
Draft Initial Study/Mitigated Negative Declaration

Downtown West Planned Unit Development

APRIL 2024

Prepared for:



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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AQMP	air quality management plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CARB	California Air Resources Board
CBC	California Building Code
CCAP	Community Climate Action Plan
CEQA	California Environmental Quality Act
CFC	California Fire Code
CO	carbon monoxide
CO _{2e}	carbon dioxide equivalent
DPM	diesel particulate matter
EIR	environmental impact report
GHG	greenhouse gas
IEUA	Inland Empire Utilities Agency
in/sec	inches per second
IS	initial study
MND	mitigated negative declaration
MRZ	Mineral Resource Zone
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO _x	oxides of nitrogen
OPD	Ontario Police Department
PM ₁₀	particulate matter with an aerodynamic diameter equal to or less than 10 microns
PM _{2.5}	particulate matter with an aerodynamic diameter equal to or less than 2.5 microns
PPV	peak particle velocity
PRC	California Public Resources Code
PUD	Planned Unit Development
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SLF	Sacred Lands File
SO _x	sulfur oxides
TAC	toxic air contaminant
TAZ	traffic analysis zone
TCR	tribal cultural resource
TOP	The Ontario Plan
VMT	vehicle miles traveled
VOC	volatile organic compound

INTENTIONALLY LEFT BLANK

INTRODUCTION

Project Overview

The City of Ontario (City) is proposing the Downtown West Planned Unit Development (PUD) in Ontario.¹ The Downtown West PUD is intended to function as a set of development regulations and planning and design principles to govern the development or redevelopment of an eight-and-a-half block area in downtown Ontario, California. The Downtown West PUD would support a variety of businesses, housing opportunities for residents, open spaces, entertainment uses, and institutional uses while preserving its historic character, buildings, neighborhoods, and places.

California Environmental Quality Act Compliance

The Downtown West PUD is a project subject to compliance with the California Environmental Quality Act (CEQA), with the City serving as the lead agency responsible for the environmental impact review and the approval of the proposed Downtown West PUD. Based on the findings of this initial study (IS), the City has made the determination that a mitigated negative declaration (MND) is the appropriate environmental document to be prepared in compliance with CEQA (California Public Resources Code [PRC], Section 21000 et seq.).

The City has directed and supervised the preparation of this MND and is in conformance with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the MND and the IS checklist is to determine any potentially significant impacts associated with the Downtown West PUD and to incorporate mitigation measures into the project design, as necessary, to reduce or eliminate the significant or potentially significant effects. As determined in this IS/MND, there is no substantial evidence, in light of the whole record before the agency, that the Downtown West PUD would have a significant effect on the environment.

Public Review Process

In accordance with CEQA and the CEQA Guidelines, a 30-day public review period for this IS/MND commenced on April 26, 2024 and will conclude on May 28, 2024. The IS/MND was distributed for review to interested and involved public agencies, responsible/trustee agencies, organizations, and private individuals that have requested in writing to be informed of the proposed Downtown West PUD. In addition, consistent with CEQA Guidelines Section 15072, the City is required to provide a notice of intent to adopt this IS/MND to the public, responsible agencies, trustee agencies, and the County Clerk, and will mail a notice of intent to adopt this IS/MND to the last known name and address of all organizations and individuals who have previously requested such notice.

An electronic copy of this IS/MND can be viewed at the following web address:

<https://www.ontarioca.gov/Planning>

¹ All analysis is based on project description and project plans provided by the City as of [Placeholder Date].

During the 30-day public review period, the public will have the opportunity to provide written comments on the information contained within this IS/MND. The City's discretionary approval/denial of the proposed Downtown West PUD will be based on the information contained in this document.

In reviewing this IS/MND, interested members of the public should focus on the sufficiency of the document in identifying and analyzing potential project impacts on the environment, as well as the sufficiency of any mitigation measures proposed to reduce potential impacts to a less-than-significant level. Comments on the IS/MND should be submitted by the end of the 30-day public review period and must be postmarked by May 28, 2024. Submit written comments by mail or email with the subject line "Downtown West Planned Unit Development" to the following address:

City of Ontario, Planning Department
303 East B Street, Ontario, CA 91764
Attn: Diane Ayala, Senior Planner
dayala@ontarioca.gov

PROJECT DESCRIPTION

Project Location

The Downtown West PUD project area (PUD project area) is located in the City of Ontario and within the "Downtown District Place Type" as defined by The Ontario Plan (TOP) 2050. The City is approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernardino, and 30 miles from Orange County, as shown in Figure 1, Regional Location. The PUD project area is between E Street to the north, Holt Boulevard to the south, Palm Avenue to the west, and Euclid Avenue to the east, in addition to the portion of the block between D Street connecting Fern Avenue and Palm Avenue, as shown in Figure 2, PUD Project Area. The PUD project area is within the City's historic downtown and is adjacent to the civic center area.

