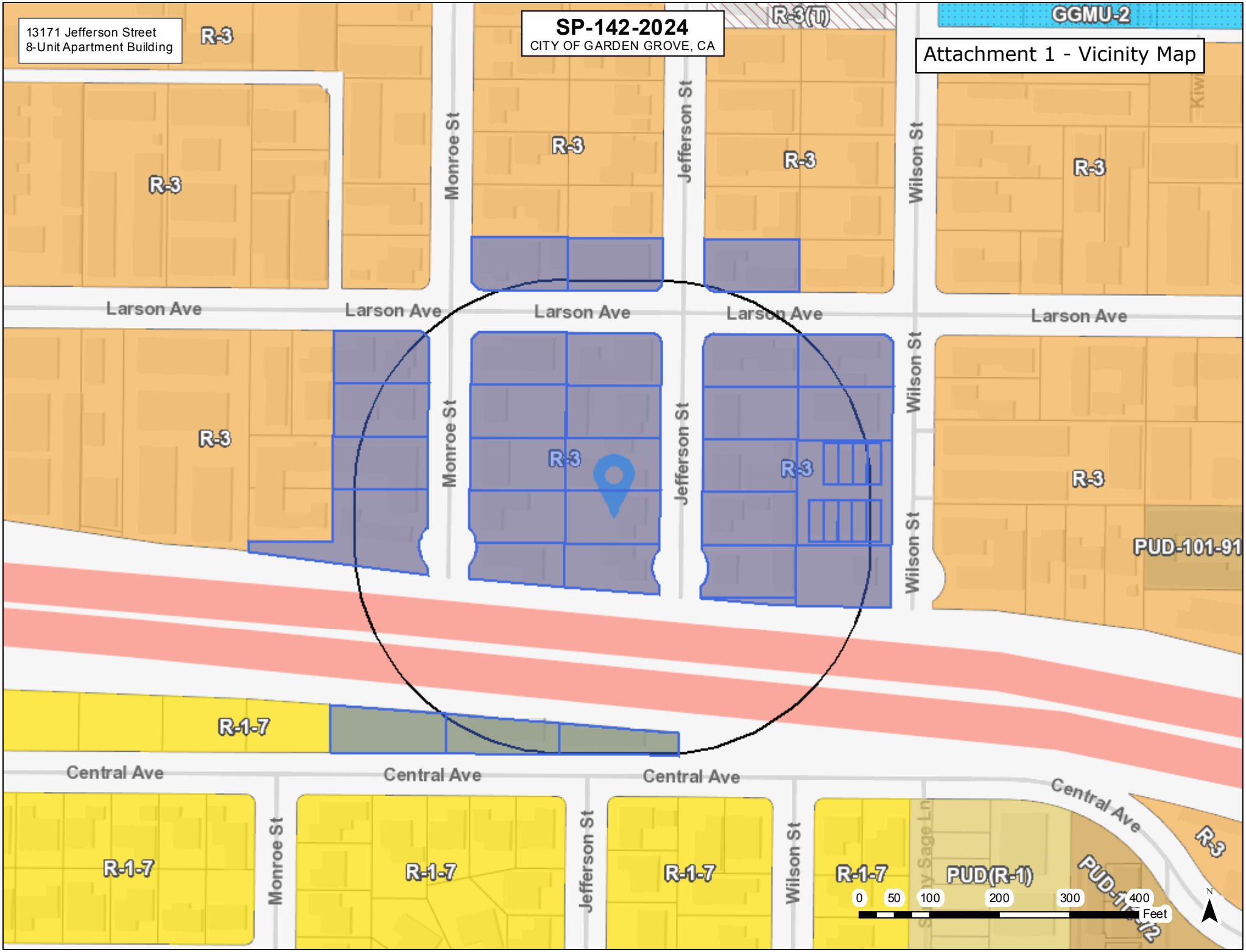
Staff recommends that the Planning Commission take the following action:

1. Adopt Resolution No. 6096-24 approving Site Plan No. SP-142-2024, subject to the recommended Conditions of Approval.

Maria Parra
Planning Services Manager

By: Priit Kaskla, AICP
Associate Planner

Attachment 1: Vicinity Map
Attachment 2: Plans
Attachment 3: Density Bonus Application
Attachment 4: Air Quality, Greenhouse Gas, VMT, and Noise Analysis
Attachment 5: Water Quality Study Analysis
Attachment 6: Resolution No. 6096-24 with Exhibit "A"- Conditions of Approval


13171 Jefferson Street
8-Unit Apartment Building
SP-142-2024
CITY OF GARDEN GROVE, CA
Attachment 1 - Vicinity Map
R-3
R-3(T)
GGMU-2
Monroe St
Jefferson St
Wilson St
Larson Ave
Central Ave
R-1-7
PUD-101-91
PUD(R-1)
0
50
100
200
300
400
Feet
N

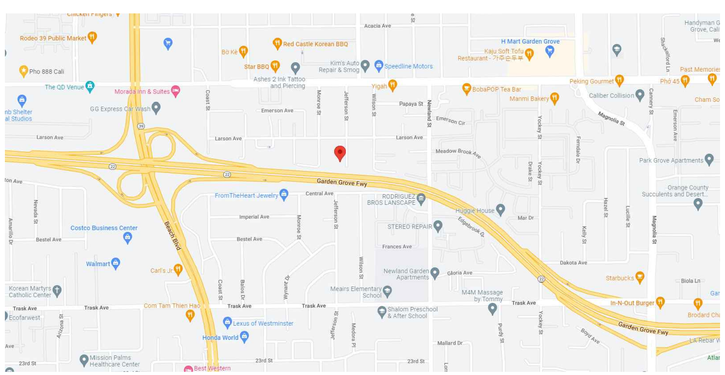
Attachment 2 - Plans

8 UNIT DEVELOPMENT
13171 JEFFERSON ST.
GARDEN GROVE 92844

VICINITY MAP

FLOOR	OCCUPANCY SEC.303,311	TYPE OF CONSTRUCTION V-B	SEPARATION WALL/ FLOOR T-508.4	ALLOWED AREA T-506.2	PROPOSED AREA	ALLOWABLE BUILDING AREAS CALCULATIONS 508.4.2
FIRST	S-2	V-B	U =1 HR	5,000 SF	4,875 SF	4,875/5,000 =0.97
SECOND	R-2	V-B	R-2/R-2 =1 HR	7,000 SF	3,240 SF	3,240/7,000 =0.46
THIRD	R-2	V-B	R-2/R-2 =1 HR	7,000 SF	3,240 SF	3,240/7,000 =0.46
GRAND TOTAL						= 1.89 < 2

PROJECT DATA | 8



VICINITY MAP | 8

DENSITY BONUS INCENTIVES

1.) REDUCE SIDE SETBACK OF 1ST STORY TO BECOME 5FT

2.) REDUCE SIDE SETBACK OF 2ND STORY TO BECOME 5FT

3.) REDUCE SIDE SETBACK OF 3RD STORY TO BECOME 5FT

WAIVERS

1.) OPEN SPACE HEIGHT REQUIREMENT TO BE REDUCED TO 10FT

2.) 3RD STORY FRONT SETBACK TO BE REDUCED TO 20FT

DIG ALERT

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG

811

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

TO BE CONTACTED AND THAT COMPLIANCE WITH EXCAVATION SAFETY IN ACCORDANCE WITH GOVERNMENT CODE 4216 WILL BE FOLLOWED PRIOR TO ANY EXCAVATION TAKING PLACE.

PLAN CHECK NOTES | 7

PROJECT INFO

1. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL LAWS, STATE STATUTES, LOCAL ORDINANCES, AND THE REGULATIONS OF AGENCIES HAVING JURISDICTION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR COMPLYING WITH THE CONSTRUCTION SAFETY ORDERS AND THE GENERAL INDUSTRIAL SAFETY ORDERS OF THE STATE DIVISION OF INDUSTRIAL SAFETY, THE REGULATIONS OF THE FEDERAL AND STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS, AND SUCH OTHER AGENCIES GOVERNING THE CONTRACTOR'S ACTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND HOLD HARMLESS THE DESIGNER FOR ANY DAMAGES AND / OR PENALTIES RESULTING FROM HIS FAILURE TO COMPLY WITH SAID LAWS, STATUTES, ORDINANCES, AND REGULATIONS.

2. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE DESIGNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS AND FINISH MATERIALS. HE SHALL PROVIDE THE NECESSARY BRACING TO PROVIDE STABILITY PRIOR TO THE APPLICATION OF THE AFOREMENTIONED MATERIALS, OBSERVATION VISITS TO THE SITE BY THE DESIGNER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

CODE: (2022 CBC)
2022 CRC (California Residential Code)
2022 CBC (California Building Code)
2022 CMC (California Mechanical code)
2022 CPC (California Plumbing Code)
2022 CEC (California Electrical Code)

BUILDING CODES | 6

"SCOPE OF WORK"

8 UNIT RESIDENTIAL DEVELOPMENT

LEVEL 1

GROUND LEVEL PARKING STRUCTURE

LEVEL 2

UNIT 1: 1 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 2: 1 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 3: 2 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 4: 2 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

LEVEL 3

UNIT 5: 1 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 6: 1 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 7: 2 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

UNIT 8: 2 BEDROOM 2 BATHROOMS WITH LIVING ROOM, DINING, KITCHEN AND BALCONY

DIFFERED SUBMITTAL | 4

ARCHITECTURAL

CS	COVER SHEET
CG	CAL GREEN NOTES
FP	FIRE PLAN
A0	EXISTING SITE PLAN & DEMO PLAN
A1	PROPOSED SITE PLAN
A2.0	PROPOSED FLOOR PLAN LEVEL 1
A2.1	PROPOSED FLOOR PLAN LEVEL 2
A2.2	PROPOSED FLOOR PLAN LEVEL 3
A3.0	PROPOSED ELECTRICAL PLAN LEVEL1
A3.1	PROPOSED ELECTRICAL PLAN LEVEL2
A3.2	PROPOSED ELECTRICAL PLAN LEVEL3
A4.0	PROPOSED ELEVATIONS
A4.1	PROPOSED ELEVATIONS CONTINUED
A5.0	PROPOSED SECTIONS
A6.0	PROPOSED ROOF PLAN

SHEET INDEX | 1

EXISTING SINGLE FAMILY RESIDENCE
WOOD FRAME BUILDING EXISTING ONE STORY

CONSTRUCTION TYPE: VB
LOT SIZE: 10,125 SF
LOT : 8/D
ASSESSOR # : 097-201-13
TRACT : 1027
ZONING: R3
LEGAL DESCRIPTION: N TR 1027 BLK D LOT 8
FIRE SPRINKLER SYSTEM: NFPA 13R

SCOPE OF WORK | 4

1.) FIRE SPRINKLERS - WILL BE PROVIDED PER NFPA 13R

LEGAL DESCRIPTION | 2

OWNER INFO | 3

OWNER:
TINA NGUYEN 442-264-4467
9121 ATLANTA UNIT 106
HUNTINGTON BEACH CA 92647

ENGINEER:
XXXX XXX-XXX-XXXX
XXXX

DESIGNER:
TOBY NGUYEN 714-251-2490
EARNEST LITTLE 562-686-1007
16651 GOTHARD ST. SUITE A-1
HUNTINGTON BEACH, CA 92647

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16651 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 686-1007

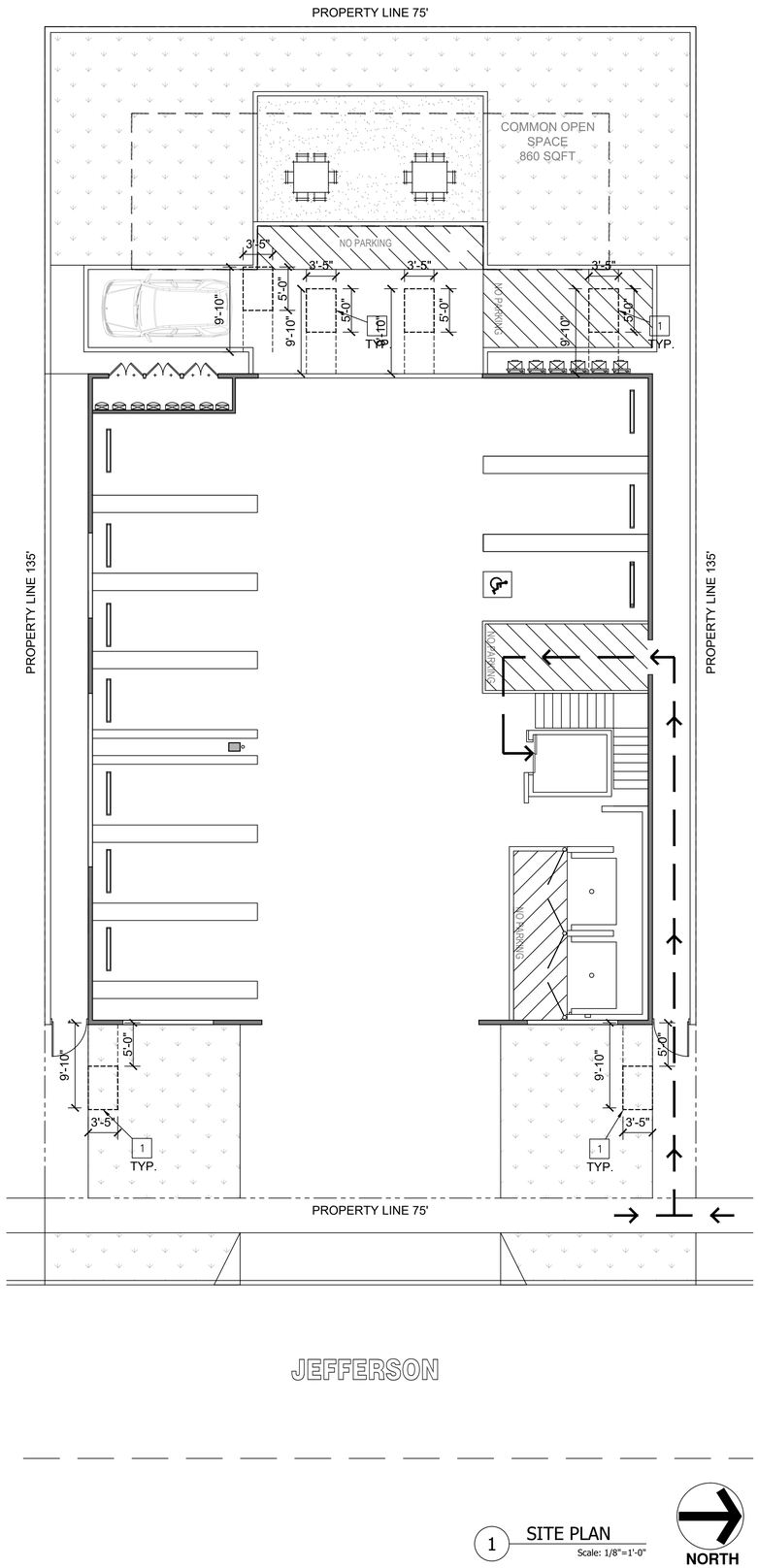
REV.	DESCRIPTION	DATE
1	...	

PROJECT: 8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE: COVER SHEET

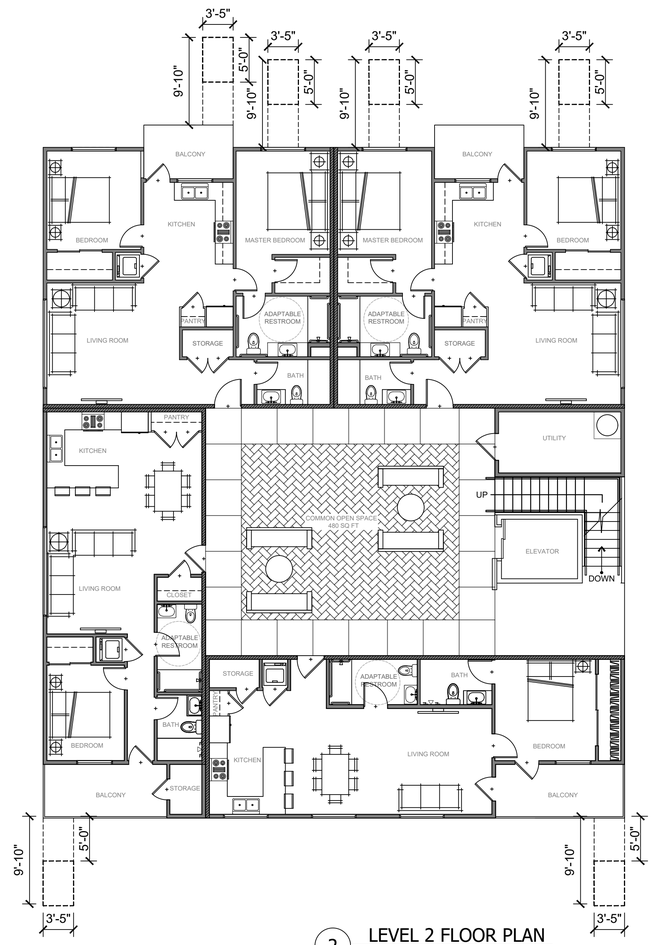
DESIGNER TN/EL
SIGNATURE
CONSULTANT
DATE 04-05-23
JOB NO. 22-79
SHEET CS
OF X SHEETS

Attachment 2 - Plans

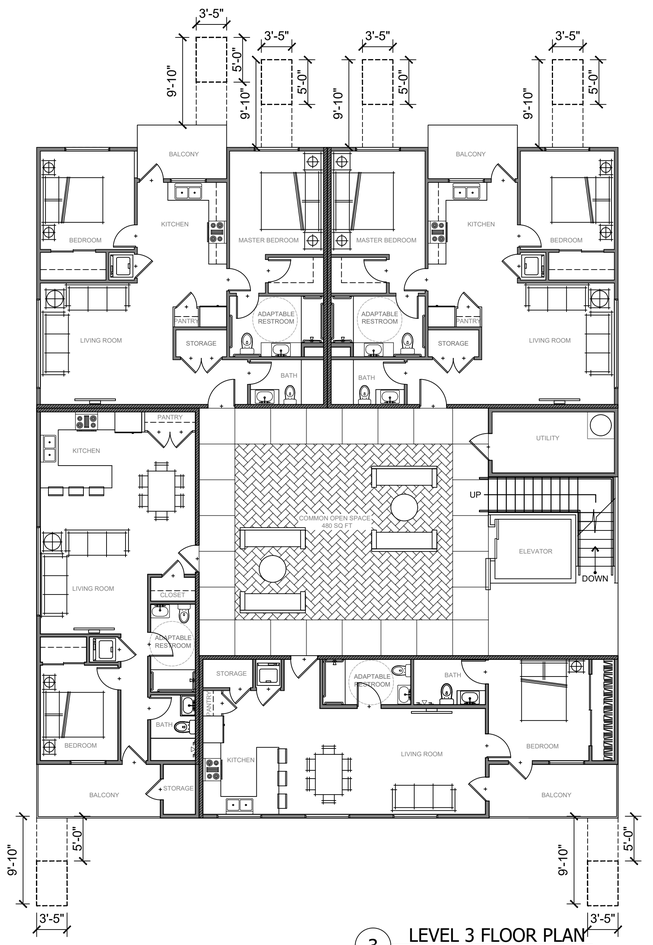


1 SITE PLAN
Scale: 1/8"=1'-0"

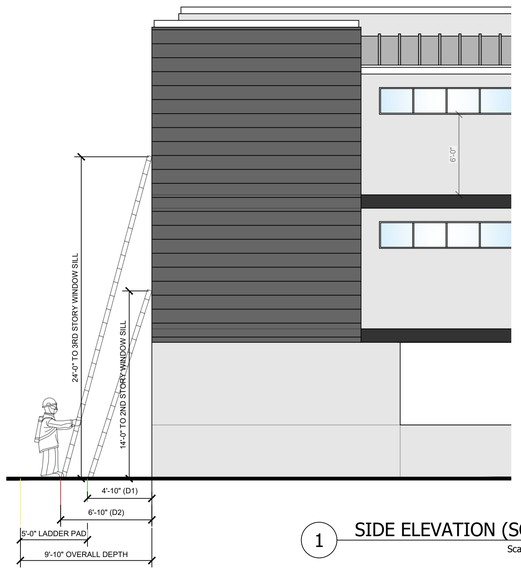
NORTH



2 LEVEL 2 FLOOR PLAN
Scale: 1/8"=1'-0"



3 LEVEL 3 FLOOR PLAN
Scale: 1/8" = 1'-0"



1 SIDE ELEVATION (SOUTH)
Scale: 3/16" - 1'-0"

FIRE PLAN KEYNOTES

1	LADDERING PAD
2	
3	
4	
5	
6	
7	

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DEVELOPMENT
16651 GOTHARD STREET SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
1	....	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
FIRE PLAN

DESIGNER
TN/EL

SIGNATURE

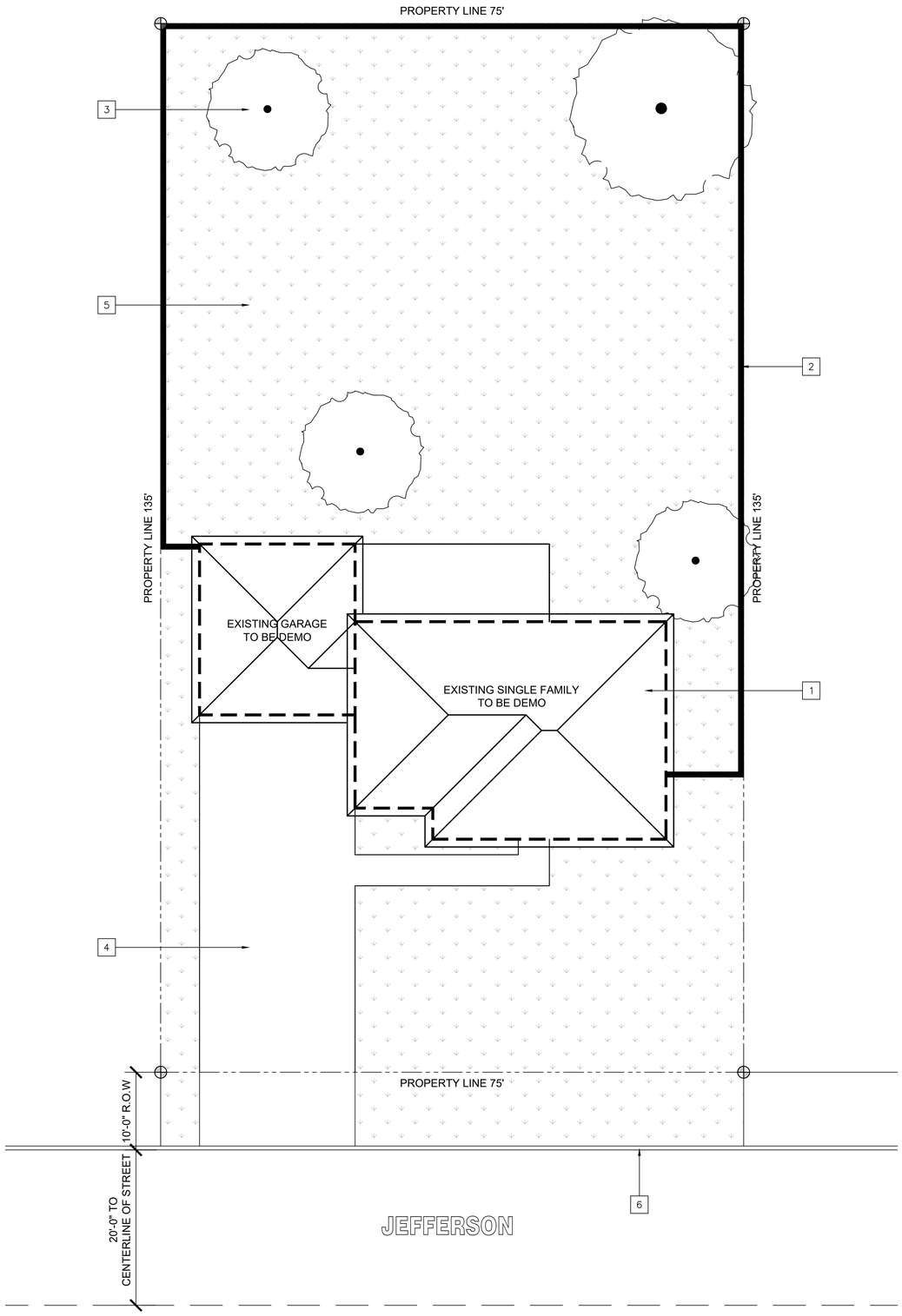
CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
FP

OF X SHEETS



1 SITE PLAN
Scale: 1/8"=1'-0"

NORTH

SITE PLAN KEYNOTES

1	(E) SINGLE FAMILY RESIDENCE TO BE DEMO
2	(E) CMU WALL TO BE DEMO
3	(E) TREES TO BE REMOVED
4	(E) DRIVEWAY TO BE REMOVED
5	(E) LANDSCAPE
6	(E) CURB

SYMBOLS LEGEND

- 2% — DRAINAGE DIRECTION AND SLOPE
- PROPERTY LINE CORNER POINTS
- # — KEYNOTE CALLOUTS
- EXISTING WALL TO REMAIN
- WALLS TO BE DEMO

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	...	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
EXISTING SITE
AND DEMO PLAN

DESIGNER
TN/EL

SIGNATURE

CONSULTANT

DATE
04-05-23

JOB NO.
22-79

SHEET
A0

OF X SHEETS

BUILDING AREAS SUMARY

UNITS		1ST STORY	2ND STORY	3RD STORY	LIVING AREA PER UNIT
1		--	764.00 SF	--	764.00 SF
2		--	750.00 SF	--	750.00 SF
3		--	912.00 SF	--	912.00 SF
4		--	912.00 SF	--	912.00 SF
5		--	--	764.00 SF	764.00 SF
6		--	--	750.00 SF	750.00 SF
7		--	--	912.00 SF	912.00 SF
8		--	--	912.00 SF	912.00 SF
GROUND PARKING		4,875.00 SF			
BALCONY OVERHANG			48.00 SF		
HABITABLE AREA		0.00 SF	3,338.00 SF	3,338.00 SF	
TOTAL HABITABLE AREA					6,676.00 SF
TOTAL LOT COVERAGE		4,875+48 SF / 10,125 = .486			48.6%

A UPDATED UNIT SIZE

A INCLUDED BALCONY OVERHANG

PRIVATE OPEN SPACE

UNIT	1ST STORY	2ND STORY	3RD STORY
1	--	86.00 SF	--
2	--	86.00 SF	--
3	--	60.00 SF	--
4	--	60.00 SF	--
5	--	--	86.00 SF
6	--	--	86.00 SF
7	--	--	60.00 SF
8	--	--	60.00 SF
LEVEL 2 COURTYARD		480.00 SF	
LEVEL 3 COURTYARD			480.00 SF
REAR YARD	961.00 SF		
COMMON OPEN*			2,505 SQFT

** 300 SQFT OPEN SPACE REQUIRED PER UNIT*

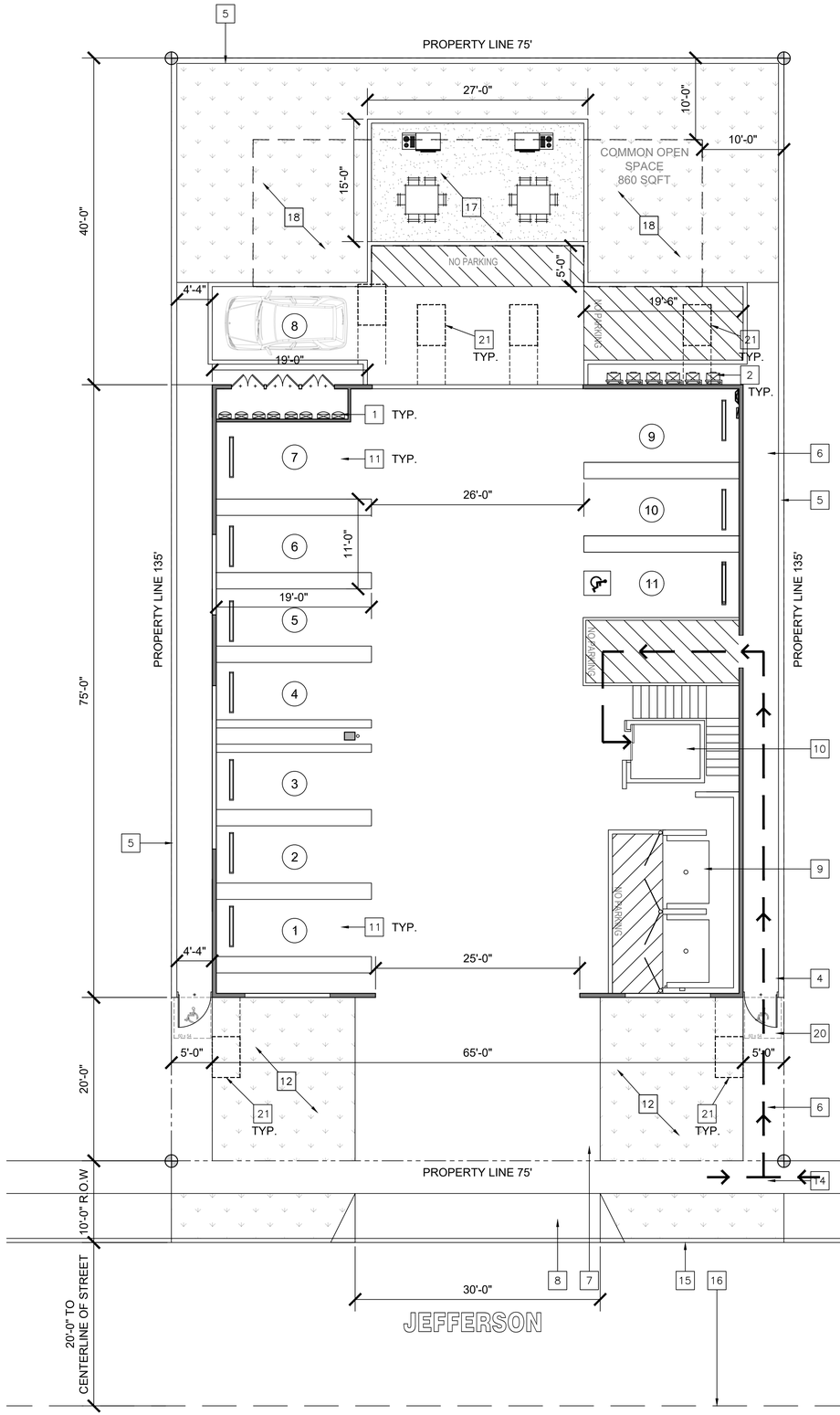
TOTAL UNITS (8) X 300SQFT = 2,400 SQFT REQUIRED
TOTAL BALCONY AREAS = 584 SQFT (23%)
REAR YARD COMMON SPACE = 860 SQFT (35%)
TOTAL COURTYARD AREAS= 960 SQFT (38%)

TOTAL PROVIDED OPEN SPACE= 2,404 SQFT

A UPDATED CALCULATIONS

PARKING

UNIT	# OF BEDROOMS	# OF REQ. PARKING	PROVIDED
1	1	1	
2	1	1	
3	2	1.5	
4	2	1.5	
5	1	1	
6	1	1	
7	2	1.5	
8	2	1.5	
GROUND LEVEL PARKING			11
TOTAL REQ.		10 SPACES	
TOTAL PROVIDED			11 SPACES



1 SITE PLAN
Scale: 1/8"=1'-0"

NORTH

SITE PLAN KEYNOTES

1	(N) 200 AMP ELECTRICAL PANEL (1) PER UNIT. 8 TOTAL
2	(N) GAS METER (1) PER UNIT. 8 TOTAL
3	(N) AC CONDENSER
4	(N) SIDE ACCESS GATE
5	(N) CMU WALL
6	(N) CONCRETE WALKWAY
7	(N) DRIVEWAY
8	(N) APRON
9	(N) TRASH ENCLOSURE
10	(N) ELEVATOR SHAFT, SHALL COMPLY WITH CH 11A SEC. 1124A. PER SEPARATE SUBMITTAL
11	(N) PARKING STALL
12	(N) LANDSCAPE
13	(N) TREE
14	PUBLIC RIGHT OF WAY (FUTURE SIDEWALK AND PARKWAY)
15	(E) CURB
16	(E) CENTER LINE OF STREET
17	(N) BBQ AND SEATING AREA
18	(N) COMMUNITY GARDEN
19	THE APPLICANT SHALL REMOVE AND REPLACE THE STREET PAVEMENT FRONTING THE PROJECT ON JEFFERSON STREET FROM THE EDGE OF EASTERLY GUTTER TO THE EDGE OF WESTERLY GUTTER PER CITY OF GARDEN GROVE STANDARD PLAN B-104
20	MANEUVERING CLEARANCE AT DOOR/GATE PER 11B-404.2.4
21	LADDERING PAD

SYMBOLS LEGEND

2% DRAINAGE DIRECTION AND SLOPE

PROPERTY LINE CORNER POINTS

KEYNOTE CALLOUTS

NEW WALLS

SITE PLAN NOTES

1. DEMOLITION CONTRACTOR SHELL RELOCATE REUSABLE MATERIALS TO DESIGNATED SALVAGE AREA, NON-USEABLE MATERIALS SHALL BE PLACED APPROPRIATELY IN REFUSE BIN AND SHALL BE COVERED AT NIGHT AND DURING RELATIVE HIGH WINDS, RAIN, ETC. REFUSE BIN SHALL BE COVERED DURING TRANSFER TO AND FROM DUMP SITE. CONTRACTOR TO BE LIABLE FOR REFUSE SPILLING. ALL DEBRIS TO BE HAULED AWAY AND CLEAN-UP SHALL BE COMPLETE TO BROOM FINISH. EXISTING MATERIALS AND OR STRUCTURE TO REMAIN SHALL BE PROTECTED FROM DUST, PAINT CHIPPING, ETC., BY USE OF PLASTIC OR WHATEVER IS REQUIRED FOR PROPER PROTECTION. EXISTING STRUCTURES SHALL HAVE BRACING AND SHORING AS REQUIRED TO PROTECT THE EXISTING STRUCTURE. PROVIDE DE-WATERING FACILITIES FOR CONSTRUCTION AS REQUIRED. COORDINATE AS-BUILT INFORMATION, STRUCTURAL, ETC. TO ARCHITECT AS REQUIRED.
2. "PROVIDE HOUSE STREET NUMBER VISIBLE AND LEGIBLE FROM STREET"
3. "THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM."
4. "THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES."
5. CONDENSATE WASTE SHALL BE COLLECTED AN DISCHARGED TO AN APPROVED PLUMBING FIXTURE OR DISPOSAL AREA. CONDENSATE OR WASTEWATER SHALL NOT DRAIN OVER A PUBLIC WAY.

SETBACKS INDICATE REQUIRED MINIMUM DISTANCE FROM PROPERTY LINES. PROPERTY LINES BASED ON PARCEL INFORMATION FROM CITY DATABASE. CONTRACTOR TO VERIFY ON SITE.

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16651 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	...	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
SITE AND DEMO PLAN

DESIGNER
TN/EL

SIGNATURE

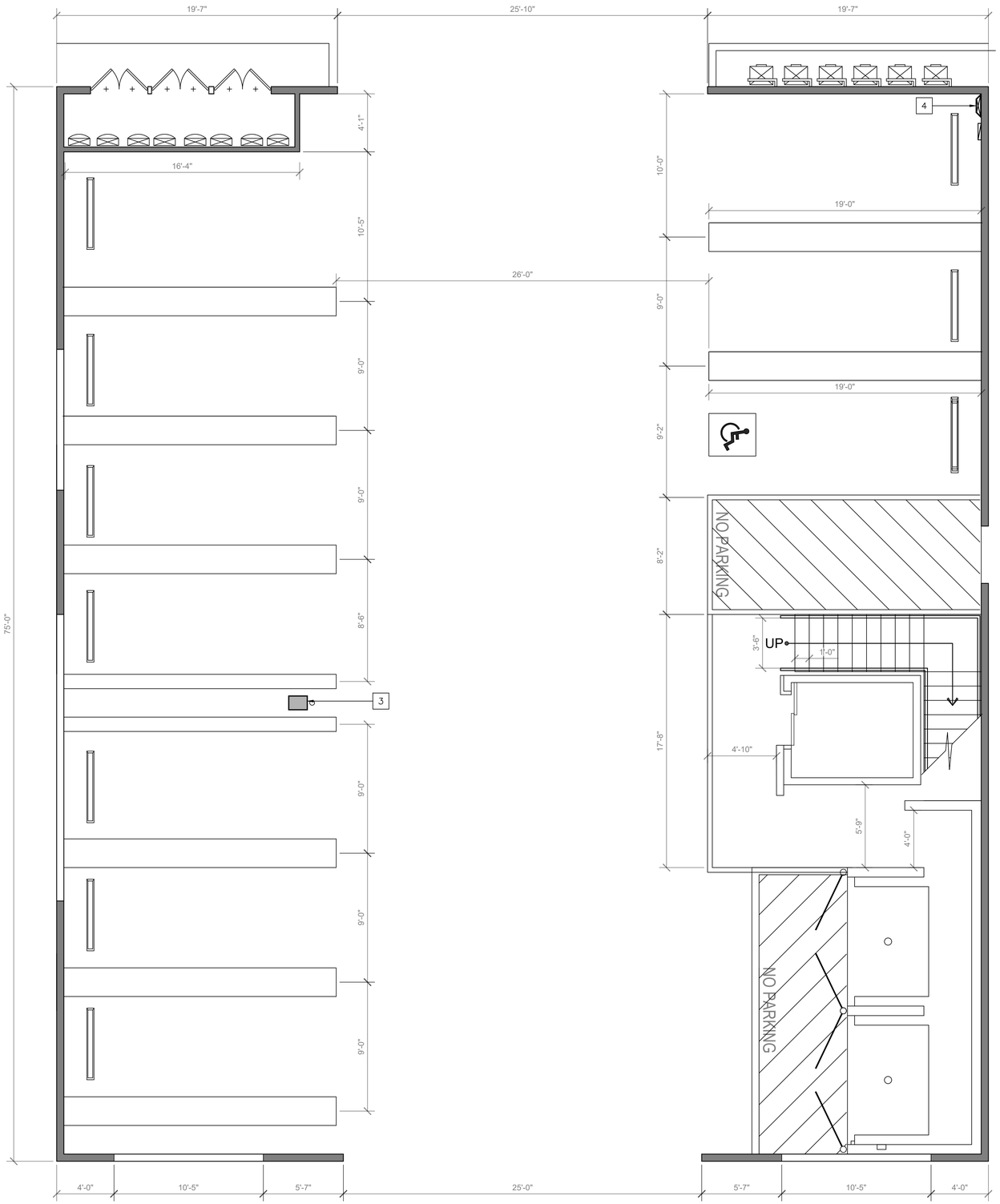
CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
A1

OF X SHEETS



1 PROPOSED FLOOR PLAN
Scale: 1/4"=1'-0"

NORTH

WINDOW SCHEDULE

SYM.	SIZE	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
A	36"W X 24"H	0.3	.23	VINYL/TEMP.	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
B	48"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
C	60"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
D	60"W X 48"H	0.3	.32	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE

ALL NEW WINDOWS IN NEW BEDROOMS SHALL HAVE EMERGENCY RESCUE WINDOWS OR DOORS (2019 CBC)
a.) MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT.
b.) MINIMUM NET CLEAR OPENING WIDTH OF 20" AND CLEAR OPENING HEIGHT OF 24"
c.) WINDOW CLEAR OPENING OF NOT LESS THAN 42" OR NO MORE THAN 44" ABOVE THE FLOOR

DOOR SCHEDULE

SYM.	SIZE	GLAZING	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
1	2'-6" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
2	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
3	3'-0" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
4	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	20 MIN. SELF LATCHING DOOR. 1-HR FIRE RATED w/ SECURITY LOCK SELECTED BY OWNERS
5	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	LOUVER DOOR PROVIDING MIN. 100 SQ INCH OF MAKE UP AIR
6	6'-0" X 6'-8" X 1 3/8"	N/A	-	-	VINYL	SLIDING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS

NOTES:
1. TANKLESS WATER HEATERS SHALL BE NATIONALLY LISTED AND BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS THAT WERE APPROVED AS PART OF THEIR LISTING.

2. THE GAS PIPING SERVING THIS APPLIANCE MUST BE SIZED IN COMPLIANCE WITH THE WATER HEATER'S LISTED INSTALLATION INSTRUCTIONS AND THE 2019 CALIFORNIA PLUMBING CODE. [R504.3.1 CRC]

3. THE WHOLE BUILDING VENTILATION EXHAUST FAN WILLOPERATE CONTINUOUSLY AND IS REQUIRED TO BE RATED FOR SOUND AT A MAXIMUM OF 1 SONE. THIS EXHAUST FAN CAN BE CONTROLLED BY A STANDARD ON/OFF SWITCH BUT THE SWITCH MUST BE LABELED TO INFORM THE OCCUPANT THAT THE EXHAUST FAN IS THE WHOLE-BUILDING VENTILATION EXHAUST FAN AND IS INTENDED TO OPERATE CONTINUOUSLY. NO SPECIFIC WORDING IS MANDATED, BUT THE WORDING NEEDS TO MAKE CLEAR WHAT THE CONTROL IS FOR AND THE IMPORTANCE OF OPERATING THE SYSTEM. THIS MAY BE SIMPLE AS "VENTILATION CONTROL" OR MIGHT INCLUDE WORDING SUCH AS: "OPERATE WHEN THE HOUSE IS IN USE" OR "KEEP ON EXCEPT WHEN GONE OVER 7 DAYS" OR "FAN IS TO BE LEFT ON TO ENSURE INDOOR AIR QUALITY"

FLOOR PLAN KEYNOTES

1	(N) 200 AMP ELECTRICAL PANEL (1) PER UNIT. 8 TOTAL
2	(N) LANDING. 1 ½" BELOW THE THRESHOLD. MINIMUM 36" IN DEPTH- SHALL NOT EXCEED ¼ INCH PER FOOT
3	(N) POST, PER STRUCTURAL PLAN
4	EV CHARGING STATION - INSTALL A LISTED RACEWAY TO ACCOMODATE A DEDICATED 208/240V BRANCH CIRCUIT FOR FUTURE ELECTRIC VEHICLE CHARGING STATION. RACEWAY SHALL NOT BE LESS THAN 1" NOMINAL INSIDE DIAMETER. - SERVICE PANEL OR SUB-PANEL DIRECTORY SHALL INDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE RESERVED FOR FUTURE EV CHARING AS "EV CAPABALE" - THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE" -10% EV CAPABLE OF SUPPORTING FUTURE LEVEL 2 EVSE AND 25% EV READY EQUIPPED WITH LOW POWER LEVEL 2 EV CHARGING RECEPTACLES.

SYMBOLS LEGEND

1 1/2" 5"	THRESHOLD
	HOSE BIBB
#	KEYNOTE CALLOUTS
X	WINDOW SCHEDULE CALL OUT
#	DOOR SCHEDULE CALL OUT
	ELECTRICAL LINE
	PROPOSED WALLS
	EXISTING WALL TO REMAIN
	100 CFM EXHAUST HOOD
(E)	EXISTING
(N)	NEW
(R)	REMODEL
A/A1	DETAIL CALLOUT
X / A.X	SECTION CUT

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	....	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED
LEVEL 1
FLOOR PLAN

DESIGNER
TN/EL

SIGNATURE

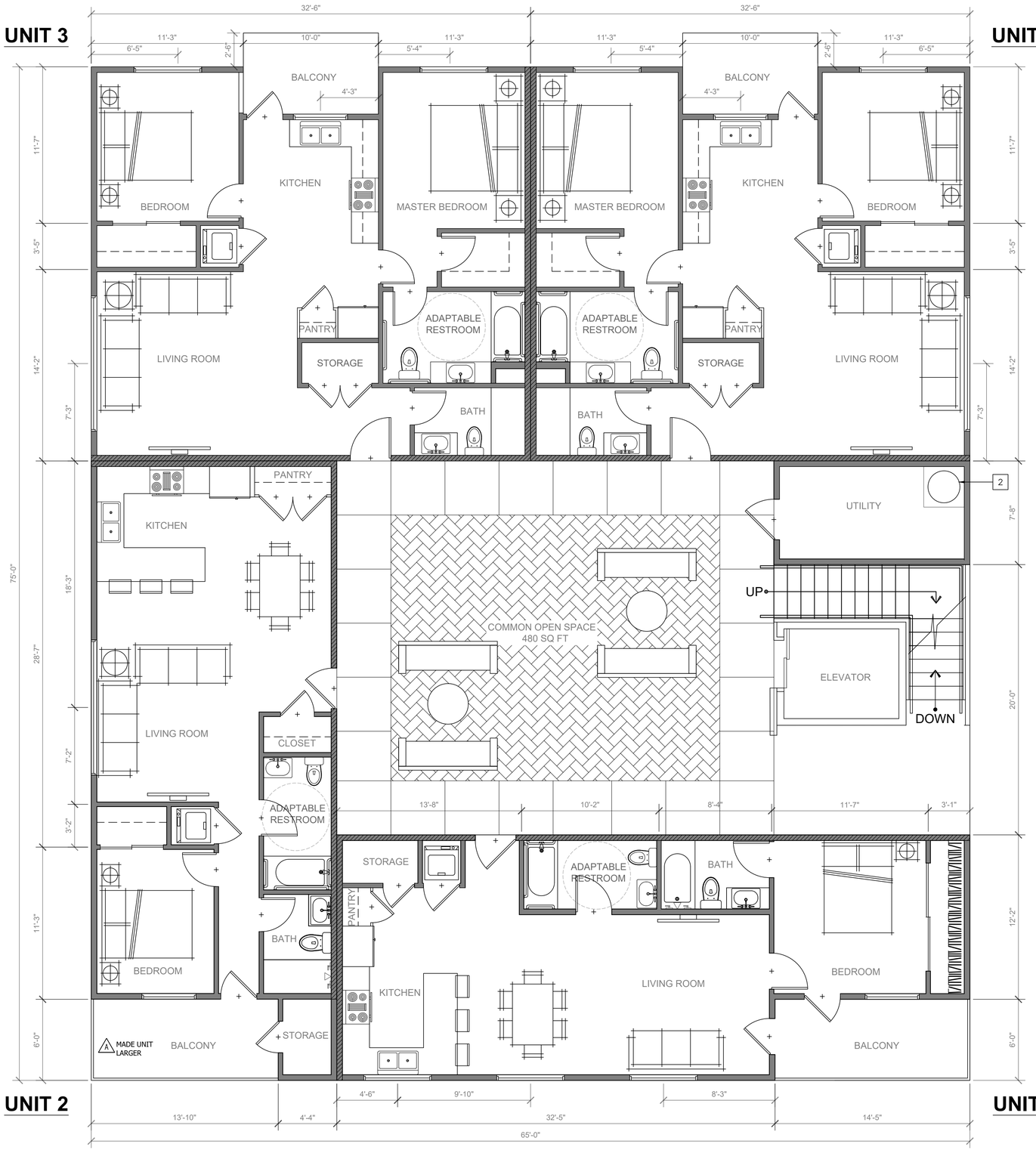
CONSULTANT

DATE
04-05-23

JOB NO.
22-79

SHEET
A2

OF X SHEETS



1 PROPOSED FLOOR PLAN
Scale: 1/4"=1'-0"

NORTH

WINDOW SCHEDULE

SYM.	SIZE	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
A	36"W X 24"H	0.3	.23	VINYL/TEMP.	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
B	48"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
C	60"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
D	60"W X 48"H	0.3	.32	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE

ALL NEW WINDOWS IN NEW BEDROOMS SHALL HAVE EMERGENCY RESCUE WINDOWS OR DOORS (2019 CBC)
a.) MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT.
b.) MINIMUM NET CLEAR OPENING WIDTH OF 20" AND CLEAR OPENING HEIGHT OF 24"
c.) WINDOW CLEAR OPENING OF NOT LESS THAN 42" OR NO MORE THAN 44" ABOVE THE FLOOR

DOOR SCHEDULE

SYM.	SIZE	GLAZING	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
1	2'-6" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
2	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
3	3'-0" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
4	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	20 MIN. SELF LATCHING DOOR. 1-HR FIRE RATED w/ SECURITY LOCK SELECTED BY OWNERS
5	2'-8" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	LOUVER DOOR PROVIDING MIN. 100 SQ INCH OF MAKE UP AIR
6	6'-0" X 6'-8" X 1 3/8"	N/A	-	-	VINYL	SLIDING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS

NOTES:
1. TANKLESS WATER HEATERS SHALL BE NATIONALLY LISTED AND BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS THAT WERE APPROVED AS PART OF THEIR LISTING.

2. THE GAS PIPING SERVING THIS APPLIANCE MUST BE SIZED IN COMPLIANCE WITH THE WATER HEATER'S LISTED INSTALLATION INSTRUCTIONS AND THE 2019 CALIFORNIA PLUMBING CODE. [R504.3.1 CRC]

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FLOOR PLAN KEYNOTES

1	(N) ELECTRICAL SUB PANEL (1) PER UNIT. 8 TOTAL
2	(N) WATER BOILER. TYPE: SIZE: MODEL NUMBER:
3	(N) AC CONDENSER SHALL BE MOUNTED ON APPROVED CONCRETE SLAB, MIN OF 3" ABOVE GRADE
4	(N) 22X30 ATTIC ACCESS
5	(N) LANDING. 1 1/2" BELOW THE THRESHOLD. MINIMUM 36" IN DEPTH- SHALL NOT EXCEED 1/4 INCH PER FOOT
6	MIN 4" DIA. TO THE OUTSIDE, EQUIPPED WITH A BACK DRAFT DAMPER. DUCT LENGTH OR SIZES AS PERMITTED OR REQUIRED BY MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED BY THE BUILDING OFFICIAL. (DUCT TO RUN THROUGH ATTIC
7	100 CFM EXHAUST HOOD (REFER TO SYMBOL) ASHRAE STANDARD 62.2 AND CMC 504
8	SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUB WITH SHOWER HEADS SHALL BE FINISHED WITH A SMOOTH NONABSORBENT SURFACE TO A HEIGHT NOT LESS THAN 6FT ABOVE FLOOR. R307.2
9	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER-STAIR SURFACE AND ANY SOFFITS PROTECTED ON ENCLOSED SIDE WITH A 1/2 INCH GYPSUM BOARD.
10	10"X10" VENT THROUGH ATTIC TO T-TOP VENT OR SIMILAR FOR MAKE UP AIR
11	FAU IN ATTIC - REFER TO DETAIL X/AX
12	WHOLE HOUSE FAN VENTILATION REFER TO DETAIL SPEC x/Ax WITH VENTILATION SWITCH CONTROL REFER TO NOTE #3 ABOVE
13	(N) 1-HR FIRE RATED WALL REFER TO DETAIL 5 SHEET A5.
14	PAVERS
15	OUTDOOR BENCHES

SYMBOLS LEGEND

- 1 1/2" — THRESHOLD
- HOSE BIBB
- # — KEYNOTE CALLOUTS
- X — WINDOW SCHEDULE CALL OUT
- # — DOOR SCHEDULE CALL OUT
- ELECTRICAL LINE
- PROPOSED WALLS
- 1-HR FIRE RATED WALL WITH MIN. 52 STC
- 100 CFM EXHAUST HOOD
- (E) EXISTING
- (N) NEW
- (R) REMODEL
- A/A1 — DETAIL CALLOUT
- X / A.X — SECTION CUT

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1070

REV.	DESCRIPTION	DATE
A	....	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED LEVEL 2 FLOOR PLAN