Environmental Setting

The PUD project area consists of eight-and-a-half blocks (21.58 acres) in downtown Ontario, California. Within certain blocks, the existing building fabric contains potentially historic resources. The PUD project area consists of underlying mixed use development and comprises a mixture of commercial uses, vacant land, paved parking lots, and residential units.

The PUD project area is designated as TOP Mixed Use–Downtown Land Use. TOP 2050 was adopted in August 2022 and includes a Policy Plan (general plan) and defines the intention or vision of the Mixed Use–Downtown Land Use as follows (City of Ontario 2023a):

As the historic center of Ontario, the Downtown District, is envisioned as the placed-based, people-focused, commercial, and cultural "heart" of the City and features several designated historic districts and landmarks. Downtown will support a variety of businesses, housing opportunities for residents with a variety of income levels, creative spaces, entertainment options, and institutional and civic uses while preserving its historic character, buildings, neighborhoods, and places. Complementing the wide mix of uses are designs, layouts and public spaces that give residents, visitors, and businesses a strong sense of connection and creates a place where people want to spend time.

The PUD project area currently contains 66,785 square feet of existing residential in 52 residential units, and 510,347 square feet of existing commercial.

Project Characteristics

The City seeks to further define and create the Downtown West PUD to streamline the PUD process for developers and property owners in efforts to revitalize downtown Ontario. The Downtown West PUD contains the following sections: (1) Introduction, (2) Vision and Guiding Principles, (3) District and Block Plan, (4) Zoning and Land Use Plan, (5) Development Regulations and Guidelines, (6) Public Realm Standards and Guidelines, and (7) Administration.

The Downtown West PUD would facilitate development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. Proposed development and private investments would include new mixed use/infill and façade improvements.

Proposed public realm improvement areas of focus include improvements along B Street, Euclid Avenue streetscape, alley improvements, a consolidated trash area, and public art. The Downtown West PUD encourages “activation,” which can include pop-up events, Euclid Avenue programs, B Street Farmer’s Market, alley art and signage, gateway signage, and a potential paseo connection. The Downtown West PUD establishes blocks A-I, shown in Figure 3, Site Plan. Table 1 shows the proposed land use and urban design concept for each block. The PUD project if fully implemented, has the potential to increase residential square footage by 578,157 square feet and decrease commercial by 472,461 square feet.

Table 1. Downtown West Land Use and Urban Design Concept

Site	Residential Units	Density (du/acre)	Residential GSF	Commercial GSF	Parking Provision
A ¹	n/a	n/a	0 sf	7,500 sf	n/a
B	22	75	22,544 sf	1,500 sf	32
C ²	90	75	93,260 sf	4,386 sf	219
D ³	29	39	52,200 sf	0 sf	58
E	58	75	59,746 sf	2,000 sf	78
F	141	60	144,898 sf	0 sf	460 ⁴
G	59	75	60,370 sf	0 sf	80
H	47	30	48,296 sf	0 sf	78
I	35	30	63,628 sf	0 sf	70
Fronting Euclid Avenue ⁵	100	75 max.	100,000 sf	22,500 sf	145
Total	581	n/a	644,942 sf	37,886 sf	1,220

Source: Downtown West PUD.

Notes: du = dwelling unit; GSF = gross square feet; n/a = not applicable; sf = square feet.

- ¹ Potential for new retail use/building in existing cactus garden.
- ² New development proposed with some public parking (84 stalls).
- ³ Townhomes.
- ⁴ Potential new shared garage with public parking.
- ⁵ Potential for new development on top of existing historic structures or redevelopment of non-contributing buildings.

Project Construction and Phasing

The Downtown West PUD contains standards for development and private investments, public realm improvements, activation, and art. Any Project with the PUD The Downtown West PUD would be implemented in phases over time. Project construction and characteristics would be project-specific and not included in the PUD.

Project Approvals

The Downtown West PUD provides development standards and requirements for Projects within the PUD project area.