DESIGNER
TN/EL

SIGNATURE

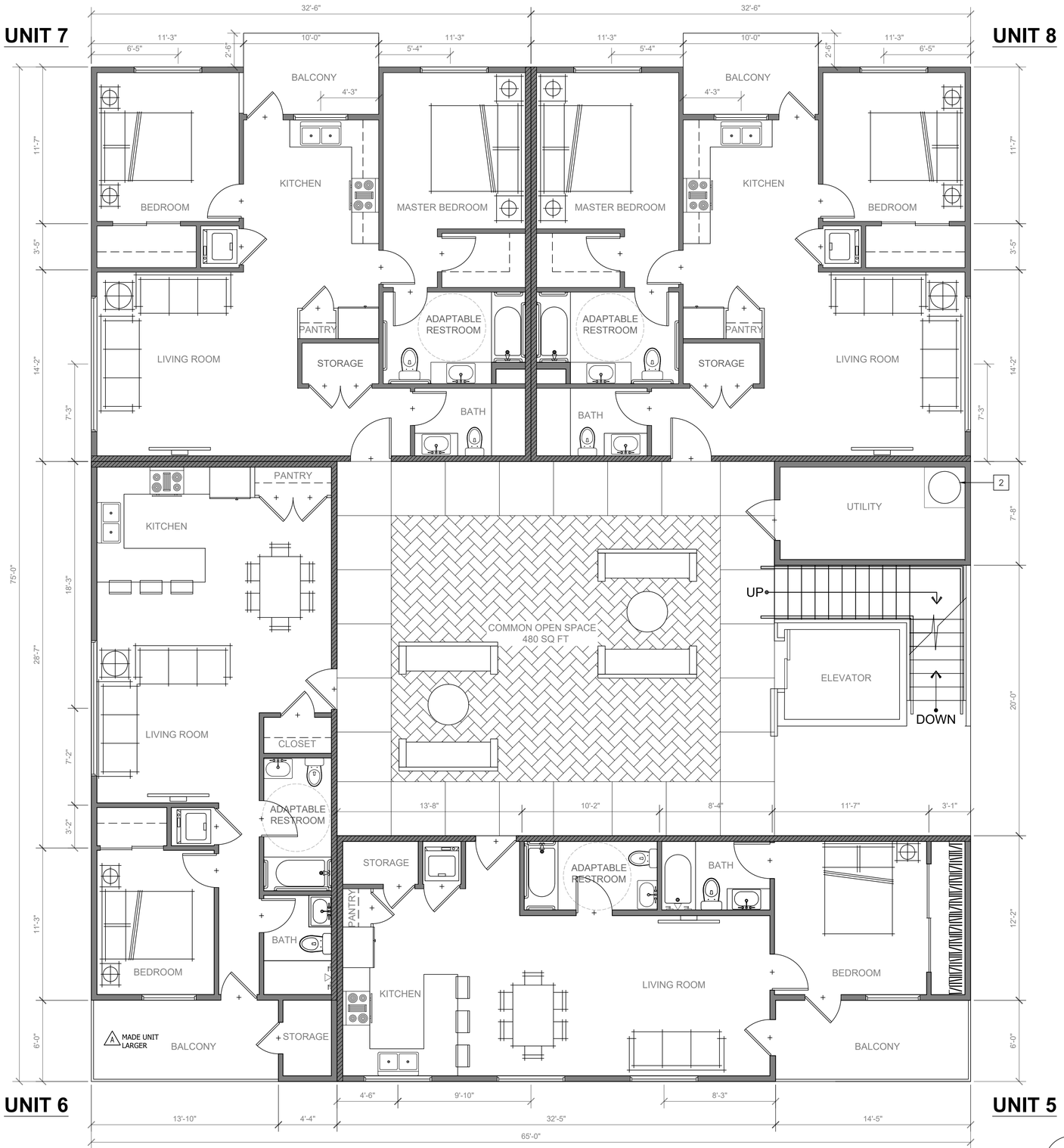
CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
A2.1

OF X SHEETS



1 PROPOSED FLOOR PLAN
Scale: 1/4"=1'-0"

NORTH

WINDOW SCHEDULE

SYM.	SIZE	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
A	36"W X 24"H	0.3	.23	VINYL/TEMP.	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
B	48"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
C	60"W X 48"H	0.3	.23	VINYL	SLIDING	(N) WINDOW - CONTRACTOR TO VERIFY SIZE
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b.) MINIMUM NET CLEAR OPENING WIDTH OF 20" AND CLEAR OPENING HEIGHT OF 24"
c.) WINDOW CLEAR OPENING OF NOT LESS THAN 42" OR NO MORE THAN 44" ABOVE THE FLOOR

DOOR SCHEDULE

SYM.	SIZE	GLAZING	U-FACTOR	SHGC	MATERIAL	TYPE	REMARKS
1	2'-6" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
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3	3'-0" X 6'-8" X 1 3/8"	N/A	-	-	WOOD	SWING	DOOR w/ SECURITY LOCK SELECTED BY OWNERS
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NOTES:
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FLOOR PLAN KEYNOTES

1	(N) ELECTRICAL PANEL REFER TO UFER DETAIL
2	(N) WATER BOILER. TYPE: SIZE: MODEL NUMBER:
3	(N) AC CONDENSER SHALL BE MOUNTED ON APPROVED CONCRETE SLAB, MIN OF 3" ABOVE GRADE
4	(N) 22X30 ATTIC ACCESS
5	(N) LANDING. 1 1/2" BELOW THE THRESHOLD. MINIMUM 36" IN DEPTH- SHALL NOT EXCEED 1/4 INCH PER FOOT
6	MIN 4" DIA. TO THE OUTSIDE, EQUIPPED WITH A BACK DRAFT DAMPER. DUCT LENGTH OR SIZES AS PERMITTED OR REQUIRED BY MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED BY THE BUILDING OFFICIAL. (DUCT TO RUN THROUGH ATTIC
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12	WHOLE HOUSE FAN VENTILATION REFER TO DETAIL SPEC x/Ax WITH VENTILATION SWITCH CONTROL REFER TO NOTE #3 ABOVE
13	(N) 1-HR FIRE RATED WALL REFER TO DETAIL 5 SHEET A5.
14	PAVERS
15	OUTDOOR BENCHES

SYMBOLS LEGEND

- 1 1/2" — THRESHOLD
- HOSE BIBB
- # — KEYNOTE CALLOUTS
- X — WINDOW SCHEDULE CALL OUT
- # — DOOR SCHEDULE CALL OUT
- ELECTRICAL LINE
- PROPOSED WALLS
- 1-HR FIRE RATED WALL WITH MIN. 52 STC
- 100 CFM EXHAUST HOOD
- (E) EXISTING
- (N) NEW
- (R) REMODEL
- A/A1 — DETAIL CALLOUT
- X / A.X — SECTION CUT

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1077

REV.	DESCRIPTION	DATE
A	....	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED
LEVEL 3
FLOOR PLAN

DESIGNER
TN/EL

SIGNATURE

CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
A2.2

OF X SHEETS

Attachment 2 - Plans

ELEVATION KEYNOTES

1	STUCCO (16/20 SAND FINISH) COLOR: ½ 13 MANUFACTURER: OEMGA
2	DECORATIVE BAND
3	WOOD SIDING, JAMES HARDIE. COLOR APPLIED TO CORNER BOARDS @ LAP SIDING, FENCING, GARAGE DOORS, LAP SIDING. COLOR: DET 483 BURNT BUTTER MANUFACTURER: DUNN EDWARDS
4	TRIM COLOR #1. APPLIED TO METAL CANOPY, METAL SCREEN HANDRAILS, POSTS. COLOR: DEC 756 WEATHERED BROWN MANUFACTURER: DUNN EDWARDS
5	TRIM COLOR #2. APPLIED TO UTILITY DOORS. COLOR: DEC 316 POWDERED MANUFACTURER: DUNN EDWARDS
6	ACCENT COLOR. APPLIED TO SECONDARY DOORS, UNIT DOORS. COLOR: DE 6328 ANCHOR GRAY MANUFACTURER: DUNN EDWARDS
7	ALUMINUM CANOPY (DEFERRED SUBMITTAL)
8	WHITE VINYL WINDOW
9	STEEL GUARDRAIL
10	ADDRESS LIGHT
11	LIGHT FIXTURE
12	METAL ROOF
13	METAL GUTTER
14	ENTRY DOOR
15	LOW PLANTER
16	LOW CONCRETE WALL AT GROUND LEVEL
17	2 INCH ALUMINUM REVEAL
18	GROUND LEVEL GARAGE ENTRANCE
19	EXTERIOR STAIRS
20	ELEVATOR

1 FRONT ELEVATION (EAST)
Scale: 1/4" - 1'-0"

2 SIDE ELEVATION (SOUTH)
Scale: 1/4" - 1'-0"

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	...	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED ELEVATIONS

DESIGNER
TN/EL

SIGNATURE

CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
A4.0

OF X SHEETS

ELEVATION KEYNOTES

1	STUCCO (16/20 SAND FINISH) COLOR: ½ 13 MANUFACTURER: OEMGA
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3	WOOD SIDING, JAMES HARDIE. COLOR APPLIED TO CORNER BOARDS @ LAP SIDING, FENCING, GARAGE DOORS, LAP SIDING. COLOR: DET 483 BURNT BUTTER MANUFACTURER: DUNN EDWARDS
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5	TRIM COLOR #2. APPLIED TO UTILITY DOORS. COLOR: DEC 316 POWDERED MANUFACTURER: DUNN EDWARDS
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7	ALUMINUM CANOPY (DEFERRED SUBMITTAL)
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9	STEEL GUARDRAIL
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12	METAL ROOF
13	METAL GUTTER
14	ENTRY DOOR
15	LOW PLANTER
16	LOW CONCRETE WALL AT GROUND LEVEL
17	2 INCH ALUMINUM REVEAL
18	GROUND LEVEL GARAGE ENTRANCE
19	EXTERIOR STAIRS
20	ELEVATOR

3 REAL ELEVATION (WEST)
Scale: 1/4" - 1'-0"

4 SIDE ELEVATION (NORTH)
Scale: 1/4" - 1'-0"

NEW AREA ATTIC VENTILATION:

ATTIC AREA VENT AREA CALCULATION	XXX.00 S.F. XXX.00/150=X.XX S.F.	
PROVIDED:		
X EAVE VENTS 15"X5"	= .52EA.	X.XX S.F.
X GABLE VENTS 24"X18"	= 3.0EA.	X.XX S.F.
X DORMER VENTS 24"X12"	= 2.0EA.	X.XX S.F.
TOTAL		X.XX S.F.

PROVIDE ATTIC VENTILATION W/ CORROSION RESISTANT WIRE MESH W/ OPENINGS OF ¼" IN DIMENSION.

VENT AREA CALCULATION

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16651 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	...	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED ELEVATIONS

DESIGNER
TN/EL

SIGNATURE

CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

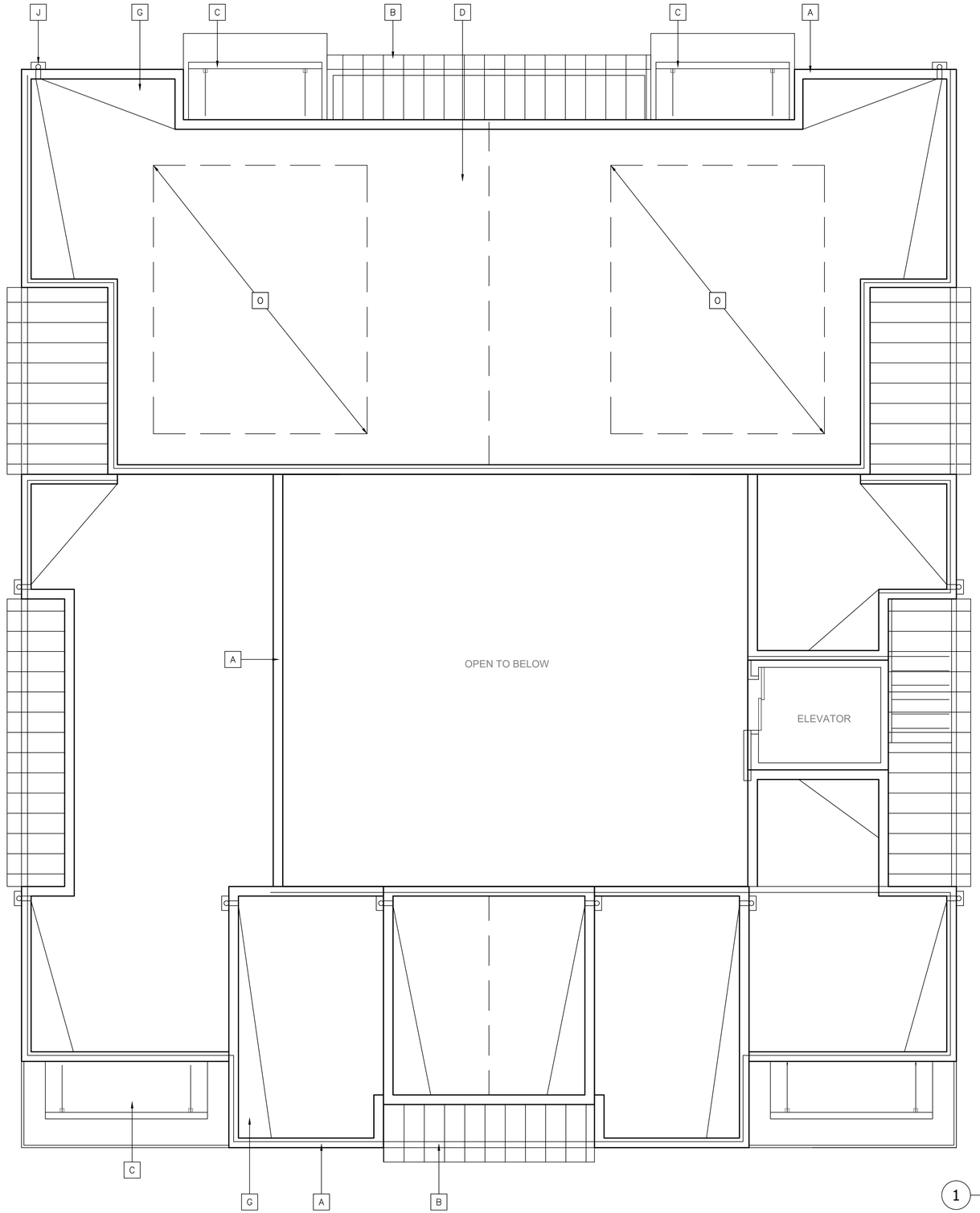
SHEET
A4.1

OF X SHEETS

Attachment 2 - Plans

ROOF PLAN KEYNOTES

A	(N) PARAPET WALL
B	(N) STANDING SEAM METAL ROOFING
C	(N) ALUMINUM CANOPY
D	MEMBRANE ROOFING SHALL BE CLASS A MINIMUM CARLISLE SYNTEC, INC. - SURE WELD TPO ROOFING SYS.
E	(N) AC MECHANICAL EQUIPMENT - 5 TON UNIT
F	MINIMUM CLASS A ROOF COVERING AND ONE LAYER OF FIRE RETARDANT ROOF SHEATHING MINIMUM DISTANCE OF 4FT ON EACH SIDE OF THE 1-HOUR PARTY WALL.
G	CRICKETS SHALL BE FORMED WITH ½" PLYWOOD SHEATHING ON FURRING NAILERS
H	MEP PENETRATIONS THRU ROOF SHALL NOT ENCROACH INTO THE AREA DESIGNATED FOR FUTURE SOLAR PANELS. PENETRATIONS SHALL BE KEPT AT A MIN OF 6" AWAY FROM FUTURE SOLAR PANEL DESIGNATED AREA.
I	DUCT THRU ROOF TYP
J	3"DOWN SPOUT, DRAIN AND OVERFLOW SCUPPER TYP.
K	ROOF HATCH
L	ROOF VENT EXHAUST 12" DIA.
M	ROOF GUARDRAIL; REFER TO DETAIL 12/A4.1
N	15"X5" EAVE VENT @ SLOPE ROOF = .52 SF PROVIDED
O	DESIGNATED SOLAR READY ZONE (MIN 15% OF ROOF AREA. 270 SQFT EACH)



1 ROOF PLAN
Scale: 1/4" - 1'-0"

MIDWAY CONCEPTS
RESIDENTIAL & COMMERCIAL DESIGN
16951 GOTHARD STREET, SUITE A
HUNTINGTON BEACH, CA 92647
(714) 251-0466 (562) 884-1007

REV.	DESCRIPTION	DATE
A	...	

PROJECT:
8 UNIT DEVELOPMENT
13171 JEFFERSON STREET
GARDEN GROVE, CA 92844

SHEET TITLE
PROPOSED ROOF PLAN

DESIGNER
TN/EL

SIGNATURE

CONSULTANT
-

DATE
04-05-23

JOB NO.
22-79

SHEET
A6.0

OF X SHEETS

CITY OF GARDEN GROVE
PLANNING SERVICES DIVISION
11222 ACACIA PARKWAY
GARDEN GROVE, CA 92840
TEL: (714) 741-5312 FAX: (714) 741-5578
ggcity.org

Attachment 3

Density Bonus Application
(Government Code §65915 *et seq.*)

Housing development project applicants intending to request a density bonus, incentives or concessions, modifications or waivers, and/or reduced parking pursuant to the Section 65915 et seq. of the California Government (Density Bonuses and Other Incentives) must complete the following application. For additional information regarding density bonuses and affordability agreements, please refer to Section 9.12.030.070 of the Garden Grove Municipal Code, and to the Garden Grove Density Bonus Agreement Guidelines.

Date Filed: 6/4/24

DENSITY BONUS TYPE	
Please check one of the following (as proposed at the time of application submittal):	
☐	100% of all units in the development, including Total Units and density bonus units, but exclusive of a manager's unit or units, are for low income households, as defined by Section 50079.5 of the Health and Safety Code, except that up to 20 percent of the units in the development, including Total Units and density bonus units, may be for moderate income households, as defined in Section 50053 of the Health and Safety Code.
☐	At least 5% of the Total Units for very low income households, as defined in Section 50105 of the California Health and Safety Code.
☒	At least 10% of the Total Units for lower income households, as defined in Section 50079.5 of the California Health and Safety Code.
☐	At least 10% of the Total Units for moderate income households, as defined in Section 50093 of the California Health and Safety Code (common interest development offered to the public for purchase unless on-site option for Impact Fees, see 15.72.100.B.4).
☐	A senior citizen housing development, as defined in Sections 51.3 and 51.12 of the California Civil Code.
☐	At least 10% of the Total Units for transitional foster youth, as defined in California Education Code section 66025.9 (very low income households as defined in Section 50105 of the California Health and Safety Code).
☐	At least 10% of the Total Units for disabled veterans, as defined in California Government Code Section 18541 (very low income households as defined in Section 50105 of the California Health and Safety Code).
☐	At least 10% of the Total Units for homeless persons, as defined in the federal McKinney-Vento Homeless Assistance Act (42 U.S.C. Sec. 11301 et seq.) (very low income households, as defined in Section 50105 of the California Health and Safety Code).
☐	At least 20% of the Total Units for lower income students in a student housing development (that satisfies the requirements of California Government Code Section 65915(b)(1)(F)).
☐	Land donation (at least one acre in size, or of sufficient size to permit development of at least 40 units and otherwise satisfies the requirements of California Government Code Section 65915(g).)
☐	Child care facility (that satisfies the requirements of California Government Code Subsection 65915(h)).
☐	Condominium Conversion (that satisfies the requirements of California Government Code 65915.5)).

PRIMARY CONTACT INFORMATION
Name: Toby Nguyen
Contact Type: ☐ Architect ☐ Engineer ☐ Property Owner ☒ Representative ☐ Other
Mailing Address: 16651 Gothard St. A-1
City, State, Zip Code: Huntington Beach CA 92647
Phone No.: 714-251-2490
E-mail: toby.midway@gmail.com

PROPERTY OWNER CONTACT INFORMATION (If different than Primary Contact)
Name: JEFFEREY MULLEN
Mailing Address: 9291 SHADWELL DRIVE
City, State, Zip Code: Huntington Beach Ca 92646
Phone No.: 714-884-4466
E-mail: teenerds@gmail.com

PROJECT INFORMATION:		
Project Address: 13171 Jefferson St.		
APN(s): 097-201-13		
Zoning & General Plan Land Use: RSFR		
Maximum Allowable Residential Density (before density bonus): 8 UNITS		
Total Base Number of Housing Units (before density bonus): 8 UNITS		
Market Rate Base Housing Units (before density bonus): 8 UNITS		
Affordable Base Housing Units (before density bonus): 0 UNITS		
Size of Market Rate Units (# of Studios, 1 bedroom, 2 bedroom, etc.): 2 UNITS @ 1BEDROOM 4 UNITS @ 2 BEDROOM		
Size of Affordable Units (# of Studios, 1 bedroom, 2 bedroom, etc.): 1 UNIT @ 1 BEDROOM		
Proposed number of Very Low Income units : 1 UNIT		
Proposed number of Low Income units : 0 UNITS		
Proposed number Moderate Income units : 0 UNITS		
Percentage of Total Base Housing Units that are Affordable: 12%		
Maximum Density Bonus Percentage (See Density Bonus Chart):		
Number of Required Parking Spaces: 10 Spaces		
Number of Parking Spaces Provided: 11 Spaces		
Residential Tenure: Does the project propose rental or ownership units?		
DENSITY BONUS REQUEST		
Density Bonus Percentage (calculate using "Density Bonus Chart"): 12%		
Total Number of Density Bonus Units: 0 UNITS		
Total Units in Development After Density Bonus is Applied: 0 UNITS		
If requesting a Density Bonus for the following project types, please check the appropriate box and provide the following information:		
☐	Land Donation	Address (or APN) of land to be dedicated:
		Attach proof of site control.
		Attach evidence of meeting conditions for a land transfer density bonus as specified in the State Housing Density Bonuses and Incentives Law
☐	Child-Care Facility	Address and APN of child-care facility:
		Square footage of facility:
		Attach evidence of meeting conditions for a child care facility density bonus or Incentive as specified in the State Housing Density Bonuses and Incentives Law.
☐	Condominium Conversion	Attach evidence of meeting conditions for a condominium conversion Density Bonus as specified in the State Housing Density Bonuses and Incentives Law.

INCENTIVES/CONCESSIONS REQUEST

An applicant for a density bonus may also propose specific incentives/concessions pursuant to Subsection (d) of Government Code Section 65915. The number of incentives/concessions an applicant may receive is based on the number of affordable units and level of affordability provided. Use the Incentives/Concessions Calculator below to determine the number of incentives or concessions you are eligible for.

INCENTIVES/CONCESSIONS CALCULATOR

Affordability Level	Restricted Affordable Units Provided in Project	% of Base Project	Threshold for one (1) Incentive/ Concession (# of units)		Threshold for two (2) Incentives/ Concessions (# of units)		Threshold for three (3) Incentives/ Concessions (# of units)		Threshold for four (4) Incentives/ Concessions* (# of units)	
Very Low Income	1	12%	5%		10%		15%		100% affordable with ≥80% low income, ≤20% moderate	
Low Income			10%		17%		24%			
Moderate Income			10%		20%		30%			

** If a 100% affordable project is located within ½ mile of a major transit stop, the project is eligible for a height increase of up to three (3) additional stories, or thirty-three feet (33'-0"); however, if the project also seeks a waiver from any maximum controls on density, the project cannot receive a waiver of any other development standards (but can still receive four incentives). If this allowance is sought, please describe/identify the major transit stop that is within ½ mile of the qualifying 100% affordable project:*

DESCRIPTION OF INCENTIVES/CONCESSIONS REQUESTED

List all requested incentives/concessions. If a reduction in site development standards or a modification of zoning code requirements is sought, include references to specific Municipal Code Sections in question, and reference the requested incentives/concessions on the submitted plans.

1.) Reduce side setback of 1st story to become 5ft
2.) Reduce side setback of 2nd story to become 5ft
3.) Reduce side setback of 3rd story to become 5ft

Provide evidence substantiating the applicant's eligibility for each incentive/concession requested, including information that clearly demonstrates that the requested incentive/concession will result in identifiable and actual cost reductions to provide for affordable housing costs. The Applicant may attach additional documentation as required.

By reducing the side setback requirements, it gives us the opportunity to create common open space in the form of a courtyard at each level. This allows the development to meet the minimum standards for square footage for each unit as well as common open space requirements in the center courtyard. Without meeting these requirements the developer would not be able to propose the number of units that would yield returns desired that would be invested into the construction of the entire project in its entirety.

MODIFICATION/WAIVER REQUEST

Pursuant to Subsection (e) of Government Code Section 65915, an applicant may also propose the waiver or reduction of development standards that have the effect of physically precluding the construction of a housing development incorporating the density bonus and any incentives or concessions granted to the applicant.

DESCRIPTION OF MODIFICATIONS/WAIVERS REQUESTED

List all development standards for which you are seeking a waiver or reduction pursuant to Subsection (e) of Government Code Section 65915. Include references to specific Municipal Code Sections in question, and reference development standards to be modified or waived on the submitted plans.

1.) open space height requirement to be reduced to 10ft
2.) 3rd story front setback to be reduced to 20ft

Provide evidence substantiating the applicant's eligibility for each waiver or reduction of a development standard being requested, including documentation demonstrating that the waiver or reduction is physically necessary to construct the housing development with the additional density allowed pursuant to the density bonus and incorporating any incentives or concessions required to be granted. Where more than one modification or waiver is sought, the applicant should clearly demonstrate why the modifications/waivers are cumulatively necessary to prevent a development standard from physically precluding the construction of the development.

Reducing the height requirement for open space allows for the center courtyards we are providing to be proposed on the 2nd floor. Thus utilizing the available square footage to be used for living space for each units. Without adequate square footage for each living unit, the development would result in a financial liability to the property owner.

PARKING RATIOS			
Are you requesting application of the onsite vehicular parking ratios set forth in Subsection (p)(1) of Government Code Section 65915?			
☐	Yes	☐	No

SPECIAL PARKING REQUIREMENTS	
If you are requesting application of a reduced onsite parking ratio pursuant to Subsections (p)(2), (p)(3), or (p)(4) of Government Code Section 65915, select the onsite parking standard requested per the appropriate development type:	
☐	Rental/for sale projects with at least 11% very low income or 20% lower income units, within ½ mile of accessible major transit stop** – 0.5 spaces per unit
☐	Rental projects 100% affordable to lower income, within ½ mile of accessible major transit stop** – 0 spaces per unit
☐	Rental senior projects 100% affordable to lower income, either with paratransit service or within ½ half mile of accessible bus route** (operating ≥8 times per day) – 0 spaces per unit
☐	Rental special needs projects 100% affordable to lower income households, either with paratransit service or within ½ half mile of accessible bus route** (operating ≥8 times per day) – 0 spaces per unit
☐	Rental supportive housing developments 100% affordable to lower income households – 0 spaces
*** If applicable, please describe/identify the major transit stop or accessible bus route that is within ½ mile of the project.*	

ASSOCIATED HOUSING DEVELOPMENT FORMS & APPLICATIONS	
Dependent upon the nature of the request, and the design of the project, the following forms may also be required:	
☐ Replacement Unit Determination	☐ SB 330 Housing Development Pre-Application
☐ SB 35 Housing Streamlining Eligibility Checklist	☐ Preliminary Development Review Application

CERTIFICATION:

I certify and declare under penalty of perjury under the laws of the State of California that the answers furnished above, and in any attached exhibits, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. I further understand that additional information may be required by the City of Garden Grove to complete my review. Furthermore, developments requesting a density bonus shall enter into a density bonus housing agreement with the City. A density bonus housing agreement shall be made a condition of the discretionary planning permits for all housing developments, and shall be recorded as a restriction on any parcels on which the target units or density bonus units will be constructed. The density bonus housing agreement shall be recorded prior to final or parcel map approval, or, where the housing development does not include a map, prior to issuance of a building permit for any structure in the housing development. The density bonus housing agreement shall run with the land and bind on all future owners and successors in interest.

Applicant Signature — Date: 2-16-23

Property Owner Signature — Date: 2-16-23

Yorke ENGINEERING, LLC
www.YorkeEngr.com

Attachment 4

July 9, 2024

Ms. Tina Mullen
Project Manager
Work: (714) 884-4466
E-mail: Teenerds@Gmail.com

Subject: **Air Quality, Greenhouse Gas, VMT, and Noise Study for an Eight-Unit Apartment Building in Garden Grove, CA**

Dear Ms. Mullen:

Yorke Engineering, LLC (Yorke) is pleased to provide this Air Quality (AQ), Greenhouse Gas (GHG), Vehicle Mile Traveled (VMT), and Noise Impacts Letter Report. This report includes CalEEMod emissions estimates, criteria pollutant, GHG, VMT, and Noise analyses for an eight-unit apartment building development in the City of Garden Grove, California (City).

PROJECT DESCRIPTION

The proposed project is to develop an eight-unit apartment building to be located at 13171 Jefferson Street [Assessor's Parcel Number (APN) 097-201-13] in the City of Garden Grove, CA, which is within the SCAQMD. On a lot size of 10,125 square feet (0.23 acres), the project includes development of a three-story building, consisting of street-level parking with a total of 11 parking spaces, and four units each on the second and third floors. An existing single-story residence and two-car garage on the project site will be demolished prior to the start of construction. An 8-foot barrier such as plywood construction fencing (½-inch thickness or greater) or a flexible sound-absorbing curtain, will be installed where there are no existing walls to ensure safety and to minimize noise during construction.

ASSUMPTIONS

The following lists sources of information used in developing the emission estimates for the proposed Project using the California Emissions Estimator Model® (CalEEMod). Not all CalEEMod defaults are listed, but some defaults which have a particularly important impact on the project are listed.

- The Applicant defined:
  - Basic project design features including size of building features, parking spaces, number of units, and landscaping, etc.;
  - Low-flow faucets, toilets, showers, and irrigation will be installed consistent with modern building codes;
  - Low VOC paints will be used in compliance with SCAQMD rules;
  - During construction and demolition, any exposed soil and unpaved access roads will be watered a minimum of three times a day, as required by the SCAQMD;

  - Paved roads outside access points to the parcel will be swept daily during the demolition, site preparation, and grading phases;
  - The residential building will meet the 2022 Title 24 Building Envelope Energy Efficiency Standards;
  - Electric vehicle charging infrastructure will be provided;
  - Residential parking supply will be limited;
  - Project will be located near a bicycle path/lane; and
  - Secure bicycle parking will be provided.
- CalEEMod defaults were used for:
  - Construction equipment count, load factor, and fleet average age;
  - Architectural coating areas;
  - Operational vehicle fleet mixes;
  - Daily trip rates for the operational phase; and
  - Average vehicle trip distances.

The number of haul trips for the demolition phase was estimated using the square footage of structures and concrete and asphalt surfaces to be demolished and assuming 10 tons of material per hauling load.

LIST OF TABLES

The project analyses and results are summarized in the following tables:

- Table 13: Construction Vibration Levels
- Table 14: FHWA Noise Reference Levels and Usage Factors
- Table 15: Estimated Peak Activity Daytime Noise Impacts – Residential Receptors

AIR QUALITY AND GREENHOUSE GAS IMPACTS ANALYSES

In order to evaluate the potential for Air Quality and Greenhouse Gas impacts of a proposed project, quantitative significance criteria established by the local air quality agency, such as the SCAQMD, may be relied upon to make significance determinations based on mass emissions of criteria pollutants and GHGs, as presented in this report. As shown below, approval of the project would not result in any significant effects relating to air quality or greenhouse gases.

Project Emissions Estimation

The construction and operation analysis were performed using CalEEMod version 2022.1.1.13, the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model – published by the California Air Resources Board (CARB) – include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and control measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SCAQMD, the Bay Area Air Quality Management District (BAAQMD), the San Joaquin Valley Air Pollution Control District (SJVAPCD), and other California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis.

Based on information received from the Applicant, land use data used for CalEEMod input is presented in Table 1. The SCAQMD quantitative significance thresholds shown in Table 2 were used to evaluate project emissions impacts (SCAQMD 2023).

Table 1: Land Use Data for CalEEMod Input

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage (footprint)	Square Feet	Description
Residential	Apartments Low Rise	8	Dwelling Units	0.26	11,355	3-Story Apartment Building
Parking	Parking Lot	3.33	1,000 sq. ft.	0.08	3,329	Parking Areas (Concrete hardscape and asphalt paving)
			Landscaping	0.04	1,921	Landscaping areas

Project Size	**0.38**	**16,605**	
Lot Size	**0.23**	**10,125**	

Sources: Applicant 2023, CalEEMod version 2022.1.1.13
Notes:
Electric utility: Southern California Edison
Gas utility: Southern California Gas

Table 2: SCAQMD CEQA Thresholds of Significance

Pollutant	Project Construction (lbs/day)	Project Operation (lbs/day)
ROG (VOC)	75	55
NO_X	100	55
CO	550	550
SO_X	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
24-hour $PM_{2.5}$ Increment	10.4 µg/m^3	2.5 µg/m^3
24-hour PM_{10} Increment	10.4 µg/m^3	2.5 µg/m^3
Annual PM_{10} Increment	1.0 µg/m^3 annual average	
1-hour NO_2 Increment	0.18 ppm (state)	
Annual NO_2 Increment	0.03 ppm (state) & 0.0534 ppm (federal)	
1-hour SO_2 Increment	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile)	
24-hour SO_2 Increment	0.04 ppm (state)	
24-hour Sulfate Increment	25 ug/m^3 (state)	
1-hour CO Increment	20 ppm (state) & 35 ppm (federal)	
8-hour CO Increment	9.0 ppm (state/federal)	
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥10 in 1 million	
	Cancer Burden >0.5 excess cancer cases (in areas ≥1 in 1 million)	
	Chronic & Acute Hazard Index ≥1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to Rule 402	
Greenhouse Gases	10,000 MT/yr CO_2e for industrial facilities	
	3,000 MT/yr CO_2e for land use projects (draft proposal)	

Source: SCAQMD 2023, 2008b

Criteria Pollutants from Project Construction

A project's construction phase produces many types of emissions, generally PM_{10} (including $PM_{2.5}$) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Construction-related emissions can cause substantial increases in localized concentrations of PM_{10}, as well as affecting PM_{10} compliance with ambient air quality standards on a regional basis. The use of diesel-powered construction equipment emits ozone precursors oxides of nitrogen (NO_x) and reactive organic gases (ROG), and diesel particulate matter (DPM); however, the use of diesel-powered equipment would be minimal. Use of architectural coatings and other materials associated with

finishing buildings may also emit ROG and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs.

The SCAQMD's approach to CEQA analyses of fugitive dust impacts is to require implementation of effective and comprehensive dust control measures rather than to require detailed quantification of emissions. PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction. For larger projects, the SCAQMD has determined that compliance with an approved fugitive dust control plan comprising Best Management Practices (BMPs), primarily through frequent water application, constitutes sufficient control to reduce PM_{10} impacts to a level considered less than significant.

Criteria Pollutants from Project Operation

The term "project operations" refers to the full range of activities that can or may generate criteria pollutant, GHG, and TAC emissions when the project is functioning in its intended use. For projects, such as office parks, shopping centers, apartment buildings, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represents the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors.

Results of Criteria Emissions Analyses

CalEEMod outputs are in Attachment 1. It should be noted that although emissions are labeled as "mitigated" in the CalEEMod outputs, these emissions reflect project design features, i.e., required BMPs. For this project, applicable SCAQMD and City Planning approved BMPs will be implemented as project design features. This is a standard Condition of Approval and pursuant to CEQA, is not considered mitigation.

Table 3 shows baseline and design criteria construction emissions and evaluates design emissions against SCAQMD significance thresholds.

Table 4 shows baseline and design criteria operational emissions and evaluates design emissions against SCAQMD significance thresholds.

As shown in Tables 3 and 4, mass emissions of criteria pollutants from construction and operation are below applicable SCAQMD significance thresholds.

PROJECTED IMPACT: Less Than Significant (LTS)

Table 3: Construction Emissions Summary and Significance Evaluation				
Criteria Pollutants	**Baseline (lbs/day)**	**Design (lbs/day)**	**Threshold (lbs/day)**	**Significance**
ROG (VOC)	14.6	14.5	75	LTS
NO_X	12.6	12.6	100	LTS
CO	11.9	11.9	550	LTS
SO_X	0.02	0.02	150	LTS
Total PM_{10}	6.0	2.1	150	LTS
Total $PM_{2.5}$	3.1	1.2	55	LTS

Sources: SCAQMD 2023, CalEEMod version 2022.1.1.13
Notes:
lbs/day are winter or summer maxima for planned land use
Total PM_{10} / $PM_{2.5}$ comprises fugitive dust plus engine exhaust
LTS - Less Than Significant

Table 4: Operational Emissions Summary and Significance Evaluation				
Criteria Pollutants	**Baseline (lbs/day)**	**Design (lbs/day)**	**Threshold (lbs/day)**	**Significance**
ROG (VOC)	0.8	0.7	55	LTS
NO_X	0.4	0.4	55	LTS
CO	4.2	4.2	550	LTS
SO_X	0.0	0.0	150	LTS
Total PM_{10}	0.4	0.4	150	LTS
Total $PM_{2.5}$	0.3	0.3	55	LTS

Sources: SCAQMD 2023, CalEEMod version 2022.1.1.13
Notes:
lbs/day are winter or summer maxima for planned land use
Total PM_{10} / $PM_{2.5}$ comprises fugitive dust plus engine exhaust
LTS - Less Than Significant

Localized Significance Threshold Analysis

The SCAQMD's Localized Significance Threshold (LST) methodology (2008a) was used to analyze the neighborhood scale impacts of NO_X, CO, PM_{10}, and $PM_{2.5}$ associated with project-specific mass emissions. Introduced in 2003, the LST methodology was revised in 2008 to include the $PM_{2.5}$ significance threshold methodology and update the LST mass rate lookup tables for the new 1-hour NO_2 standard.

For determining localized air quality impacts from small projects in a defined geographic source-receptor area (SRA), the LST methodology provides mass emission rate lookup tables for 1-acre, 2-acre, and 5-acre parcels by SRA. The tabulated LSTs represent the maximum mass emissions from a project that will not cause or contribute to an exceedance of state or national ambient air quality standards (CAAQS or NAAQS) for the above pollutants and were developed based on ambient concentrations of these pollutants for each SRA in the South Coast Air Basin. (SCAQMD 2008a)

For most land use projects, the highest daily emission rates occur during the site preparation and grading phases of construction; where applicable, these maximum daily emissions are used in the LST analysis.

Since land use operational emissions – mainly from associated traffic – are dispersed over a wide area, localized impacts from project operation are substantially lower than during project construction. However, an Operational LST analysis was also performed. Localized mobile source emissions for project operation were calculated for a one mile radius of the project site.

The proposed Project site is 0.23 acres in source-receptor area Zone 17 – Central Orange County. The 1-acre screening lookup tables were used to evaluate NO_x, CO, PM_{10}, and $PM_{2.5}$ impacts on nearby receptors. The nearest receptor is approximately 25 meters away from the site. Therefore, the impact evaluation was performed using the closest distance within SCAQMD LST tables of 25 meters for construction and operations. (SCAQMD 2008a)

Results of Localized Significance Threshold Analysis

The LST results provided in Tables 5 and 6 show that on-site emissions from construction and operations would meet the LST passing criteria at the nearest receptors. Thus, impacts would be less than significant.

PROJECTED IMPACT: Less Than Significant (LTS)

Table 5: Construction Localized Significance Threshold Evaluation

Criteria Pollutants	Design (lbs/day)	Threshold (lbs/day)	Percent of Threshold	Result
NO_X	12.6	81	16%	Pass
CO	11.9	485	2%	Pass
PM_{10}	2.1	4	52%	Pass
$PM_{2.5}$	1.2	3	40%	Pass

Sources: SCAQMD 2008a, CalEEMod version 2022.1.1.13
Notes:
Source-receptor area – Garden Grove - Zone 17 Central Orange County
Less than 1-acre area, 25 meters to receptor

Table 6: Operations Localized Significance Threshold Evaluation

Criteria Pollutants	Design (lbs/day)	Threshold (lbs/day)	Percent of Threshold	Result
NO_X	0.4	81	0.5%	Pass
CO	4.2	485	1%	Pass
PM_{10}	0.31	1	31%	Pass
$PM_{2.5}$	0.29	1	29%	Pass

Sources: SCAQMD 2008a, CalEEMod version 2022.1.1.13
Notes:
Source-receptor area – Garden Grove - Zone 17 Central Orange County
Less than 1-acre area, 25 meters to receptor, 1-mile operational traffic radius

Analysis of Air Quality Significance Criteria

Estimated construction and operational impacts are evaluated against quantitative criteria (air quality significance thresholds) established by SCAQMD (2023). These criteria are relied upon to make significance determinations based on mass emissions of criteria pollutants. As shown above in Tables 3 through 6, the proposed Project would result in a less than significant impact related to regional and localized emissions, which would not be cumulatively considerable. Further, the proposed Project would not conflict with SCAQMD planning goals, cause substantial air pollutant concentrations, or be a source of objectionable odors.

a) Conflict with or obstruct implementation of the applicable air quality plan?

PROJECTED IMPACT: Less Than Significant Impact

The Project site is located in the South Coast Air Basin (SCAB), comprising all of Orange County and the non-desert regions of Los Angeles, Riverside, and San Bernardino Counties. The SCAQMD is the agency primarily responsible for comprehensive air pollution control in the SCAB and reducing emissions from area and point stationary, mobile, and indirect sources. The SCAQMD prepared the 2022 Air Quality Management Plan (AQMP) to meet federal and State ambient air quality standards. The 2022 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development, and the environment. With regard to future growth, SCAG has prepared the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the 2020-2045 RTP/SCS are based in part on projections originating under County and City General Plans. These growth projections were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2022 AQMP. The 2020-2045 RTP/SCS was approved in September 2020. The Project involves the construction of an eight-unit multi-family residence on a land with an existing single-story residence. Therefore, the proposed Project would represent a nominal percentage of the City's population.

The 2022 AQMP was adopted by the SCAQMD as a program to lead the SCAB into compliance with several criteria pollutant standards and other federal requirements. It relies on emissions forecasts based on demographic and economic growth projections provided by SCAG's 2020-2045 RTP/SCS. SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess whether the project would directly obstruct implementation of the plan and whether it is consistent with the demographic and

economic assumptions (typically land use-related, such as resultant employment or residential units) upon which the plan is based.

A significant air quality impact may occur if a project is inconsistent with the AQMP or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. The Project involves the construction of an eight-unit multi-family residence on a land with an existing single-story residence. The Project site is in a residential zone. As such, the proposed Project would not be expected to exceed the growth projections in the City's General Plan. Thus, the Project would not conflict with or obstruct implementation of the 2022 AQMP.

Furthermore, the Project does not exceed the SCAQMD's established thresholds of significance for air quality impacts (SCAQMD 2023, 2008a). Thus, the proposed Project is not expected to conflict with or obstruct the implementation of the AQMP and SCAQMD rules. Therefore, impacts would be less than significant, and no mitigation is required.

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?

PROJECTED IMPACT: Less Than Significant Impact

In order to evaluate impacts, quantitative significance criteria established by the local air quality agency, such as the SCAQMD, may be relied upon to make significance determinations based on mass emissions of criteria pollutants.

A significant impact would occur if the proposed Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Project construction and operation emissions are estimated using CalEEMod, the statewide land use emissions computer model designed to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from land use projects. According to the CalEEMod model results, overall construction (maximum daily emissions) for the proposed Project would not exceed the SCAQMD thresholds of significance for the criteria pollutants ROG, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. The Project is estimated to generate less than the SCAQMD threshold of 75 pounds per day ROG, 100 pounds per day NO_x, 550 pounds per day CO, 150 pounds per day SO_x, 150 pounds per day PM_{10}, and 55 pounds per day $PM_{2.5}$ during the construction phase. Additionally, As shown in Tables 3 and 4, the Project is estimated to generate less than the SCAQMD threshold of 55 pounds per day ROG, 55 pounds per day NO_x, 550 pounds per day CO, 150 pounds per day SO_x, 150 pounds per day PM_{10}, and 55 pounds per day $PM_{2.5}$ during the operational phase. The primary sources of operations phase emissions are on-road vehicles traveling to and from the site building and operational activities such as landscape equipment, energy use, and water use. The Project operational emissions output is also below the significance thresholds for the above-referenced criteria pollutants with regard to overall operational emissions.

The proposed Project site is 0.23 acres in source-receptor area Zone 17 – Central Orange County. The 1-acre screening lookup tables were used to evaluate NOx, CO, PM10, and PM2.5 impacts on nearby receptors. The nearest receptor is approximately 25 meters away from the site. Therefore, the impact evaluation was performed using the closest distance within SCAQMD LST tables of 25 meters for construction and operations. (SCAQMD 2008a). The LST results shown in Tables 5 and

6, show that on-site emissions from construction and operations would meet the LST passing criteria at the nearest receptors (25 meters).

As shown in Tables 3 through 6, the proposed Project would result in a less than significant impact related to regional emissions, and no mitigation is required.

Cumulative Effects

As shown in Tables 3, 4, 5, and 6, the predicted air quality impacts of the proposed Project are well below SCAQMD regional thresholds and localized significance thresholds, respectively (SCAQMD 2023, 2008a). These impacts characterize the incremental impacts of other comparable past, present, and reasonably foreseeable future development actions in the vicinity of the proposed project site per state CEQA Guidelines Section 15355(b).

SCAQMD Guidance

The SCAQMD's 2003 guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR [Environmental Impact Report]." "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant." (SCAQMD 2003)

CEQA Guidelines

As referenced above, SCAQMD cumulative air quality significance thresholds are the same as project-specific air quality significance thresholds. Because the criteria pollutant mass emissions impacts shown in Tables 3 and 4 would not be expected to exceed any of the SCAQMD air quality significance thresholds, cumulative air quality impacts from comparable development projects would also be expected to be less than significant. Therefore, potential adverse impacts from implementing the proposed project would not be "cumulatively considerable" as defined by state CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per state CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

c) Expose sensitive receptors to substantial pollutant concentrations?

PROJECTED IMPACT: Less Than Significant Impact

A significant impact would occur if the proposed Project were to expose sensitive receptors to pollutant concentrations. The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. The Project site is surrounded by residential uses. The Project is subject to grading and construction standards (BMPs) to control air pollutant and fugitive dust impacts. Additionally, the relatively small residential Project is not expected to substantially contribute to pollutant concentrations or expose surrounding residences

and other sensitive receptors during operation (post-construction). The Project is required to meet SCAQMD Rule 403 requirements, as well as the City's requirements for grading and construction related to fugitive dust control. Therefore, construction and operation of the Project would result in a less than significant impact for both localized and regional air pollution, and no mitigation is required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

PROJECTED IMPACT: Less Than Significant Impact

Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site. The proposed Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Construction of the proposed Project would not cause an odor nuisance as defined in SCAQMD Rule 402. According to the SCAQMD CEQA Air Quality Handbook, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed multi-family residential development would not result in activities that create objectionable or nuisance odors as defined in Rule 402. Therefore, the proposed Project would result in a less than significant impact related to objectionable odors, and no mitigation is required.

Greenhouse Gas Emissions from Construction and Operation

Greenhouse gases – primarily carbon dioxide (CO_2), methane (CH_4), and nitrous (N_2O) oxide, collectively reported as carbon dioxide equivalents (CO_2e) – are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also, included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills. (CARB 2022)

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2022 standards improved upon the 2019 standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings. The 2022 standards went into effect on January 1, 2023 (CEC 2022).

Since the Title 24 standards require energy conservation features in new construction (e.g., high-efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures, etc.), they indirectly regulate and reduce GHG emissions.

Using CalEEMod, direct onsite and offsite GHG emissions were estimated for construction and operation, and indirect offsite GHG emissions were estimated to account for electric power used by the proposed Project, water conveyance, and solid waste disposal.

Results of Greenhouse Gas Emissions Analyses

The SCAQMD officially adopted an industrial facility mass emissions threshold of 10,000 metric tons (MT) CO_2e per year (SCAQMD 2023) and has proposed a residential/commercial mass emissions threshold of 3,000 metric tons (MT) CO_2e per year (SCAQMD 2008b).

Table 7 shows GHG emissions and evaluates design emissions against the SCAQMD significance threshold. Operational efficiency measures incorporate typical code-required energy and water conservation features. Off-site traffic impacts are included in these emissions estimates, along with construction emissions amortized over 30 years.

PROJECTED IMPACT: Less Than Significant (LTS)

Table 7: Greenhouse Gas Emissions Summary and Significance Evaluation

Greenhouse Gases	Design Construction[1] (MT/yr)	Design Operations (MT/yr)	Design Total[2] (MT/yr)	Threshold (MT/yr)	Significance
CO_2	2.6	77.8	80.4	—	—
CH_4	0.0001	0.068	0.07	—	—
N_2O	0.00005	0.0028	0.003	—	—
R	0.0005	0.121	0.12	—	—
CO_2e	**2.6**	**80.5**	**83.1**	3,000	LTS

Sources: SCAQMD 2008b, CalEEMod version 2022.1.1.13
Notes:
[1]Construction emissions amortized over 30 years
[2]Comprises annual operational emissions plus construction emissions amortized over 30 years
LTS - Less Than Significant

Analysis of Greenhouse Gas Significance Criteria

As shown in Table 7, design GHG emissions are below the SCAQMD's proposed GHG significance threshold for land use projects.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

PROJECTED IMPACT: Less Than Significant Impact

GHGs – primarily CO_2, CH_4, and N_2O, collectively reported as CO_2e – are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as onroad vehicles and offroad construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also included in GHG quantification is electric power used to pump the water supply (e.g.,

aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills [California Air Resources Board (CARB) 2022].

California's Building Energy Efficiency Standards are updated on an approximately 3-year cycle. The 2022 standards improved upon the 2019 standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings. The 2022 standards went into effect on January 1, 2023 (CEC 2022).

Since the Title 24 standards require energy conservation features in new construction (e.g., high-efficiency lighting, high-efficiency HVAC systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures, etc.), they indirectly regulate and reduce GHG emissions.

Using CalEEMod, direct on-site and off-site GHG emissions were estimated for construction and operation, and indirect off-site GHG emissions were estimated to account for electric power used by the proposed Project, water conveyance, and solid waste disposal.

The SCAQMD officially adopted an industrial facility mass emissions threshold of 10,000 MT CO_2e per year (SCAQMD 2023) and has proposed a draft residential/ commercial mass emissions threshold of 3,000 MT CO_2e per year (SCAQMD 2008b).

Operational measures incorporate typical code-required energy and water conservation features. Off-site traffic impacts are included in these emissions estimates, along with construction emissions amortized over 30 years.

As shown in Table 7, design GHG emissions are below the proposed GHG significance threshold for land use projects. Thus, impacts would be less than significant.

Cumulative Effects

As shown in Table 7, the predicted GHG impacts of the proposed Project are well below the SCAQMD proposed residential/commercial land use project threshold (SCAQMD 2008b). These impacts characterize the incremental impacts of other comparable past, present, and reasonably foreseeable future development actions in the vicinity of the proposed project site per state CEQA Guidelines Section 15355(b).

CEQA Guidelines

Because GHG mass emissions impacts shown in Table 7 would not be expected to exceed the SCAQMD significance threshold for land use projects, cumulative GHG impacts from comparable development projects would also be expected to be less than significant. Therefore, potential adverse impacts from implementing the proposed project would not be "cumulatively considerable" as defined by state CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per state CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

PROJECTED IMPACT: Less Than Significant Impact

The California legislature passed SB 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the metropolitan planning organizations to prepare a SCS in their regional transportation plans to achieve the per capita GHG reduction targets. For the SCAG region, the SCS is contained in the 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas on existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. In addition, SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled that contribute to GHG emissions, as required by AB 32. The proposed Project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2020-2045 RTP/SCS. As such, impacts would be less than significant, and no mitigation is required.

VEHICLE MILES TRAVELED IMPACTS ANALYSES

VMT Analysis Methodology

CalEEMod contains built-in averages of 8th, 9th, and 10th editions of Institute of Transportation Engineers (ITE) data tables for determining operational trip rates for calculating vehicle miles traveled (VMT). Trip lengths are defined in CalEEMod at the Statewide, Air Basin, Air District, and County level for rural and urban project settings. The VMT results are used for calculating mobile source emissions of criteria pollutants and GHGs using the mobile source emission factors (EMFAC) database, which is also built into CalEEMod.

Trip rates are in terms of the size metric (thousand square footage or dwelling unit) are defined in CalEEMod/ITE for the applicable land use for weekdays, Saturdays, and Sundays (if available). Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips are assumed to take a slightly different path than a primary trip and are assumed to be 25% of the primary trip lengths. Pass-by trips are assumed to be 0.1 miles in length and are a result of no diversion from the primary route. Residential trip types are defined as home-work (H-W), home-shopping (H-S), and home-other (H-O). Non-residential trip types are defined as commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW), such as delivery trips. (CalEEMod 2022)Results of VMT Analysis.

For project operation, trip rates are based on ITE 8th, 9th, and 10th edition average trip rates for the respective land use categories (CalEEMod 2022). For standard land use projects, such as housing, the VMT values output by CalEEMod based on ITE reference data are considered generally representative. Default trip length estimates are based on the 2015 California Statewide Travel Demand Model (CSTDM) and regional travel demand models from local metropolitan planning organizations (MPO) or Regional Transportation Planning Agencies (RTPA), where available (CalEEMod 2022). As determined with CalEEMod for the land use data shown in Table 1, estimated VMT impacts are presented in Table 8 for project operation.

Table 8: Estimated Operational VMT Impacts				
Land Use	**Average Daily Trip Rate (trips/day)**			**Annual VMT (miles/year)**
	Weekday	**Saturday**	**Sunday**	
Apartments Low Rise	59	65	50	169,054
Parking Lot	0	0	0	0
Totals	**59**	**65**	**50**	**169,054**

Sources: CalEEMod version 2022.1.1.13

Traffic Impact Analysis

According to the City Traffic Impact Analysis (TIA) Guidelines for VMT and Level of Service (LOS) Assessment, dated May 2020, a TIA report is required based on the following criteria:

- A TIA which includes LOS analysis shall be required for a proposed project when either the AM or PM peak hour trip generation from the proposed development is expected to exceed 50 vehicle trips.

Based on the City criteria, the net trips associated with the proposed Project are below the thresholds requiring the preparation of a traffic impact analysis report. Therefore, the proposed Project will not require preparation of a traffic impact analysis and the additional trips associated with the proposed Project would not significantly impact the existing roadway network.

Per the City's TIA Guidelines for VMT and LOS Assessment, dated May 2020, there are three types of screening to preclude projects from project-level VMT assessments.

Step 1: Transit Priority Area Screening

Projects located within a transit priority area (TPA) may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may NOT be appropriate if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the City;
3. Is inconsistent with the applicable Sustainable Communities Strategy [as determined by the lead agency, with input from the Southern California Association of Governments (SCAG)]; or
4. Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

To identify if the project is in a TPA, the analyst shall refer to Appendix A-1 of the City guidelines, which provides a map of TPA's in the City of Garden Grove. Based on review of Appendix A-1 – TPA's in Garden Grove, the project site is located within a TPA. However, the project has a FAR less than 0.75, i.e., FAR = 0.463. Therefore, Project Screening Step 1: Transit Priority Area (TPA) Screening is not satisfied.