Development Plan approval, pursuant to the requirements of Ontario Development Code Section 4.02.025 (Development Plans), shall be required for any Project within the Downtown West PUD that entails the physical alteration of any lot, construction of a building, or addition or significant alteration of an existing building in the PUD area as required by the Ontario Development Code. For each Project, a Development Plan application shall be submitted to the Planning Department on a City application form pursuant to the requirements of Ontario Development Code Division 2.02 (Application Filing and

Processing), commencing with Subsection B (Discretionary Permits and Actions) of Section 2.02.015 (Application Processing Procedures). Development plans are approved by the Planning Commission or Development Advisory Board.

To ensure proper implementation of the historic resource preservation and mitigation measures established in the Mitigated Negative Declaration for the PUD, an application for a Certificate of Appropriateness ("C of A") shall be submitted and approved in conjunction with each private or public project. The C of A is approved by the Historic Preservation Subcommittee or the full Historic Preservation Commission (or the Planning Director may issue waivers for minor projects). Encroachment and easements are processed by the City Engineer.

INITIAL STUDY CHECKLIST

1. Project Title: Downtown West PUD
2. Lead agency name and address: City of Ontario, Planning Department, 303 East B Street, Ontario California 91764
3. Contact person and phone number: Diane Ayala, Senior Planner, 909.395.2428
4. Project Sponsor: City of Ontario
5. Project Location: The PUD project area is located in the Downtown District of the City of Ontario. The City of Ontario is approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernadino, and 30 miles from Orange County. As illustrated on Figure 2, the project is bordered by Euclid Avenue to the east, Holt Boulevard to the south, Palm Avenue and Fern Avenue to the west, and E Street to the north.
6. General Plan designation: Mixed Use- Downtown
7. Zoning: MU-1 (Downtown Mixed Use)
8. Description of project. The City seeks to create the Downtown West PUD to streamline the PUD process for developers and property owners in efforts to revitalize downtown Ontario. The Downtown West PUD contains guidelines for development and private investments, public realm improvements, and activations and public art.

Building Characteristics and Operations

Section 5 of the Downtown West PUD sets forth development standards to govern the placement, height, and bulk of permitted buildings and other structures, as well as to establish requirements for vehicular access, parking and loading, open space, landscaping, and signs for commercial uses to be incorporated into development plans. The standards and guidelines would apply to future development projects within the PUD project area for any new construction, addition, remodel, or reallocation requiring a building permit or other similar entitlement by the City. Regulations and standards in the Ontario Development Code that are not covered by the Downtown West PUD would continue to be applicable to future development within the PUD project area.

Circulation and Parking

The total parking provided at each site is shown in Table 1. A total of 1,220 parking stalls would be provided, which is over the required amount for the number of residential units and commercial space. As described in the Downtown West PUD, parking standards are consistent (Residential – 1 space per bedroom up to 2 bedrooms, 2 spaces per unit for 3 bedrooms and above, 0.20 spaces per unit for guest/visitor parking. Commercial – 1 space per 250 sf gross floor area for all permitted or conditionally permitted use.)

Implementation of the Downtown West PUD would facilitate improvements to B Street and utilize the addition of a West Valley Connector Bus Rapid Transportation Station at the corner of E. Holt Boulevard and N. Plum Avenue.

Landscaping, Walls, and Lighting

The Downtown West PUD contains various standards and guidelines for development in the PUD project area including within Section 5.5, Building Design, and Section 6.3, Design Guidelines. Landscaping, walls, and lighting standards in the Ontario Development Code that are not covered by the Downtown West PUD would continue to be applicable to future development within the PUD project area.

9. Surrounding land uses and setting:

The PUD project area is currently developed with a mix of commercial uses, vacant land, and residential units. The area surrounding the PUD project area consists of mixed office, residential, commercial, and open space uses (see Table 2).

Table 2. Surrounding Land Uses and Setting

	Existing Land Use	General Plan Designation	Zoning Designation
Site:	Mixed uses and residential ¹	Mixed Use (MU)-Downtown	Downtown Mixed-Use (MU-1) and High Density Residential (HDR-45)
North:	Mixed uses, office, and residential ²	Mixed Use (MU)-Downtown, Office Commercial (OC), and HDR	MU-1, Low Intensity Office (OL), and HDR-45
South:	Mixed uses ³	Mixed Use (MU)-Downtown	MU-1 (Downtown Mixed-Use)
East:	Mixed uses and open space ⁴	MU and Open Space – Recreation (OS-R)	MU-1 and PUD (Euclid Avenue Overlay)
West:	Mixed uses and residential ⁵	Mixed Use (MU) Downtown, Low Medium Density Residential (LMDR), Medium Density Residential (MDR), and HDR	MU-1, Low Density Residential (LDR-5), Medium Density Residential (MDR-25), and HDR-45

Sources: City of Ontario 2015a, 2023b.