Step 2: Low VMT Area Screening

Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

To identify if the project is in a low VMT-generating area, the analyst shall refer to Appendix B-2 of the City guidelines, which provides a map of low VMT-generating areas in Garden Grove as compared to the County. A low VMT-generating area produces VMT per service population that is 15% below the County average. Additionally, as noted above, the analyst must identify if the project is consistent with the existing land use within that TAZ and use professional judgement that there is nothing unique about the project that would otherwise be misrepresented utilizing the data from the travel demand model.

- Based on review of Appendix B-2 – Daily VMT per Service Population Compared to County Average (2012), the project site is located within a Less than County Average VMT Area. Additionally, the proposed Project would develop the site to provide eight residential units, consistent with the existing residential land uses at and near the site. Therefore, Project Screening Step 2: Low VMT Area Screening is satisfied.

Step 3: Project Type Screening

Some project types have been identified as having the presumption of a less than significant impact. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel. The following uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature:

- Local-serving K-12 schools;
- Local parks;
- Day care centers;
- Local-serving retail uses less than 50,000 square feet, including:
    - Gas Stations,
    - Banks,
    - Restaurants,
    - Shopping Center;
- Local-serving hotels (e.g., non-destination hotels);
- Student housing projects on or adjacent to a college campus;
- Local-serving assembly uses (places of worship, community organizations);

- Community institutions (public libraries, fire stations, local government);
- Affordable, supportive, or transitional housing;
- Assisted living facilities;
- Senior housing (as defined by HUD); and
- Local-serving community colleges that are consistent with the assumptions noted in the RTP/SCS Projects generating less than 110 daily vehicle trips;
    - This generally corresponds to the following "typical" development potentials:
        - 11 single family housing units,
        - 16 multi-family, condominiums, or townhouse housing units,
        - 10,000 sq. ft. of office,
        - 15,000 sq. ft. of light industrial,
        - 63,000 sq. ft. of warehousing,
        - 79,000 sq. ft. of high cube transload and short-term storage warehouse.

As stated above, the proposed Project will consist of an eight-unit multi-family residential building. Therefore, based on the Step 3: Project Type Screening criteria (i.e., eight-unit multi-family residential building), this project could be screened from a VMT analysis, and could be presumed to have a less than significant impact on VMT per the City's guidelines.

Discussion

As shown in Table 8, expected trip generation would be about 50 to 65 trips per day for the proposed eight-unit apartment building.

The proposed Project will consist of an eight-unit multi-family residential building. Based on the City's guidelines, the proposed Project satisfies Step 2: Low VMT Area Screening and Step 3: Project Type Screening. Therefore, this project could be screened from a VMT analysis, and could be presumed to have a less than significant impact on VMT per the City's guidelines.

PROJECTED IMPACT: Less Than Significant (LTS)

Analysis of Transportation Significance Criteria

Would the Project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

PROJECTED IMPACT: Less Than Significant Impact

As shown in Table 8, expected trip generation would be about 50 to 65 trips per day for the proposed eight-unit apartment building. Based on the City criteria, the net trips associated with the proposed Project are below the thresholds requiring the preparation of a traffic impact analysis report. Therefore, the proposed Project will not require preparation of a traffic impact analysis and the

additional trips associated with the proposed Project would not significantly impact the existing roadway network. The proposed Project would have an overall less than significant impact on any conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

PROJECTED IMPACT: Less Than Significant Impact

CEQA Guidelines Section 15064.3 – Determining the Significance of Transportation Impacts states that VMT analysis is the most appropriate measure of transportation impacts and provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for evaluating VMT. The proposed Project will consist of an eight-unit multi-family residential building. Based on the City's guidelines, the proposed Project satisfies Step 2: Low VMT Area Screening and Step 3: Project Type Screening. Therefore, this project could be screened from a VMT analysis, and could be presumed to have a less than significant impact on VMT per the City's guidelines.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

PROJECTED IMPACT: Less than Significant Impact

The proposed Project will not include any incompatible land uses such as farm equipment. Furthermore, the proposed Project does not have any geometric design features that may pose a hazard. Stop signs would be placed at project driveways and appropriate striping onsite would occur. Proposed drive aisles and driveways would be required to meet the minimum dimensions outlined by the City's engineering and building divisions. The onsite circulation would not incorporate any hazards. Circulation onsite would adequately serve vehicles without resulting in dangerous maneuvering due to geometric design features. Therefore, potential impacts associated with an increase hazard due to geometric design features or incompatible uses would be less than significant.

d) Result in inadequate emergency access?

PROJECTED IMPACT: Less than Significant Impact

During Project construction, the site would be required to ensure emergency access in accordance with Section 503 of the California Fire Code (24 CCR Part 9), which would be ensured through the City's permitting process. Implementation of the proposed Project through the City's permitting process would ensure adherence to existing regulations and would reduce potential construction-related emergency access impacts to a less than significant level. The Project site plan was designed in compliance with all applicable County codes and approved by the City. Therefore, cumulative impacts related to emergency access are less than significant.

NOISE IMPACTS ANALYSES

Noise and Vibration Analysis Methodology

The screening-level noise analysis for Project construction was completed based on methodology developed by the U.S. Department of Transportation Federal Highway Administration (DOT FHWA) at the John A. Volpe National Transportation Systems Center and other technical references consistent with CalEEMod outputs (equipment utilization). The DOT FHWA methodology uses actual noise measurement data collected during the Boston "Big Dig" project (1991-2006) as reference levels for a wide variety of construction equipment in common use, such as on the proposed Project. This noise analysis did not include field measurements of ambient noise in the vicinity of the Project site.

The FHWA noise model provides relatively conservative predictions because it does not account for site-specific geometry, dimensions of nearby structures, and local environmental conditions that can affect sound transmission, reflection, and attenuation. As a result, actual measured sound levels at receptors may vary somewhat from predictions, typically lower. Additionally, the impacts of noise upon receptors (persons) are subjective because of differences in individual sensitivities and perceptions.

Noise impacts are evaluated against community noise standards contained in the City or County General Plan or other state or federal agency as applicable to the vicinity of the Project site. For this Project, the City of Garden Grove Municipal Code, Chapter 8.47, Noise Control, and City of Garden Grove General Plan, Noise Element, contain the applicable evaluation criteria. Screening-level Project-generated noise is evaluated in relation to established thresholds of significance. Additionally, the same methods are used to determine noise impacts on the nearest sensitive receptor.

During construction activities, the Project would generate noise due to operation of minimal off-road equipment, portable equipment, and vehicles at or near the Project site. No significant increase in traffic is expected due to this relatively small project. No strong sources of vibrations are planned to be used during construction activities.

Since the Project is near a freeway, the incremental effect of Project operation (possible slightly increased traffic) would not be quantifiable against existing traffic noise (background) in the Project vicinity (i.e., less than significant impact). Also, since no airport is closer than 2 miles from the Project site, evaluation of aircraft noise upon the Project is not required.

Environmental Setting

Noise Descriptors

Noise is typically described as any unwanted or objectionable sound. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity, the A-weighted decibel scale (dBA). Table 9 lists common sources of sound and their intensities in dBA.

Table 9: Typical Sound Level Characteristics		
Pressure (N/m^2)	**Level (dB)**	**Sound Level Characteristic**
2000	160	Rocket Launch
600	150	Military Jet Plane Takeoff
200	140	Threshold of Pain
60	130	Commercial Jet Plane Takeoff
20	120	Industrial Chipper or Punch Press
6	110	Loud Automobile Horn
2	100	Passing Diesel Truck – Curb Line
0.6	90	Factory - Heavy Manufacturing
0.2	80	Factory - Light Manufacturing
0.06	70	Open Floor Office - Cubicles
0.02	60	Conversational Speech
0.006	50	Private Office - Walled
0.002	40	Residence in Daytime
0.0006	30	Bedroom at Night
0.0002	20	Recording or Broadcasting Studio
0.00006	10	Threshold of Good Hearing - Adult
0.00002	0	Threshold of Excellent Hearing - Child

Sources: Broch 1971, Plog 1988

Notes:

Reference Level $P_O = 0.00002\ N/m^2 = 0.0002\ \mu bar$

N/m^2 = Newtons per square meter (the Newton is the unit of force derived in the metric system); it is equal to the amount of net force required to accelerate one kilogram of mass at a rate of one meter per second squared (1 kg • 1 m/s^2) in the direction of the applied force.

In most situations, a 3-dBA change in sound pressure is considered a "just-detectable" difference. A 5-dBA change (either louder or quieter) is readily noticeable, and 10-dBA change is a doubling (if louder) or halving (if quieter) of the subjective loudness. Sound from a small, localized source (a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (drops off) at a rate of 6 dBA for each doubling of the distance.

The duration of noise and the time period at which it occurs are important factors in determining the impact of noise on sensitive receptors. A single number called the equivalent continuous noise level (L_{eq}) may be used to describe sound that is changing in level. It is also used to describe the acoustic range of the noise source being measured, which is accomplished through the maximum L_{eq} (L_{max}) and minimum L_{eq} (L_{min}) indicators.

In determining the daily measure of community noise, it is important to account for the difference in human response to daytime and nighttime noise. Noise is more disturbing at night than during the day, and noise indices have been developed to account for the varying duration of noise events over

time, as well as community response to them. The Community Noise Equivalent Level (CNEL) adds a 5-dB penalty to the "nighttime" hourly noise levels (HNLs) (i.e., 7:00 p.m. to 10:00 p.m.) and the Day-Night Average Level (L_{dn}) adds a 10-dB penalty to the evening HNLs (Caltrans 2020, FTA 2006).

Vibration Descriptors

Vibration is a unique form of noise because its energy is carried through structures and the earth, whereas noise is carried through the air. Thus, vibration is generally felt rather than heard. Typically, ground borne vibration generated by construction activities attenuates rapidly as distance from the source of the vibration increases. Actual human and structural response to different vibration levels is influenced by a combination of factors, including soil type, distance between the source and receptor, duration, and the number of perceived events.

While not a direct health hazard, the energy transmitted through the ground as vibration may result in structural damage, which may be costly to repair and dangerous in the event of structural failure. To assess the potential for structural damage associated with vibration, the vibratory ground motion in the vicinity of the affected structure is measured in terms of point peak velocity/peak particle velocity (PPV) in the vertical and horizontal directions (vector sum). A freight train passing at 100 feet may cause PPVs of 0.1 inch per second, while a strong earthquake may produce PPVs in the range of 10 inches per second. Minor cosmetic damage to buildings may begin in the range of 0.5 inch per second (Caltrans 2020, FTA 2006).

Regulatory Setting

California

The State of California does not promulgate statewide standards for environmental noise but requires each city and county to include a noise element in its general plan [California Government Code Section 65302(f)]. In addition, Title 4 of the CCR has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. In general, the guidelines require that community noise standards:

- Protect residents from the harmful and annoying effects of exposure to excessive noise;
- Prevent incompatible land uses from encroaching upon existing or programmed land uses likely to create significant noise impacts; and
- Encourage the application of state-of-the-art land use planning methodologies in the area of managing and minimizing potential noise conflicts.

Construction vibration is regulated at the state level in accordance with standards established by the *Transportation and Construction-Induced Vibration Guidance Manual* issued by Caltrans in 2004. Continuous sources include the use of vibratory compaction equipment and other construction equipment that creates vibration other than in single events. Transient sources create a single isolated vibration event, such as blasting. Thresholds for continuous sources are 0.5 and 0.1 inch per second PPV for structural damage and annoyance, respectively. Thresholds for transient sources are 1.0 and 0.9 PPV for structural damage and annoyance, respectively (Caltrans 2020).

City of Garden Grove General Plan – Chapter 7, Noise Element

The City of Garden Grove General Plan Noise Element, Noise and Land Use Compatibility Matrix, illustrates the State guidelines established by the State Department of Health Services for acceptable noise levels for each county and city. These standards and criteria are incorporated into the land use planning process to reduce future noise and land use incompatibilities. This table is the primary tool that allows the City to ensure integrated planning for compatibility between land uses and outdoor noise. As shown in Table 10, for multiple family residential land uses, noise levels of 50 to 65 dBA are considered "Normally Acceptable" and noise levels of 60 to 70 dBA are considered "Conditionally Acceptable".

Table 10: City of Garden Grove Noise and Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 – 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	NA	70 - 80	80 – 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA
NA: Not Applicable				
Source: Office of Planning and Research, California, *General Plan Guidelines*, October 2003.				
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. **Conditionally Acceptable** – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice. **Normally Unacceptable** – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. **Clearly Unacceptable** – New construction or development should generally not be undertaken.				

Source: City of Garden Grove General Plan – Chapter 7, Noise Element

City of Garden Grove Municipal Code – Title 8, Chapter 8.47 Noise Control

For this Project, the City of Garden Grove Municipal Code Chapter 8.47, Noise Control contain the applicable evaluation criteria.

Section 8.47.040 of the Municipal Code states that the ambient base noise levels contained in Table 11 shall be utilized as the basis for determining noise levels in excess of those allowed by this chapter unless the actual measured ambient noise level occurring at the same time as the noise under review is being investigated exceeds the ambient base noise level contained in Table 11. When the actual measured ambient noise level exceeds the ambient base noise level, the actual measured ambient

noise level shall be utilized as the basis for determining whether or not the subject noise exceeds the level allowed by this section. In situations where two adjoining properties exist within two different use designations, the most restrictive ambient base noise level will apply. This section permits any noise level that does not exceed either the ambient base noise level or the actual measured ambient noise level by 5 dBA, as measured at the property line of the noise generation property.

Table 11: City of Garden Grove Ambient Base Noise Levels

Use Categories	Use Designations	Ambient Base Noise Levels (dBA)	
		Daytime (7 a.m.-10 p.m.)	Nighttime (10 p.m.- 7 a.m.)
Sensitive	Residential Use	55	50
Conditionally Sensitive	Institutional Use	65	
	Office-Professional Use	65	
	Hotels & Motels	65	
Non-Sensitive	Commercial Uses	70	
	Commercial/ Industrial Uses within 150 feet of Residential	65	50
	Industrial Use	70	

Source: City of Garden Grove Municipal Code – Title 8, Chapter 8.47 Noise Control

Section 8.47.050, General Noise Regulation, states that it is unlawful for any person to willfully make, continue, or cause to be made or continued, any loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

The criteria that shall be utilized in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

1. The level of the noise.
2. The frequency of occurrence of the noise.
3. Whether the nature of the noise is usual or unusual.
4. The level and intensity of the background noise, if any.
5. The proximity of the noise to residential sleeping facilities.
6. The nature and zoning of the area within which the noise emanates.
7. The density of the inhabitation of the area within which the noise is received.
8. The time of day or night the noise occurs.
9. The duration of the noise.

The following criteria shall be used whenever the noise level exceeds:

1. The noise standard for a cumulative period of more than 30 minutes in any hour; or
2. The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in an hour; or
3. The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
4. The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
5. The noise standard plus 20 dBA for any period of time.

In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Section 8.47.060, Special Noise Sources, states that it shall be unlawful for any person within a residential area, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects, or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hours of 10:00 p.m. of one day and 7:00 a.m. of the next day in such a manner that a person of normal sensitiveness, as determined utilizing the criteria established in Section 8.47.050(B), is caused discomfort or annoyance unless such operations are of an emergency nature.

Discussion

Construction Noise and Vibration

The proposed Project can be characterized as development of a new multi-residential apartment building. Most noise would occur during the demolition, grading, site preparation, building construction, and paving when heavy equipment would be operating.

During each of the six construction phases there would be a different mix of equipment operating and cumulative noise levels would vary based on the amount of equipment in operation and the location of each activity at the Project site. In general, use of off-road equipment and portable equipment would generate noise due to engine mechanicals, engine exhaust, driveline mechanicals, shaft-driven devices and accessories, hydraulics operation, ground friction and displacement, and gravity drops (dumping, unloading).

During construction activities, the project would generate minor levels of vibration due to operation of off-road equipment, portable equipment, and vehicles at or near the project site. Although construction of the proposed Project would involve demolition of wood frame buildings and asphalt/concrete surfaces within the Project area, construction plans do not include intense percussive actions (e.g., hard rock-breaking, large pile-driving). Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. Generally, a PPV vibration threshold of approximately 0.3 in/sec is sufficient to avoid physical damage to engineered structures (FTA 2018). The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building

damage can be cosmetic or structural. Table 12 presents average source levels in terms of velocity for different types of construction equipment.

Table 12: FTA Vibration Reference Levels		
Equipment	**PPV at 25 feet (inches/second)**	
Pile Driver (Impact)	Upper Range	1.518
	Typical	0.644
Pile Driver (Sonic)	Upper Range	0.734
	Typical	0.170
Clam Shovel Drop (slurry wall)		0.202
Hydromill (slurry wall)	In Soil	0.008
	In Rock	0.017
Vibratory Roller		0.210
Hoe Ram		0.089
Large Bulldozer		0.089
Caisson Drilling		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA 2018

The vibration source level (PPV_{ref}) for each piece of equipment at a reference distance of 25 feet was determined per Table 12. The following equation was then used to apply the propagation adjustment to the source reference level to account for the distance from the equipment to the receiver:

$$PPV_{equip} = PPV_{ref} \times (\frac{25}{D})^{1.5}$$

where:

PPV_{equip} = the peak particle velocity of the equipment adjusted for distance, in/sec
PPV_{ref} = the source reference vibration level at 25 ft, in/sec
D = distance from the equipment to the receiver, ft

Based on the information presented in Table 12, where concrete saw is characterized as jackhammer and the rest of the construction equipment used for the project are characterized as small bulldozers, the nearest offsite structures approximately 25 meters (80 feet) away from the site would be exposed to a PPV well below 0.3 in/sec, which is the threshold at which physical damage to engineered buildings may occur. Since no intense percussive actions (e.g., hard rock-breaking, large pile-driving) are planned to occur during the site work, no strong groundborne vibrations are expected to

be generated that could affect nearby structures or be noticeable to their occupants. Table 13 shows the construction vibration levels for the proposed Project.

Table 13: Construction Vibration Levels

CalEEMod Construction Detail			FHWA Equipment Type	Ref. Level	PPV Equipment at Receptor
Phase Name	Equipment Description	Qty.		inches/second	
Demolition (1)	Concrete/Industrial Saws	1	Jackhammer	0.035	0.006
	Rubber Tired Dozers	1	Small Bulldozer	0.003	0.001
	Tractors/Loaders/Backhoes	2	Small Bulldozer	0.003	0.001
Site Preparation (2)	Graders	1	Small Bulldozer	0.003	0.001
	Tractors/Loaders/Backhoes	1	Small Bulldozer	0.003	0.001
Grading (3)	Graders	1	Small Bulldozer	0.003	0.001
	Rubber Tired Dozers	1	Small Bulldozer	0.003	0.001
	Tractors/Loaders/Backhoes	1	Small Bulldozer	0.003	0.001
Building Construction (4)	Cranes	1	Small Bulldozer	0.003	0.001
	Forklifts	2	Small Bulldozer	0.003	0.001
	Tractors/Loaders/Backhoes	2	Small Bulldozer	0.003	0.001
Paving (5)	Cement and Mortar Mixers	4	Small Bulldozer	0.003	0.001
	Pavers	1	Small Bulldozer	0.003	0.001
	Rollers	1	Small Bulldozer	0.003	0.001
	Tractors/Loaders/Backhoes	1	Small Bulldozer	0.003	0.001
Architectural Coating (6)	Air Compressors	1	N/A	-	-

Sources: CalEEMod version 2022.1.1.13, FTA 2018

Construction activities typically generate maximum noise levels in the range of 85 dBA to 90 dBA at a distance of 50 feet (15 meters). The FTA Transit Noise and Vibration Impact Assessment methodology provides an 8-hour construction noise level threshold of 80 dBA L_{eq} during the daytime at residential (noise-sensitive) uses, and 85 dBA during the daytime at commercial uses.

Types of equipment (FHWA 2006) to be used during the Project and noise-emitting characteristics (i.e., usage factors, reference dBA, and percussive source) are shown in Table 14 consistent with CalEEMod outputs (Attachment 1).

The Project is expected to require up to approximately 7 months of planned work activities (i.e., from mobilization to substantial completion) comprising six construction phases:

1) Demolition
2) Site preparation
3) Grading
4) Building construction
5) Paving
6) Architectural coating

Deviations from this schedule would not affect the noise analysis because noise does not persist or accumulate in the environment.

Table 14: FHWA Noise Reference Levels and Usage Factors

CalEEMod Construction Detail			FHWA Equipment Type	Ref.	Usage Factor	Ref. Level	Percussive Source
Phase Name	Equipment Description	Qty.			percent	dBA	Yes/No
Demolition (1)	Concrete/Industrial Saws	1	Concrete Saw	1	20%	90	No
	Rubber Tired Dozers	1	Dozer (crawler tractor)	1	40%	85	No
	Tractors/Loaders/Backhoes	2	Backhoe (with loader)	1	40%	80	No
Site Preparation (2)	Graders	1	Grader	1	40%	85	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
Grading (3)	Graders	1	Grader	1	40%	85	No
	Rubber Tired Dozers	1	Dozer (crawler tractor)	1	40%	85	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
Building Construction (4)	Cranes	1	Crane	1	16%	85	No
	Forklifts	2	Forklift	1	40%	80	No
	Tractors/Loaders/Backhoes	2	Backhoe (with loader)	1	40%	80	No
Paving (5)	Cement and Mortar Mixers	4	Drum Mixer	1	50%	80	No
	Pavers	1	Paver (asphalt)	1	50%	85	No
	Rollers	1	Roller	1	20%	85	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
Architectural Coating (6)	Air Compressors	1	Compressor (air)	1	40%	80	No

Source: CalEEMod version 2022.1.1.13, FHWA 2006

The nearest sensitive receptors are residences approximately 25 meters (80 feet) from the central construction zone. Table 15 shows a comparison of FHWA screening-level estimated daytime exterior noise impacts for peak construction activities at the nearest receptors with respect to the thresholds. If the thresholds are not exceeded, then a project should be considered acceptable, i.e., Less Than Significant.

The estimated noise impacts shown in Table 14 for the abovementioned phases. With the installation of safety and noise barriers, noise levels would be reduced by approximately 5 dBA, possibly up to 15 dBA. Therefore, construction noise impacts would be less than significant. It should be noted that this noise control measure is a project design feature as a safety feature during construction, and pursuant to CEQA, is not considered mitigation.

Table 15: Estimated Peak Activity Daytime Noise Impacts – Residential Receptor

Construction Phases	Normal Acceptance Criteria			
	Modeled Noise Level (Leq dBA)[a]	CalEEMod Duration (days)	Significance Threshold (CNEL dBA)[b,c]	Exceeds Threshold (Yes/No)?
Background	55.0	-	-	No
Demolition	79.8	10	80	No
Site Preparation	77.8	1	80	No
Grading	75.3	2	80	No
Building Construction	78.8	100	80	No
Paving	77.2	5	80	No
Architectural Coating	71.7	5	80	No
Long-Term Impact	55.0	-	55	No

Sources: CalEEMod version 2022.1.1.13, FHWA 2006, FTA 2006, Broch 1971, Plog 1988
Notes:
[a] Includes existing ambient noise sources (cumulative impacts)
[b] FTA Noise Limits for Construction
[c] Municipal Code Noise Limits for Operational Phase (Long-Term Impact)

Operational Noise

Upon completion of construction and occupancy of the proposed Project, on-site operational noise would be generated mainly by heating, ventilation, and air conditioning (HVAC) equipment installed on the roof of the new building. However, the overall noise levels generated by the new HVAC equipment are not expected to be substantially greater than generated by older HVAC equipment installed on existing buildings near the Project site. As such, the new HVAC equipment associated with the proposed Project would not represent a substantially new type or source of noise in the general vicinity.

As defined in the General Plan Noise Element for industrial land uses, an L_{dn} or CNEL range (threshold) of 50 to 65 dBA is considered "Normally Acceptable". Thus, the proposed project will be in compliance with the noise limits set by the City.

The proposed residential Project would not be a source of industrial noise. No adverse impacts are expected from, and no noise control measures would be required for, the operation of the proposed project. Therefore, the operational noise impacts of the proposed Project would be less than significant.

Interior areas of the completed Project would not be adversely impacted by ambient (outdoor) urban noise because the Project would be constructed to meet applicable California Code of Regulations (CCR) Title 24 Parts 6 and 11 building energy efficiency standards (CEC 2022). Thermal insulation,

e.g., fiberglass batting in exterior walls and double-pane windows, also attenuates sound transmission and thus would provide an acceptable interior noise environment, which is particularly important for sensitive land uses. Specifically, the proposed Project would be designed and constructed to maintain interior noise levels at or below 45 dBA in any normally occupied space of the Project with no other sources of interior noise operating, such as HVAC, appliances, power tools, or office equipment. As such, interior noise impacts of the proposed Project would be less than significant.

Analysis of Noise Significance Criteria

This study predicts a less than significant impact in accordance with applicable noise ordinances and General Plans. 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?

No. As shown in the above analysis, temporary construction noise would be limited to the City's allowable construction hours and would permanently cease upon completion of construction. With the installation of noise barriers during, demolition, grading, and paving phases, aggregated average construction noise is not expected to exceed 80 dBA at nearby receptors, which is below the noise limit set by FTA. Therefore, temporary impacts on ambient noise levels during construction would be less than significant. The installation of noise barriers is a project design feature, and pursuant to CEQA, is not considered mitigation.

PROJECTED IMPACT: Less Than Significant (LTS)

Operational noise sources for the Project, such as new HVAC equipment, are of quiet design per commercial standards. The interior noise levels will be maintained at current noise levels at nearby receptors. Additionally, total operational noise levels will be well below the 65 dBA limit, which is considered "Normally Acceptable", for this land use. Therefore, long-term operational impacts on ambient noise levels would also be less than significant and no mitigation is required.

PROJECTED IMPACT: Less Than Significant (LTS)

Cumulative Effects

As shown in Table 14, noise impacts of the proposed development project are below Municipal Code significance thresholds. These impacts characterize the incremental impacts of other comparable past, present, and reasonably foreseeable future development actions in the vicinity of the proposed project site per state CEQA Guidelines Section 15355(b).

The FHWA construction noise model puts the expected daytime ambient noise from known sources at about 71 to 79 dBA at the nearest receptors to the proposed project. This cumulative model is based on traffic noise from SR 22, the Garden Grove Freeway[1], as well as a general cumulative 55

[1] Approximately 100 feet (30 meters) south of the Project site, separated by a masonry sound wall.

dBA urban background noise. Although noise does not persist or accumulate in the environment over time, this accounts for any cumulative effects of comparable development projects.