Notes:

- ¹ MU: Retail stores, dental offices, parking lots, medical offices, bank, restaurant, general offices, residences on commercial, multiple family residential, religious structure, storage warehouse, car lots, vacant land
- ² MU: Religious structure, vacant land, fast food, general offices, and retail stores
OC: General offices and residences on commercial
HDR: Religious structure
- ³ MU: Vacant land, retail stores, and car lots
- ⁴ MU: Service station, retail stores, parking lots, vacant land, and bank
OS-R: Parking lot, vacant land, and Ontario Town Square
- ⁵ MU: Triplex, single-family residential, vacant land, duplex, parking lots, and retail stores
LMDR: Single-family residential, quad, triplex, and apartments
MDR: Duplex, single-family residential, apartments, and vacant land
HDR: Religious structure and parking lot

10. Other public agencies whose approval is anticipated include (e.g., permits, financing approval, or participation agreement):

None.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?

Yes No

If "yes", has consultation begun? Yes No Completed

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

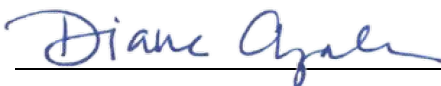
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

Signature: <u></u>	Date: <u>4/26/2024</u>
Printed Name: Diane Ayala	

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less Than Significant With Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to less than significance

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
construction of replacement housing elsewhere?				
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, waste water treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation of Issues

Aesthetics

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

Less-than-Significant Impact. The dominant scenic resource in Ontario is the San Gabriel Mountain range to the north, visible from the Upper Santa Ana River. Other prominent scenic resources are the Jurupa Mountains and the San Bernardino Mountains to the east, the Santa Ana Mountains to the south, and the Chino Hills to the southwest (City of Ontario 2022a). The PUD project area is currently developed with mixed use and residential uses. The proposed Downtown West PUD contains height limits that are consistent with the Ontario Development Code development standards. Additionally, the San Gabriel Mountains peaks rise to 7,000 feet above

mean sea level (City of Ontario 2022a); therefore, development with the maximum height of 65 feet would not alter the scenic views of Ontario significantly compared to the existing conditions. Impacts to scenic vistas would be less than significant.

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

Less-than-Significant Impact. There are no designated state scenic highways located near the PUD project area. The closest eligible state scenic highway is a portion of State Route 142 in Chino Hills, approximately 7 miles southwest of the PUD project area (Caltrans 2018). The City's General Plan identifies Euclid Corridor and the Mission Boulevard Corridor as the primary scenic corridors in Ontario (City of Ontario 2022a). The PUD project area is bordered by Euclid Avenue to the east and would include Euclid Avenue Streetscapes and Euclid Avenue Programs. The Downtown West PUD would contain guidelines for these improvements such as streetscape design standards, historic preservation, and adaptive reuse to ensure scenic resources would not be substantially damaged. Therefore, the Downtown West PUD would have less than significant impacts on state scenic highways.

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

Less-than-Significant Impact. Per PRC Section 21071, an "urbanized area" is defined as follows:

- (a) An incorporated city that meets either of the following criteria:

- (1) Has a population of at least 100,000 persons.
- (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.

As of the 2020 U.S. Census, the City has a population of 175,265 (U.S. Census Bureau 2020). The population exceeds 100,000, so the site would be considered an urbanized area for purposes of responding to this impact prompt.

TOP 2050 is the primary planning document for the City and contains various goals and policies governing the scenic quality of the City. Land Use Element Section 2, Compatibility, requires infrastructure to be aesthetically pleasing and in context with the community character (Policy LU-2.6). Community Design Element Section 1, Image & Identity, aims to preserve the existing character of neighborhoods (Policy CD-1.1 and Policy CD-1.3) and preserve the City's view corridors (Policy CD-1.5). Community Design Element Section 2, Design Quality, ensures a high level of design quality that is attractive, safe, functional, human-scale, and distinct (Policy CD-2.1 through Policy CD-2.10). Community Design Element Section 3, Urban, Mixed Use, and Transit-Oriented Place Types, promotes development that heightens the unique character of each place type (Policy CD-3.1) and maximizes safety, comfort, and aesthetics (Policy CD-3.2, Policy CD-3.3, and Policy CD-3.5). Community Design Element Section 4, Historic Preservation, aims to preserve

the character of the City's historic buildings, streetscapes, and unique neighborhoods (Policy CD-4.2) (City of Ontario 2023a). Adherence to the Land Use Element and Community Design Element policies described above would reduce visual impacts.