CEQA Guidelines

Because the noise impacts shown in Table 14 would not be expected to exceed any of the Municipal Code significance thresholds, cumulative noise impacts from comparable development projects would also be expected to be less than significant. Therefore, potential adverse impacts from implementing the proposed project would not be "cumulatively considerable" as defined by state CEQA Guidelines Section 15064(h)(1) for noise impacts. Per state CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

PROJECTED IMPACT: Less Than Significant (LTS)

b) Generation of excessive groundborne vibration or groundborne noise levels?

Although construction of the proposed Project would involve demolition of existing structures within the Project area, construction plans do not include intense percussive actions (e.g., hard rock-breaking, large pile-driving). The PPV at nearest receptors would be well below the FTA threshold of 0.3 in/sec. Therefore, no strong ground-borne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants and impacts would be less than significant.

PROJECTED IMPACT: Less Than Significant (LTS)

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 level?

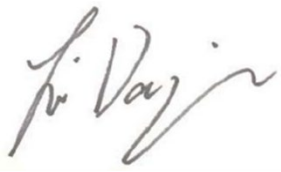
PROJECTED IMPACT: No Impact

There is no public or private use airport within 2 miles of the Project site; therefore, no impact would be expected.

CLOSING

Thank you very much for the opportunity to be of assistance. Should you have any questions, please contact me at (949) 324-9041 (mobile) or Bradford Boyes at (805) 217-4947 (mobile).

Sincerely,



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Enclosures/Attachments:

1. CalEEMod Outputs

AIR QUALITY AND GHG REFERENCES

California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Website (https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents) accessed June 16, 2023.

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California Energy Commission (CEC). 2022. Building Energy Efficiency Program. Website (https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency) accessed June 16, 2023.

South Coast Air Quality Management District (SCAQMD). 2023. Air Quality Significance Thresholds. Website (https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25) accessed June 16, 2023.

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South Coast Air Quality Management District (SCAQMD). 2008b. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans. Website (http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2) accessed June 16, 2023.

South Coast Air Quality Management District (SCAQMD). 2003. South Coast AQMD Cumulative Impacts Working Group, White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. Website (http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf) accessed November 10, 2023.

NOISE REFERENCES

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City of Garden Grove General Plan, Chapter 7, Noise Element. Website (https://ggcity.org/internet/pdf/planning/chapter07_noiseelement.pdf) June 15, 2023, 2023.

City of Garden Grove Municipal Code, Chapter 8.47, Noise Control. Website (https://library.qcode.us/lib/garden_grove_ca/pub/municipal_code/item/title_8-chapter_8_47?view=all#title_8-chapter_8_47-8_47_030) June 15, 2023, 2023.

U.S. Department of Transportation – Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model User's Guide. Website (https://www.fhwa.dot.gov/Environment/noise/construction_noise/rcnm/) accessed June 15, 2023.

U.S. Department of Transportation – Federal Transit Authority (FTA). 2006. Transit Noise and Vibration Impact Assessment. Website (https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf) accessed June 15, 2023.

U.S. Department of Transportation – Federal Transit Authority (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. Website (https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf) accessed November 10, 2023.

TRAFFIC REFERENCES

City of Garden Grove Traffic Impact Analysis (TIA) Guidelines for VMT and Level of Service (LOS) Assessment, May 2020.

ATTACHMENT 1 – CALEEMOD OUTPUTS

Tina Mullen- Apt Complex Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Tina Mullen- Apt Complex
Construction Start Date	7/4/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	6.20
Location	13171 Jefferson St, Garden Grove, CA 92844, USA
County	Orange
City	Garden Grove
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5813
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Low Rise	8.00	Dwelling Unit	0.50	11,355	1,921	—	24.0	—
Parking Lot	3.33	1000sqft	0.08	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads
Construction	C-13	Use Low-VOC Paints for Construction
Water	W-4	Require Low-Flow Water Fixtures
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	AS-2	Use Low-VOC Paints

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.31	12.6	11.9	0.02	0.60	5.41	6.01	0.55	2.59	3.14	—	1,817	1,817	0.11	0.14	2.25	1,828
Mit.	1.31	12.6	11.9	0.02	0.60	1.48	2.08	0.55	0.69	1.24	—	1,817	1,817	0.11	0.14	2.25	1,828
% Reduced	—	—	—	—	—	73%	65%	—	73%	60%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.6	5.99	7.34	0.01	0.28	0.23	0.45	0.26	0.05	0.28	—	1,408	1,408	0.06	0.02	0.03	1,415
Mit.	14.5	5.99	7.34	0.01	0.28	0.23	0.45	0.26	0.05	0.28	—	1,408	1,408	0.06	0.02	0.03	1,415
% Reduced	1%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.40	1.97	2.39	< 0.005	0.09	0.07	0.16	0.08	0.02	0.11	—	464	464	0.02	0.01	0.09	467
Mit.	0.40	1.97	2.39	< 0.005	0.09	0.05	0.14	0.08	0.01	0.10	—	464	464	0.02	0.01	0.09	467
% Reduced	< 0.5%	—	—	—	—	38%	17%	—	47%	10%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.36	0.44	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	76.8	76.8	< 0.005	< 0.005	0.01	77.3
Mit.	0.07	0.36	0.44	< 0.005	0.02	0.01	0.02	0.02	< 0.005	0.02	—	76.8	76.8	< 0.005	< 0.005	0.01	77.3
% Reduced	< 0.5%	—	—	—	—	38%	17%	—	47%	10%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.31	12.6	11.9	0.02	0.60	5.41	6.01	0.55	2.59	3.14	—	1,817	1,817	0.11	0.14	2.25	1,828
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	14.6	5.99	7.34	0.01	0.28	0.23	0.45	0.26	0.05	0.28	—	1,408	1,408	0.06	0.02	0.03	1,415

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.40	1.97	2.39	< 0.005	0.09	0.07	0.16	0.08	0.02	0.11	—	464	464	0.02	0.01	0.09	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.36	0.44	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	76.8	76.8	< 0.005	< 0.005	0.01	77.3

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.31	12.6	11.9	0.02	0.60	1.48	2.08	0.55	0.69	1.24	—	1,817	1,817	0.11	0.14	2.25	1,828
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	14.5	5.99	7.34	0.01	0.28	0.23	0.45	0.26	0.05	0.28	—	1,408	1,408	0.06	0.02	0.03	1,415
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.40	1.97	2.39	< 0.005	0.09	0.05	0.14	0.08	0.01	0.10	—	464	464	0.02	0.01	0.09	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.36	0.44	< 0.005	0.02	0.01	0.02	0.02	< 0.005	0.02	—	76.8	76.8	< 0.005	< 0.005	0.01	77.3

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.34	4.18	0.01	0.29	0.14	0.44	0.28	0.03	0.31	51.0	651	702	0.63	0.02	1.77	725

Mit.	0.73	0.34	4.18	0.01	0.29	0.14	0.44	0.28	0.03	0.31	50.9	650	701	0.62	0.02	1.77	724
% Reduced	2%	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	< 0.5%	1%	—	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.70	0.35	3.62	0.01	0.29	0.14	0.44	0.28	0.03	0.31	51.0	634	685	0.63	0.02	0.13	706
Mit.	0.68	0.35	3.62	0.01	0.29	0.14	0.44	0.28	0.03	0.31	50.9	633	684	0.62	0.02	0.13	706
% Reduced	3%	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	< 0.5%	1%	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	0.20	1.93	< 0.005	0.02	0.13	0.15	0.02	0.02	0.05	7.02	464	471	0.42	0.02	0.73	487
Mit.	0.48	0.20	1.93	< 0.005	0.02	0.13	0.15	0.02	0.02	0.05	6.94	463	470	0.41	0.02	0.73	486
% Reduced	4%	—	—	—	—	—	—	—	—	—	1%	< 0.5%	< 0.5%	2%	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	1.16	76.7	77.9	0.07	< 0.005	0.12	80.6
Mit.	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	1.15	76.7	77.8	0.07	< 0.005	0.12	80.5
% Reduced	4%	—	—	—	—	—	—	—	—	—	1%	< 0.5%	< 0.5%	2%	1%	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420

Area	0.53	0.15	2.46	0.01	0.29	—	0.29	0.28	—	0.28	47.2	144	192	0.22	< 0.005	—	197
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.75	0.34	4.18	0.01	0.29	0.14	0.44	0.28	0.03	0.31	51.0	651	702	0.63	0.02	1.77	725
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Area	0.49	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.70	0.35	3.62	0.01	0.29	0.14	0.44	0.28	0.03	0.31	51.0	634	685	0.63	0.02	0.13	706
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.15	1.46	< 0.005	< 0.005	0.13	0.13	< 0.005	0.02	0.02	—	359	359	0.02	0.02	0.65	365
Area	0.31	0.01	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	3.23	10.6	13.9	0.02	< 0.005	—	14.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.50	0.20	1.93	< 0.005	0.02	0.13	0.15	0.02	0.02	0.05	7.02	464	471	0.42	0.02	0.73	487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4
Area	0.06	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.76	2.30	< 0.005	< 0.005	—	2.36
Energy	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.0	15.0	< 0.005	< 0.005	—	15.1

Water	—	—	—	—	—	—	—	—	—	—	0.10	0.53	0.63	0.01	< 0.005	—	0.94
Waste	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	1.16	76.7	77.9	0.07	< 0.005	0.12	80.6

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420
Area	0.51	0.15	2.46	0.01	0.29	—	0.29	0.28	—	0.28	47.2	144	192	0.22	< 0.005	—	197
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.73	0.34	4.18	0.01	0.29	0.14	0.44	0.28	0.03	0.31	50.9	650	701	0.62	0.02	1.77	724
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Area	0.47	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.68	0.35	3.62	0.01	0.29	0.14	0.44	0.28	0.03	0.31	50.9	633	684	0.62	0.02	0.13	706

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.15	1.46	< 0.005	< 0.005	0.13	0.13	< 0.005	0.02	0.02	—	359	359	0.02	0.02	0.65	365
Area	0.29	0.01	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	3.23	10.6	13.9	0.02	< 0.005	—	14.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	90.8	90.8	0.01	< 0.005	—	91.1
Water	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Waste	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	0.48	0.20	1.93	< 0.005	0.02	0.13	0.15	0.02	0.02	0.05	6.94	463	470	0.41	0.02	0.73	486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4
Area	0.05	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.76	2.30	< 0.005	< 0.005	—	2.36
Energy	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.0	15.0	< 0.005	< 0.005	—	15.1
Water	—	—	—	—	—	—	—	—	—	—	0.08	0.47	0.55	0.01	< 0.005	—	0.82
Waste	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	1.15	76.7	77.8	0.07	< 0.005	0.12	80.5

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.99	5.91	0.01	0.21	—	0.21	0.20	—	0.20	—	852	852	0.03	0.01	—	855

Demolitio	—	—	—	—	—	0.24	0.24	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolitio n	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.87	3.87	< 0.005	< 0.005	—	3.88
Demolitio n	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	138	138	0.01	< 0.005	0.61	141
Vendor	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
Hauling	0.02	1.01	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	792	792	0.07	0.12	1.64	832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.71
Vendor	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
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.7	21.7	< 0.005	< 0.005	0.02	22.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.59	3.59	< 0.005	< 0.005	< 0.005	3.77

3.2. Demolition (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.99	5.91	0.01	0.21	—	0.21	0.20	—	0.20	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.87	3.87	< 0.005	< 0.005	—	3.88
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	138	138	0.01	< 0.005	0.61	141
Vendor	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
Hauling	0.02	1.01	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	792	792	0.07	0.12	1.64	832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.71
Vendor	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
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.7	21.7	< 0.005	< 0.005	0.02	22.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.59	3.59	< 0.005	< 0.005	< 0.005	3.77

3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	5.02	5.57	0.01	0.27	—	0.27	0.25	—	0.25	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.35	2.35	< 0.005	< 0.005	—	2.36
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39	0.39	< 0.005	< 0.005	—	0.39
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.33	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.1	69.1	< 0.005	< 0.005	0.31	70.3
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.19
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	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
Hauling	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

3.4. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.54	5.02	5.57	0.01	0.27	—	0.27	0.25	—	0.25	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.35	2.35	< 0.005	< 0.005	—	2.36
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39	0.39	< 0.005	< 0.005	—	0.39
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.33	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.1	69.1	< 0.005	< 0.005	0.31	70.3

Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.19
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	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
Hauling	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

3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	12.6	11.4	0.02	0.60	—	0.60	0.55	—	0.55	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	5.31	5.31	—	2.57	2.57	—	—	—	—	—	—	—
Onsite truck	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.55	1.55	< 0.005	< 0.005	—	1.56
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.46	105
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	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
Hauling	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

3.6. Grading (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	12.6	11.4	0.02	0.60	—	0.60	0.55	—	0.55	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	1.38	1.38	—	0.67	0.67	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42

Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.55	1.55	< 0.005	< 0.005	—	1.56
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.46	105
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	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

Hauling	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

3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.62	1.92	< 0.005	0.08	—	0.08	0.07	—	0.07	—	357	357	0.01	< 0.005	—	359
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.2	59.2	< 0.005	< 0.005	—	59.4
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	79.6	79.6	< 0.005	< 0.005	0.35	80.9
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.07	29.3
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	75.8	75.8	< 0.005	< 0.005	0.01	76.7
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	< 0.005	29.2
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	0.04	21.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.68	7.68	< 0.005	< 0.005	0.01	8.01
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.48	3.48	< 0.005	< 0.005	0.01	3.53
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.27	1.27	< 0.005	< 0.005	< 0.005	1.33
Hauling	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

3.8. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.62	1.92	< 0.005	0.08	—	0.08	0.07	—	0.07	—	357	357	0.01	< 0.005	—	359
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.2	59.2	< 0.005	< 0.005	—	59.4
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	79.6	79.6	< 0.005	< 0.005	0.35	80.9
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.07	29.3
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	75.8	75.8	< 0.005	< 0.005	0.01	76.7

Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	< 0.005	29.2
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	0.04	21.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.68	7.68	< 0.005	< 0.005	0.01	8.01
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.48	3.48	< 0.005	< 0.005	0.01	3.53
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.27	1.27	< 0.005	< 0.005	< 0.005	1.33
Hauling	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

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.61	5.32	0.01	0.22	—	0.22	0.20	—	0.20	—	823	823	0.03	0.01	—	826
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.87
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.98	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	230	230	0.01	0.01	0.03	233
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.20	3.20	< 0.005	< 0.005	0.01	3.24
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	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
Hauling	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

3.10. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.61	5.32	0.01	0.22	—	0.22	0.20	—	0.20	—	823	823	0.03	0.01	—	826
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.87
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.98	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	230	230	0.01	0.01	0.03	233
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.20	3.20	< 0.005	< 0.005	0.01	3.24
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	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
Hauling	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

3.11. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	14.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	< 0.005	15.3
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	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

Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.04
Vendor	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
Hauling	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

3.12. Architectural Coating (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	14.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	< 0.005	15.3
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.04
Vendor	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
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420
Parking Lot	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
Total	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Parking Lot	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
Total	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4
Parking Lot	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
Total	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420
Parking Lot	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
Total	0.22	0.16	1.71	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	412	412	0.02	0.02	1.68	420
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Parking Lot	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
Total	0.21	0.17	1.60	< 0.005	< 0.005	0.14	0.15	< 0.005	0.03	0.03	—	397	397	0.02	0.02	0.04	402
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4
Parking Lot	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
Total	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	59.4	59.4	< 0.005	< 0.005	0.11	60.4

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	< 0.005	< 0.005	—	44.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25	< 0.005	< 0.005	—	4.27
Total	—	—	—	—	—	—	—	—	—	—	—	49.0	49.0	< 0.005	< 0.005	—	49.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	< 0.005	< 0.005	—	44.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25	< 0.005	< 0.005	—	4.27
Total	—	—	—	—	—	—	—	—	—	—	—	49.0	49.0	< 0.005	< 0.005	—	49.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.40	7.40	< 0.005	< 0.005	—	7.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.70	0.70	< 0.005	< 0.005	—	0.71
Total	—	—	—	—	—	—	—	—	—	—	—	8.11	8.11	< 0.005	< 0.005	—	8.14

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	< 0.005	< 0.005	—	44.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25	< 0.005	< 0.005	—	4.27
Total	—	—	—	—	—	—	—	—	—	—	—	49.0	49.0	< 0.005	< 0.005	—	49.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	< 0.005	< 0.005	—	44.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25	< 0.005	< 0.005	—	4.27
Total	—	—	—	—	—	—	—	—	—	—	—	49.0	49.0	< 0.005	< 0.005	—	49.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.40	7.40	< 0.005	< 0.005	—	7.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.70	0.70	< 0.005	< 0.005	—	0.71
Total	—	—	—	—	—	—	—	—	—	—	—	8.11	8.11	< 0.005	< 0.005	—	8.14

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Parking Lot	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

Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Parking Lot	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
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.92	6.92	< 0.005	< 0.005	—	6.94
Parking Lot	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
Total	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.92	6.92	< 0.005	< 0.005	—	6.94

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Parking Lot	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
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Low Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Parking Lot	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
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.92	6.92	< 0.005	< 0.005	—	6.94
Parking Lot	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
Total	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.92	6.92	< 0.005	< 0.005	—	6.94

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Consumer Products	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	0.53	0.15	2.46	0.01	0.29	—	0.29	0.28	—	0.28	47.2	144	192	0.22	< 0.005	—	197

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Consumer Products	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.49	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.62	2.16	< 0.005	< 0.005	—	2.22
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Total	0.06	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.76	2.30	< 0.005	< 0.005	—	2.36

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196

Consumer	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	0.51	0.15	2.46	0.01	0.29	—	0.29	0.28	—	0.28	47.2	144	192	0.22	< 0.005	—	197
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Consumer Products	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.47	0.14	2.01	0.01	0.29	—	0.29	0.28	—	0.28	47.2	143	190	0.22	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.62	2.16	< 0.005	< 0.005	—	2.22
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Total	0.05	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.54	1.76	2.30	< 0.005	< 0.005	—	2.36

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.58	3.21	3.79	0.06	< 0.005	—	5.69
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.10	0.53	0.63	0.01	< 0.005	—	0.94
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.10	0.53	0.63	0.01	< 0.005	—	0.94

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.50	2.81	3.31	0.05	< 0.005	—	4.96
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.08	0.47	0.55	0.01	< 0.005	—	0.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.08	0.47	0.55	0.01	< 0.005	—	0.82

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	3.21	0.00	3.21	0.32	0.00	—	11.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.53	0.00	0.53	0.05	0.00	—	1.86

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/4/2023	7/18/2023	5.00	10.0	—
Site Preparation	Site Preparation	7/19/2023	7/20/2023	5.00	1.00	—
Grading	Grading	7/21/2023	7/23/2023	5.00	2.00	—

Building Construction	Building Construction	7/24/2023	12/11/2023	5.00	100	—
Paving	Paving	12/12/2023	12/19/2023	5.00	5.00	—
Architectural Coating	Architectural Coating	12/20/2023	12/27/2023	5.00	5.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	11.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.76	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.86	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.15	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	11.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.76	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.86	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.15	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	22,994	7,665	0.00	0.00	200

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	111	—
Site Preparation	—	—	0.50	0.00	—

Grading	—	—	1.50	0.00	—
Paving	0.00	0.00	0.00	0.00	0.08

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Low Rise	—	0%
Parking Lot	0.08	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	58.6	65.1	50.2	21,283	465	517	399	169,054
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	58.6	65.1	50.2	21,283	465	517	399	169,054

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	7
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	7
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
22993.875	7,665	0.00	0.00	200

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	30,680	532	0.0330	0.0040	130,445
Parking Lot	2,917	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	30,680	532	0.0330	0.0040	130,445
Parking Lot	2,917	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	300,205	30,430
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	259,677	30,430
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	5.96	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	5.96	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.94	annual days of extreme heat
Extreme Precipitation	3.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	40.0
AQ-PM	69.0
AQ-DPM	82.7
Drinking Water	64.5
Lead Risk Housing	51.4
Pesticides	31.7
Toxic Releases	91.0
Traffic	93.8
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	69.9
Haz Waste Facilities/Generators	29.2
Impaired Water Bodies	0.00
Solid Waste	9.67

Sensitive Population	—
Asthma	33.3
Cardio-vascular	51.3
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	69.2
Housing	86.8
Linguistic	91.6
Poverty	67.9
Unemployment	70.0

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.00218144
Employed	59.16848454
Median HI	26.3826511
Education	—
Bachelor's or higher	45.32272552
High school enrollment	100
Preschool enrollment	54.90825099
Transportation	—
Auto Access	33.27345053
Active commuting	35.48055948
Social	—
2-parent households	23.22597203

Voting	4.38855383
Neighborhood	—
Alcohol availability	24.43218273
Park access	17.79802387
Retail density	62.06852303
Supermarket access	94.25125112
Tree canopy	23.5724368
Housing	—
Homeownership	18.06749647
Housing habitability	27.26806108
Low-inc homeowner severe housing cost burden	58.73219556
Low-inc renter severe housing cost burden	22.91800334
Uncrowded housing	30.12960349
Health Outcomes	—
Insured adults	19.91530861
Arthritis	81.7
Asthma ER Admissions	65.5
High Blood Pressure	51.5
Cancer (excluding skin)	82.6
Asthma	72.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	62.6
Diagnosed Diabetes	41.8
Life Expectancy at Birth	52.0
Cognitively Disabled	46.5
Physically Disabled	74.5
Heart Attack ER Admissions	57.9

Mental Health Not Good	48.5
Chronic Kidney Disease	73.0
Obesity	90.2
Pedestrian Injuries	73.8
Physical Health Not Good	47.6
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	91.0
Current Smoker	42.3
No Leisure Time for Physical Activity	23.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	69.7
Elderly	60.0
English Speaking	12.0
Foreign-born	96.7
Outdoor Workers	37.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	20.7
Traffic Density	90.8
Traffic Access	52.4
Other Indices	—
Hardship	63.8
Other Decision Support	—
2016 Voting	30.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project specific
Construction: Trips and VMT	Number of haul trips for demolition was estimated (10 tons per load)
Operations: Hearths	No wood stoves and no wood fireplaces

Yorke
ENGINEERING, LLC
www.YorkeEngr.com

November 13, 2023

Ms. Tina Mullen
Project Manager
Work: (714) 884-4466
E-mail: Teenerds@Gmail.com

Subject: **Water Quality Study for an Eight-Unit Apartment Building in Garden Grove, CA**

Dear Ms. Mullen:

Yorke Engineering, LLC (Yorke) is pleased to provide this Water Quality Analysis Letter Report for an apartment complex development in the City of Garden Grove, California (the City).

PROJECT DESCRIPTION

The proposed project is to develop an eight-unit apartment building to be located at 13171 Jefferson Street [Assessor's Parcel Number (APN) 097-201-13] in the City of Garden Grove, CA. On a lot size of 10,125 square feet (0.23 acres), the project includes development of a three-story building, consisting of street-level parking with a total of 11 parking spaces and four units each on the second and third floors. An existing single-story residence and two-car garage on the project site will be demolished prior to the start of construction.

STATE CEQA GUIDELINES, APPENDIX G: HYDROLOGY AND WATER QUALITY

The CEQA Guidelines Appendix G states that a significant impact on hydrology and water quality may result if the project would:

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

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

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

   i) *Result in substantial erosion or siltation on- or off-site;*

   ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;*

   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,*

   iv) *Impede or redirect flood flows?*

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

e) Conflict with or obstruct implementation of a water quality control or sustainable groundwater management plan?

Urban runoff can have a variety of potential pollutants, including litter, animal waste, sediment, pesticides, and motor oil, which may impact the quality of water bodies. Oil and grease contain several hydrocarbon compounds, some of which are toxic to aquatic organisms. Nutrients from fertilizers, including nitrogen and phosphorous, cause algae blooms and subsequent die-off, which depletes oxygen in the water and harms aquatic life. Bacteria from animal waste adversely impacts recreational waters and can cause beach closures.

The Clean Water Act, Section 402(p)(3), requires that municipal separate storm sewer systems (MS4s), such as in Orange County, obtain National Pollution Discharge Elimination System (NPDES) permits to "effectively prohibit non-stormwater discharges into the storm sewers" and "require controls to reduce the discharge of pollutants to the maximum extent practicable...." This permitting authority has been delegated by the United States Environmental Protection Agency (U.S. EPA) to the State of California, which has authorized the State Water Resources Control Board (SWRCB) and its local regulatory agencies, the Regional Water Quality Control Boards (RWQCBs), to control non-point source discharges to California's waterways. The City of Garden Grove administers, implements, and enforces the requirements of the North Orange County Municipal Storm Water Permit, which is issued by the Santa Ana RWQCB and is updated every 5 years. The permit describes activities the City, its businesses, and its residents shall follow in an effort to reduce and prevent pollutants from entering the storm drain system and contaminating the environment.

The City storm drain system consists of over 1,000 catch basins and over 600 miles of curb and gutter, all leading to four municipal flood control channels (City of Garden Grove 2023a). The City has a Local Implementation Plan (LIP) that explains how City officials will implement procedures to ensure compliance with their NPDES permit, and includes specifics governing water quality, construction activities, and residential living, among other activities. Additionally, the City, in conjunction with the County of Orange, the Orange County Flood Control District, and the other cities in Orange County (the Permittees), has developed an area-wide Drainage Area Management Plan (DAMP). The City's Municipal Storm Water Quality Ordinance (Title 6 Health and Sanitation, Chapter 6.40) includes provisions to comply with federal requirements for the control of urban pollutants to storm water runoff that enters the network of storm drains throughout Orange County. The ordinance requires significant reconstruction projects (defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site) to be undertaken in accordance with the DAMP.

The existing project site has 2,566 square feet of impervious area, or 25% of the 10,125 square foot project site, comprised of a single-family residence and driveway. Storm water that does not infiltrate, evaporate, or is taken up by landscaping on-site currently flows to existing City drainage facilities. Building lot coverage under the proposed project would have 7,365 square feet of impervious area, or 73% of the 10,125 square foot project site, comprised of 4,875 square feet of

proposed building footprint and additional paved access and parking. The proposed project is considered a significant reconstruction project and will be undertaken in accordance with the DAMP.

The following discussion contains an analysis of the project in relation to the CEQA Guidelines threshold criteria for hydrology and water quality.

Analysis of Hydrology and Water Quality Significance Criteria

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The proposed project will involve the demolition of a single-family residence and construction of a multi-family residential unit that will have 7,365 square feet of impervious area. The proposed project would be subject to the existing water quality regulations and programs as described in the discussion above.

Erosion and sedimentation that may result from construction activities would be limited, since the project site is significantly less than 1 acre in size and is relatively flat and covered by grass or existing buildings. However, potential discharge from construction equipment and materials may occur. The applicant would be required to conform to Garden Grove Municipal Code Section 6.40.050, Controls for Water Quality Management, including requirements for litter control such that no waste material would be discharged upon public property, open area, or point of entry to the storm water drainage system. At the end of each day of construction activity, all construction debris and waste materials shall be collected and properly disposed of in trash or recycle bins. Construction sites shall be maintained in such a condition that an anticipated storm does not carry wastes or pollutants off the site.

The applicant would also be required to comply with all City source control and pollution prevention measures under the LIP and associated DAMP. A Water Quality Management Plan will be prepared that identifies Best Management Practices (BMPs) that will be used for proposed project to control stormwater runoff including, as applicable, site design, and structural and non-structural source control BMPs, such as porous landscaping, property owner education and activity restrictions, common area litter control, trash and waste storage area controls, and efficient irrigation systems. The proposed project would adhere to the existing programs and regulations, and as such, would have a less than significant impact on water quality.

PROJECTED IMPACT: Less Than Significant (LTS)

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project entails the construction of a three-story building, consisting of street-level parking on the first floor and four residential units each on the second and third floors.

Water consumption during project operation would include plumbing for the eight residential units and irrigation for the approximately 2,200 square feet of landscaping area. The project would be connected to water lines served by the City Public Works Department's Water Services Division.

The City's water supply comes from two sources: imported water from Metropolitan Water District of Southern California (Met) and local groundwater from the Orange County Groundwater Basin (OC Basin), which is managed by the Orange County Water District (OCWD). There is currently no recycled water use within the City's service area. As stated in the City's 2020 Urban Water Management Plan (UWMP), the City has projected water demand to increase 0.9% from 2025 through 2045 and has adequate water supply to accommodate future demand during normal, single dry, and multiple dry years through 2045 (Arcadis 2021).

Groundwater beneath the project site is part of the OC Basin, which is managed by OCWD and covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. Three major aquifer systems have been subdivided by OCWD. Over 90% of groundwater production is from wells that are screened within the Principal Aquifer system that occurs at depths between 200 and 1,300 feet below ground surface (bgs).

As indicated, the proposed project would not exceed the City's water supplies. The City has included projected growth in water demand projections and has demonstrated it can accommodate future demand. In addition, plumbing will be installed in accordance with current building and plumbing codes that incorporate water conservation measures. Wastewater from the project site will discharge to the City's wastewater collection system, which sends wastewater to the Orange County Sanitation District (OC San) for treatment. OC San's Groundwater Replenishment System produces recycled water for indirect potable reuse through replenishment of the OC Basin.

The project site will be developed following City ordinance such that only those portions that are required by municipal code or by site plan to be used directly for parking spaces, aisles, refuse storage areas, drives, or walkways will be paved. All other areas not needed for these uses will be landscaped. Patios may be paved. Landscaping and irrigation would follow City ordinances for water conservation practices. Any change in infiltration would not have a significant impact on groundwater supplies or recharge since regional groundwater production is from wells screened at depths over 200 feet bgs. Therefore, the project would have a less than significant impact on groundwater supplies or recharge.

PROJECTED IMPACT: Less Than Significant (LTS)

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;***
- ***ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;***

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,

iv) Impede or redirect flood flows?

The proposed project will involve the demolition of a single-family residence and construction of a multi-family residential unit. Erosion or siltation impacts that might result from construction and grading activities would be prevented through erosion and sediment control BMPs in conformance with the City's LIP, DAMP, and any other requirements by the City Engineer. Grading plans will conform to City ordinances and the California Building Code. Sediments from areas disturbed by construction will be retained on-site using an effective combination of erosion and sediment controls to the maximum extent practicable, and stockpiles of soil will be properly contained to minimize sediment transport from the site to streets, drainage facilities, or adjacent properties via runoff, vehicle tracking, or wind.

Once constructed, the proposed project site will be graded with an approximately 2% slope from west to east with drainage leading to Jefferson Street. The project would incorporate appropriate storm water drainage and storage features designed to provide stormwater retention and/or infiltration; potential examples of this may include building downspout dispersion/infiltration, porous landscaping, or other appropriate source-control BMPS as required by the LIP and DAMP. Irrigation shall be performed in conformance with City ordinances and with water conservation practices. Therefore, implementation of the project would not substantially alter the existing drainage pattern of the site or area and would result in a less than significant impact.

PROJECTED IMPACT: Less Than Significant (LTS)

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project site is located within Federal Emergency Management Agency (FEMA) Flood Insurance Map Zone "X," which is identified as "areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood" (Department of Homeland Security 2023). The project site is approximately 57 feet in elevation and located approximately 1 mile north of the Westminster Channel, which is a completely channelized drainage channel from its start in Garden Grove 2.5 miles east of the project site to Huntington Harbor approximately 5 miles southwest of the project site. The area between the Channel and the project site is completely urbanized.

The California Department of Conservation does not identify the project site as within a tsunami inundation area. The project is not near any open reservoirs, lakes, or other large bodies of water that could cause a seiche. In addition to the minimal risk associated with tsunamis or seiches, the project would operate as a multi-residential property, with eight housing units on the second and third stories and parking on ground level. As such, the project would not pose a risk for releasing pollutants during a flood or inundation event.

Therefore, the project would have no risk of pollutant release from a flood, tsunami, or seiche event, and the project would have no impact.

PROJECTED IMPACT: No Impact (NI)

e) Conflict with or obstruct implementation of a water quality control or sustainable groundwater management plan?

The Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) is designed to preserve and enhance water quality in the region. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including individuals, communities, or businesses whose waste discharges may affect water quality. In addition, the Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge.

This project will not increase water use beyond what is identified for supply in the City's most recent UWMP. The proposed project would comply with the requirements of the NPDES Program, which is implemented by the City through its ordinances. The proposed project would not conflict with the guiding and implementing policies of the Basin Plan related to hydrology and water quality. Therefore, the proposed project would have a less than significant impact.

PROJECTED IMPACT: Less Than Significant (LTS)

CONCLUSION

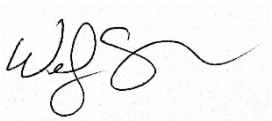
Based on review of the project under the CEQA Guidelines Appendix G criteria for hydrology and water quality, the project would not create new or more significant impacts to hydrology and water quality.

As stated above, the project would be required to comply with the City's current NPDES permit and ordinances. The impacts related to water quality would be less than significant, as erosion or siltation impacts that might result from construction and grading activities would be prevented through erosion and sediment control BMPs in conformance with the LIP, DAMP, and any other requirements by the City Engineer. Grading plans would conform to City ordinances and the California Building Code. Any change in infiltration would not have a significant impact on groundwater supplies or recharge since the regional groundwater production is from wells screened at depths over 200 feet bgs. A Water Quality Management Plan will be developed to identify non-structural and structural source controls and appropriate site design BMPs that will be incorporated into the project to control pollutant runoff, and provide stormwater retention and/or infiltration.. In addition, plumbing will be installed in accordance with current building and plumbing codes that incorporate water conservation measures. Wastewater from the project site will discharge to the City's wastewater collection system, which sends wastewater to OC San for treatment. OC San's Groundwater Replenishment System produces recycled water for indirect potable reuse through replenishment of the OC Basin. The project does not pose a risk for releasing pollutants during a flood or inundation event, as the project site is not located in a 100-year flood zone or tsunami or seiche zone.

CLOSING

Thank you very much for the opportunity to be of assistance. Should you have any questions, please contact me at (949) 899-2660 (mobile) or Rose Warren at (949) 426-3968 (mobile).

Sincerely,



Wendy Sanders
Senior Engineer
Yorke Engineering, LLC
WSanders@YorkeEngr.com

cc: Rose Warren, Yorke Engineering, LLC

REFERENCES

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Attachment 6

RESOLUTION NO. 6096-24

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF GARDEN GROVE APPROVING SITE PLAN NO. SP-142-2024 FOR PROPERTY LOCATED ON THE WEST SIDE OF JEFFERSON STREET, SOUTH OF LARSON STREET, AT 13171 JEFFERSON STREET, ASSESSOR'S PARCEL NO. 097-201-13.

BE IT RESOLVED that the Planning Commission of the City of Garden Grove, in a regular session assembled on September 5, 2024, hereby approves Site Plan No. SP-142-2024 for a property located on the west side of Jefferson Street, south of Larson Street, Assessor's Parcel No. 097-201-13, subject to the conditions of approval attached hereto as Exhibit "A".

BE IT FURTHER RESOLVED in the matter of Site Plan No. SP-142-2024, the Planning Commission of the City of Garden Grove does hereby report as follows:

1. The subject case was initiated by the property owners, Jeffrey and Tina Mullen.

2. The applicant is requesting approval of: (1) a Site Plan to construct an eight (8) unit, three-story multiple-family residential building and associated site improvements on an approximately 0.23-acre lot. The proposal includes one (1) affordable housing unit for "very low-income" households, qualifying the project for a 38.75% density bonus, incentives or concessions, waivers or reductions of development standards, and reduced parking pursuant to the State Density Bonus Law and Garden Grove Municipal Code (GGMC) Section 9.60.040 (collectively, the "Density Bonus Law" or "DBL"). The project has been designed to incorporate certain incentives / concessions and waivers and reductions of development standards pursuant to the DBL.

3. The City of Garden Grove Planning Commission hereby determines that the proposed project is categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to Section 15332 (In-Fill Development Projects) of the State CEQA Guidelines (14 Cal. Code Regs., Section 15303). As set forth in the Class 32 exemption, the proposed project is: (1) consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations; (2) the proposed development occurs within City limits on a project site of no more than five acres substantially surrounded by urban uses; (3) the project site has no value as habitat for endangered, rare or threatened species; (4) approval of the project would not result in any significant effects relating to traffic, noise, air quality or water quality; and (5) the site can be adequately served by all required utilities and public services. The project is therefore exempt from CEQA review.

4. The property has a General Plan Land Use designation of MDR (Medium Density Residential) and is zoned R-3 (Multiple-Family Residential). The site is currently developed with a single-family home.

5. Existing land use, zoning, and General Plan designation of property in the vicinity of the subject property have been reviewed.

6. Report submitted by the City staff was reviewed.

7. Pursuant to a legal notice, a public hearing was held on September 5, 2024, and all interested persons were given an opportunity to be heard.

8. The Planning Commission gave due and careful consideration to the matter during its meeting on September 5, 2024.

BE IT FURTHER RESOLVED, FOUND AND DETERMINED that the facts and reasons supporting the conclusion of the Planning Commission, as required under Municipal Code Section 9.04.030 are as follows:

FACTS:

The project site is an approximately 10,125 square-foot (0.23-acre) lot, located on the west side of Jefferson Street, south of Larson Street, at 13171 Jefferson Street. The subject site has a General Plan Land Use designation of MDR (Medium Density Residential), and is zoned R-3 (Multiple-Family Residential). The property abuts R-3 zoned properties to the north, south, west, and east, across Jefferson Street. Surrounding uses include single-family and multiple-family residential developments.

The subject site is currently improved with a single-story, two-bedroom single-family residence that was originally constructed in 1942. The existing structure has not been identified as a part of any historical record. All existing site improvements would be demolished to accommodate the proposed project.

The applicant is proposing eight (8) multiple-family residential rental units. Other site features include, but are not limited to: drive aisles, walkways, garden spaces, and recreation areas to be shared amongst the units. With the inclusion of one (1) affordable housing units for "very low-income" households, pursuant the DBL, the project qualifies for a density bonus of up to 38.75% over the base density, reduced parking ratios, and the following one (1) incentive / concession and two (2) waivers / reductions of development standards set forth in the GGMC:

1. An incentive / concession to reduce the interior side setback at the first and second floors from the required ten feet (10'-0"), and at the third floor from the required fifteen feet (15'-0"), to a minimum five feet (5'-0") (GGMC Section 9.12.040.020.A);
2. A reduction of the required minimum front setback requirements for the third floor from the minimum twenty-five feet (25'-0") to a minimum twenty-foot (20'-0") setback (Section 9.12.040.020.A); and

3. A reduction of the required minimum vertical clearance for common open spaces from fifteen feet (15’-0”) to a minimum nine feet (9’-0”) (Section 9.12.040.050.I.8).

An Affordable Housing Regulatory Agreement consistent with the DBL and GGMC Section 9.60.050 would be recorded to ensure affordability of the very low-income unit for the occupant(s) of said unit.

FINDINGS AND REASONS:

SITE PLAN (HOUSING DEVELOPMENTS)

1. The proposed development project is consistent, in compliance, and in conformity with the applicable, objective standards, provisions, conditions or requirements of the General Plan, Title 9, and other applicable ordinances or policies of the City.

   The proposed project includes construction of a three-story, eight (8) unit residential apartment development that includes one (1) affordable housing unit for "very low-income" households, along with associated site improvements. The subject site has a General Plan Land Use designation of MDR (Medium Density Residential), and is zoned R-3 (Multiple-Family Residential). The MDR Land Use Designation is intended to create, maintain and enhance residential areas characterized by mostly traditional multiple-family apartments, condominiums, townhomes, and single-family small-lot subdivisions. The MDR is implemented by the R-3 zone, which allows residential developments with densities of up to thirty-two (32) units per acre. Pursuant to the Density Bonus Law, the project is entitled to a density bonus of 38.75%, reduced parking ratios, two (2) incentives or concessions, and waivers or modifications of development standards. With the exception of the reduced parking ratios, and development standards required to be waived or modified pursuant to the Density Bonus Law, the proposed project complies with all applicable objective development standards and provisions of the General Plan and GGMC. The project has also been reviewed by the Public Works Department, and either complies with, or has been conditioned to meet, all applicable Public Works design requirements. The proposed Project is also consistent with the goals and policies of the General Plan, including the following:

   Policy LU-1.3: Support the production of housing citywide that is affordable to lower- and moderate-income households consistent with the policies and targets set forth in the Housing Element. As proposed, the subject project would include one (1) “very low-income” residential unit. The inclusion of the unit would contribute to meeting the City’s Regional Housing Needs Allocation (RHNA). Additionally, the unit would be consistent with Housing Element policies encouraging the development of lower-income residential units.

Goal LU-2: Stable, well-maintained residential neighborhoods in Garden Grove. The proposed project would incorporate a new driveway, landscaping, pedestrian walkways, and other site features that can help create more attractive residential neighborhoods. As proposed, the project would ensure the proper upkeep of the subject site, which could be a benefit to the neighborhood as a whole. Conditions of Approval have been incorporated to help ensure proper maintenance of the property. With the incorporation of Conditions of Approval, the project could contribute to the stability of the adjacent residential neighborhood.

Policy LU-2.4: Assure that the type and intensity of land use shall be consistent with that of the immediate neighborhood. The adjacent properties consist of single-family residential dwellings and multiple-family residential developments. The proposed eight (8) unit project was reviewed and determined to be within the allowed density under the DBL, and in compliance with the R-3 zone development standards of the GGMC, with the exception of the proposed concessions and waivers. Thus, the development would be consistent with the type and intensity of land use of the immediate neighborhood.

Policy LU-3.2: Support development of multi-family housing that provides a diversity of densities, types, and prices that meet the needs of all household income levels. The subject project is allowed a maximum base density of thirty-two (32) units per acre, which yields eight (8) units for a 0.23-acre lot. The project is proposing eight (8) units, meeting the maximum allowable density permitted in the R-3 zone. Of the proposed units, seven (7) would be "above moderate-income" residential units, and one (1) would be a "very low-income" residential unit. With the inclusion of both types of units, the project would provide for multiple income levels.

Policy LU-3.3: Encourage developers to build housing projects at or above maximum allowable densities. The DBL requires all fractional units for affordable housing projects to be rounded up to the next whole number. In this case, the maximum base density is thirty-two (32) units per acre, yielding a base density at 7.4 units. Based upon DBL, it would be rounded up to eight (8) units. The project is proposing eight (8) units, meeting the maximum allowable density permitted in the R-3 zone, in accordance with State Law.

Goal LU-4: Uses compatible with one another. The project is located in a neighborhood that consists of both single-family and multiple-family residential developments. The properties abutting the project site are zoned R-3, and have General Plan Land Use designations of MDR. The proposed project would include eight (8) apartment units. By developing apartment units in an area already developed with multiple-family developments, the proposed project would be consistent with the development pattern of the surrounding neighborhood.

Policy H-2.1: Preserve and expand the City's supply of affordable rental and ownership housing for lower-income households. As proposed, the subject project would include one (1) "very low-income" residential unit. The inclusion of the "very low-income" unit helps increase the City's stock of affordable residential rental units. An Affordable Housing Regulatory Agreement consistent with the DBL and GGMC Section 9.60.050 would be recorded to ensure affordability of the very low-income unit for the occupant(s) of said unit.

Policy H-2.3: Provide density bonuses and other financial and regulatory incentives to facilitate the development of affordable housing. The proposed project includes one (1) affordable unit for "very low-income" households. To facilitate the development, the applicant is proposing one (1) incentive / concession, and two (2) waivers or reductions of development standards to deviate from the R-3 zone development standards, pursuant to Density Bonus Law. In addition to the incentives / concessions and waivers / reductions of development standards, the project is allowed a reduced parking ratio, pursuant to the DBL. The applicant contends that the proposed incentive and waivers is needed to facilitate the construction of the development, and to support the creation of more affordable housing units in the City. Furthermore, the Project would contribute to meeting the City's Regional Housing Needs Allocation (RHNA).

Policy H-3.7: Encourage infill housing development that is compatible in character with established residential neighborhoods. The subject property is surrounded on all sides by urban land uses, including single-family residential dwellings and multiple-family residential developments. All existing on-site improvements would be demolished to accommodate the eight (8) residential units and associated site improvements proposed by the subject project. The proposed project would be of an intermediary scale, providing a transition between the lower density single-family residential uses and larger-scale multiple-family residential uses. Therefore, the infill project would be consistent with the character of these surrounding uses.

2. The provisions of the California Environmental Quality Act have been complied with.

The proposed development is exempt from the California Environmental Quality Act ("CEQA"), pursuant to Section 15332 (In-Fill Development Projects) of the CEQA Guidelines (14 Cal. Code Regs., Section 15303). As set forth in the Class 32 exemption, the proposed project is: (1) consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations; (2) the proposed development occurs within City limits on a project site of no more than five acres substantially surrounded by urban uses; (3) the project site has no value as habitat for endangered, rare or threatened species; (4) approval of the

project would not result in any significant effects relating to traffic, noise, air quality or water quality; and (5) the site can be adequately served by all required utilities and public services. Therefore, the provisions of the California Environmental Quality Act have been complied with.

3. The proposed development project will not have specific, adverse impacts, as defined in subdivision (j)(1)(A) of Government Code Section 65589.5, on public health and safety without any feasible method to satisfactorily mitigate or avoid the specific adverse impact, other than the disapproval of the proposed project.

   The proposed eight (8) unit residential development would not have specific, adverse impacts on the public health and safety. The proposed project is at a density allowed pursuant to the DBL, is compatible with surrounding uses, is similar in scale to the adjoining neighborhood, and is consistent with the land use type and intensity in the immediate neighborhood.

INCORPORATION OF FACTS AND FINDINGS SET FORTH IN STAFF REPORT

In addition to the foregoing, the Planning Commission incorporates herein by this reference, the facts and findings set forth in the staff report.

BE IT FURTHER RESOLVED that the Planning Commission does conclude:

1. The Site Plan possesses characteristics that would justify the request in accordance with Municipal Code Section 9.60.020 (Review of Housing Development Projects).

2. In order to fulfill the purpose and intent of the Municipal Code and thereby promote the health, safety, and general welfare, the attached Conditions of Approval (Exhibit "A") shall apply to Site Plan No. SP-142-2024.

EXHIBIT "A"

Site Plan No. SP-142-2024

13171 Jefferson Street

CONDITIONS OF APPROVAL

General Conditions

1. The applicant and each owner of the property shall execute, and the applicant shall record a "Notice of Agreement with Conditions of Approval and Discretionary Permit of Approval," as prepared by the City Attorney's Office, on the property. Proof of such recordation is required within thirty (30) days of the approval.

2. All Conditions of Approval set forth herein shall be binding on and enforceable against each of the following, and whenever used herein, the term "applicant" shall mean and refer to each of the following: the project applicant and owners, Jeffrey and Tina Mullen, and the future owner(s) and tenants(s) of the property, and each of their respective successors and assigns. All conditions of approval are required to be adhered to for the life of the project, regardless of property ownership. Except for minor modifications authorized to be approved by the Community Development Director pursuant to Condition No. 4, any changes of the Conditions of Approval require approval by the appropriate City hearing body.

3. Site Plan No. SP-142-2024 authorizes the development of an eight (8) unit, apartment project, as depicted on the plans submitted by the applicant and made a part of the record of the September 5, 2024, Planning Commission proceedings, subject to these Conditions of Approval. Approval of this Site Plan shall not be construed to mean any waiver of applicable and appropriate zoning and other regulations, and wherein not otherwise specified, all requirements of the City of Garden Grove Municipal Code shall apply.

4. The approved site plan and floor plan are an integral part of the decision approving this Site Plan. Minor modifications to the approved Site Plan, and/or these Conditions of Approval may be approved by the Community Development Department Director, in his or her discretion. Proposed modifications to the approved project and/or these Conditions of Approval that would result in the intensification of the project, or create impacts that have not been previously addressed and which are determined by the Community Development Department Director not to be minor in nature shall be subject to approval of new and/or amended land use entitlements by the applicable City hearing body.

5. All conditions of approval shall be implemented at the applicant's expense, except where specified in the individual condition.

Engineering Division

6. A geotechnical study prepared by a registered geotechnical engineer must be submitted to the City, and approved by the City Engineer prior to the issuance of any grading or building permits. The report shall analyze the liquefaction potential of the site and make recommendations. The report shall analyze sub-surface issues related to the past uses of the site, including sub-surface tanks and basement and septic facilities. Any soil or groundwater contamination shall be remediated prior to the issuance of a building permit per the requirements of the Orange County Health Department and the mitigation requirements of governing regulatory requirements. The report shall make recommendations for foundations and pavement structural section design of interior streets and parking spaces. The report shall also test and analyze soil conditions for LID (Low Impact Development) principles and the implementation of water quality for storm water runoff, including potential infiltration alternatives, soil compaction, saturation, permeability and groundwater levels. The applicant shall implement the recommendations identified in the geotechnical study / report.

7. Prior to the issuance of any grading or building permits, the applicant shall submit to the City for review and approval a final design Water Quality Management Plan (WQMP) that:

    a. Addresses required mitigation Site Design Best Management Practices (BMPs) based upon the latest Santa Ana Regional Water Quality Control Board (SARWQCB) approved Drainage Area Management Plan (DAMP), as identified in the geotechnical report recommendations and findings, including, but not limited to, infiltration minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas as required by the latest adopted County of Orange Technical Guidance Document (TGD).

    b. BMP's shall be sized per the requirements of the latest Technical Guidance Documents.

    c. Incorporates the applicable Routine Source Control BMPs as defined in the DAMP.

    d. Incorporates structural and Treatment Control BMPs as defined in the DAMP.

    e. Generally describes the long-term operation and maintenance requirements for the Treatment Control BMPs.

f. Identifies the entity that will be responsible for long-term operation and maintenance of the Treatment Control BMPs.

g. Describes the mechanism for funding the long-term operation and maintenance of the Treatment Control BMPs.

h. Provides a hydrological analysis with scaled map as well as hydrologic and hydraulic calculations to size storm drains per the Orange County RDMD standards.

8. Parkway culverts shall be designed per City of Garden Grove Standard Plan B-209. Storm drain lateral pipe connections to City-maintained storm drains within City right-of-way shall be RCP with a minimum diameter of eighteen inches (1'-6").

9. Grading and street improvement plans prepared by a registered Civil Engineer are required. As required under Section 107 of the California Building Code (CBC), the grading plan shall be based on a current survey of the site, including a boundary survey, topography on adjacent properties up to thirty feet (30'-0") outside the boundary, and designed to preclude cross-lot drainage. Minimum grades shall be 0.50% for concrete flow lines and 1.25% for asphalt. The grading plan shall also include water and sewer improvements. The grading plan shall include a coordinated utility plan showing all existing utility facilities, easements and proposed utility facilities. All on-site improvements shall be tied by horizontal dimensional control to the property boundary as established by survey. A minimum uninterrupted twenty-foot (20'-0") wide throat access to the site is required from the street for multiple-family residential projects, and shall meet the requirements of the California Fire Code throughout the site. Vehicle maneuvering, as demonstrated by AutoTurn along private streets and access ways, shall be demonstrated on the grading plan. Street improvement plans shall conform to all format and design requirements of the City Standard Drawings & Specifications.

10. All vehicular access drives to the site shall be provided in locations approved by the City Traffic Engineer per Traffic Engineering Policy TE-17.

11. The applicant shall coordinate with the Planning Services Division and Orange County Fire Authority to identify proper emergency vehicle access to the site, and shall provide the Engineering Division a copy of the approval letters upon first submittal of the grading and street improvement plans.

12. The grading plan shall depict an accessibility route for the ADA pathway in conformance with the requirements of the Department of Justice standards, latest edition, and Section 1110A of the California Building Code.

13. All trash container areas shall meet the following requirements per State mandated commercial organic recycling law, AB 1826, including any other applicable State recycling laws related to refuse, recyclables, and/or organics:

    a. Potential conflicts with fire code access requirements and garbage pickup routing for access activities shall be considered in implementation of design and source control. See CASQA Storm Water Handbook Section 3.2.9 and BMP Fact Sheet SD 32 for additional information.

    b. The trash enclosure and containers shall be located to allow pick-up and maneuvering, including turnarounds, in the area of enclosures, and concrete aprons for roll-out areas.

    c. Pursuant to state mandated commercial organic recycling law, AB 1826, the applicant is required to coordinate storage and removal of the organics waste with local recycling/trash company.

    d. Pursuant to applicable state mandated laws, the applicant is required to contact and coordinate with the operations manager of the local recycling/trash company (Republic Services) to ensure the trash enclosure includes the appropriate size and number of containers for the disposal of items such as, but may not limited to, municipal solid waste (MSW), recyclables, and organic green waste.

    e. Based on the amount of waste disposed, per week, the applicant shall coordinate with the local recycling/trash company to ensure the adequate frequency of trash pick-up is serviced to the site for municipal solid waste (MSW), recyclables, and organic green waste, including any other type of waste.

    f. The applicant shall ensure large bulk items, intended for coordinated and scheduled pick-up by the local recycling/trash company, are not placed in areas that encroach into drive aisles, parking spaces, pedestrian pathways, or areas in the front of the property including areas public right-of-way (e.g., street, sidewalk), during and after construction. Any large bulk items shall be out of public vantage points.

14. Any new or required block walls and/or retaining walls shall be shown on the grading plans, both in plan-view and cross-sections. Cross-sections shall show vertical and horizontal relations of improvements (existing and proposed) on both sides of property lines. Required wall heights shall be measured vertically from the highest adjacent finished grade. Block walls shall be designed in accordance to City of Garden Grove Standard B-504, B-505, B-506, and B-508, or designed by a professional registered engineer. In addition, the following shall apply:

a. The color and material of all proposed block walls, columns, and wrought iron fencing shall be approved by the Planning Services Division prior to installation.

b. Openings for drainage through walls shall be shown in section details and approved by the City Engineer. Cross-lot drainage is not allowed.

15. The applicant shall remove any existing substandard driveway approaches, curbs, sidewalks, ADA ramps, pavement sections, and construct Jefferson Street frontage improvements as identified below. All sidewalk, signage, and lighting improvements installed within the public rights-of-way shall be maintained by the applicant, and shall require the approval of the City Engineer, Street Division.

a. The existing substandard driveway on Jefferson Street shall be removed and replaced with a new driveway approach in accordance with Garden Grove Standard B-121.

b. The applicant shall cold mill (grind) existing asphalt pavement three-inch (0'-3") uniform depth and replace with three inches (0'-3") of fiber-reinforced asphalt surface course from the edge of the westerly gutter to the easterly along the newly constructed driveway approach on Jefferson Street per City specification and the direction of the City Engineer.

c. The applicant is prohibited from installing any vehicle access gate at the main entrance of the project on Jefferson Street.

d. The new driveway approaches to the site on Jefferson Street shall be constructed in accordance with Garden Grove Standard B-121.

e. The applicant shall install red curb near driveway approaches on Jefferson Street per approved site plan.

f. The applicant shall remove the existing improvements fronting the project Jefferson Street and construct new minimum four-foot (4'-0") wide sidewalk panels in accordance with City of Garden Grove Standard B-105, and the approved site plan.

g. The applicant shall construct a curb and gutter when replacing any existing driveway approach along the property frontage on Jefferson Street in accordance with City Standard Plan B-114.

h. The applicant shall locate all existing public utilities across the property frontage and within the property boundary of the project prior to commencement of grading operation and mobilization.

i. Street signs shall be installed as required and approved by the City Traffic Engineer.

16. The applicant shall coordinate with the Planning Services Division and Public Works Street Division before placing any type of landscaping within the public right-of-way and proposed landscape area fronting Jefferson Street. Any proposed new landscaping in said areas shall be maintained by the owner.

17. Driveway widths shall be in accordance with City's Traffic Engineering Policy TE-8 (Driveway Opening Policy).

18. Sight Distance Standards shall be in accordance with City's Traffic Engineering Policy TE-13. All structures and walls shall be designed to ensure proper vision clearance for cars entering or leaving the driveway and parking areas. No structure, wall or fence shall cause an exceedance of the applicable site distance standards set forth in City Traffic Engineering Policy TE-13.

19. The Site Plan shall comply with the completed Development Review and Comment Sheet prepared pursuant to City's Traffic Engineering Policy TE-17 and provided to the applicant.

20. Private Property Tow Away Sign Design shall be in accordance with City's Traffic Engineering Policy TE-19.

21. No Parking Fire Lane Sign Design shall be in accordance with City's Traffic Engineering Policy TE-20.

22. The layout of the parking lot shall be in accordance with City Standard B-311 and B-312.

23. Except as authorized pursuant to the approved Site Plan pursuant to the State Density Bonus Law, off-street parking requirements for residential uses shall be in accordance with the parking provisions in Chapter 9.12 of the Garden Grove Municipal Code and the City of Garden Grove's Traffic Policies and Procedures TE-17 Development Review and Comments Sheet.

24. A minimum five-foot-by-twenty-five-foot-wide (5'-0" x 25'-0") maneuvering area shall be provided at the end of a dead-end parking aisle, and shall consist of a ten-foot-by-nineteen-foot-wide turnaround space.

25. The applicant shall be subject to Traffic Mitigation Fees (Garden Grove City Council Resolution 9401-16), In-Lieu Park Fees, Drainage Facilities Fees, Water Assessment Fees, and other applicable mitigation fees identified in Chapter 9.44 of the Garden Grove Municipal Code, along with all other applicable fees duly adopted by the City.

26. A separate street permit is required for work performed within the public right-of-way.

27. Grading fees shall be calculated based on the current fee schedule at the time of permit issuance.

28. The applicant shall identify a temporary parking site(s) for construction crew and construction trailers office staff prior to issuance of a grading permit. No construction parking is allowed on local streets. Construction vehicles should be parked off traveled roadways in a designated parking area. Parking areas, whether on-site or off-site, shall be included and covered by the erosion control plans and the Storm Water Pollution Prevention Plan (SWPPP).

29. Prior to issuance of a grading permit, the applicant shall submit and obtain approval of a work-site traffic control plan for all the proposed improvements within public right-of-way, which shall be subject to the review and approval of the City Traffic Engineer.

30. The applicant shall coordinate with City's Public Works Department (Engineering, Water Services, and Streets Division) to set appointments for preconstruction inspections for all of the on-site and off-site improvements, prior to commencement of grading operation and mobilization.

31. In accordance with the Orange County Storm Water Program manual, the applicant and/or its contractors shall provide dumpsters on-site during construction unless an Encroachment Permit is obtained for placement in street.

32. The applicant and its contractor shall be responsible for protecting all existing horizontal and vertical survey controls, monuments, ties (centerline and corner) and benchmarks located within the limits of the project. If any of the above require removal; relocation or resetting, the contractor shall, prior to any construction work, and under the supervision of a California-licensed Land Surveyor, establish sufficient temporary ties and benchmarks to enable the points to be reset after completion of construction. Any ties, monuments and bench marks disturbed during construction shall be reset per Orange County Surveyor Standards after construction. The applicant and their contractor shall also re-set the tie monuments where curb or curb ramps are removed and replaced, or new ramps are installed. The applicant and their contractor shall be liable for, at his/her expense, any resurvey required due to his/her negligence in protecting existing ties, monuments, benchmarks or any such horizontal and vertical controls. Temporary Benchmarks shall not be used for Vertical control. Benchmarks shall be to the National Geodetic Vertical Datum (NGVD).

33. Heavy construction truck traffic and hauling trips, and any required lane closures shall occur outside peak travel periods. Peak travel periods are considered to be from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.

34. Prior to grading or building permit closeout and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:

    a. Demonstrate that all structural best management practices (BMPs) described in the Project WQMP have been constructed and installed in conformance with approved plans and specifications.

    b. Demonstrate that the applicant is prepared to implement and maintain all non-structural BMPs described in the Project WQMP.

    c. Demonstrate that an adequate number of copies of the approved Project WQMP are available on-site.

    d. Submit for review and approval by the City an Operations and Maintenance (O&M) Plan for all structural BMPs.

Water Services Division

35. New water service installations two inches (0'-2") and smaller may be installed by the City of Garden Grove at owner's/developer's expense. Installation shall be scheduled upon payment of applicable fees, unless otherwise noted. Fire services and larger water services three inches (0'-3") and larger shall be installed by the applicant's contractor per City Standards.

36. Water meters shall be located within the City right-of-way or within a dedicated waterline easement. Fire services and large water services three inches (0'-3") and larger, shall be installed by a contractor with a Class A or C-34 license, per City water standards, and inspected by an approved Public Works inspection.

37. If a large meter serving multiple units is proposed, a Reduced Pressure Principle Device (RPPD) backflow prevention device shall be installed for meter protection. The landscape system shall also have RPPD device. Any carbonation dispensing equipment shall have a RPPD device. Installation shall be per City Standards and shall be tested by a certified backflow device tester immediately after installation. Cross-connection inspector shall be notified for inspection after the installation is completed. Owner shall have RPPD device tested once a year thereafter by a certified backflow device tester and the test results to be submitted to the Public Works Department, Water Services Division. Property owner must open a water account upon installation of RPPD device.

38. It shall be the responsibility of applicant to abandon any existing private water well(s) per Orange County Health Department requirements. Abandonment(s) shall be inspected by Orange County Health Department inspector after permits have been obtained.

39. A composite utility site plan shall be included in the grading plan set, which shall be submitted to both the Engineering Division and Water Services Division for review and approval.

40. There shall be a minimum fifteen-foot (15'-0") clearance of building footings from a water main. Clearances less than fifteen feet (15'-0") shall be reviewed and approved by Water Services Division.

41. There shall be no structures or utilities built on, or crossing, any water or sewer main easements.

42. New utilities shall have a minimum five-foot (5'-0") horizontal, and a minimum one-foot (1'-0") vertical clearance from water main and appurtenances.

43. There shall be a minimum clearance from sewer main and water main of ten feet (10'-0") from outside of pipe to outside of pipe.

44. Any new or existing water valve located within new concrete driveway or sidewalk construction shall be reconstructed per City Standard B-753.

45. If a fire sprinkler system is required, and individual meters are proposed, the meter and service for the new units shall be installed per City Standard B-719, which specifies a residential fire sprinkler connection (RFSC) on the backside of the meter. If a different size individual meters are proposed, the engineer for the project shall design a similar manifold system that splits the domestic and fire lines right after the meter. The manifold is to be the same size as, or greater than, the meter.

46. Any dedicated fire-service or private fire hydrant lateral shall have above-ground backflow device with a double-check valve assembly. The device shall be tested immediately after installation, and once a year thereafter by a certified backflow device tester, and the results to be submitted to the Public Works Department, Water Services Division. The device shall be on private property, and is the responsibility of the property owner. The above-ground assembly shall be screened from public view as required by GGMC Section 9.12.040.10.G.

47. Water meters and boxes shall be installed by City forces upon payment of applicable fees, and after new water system, including water services, pass all bacteriological and pressure tests.

48. No permanent structures, trees or deep-rooted plants shall be placed over any sewer main or water main.

49. The location and number of fire hydrants shall be as required by Water Services Division and the Orange County Fire Authority (OCFA).

50. The applicant shall abandon any existing unused sewer lateral(s) at street right-of-way on the property owner's side. The sewer pipe shall be capped with an expansion sewer plug and encased in concrete. Only one (1) sewer connection per lot is allowed.

51. The applicant shall install a new private sewer main with clean-out at the right-of-way line and laterals on-site. The sewer main connection in public right-of-way shall be a minimum six-inch (0'-6") diameter, extra strength VCP with wedgelock joints and inspected by the Garden Grove Sanitary District (GGSD). All on-site sewer and appurtenances to be installed per the California Plumbing Code, and inspected by the Building Services Division.

52. All perpendicular crossings of the sewer, including laterals, shall maintain a minimum vertical separation of twelve inches (1'-0") below the water main, outer diameter to outer diameter. All exceptions to the above require a variance from the State Water Resources Control Board.

53. If a water main is exposed during the installation of a sewer lateral, a twenty-foot (20'-0") section of the water main shall be replaced with twenty feet (20'-0") of PVC C-900 DR-14 Class 305 water pipe, size in kind, and centered at the crossing.

Orange County Fire Authority

54. The applicant shall comply with all applicable Orange County Fire Authority (OCFA) requirements, including but not limited to OCFA Guideline B-01 (Fire Master Plans for Commercial and Residential Development) and the OCFA approved Fire Master Plan for the project.

Building and Safety Division

55. All work shall comply with the latest edition of the California Building Standards Code (CBC) at time of permit application.

56. The applicant shall comply with CBC Chapter 5 and Chapter 7 for wall and opening protection.

57. The opening from the garage level to the upper-floor dwellings shall be open to the sky, if the opening is not designed as an enclosed shaft.

58. The applicant shall comply with CBC Chapter 11A Access Regulations for covered multiple-family dwellings.

59. The applicant shall comply with CBC Chapter 5, Chapter 7, and Chapter 7 for openings and exterior wall protections.

60. The garage shall be require a one-hour separation from the dwellings per CBC Section 420.2 CBC. This requirement includes exit access stairs and exits. Egress through the parking garage shall not be permitted.

61. The applicant shall comply with CBC Chapter 10 for exiting systems.

Planning Services Division

62. The applicant shall submit detailed plans showing the proposed location of utilities and mechanical equipment to the Community Development Department, Planning Services Division for review and approval prior to submitting plans into the Building and Safety Division plan-check process. The project shall also be subject to the following:

    a. Above-ground utility equipment (e.g. electrical, gas, telephone, cable TV) shall not be located in the street setback, within the common areas, or any parking areas, and such equipment shall be screened by densely planted and maintained landscaped hedges or a fence or wall. Ground-mounted equipment shall not exceed the maximum allowable height for a wall, fence, or hedge.

    b. Roof-mounted mechanical equipment shall be screened by parapet walls, rooftop architectural features such as a tower equal to the height of the equipment, or low walls surrounding the equipment and shall be painted to match the color of the building materials.

    c. No exterior piping, plumbing, or mechanical ductwork shall be permitted on any exterior façade and/or be visible from any public right-of-way or adjoining property. Roof rain gutters are permitted. The rain gutters shall follow the natural architecture lines of the building.

63. All landscaping shall be consistent with the landscape requirements of Title 9 of the Municipal Code. The developer shall submit a complete landscape plan governing the entire development. The landscape irrigation plans shall include type, size, location and quantity of all plant material. The landscape plan shall include irrigation plans and staking and planting specifications. All landscape irrigation shall comply with the City's Landscape Ordinance and associated Water Efficiency Guidelines. The landscape plan is also subject to the following:

a. A complete, permanent, automatic remote control irrigation system shall be provided for all landscaping areas shown on the plan. The sprinklers shall be of drip or micro-spray system sprinkler heads for water conservation.

b. Forty percent (40%) of the trees on the site shall consist of minimum size twenty-four inch (2'-0") box, and the remaining 60 percent (60%) shall be of minimum size fifteen (15) gallons. These trees shall be incorporated into the landscaped frontages of all streets. Where clinging vines are considered for covering walls, drought-tolerant species shall be used.

c. All landscape areas, including the areas located within the public rights-of-way along Jefferson Street that abuts the subject property, are the responsibility of the applicant/property owner(s).

d. Trees planted within ten feet (10'-0") of any public right of-way shall be planted in a root barrier shield. All landscaping along street frontages adjacent to driveways shall be of the low-height variety to ensure safe sight clearance. All trees planted on the subject property, whether for screening the project from the neighboring lots or for aesthetic or selling/marketing purposes, shall have an irrigation system installed in order maintain the trees.

e. All trees shall be double-staked in accordance with City standards.

f. The landscape treatment along the street frontage, including the area designated as public right of way, shall incorporate the landscape area between the sidewalk and the development wall with groundcover, shrubs and bushes, and trees that highlight the project's entrance as well as enhance the exterior appearance along Jefferson Street. The plant material for the entrance shall be the type to inhibit graffiti such as vines and dense growing shrubs and bushes, and shall be maintained.

g. Fifty percent (50%) of all required shrubs shall be a minimum size of five (5) gallons at time of planting.

h. Live groundcover shall be planted and maintained where shrubbery is not sufficient to cover exposed soil. Mulch may be used in place of groundcover where groundcover will not grow or where groundcover will cause harm to other plants, but not more than thirty percent (30%) of the groundcover area shall have the mulch substitute.

i. Groundcover plants shall be planted at a density and spacing necessary for them to become well established and provide surface coverage within eighteen (18) months of planting.

j. The landscape plan shall incorporate and maintain for the life of the project those means and methods to address water run-off also identified as Low Impact Development provisions, which address water run-off. This is to also to be inclusive of any application of Water Quality Management Plans (WQMP), Drainage Area Management Plans (DAMP) and any other water conservation measures applicable to this type of development.

k. The irrigation system shall comply with all applicable provisions of the City's Water Conservation Ordinance, the City's Municipal Code landscape provisions, and all applicable State regulations.

l. All above-ground utilities (e.g. water backflow devices, electrical transformers, irrigation equipment) shall be shown on the landscaping plan in order to ensure proper landscape screening will be provided.

64. Permitted hours and days of construction and grading shall be as follows, and all work shall be comply with the noise regulations set forth in Chapter 8.47 of the City of Garden Grove Municipal Code:

a. Monday through Friday – not before 7:00 a.m. and not after 5:00 p.m.

b. Saturday – not before 8:00 a.m. and not after 5:00 p.m. All construction activity on Saturday shall be limited to interior construction only.

c. Sunday and Federal Holidays – no construction shall occur.

65. Each unit shall be provided with an air conditioning condensing unit and/or system so that there are no wall-mounted, or window mounted units. If units are located on the roof, screening shall be provided, such that units are not visible from the public right-of-way.

66. Mailboxes shall be provided and installed by the applicant. The local postmaster shall approve the design and location.

67. Each unit shall be provided with washer and dryer hook-ups.

68. Construction activities shall adhere to SCAQMD Rule 403 (Fugitive Dust) that includes dust minimization measures, the use of electricity from power poles rather than diesel or gasoline powered generators, and the use methanol, natural gas, propane or butane vehicles instead of gasoline or diesel powered equipment, where feasible. Also, use of solar, low emission water heaters, and low sodium parking lot lights, shall be required to ensure compliance with Title 24.

69. All of the common recreational area, as identified on the approved site plan, shall be equipped with the list of amenities, as shown on the approved plan, shall be subject to review by the Planning Services Division and Building and Safety Division prior to issuance of building permits for compliance with applicable standards.

    a. The improvements to the outdoor recreational area shall include, at a minimum, tables, chairs, patio and lounge furniture, barbeque grills, community garden plots, and landscaping.

    b. All covered upper-floor common areas shall incorporate indoor furniture and be paved with paver or tile floors.

    c. Lighting in the common recreational areas shall be provided at a maximum one-foot light candle during the hours of darkness, and shall be restricted to low decorative type wall-mounted lights or ground lighting systems.

70. All lighting structures shall be placed so as to confine direct rays to the subject property. All exterior lights shall be reviewed and approved by the Planning Services Division. Lighting adjacent to residential properties shall be restricted to low decorative type wall-mounted lights, or a ground lighting system. Lighting shall be provided throughout all private drive aisles and entrances to the development per City standards for street lighting. Lighting in the common areas shall be directed, positioned, or shielded in such manner so as not to unreasonably illuminate the window area of nearby residences.

71. Decorative stamped concrete or pavers shall be provided within the front twenty feet (20'-0") for the driveway along Jefferson Street. The final design and configuration shall be shown on the final site plan, grading plan, and landscape plans.

72. Second and third-story windows, on side and rear building sides shall be located to avoid direct views from those windows, balconies, and decks into any immediately opposite windows and private recreation areas of residential dwelling units on adjacent properties. Where second-story and third-story windows are oriented toward an adjacent property's private recreation area, one or more of the following measures shall be provided:

    a. High-windows with a minimum sill height of six feet (6'-0"), as measured from the finished floor.

    b. View-obscuring treatment such as wing walls.

    c. Obscure, opaque, or frosted fixed (non-slider) windows.

d. Evenly-spaced screening/canopy trees.

73. All new block walls, and/or retaining wall(s), including existing block walls to remain, if any, shall be shown on the grading plans. Block walls shall be developed to City Standards or designed by a Registered Engineer and shall be measured from on-site finished grade. The applicant shall provide the following:

a. Decorative masonry walls are required along the north, south, east, and west property lines and shall be constructed to a minimum height of six feet (6'-0"), up to a maximum of seven feet (7'-0"), as measured from highest point of finished grade. Whether new or existing, the block walls shall be decorative and utilize stucco finish, slump stone, decorative CMU, or split face block. Street-facing perimeter walls shall include trailing vines, hedges planted along the base of the exterior face, or other landscaping treatments that deter graffiti.

b. The applicant shall work with the existing property owners along the project perimeter in designing and constructing the required perimeter block walls. This requirement is to avoid having double-walls and minimize any impact that it might cause to the existing landscaping on the neighbor's side as much as possible. The perimeter block wall shall be constructed and situated entirely within the subject property. In the event that the applicant cannot obtain approval from the property owners, the applicant shall construct the new wall with a decorative cap to be placed between the new and existing walls. The Community Development Director shall be authorized to approve minor alterations the size and/or location of the landscape planter to accommodate the placement of such walls.

74. During construction, if paleontological or archaeological resources are found, all attempts will be made to preserve in place or leave in an undisturbed state in compliance with applicable law. In the event that fossil specimens or cultural resources are encountered on the site during construction and cannot be preserved in place, the applicant shall contact and retain, at applicant's expense, a qualified paleontologist or archaeologist, as applicable, acceptable to the City to evaluate and determine appropriate treatment for the specimen or resource, and work in the vicinity of the discovery shall halt until appropriate assessment and treatment of the specimen or resource is determined by the paleontologist or archeologist (work can continue elsewhere on the project site). Any mitigation, monitoring, collection, and specimen/resource treatment measures recommended by the paleontologist/archaeologist shall be implemented by the applicant at its own cost.

75. The applicant shall comply with the Migratory Bird Treaty Act (MBTA), and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code, which

require the protection of active nests of all bird species prior to the removal of any on-site landscaping, including the removal of existing trees.

76. At applicant's request, applicant has been granted Density Bonus allowances for an increase in density, reduced parking ratios, and the following incentive/concession and two (2) waivers or modifications of applicable development standards: (i) an incentive / concession to reduce the interior side setback at the first and second floors from the required ten feet (10'-0"), and at the third floor from the required fifteen feet (15'-0"), to a minimum five feet (5'-0") (GGMC Section 9.12.040.020.A); (ii) a reduction of the required minimum front setback requirements for the third floor from the minimum twenty-five feet (25'-0") to a minimum twenty-foot (20'-0") setback (Section 9.12.040.020.A); and (ii) a reduction of the required minimum vertical clearance for common open spaces from fifteen feet (15'-0") to a minimum nine feet (9'-0") (Section 9.12.040.050.I.8). In addition, pursuant to paragraph (3) of subdivision (c) of Government Code Section 65915 and subdivision (b) of Government Code Section 66300.6, the applicant is required to replace one (1) lower income "protected unit" demolished in conjunction with the project and provide specified benefits to its existing occupants.

    a. The applicant shall provide all existing occupants of the single-family dwelling proposed to be demolished with the benefits outlined in subdivision (b)(3) of Government Code Section 66300.6, and subsection G of Section 9.60.060 of the Garden Grove Municipal Code, including, but are not limited to: (i) the right to occupy the unit until six (6) months before the start of construction activities; (ii) at least six (6) months' written notice of the planned demolition, the date they must vacate, and their rights under these statutes; (iii) the right to return at their prior rental rate if the demolition does not proceed and the property is returned to the rental market. In addition, if the existing household occupying the single-family dwelling proposed to be demolished is a lower-income household, the applicant shall also provide it with the benefits outlined in subdivision (b)(4) of Government Code Section 66300.6, and subsection H of Section 9.60.060 of the Garden Grove Municipal Code, including, but not limited to: (i) certain relocation benefits that may include, without limitation, advisory assistance in finding comparable new housing, payment of moving expenses, and rental assistance payments; and (ii) a right of first refusal for a two-bedroom unit available in the new housing development, affordable to the household at an affordable rent, which shall be memorialized in a written agreement, covenant, or other document that is enforceable by the occupant(s) of the protected unit, the form of which shall be subject to review and approval by the City. Pursuant to Garden Grove Municipal Code Section 9.60.060.H.2, the applicant shall engage a qualified relocation consultant approved by the City to determine the eligibility of

occupants for benefits, prepare a relocation plan for City review and approval, and oversee the provision of the required relocation benefits.

b. To comply with the provisions of Government Code Section 65915 and 66300.6, the applicant has offered to, and shall, reserve at least one (1) dwelling unit in the project for occupancy by very low-income households for a period of 55 years, commencing with the issuance of the certificate of occupancy for the project. The unit reserved for very low-income units shall be a two-bedroom unit. The specific units to be reserved/restricted shall be subject to City approval.

c. The applicant shall at all times during the term of the affordability period comply with the requirement to rent the target units to very low-income households at an affordable rent as required by the Garden Grove Municipal Code and State Law.

d. Pursuant to State law, the Garden Grove Municipal Code, and the City's Density Bonus Agreement Guidelines, the record owner or owners of the subject property shall enter into an affordable housing regulatory agreement with the City, which satisfies the criteria set forth in subdivision (c) of Government Code Section 65915 and Garden Grove Municipal Code Section 9.60.050.

e. The regulatory agreement shall be prepared by the City at the applicant/owner's expense, and the applicant and/or owner shall reimburse the City for the actual fees and costs charged for the services of attorneys and/or other professional third-party consultants engaged by the City to provide consultation, advice, analysis, and/or review and/or preparation of documents in connection with preparation of the regulatory agreement, review of the initial marketing plan and management plan required as part of the regulatory agreement, review of annual compliance reports submitted by the owner pursuant to the regulatory agreement, inspections and audits provided for in the regulatory agreement, review of the relocation plan, and other matters pursuant to GGMC Sections 9.60.050.H and 9.60.060.I.

f. Prior to preparation of the regulatory agreement, applicant and/or property owner shall execute a reimbursement agreement with the City, in a form approved by the City Attorney, and provide a deposit to the City in an amount sufficient to cover the estimated professional fees and costs to be incurred by the City, as determined by the Department Director, in his or her reasonable discretion. The regulatory agreement shall be approved by the City and recorded prior to final map approval.

g. The regulatory agreement shall remain a senior, non-subordinate covenant and as an encumbrance running with the land for the full term

thereof. In no event shall the regulatory agreement be made junior or subordinate to any deed of trust or other documents providing financing for the construction or operation of the project, or any other lien or encumbrance whatsoever for the entire term of the required covenants.

77. Prior to permit issuance, the applicant shall submit a signed letter acknowledging receipt of the decision approving Site Plan No. SP-142-2024, and his/her agreement with all conditions of the approval.

78. The applicant shall, as a condition of project approval, at its sole expense, defend, indemnify and hold harmless the City, its officers, employees, agents and consultants from any claim, action, or proceeding against the City, its officers, agents, employees and/or consultants, which action seeks to set aside, void, annul or otherwise challenge any approval by the City Council, Planning Commission, or other City decision-making body, or City staff action concerning Site Plan No. SP-142-2024. The applicant shall pay the City's defense costs, including attorney fees and all other litigation related expenses, and shall reimburse the City for court costs, which the City may be required to pay as a result of such defense. The applicant shall further pay any adverse financial award, which may issue against the City including but not limited to any award of attorney fees to a party challenging such project approval. The City shall retain the right to select its counsel of choice in any action referred to herein.

79. In accordance with Garden Grove Municipal Code Sections 9.32.160, the rights granted pursuant to Site Plan No. SP-142-2024 shall be valid for a period of two (2) years. Unless a time extension is granted pursuant to Section 9.32.030.D.9 of the Municipal Code, the rights conferred by Site Plan No. SP-142-2024 shall become null and void if the subject development and construction necessary and incidental thereto is not commenced within two (2) year of the expiration of the appeal period, and thereafter diligently advanced until completion of the project. In the event construction of the project is commenced, but not diligently advanced until completion, the rights granted pursuant to Site Plan No. SP-142-2024 shall expire if the building permits for the project expire.

80. Prior to issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the name and address of the development, and the developer's name, address, and a 24-hour emergency telephone number.