In addition, the Ontario Development Code includes development requirements related to scenic quality such as development density, screening and setback, signing, landscaping, lighting, and height limitations. The Downtown West PUD would be consistent with the aesthetic requirements outlined in TOP 2050 and the Ontario Development Code. Therefore, this impact would be less than significant.

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

Less-than-Significant Impact. New development facilitated by the Downtown West PUD would result in new sources of light and glare through increased development in the PUD project area. However, the PUD project area is currently developed and urban, consisting of large amounts of light and glare affecting daytime and nighttime views in the area. Any new development would adhere to the design standards of the Ontario Development Code to ensure that light and glare from new developments would be minimized and that significant impacts would not occur. Therefore, the Downtown West PUD would not create a significant light or glare impact beyond what already exists, and impacts would be less than significant.

Agriculture and Forestry Resources

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

No Impact. According to the California Important Farmland Finder database, the PUD project area is classified as "Urban and Built-Up Land" (DOC 2023a). Additionally, Figure 5.2-1, Important Farmland, in The Ontario Plan 2050 Final Supplemental EIR (TOP Supplemental EIR) designates the PUD project area and surrounding areas as Developed Land (City of Ontario 2022a). The Downtown West PUD would not be located on land classified as Farmland pursuant to the Farmland Mapping and Monitoring Program and would therefore not convert any Farmland to non-agricultural use. No impact would occur.

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

No Impact. As shown in Figure 5.2-2, Williamson Act Land, in the TOP Supplemental EIR, the PUD project area does not contain land under a Williamson Act Contract (City of Ontario 2022a). The PUD project area is zoned as MU and HDR (City of Ontario 2015a). Therefore, the Downtown West PUD would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

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

No Impact. The PUD project area is not zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, there is no impact.

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

No Impact. The PUD project area does not contain forest land. Therefore, there is no impact.

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

No Impact. As described above, the PUD project area does not contain farmland or forest land. Therefore, there is no impact.

Air Quality

This section is based on technical analysis conducted by Dudek and attached to this MND as Appendix A, Air Quality, Greenhouse Gas Emissions, and Energy Memorandum. See Appendix A for complete results.

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

Less-than-Significant Impact. The PUD project area is located within the South Coast Air Basin, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD). SCAQMD administers the South Coast Air Basin's air quality management plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Regarding Consistency Criterion No.1, it was determined that construction of future development projects from implementation of the Downtown West PUD would not exceed the SCAQMD mass daily construction thresholds for all criteria air pollutants. In addition, the operation of any future development projects, as allowed by the Downtown West PUD, would not exceed the SCAQMD

mass daily operational thresholds for all criteria air pollutants for full operational buildout of the Downtown West PUD and for a combined construction and operational scenario.

Because the total anticipated development associated with implementation of the Downtown West PUD would not exceed the SCAQMD mass daily regional thresholds, the Downtown West PUD would not result in an increase in the frequency or severity of existing air quality violations. As such, the Downtown West PUD would be consistent with Consistency Criterion No. 1 of the SCAQMD CEQA Air Quality Handbook.

While no specific development projects are proposed at this time, implementation of the Downtown West PUD would facilitate additional population growth, additional housing units, and a decrease in density of commercial space within the PUD project area. Changes in the population, housing, or employment growth projections associated with the Downtown West PUD have the potential to affect the demographic projections of the Southern California Association of Governments (SCAG), and therefore, the assumptions of the SCAQMD's AQMP. However, development that occurs from implementation of the Downtown West PUD would be consistent with SCAG's regional goals of providing infill housing, improving the jobs-to-housing balance, and integrating land uses near major transportation corridors.

In the SCAG 2020 Regional Transportation Plan/Sustainable Communities Strategy Demographics and Growth Forecast, it was predicted that between 2016 and 2045, the City's population would increase by 96,900, households would increase by 28,500, and employment would increase by 55,400 (SCAG 2020). Downtown West PUD implementation, which would facilitate the development of 581 dwelling units and 37,886 square feet of commercial space at buildout in 2045, would not result in growth that would exceed these growth forecasts or change the underlying land use assumptions utilized in the 2022 AQMP. It is important to note that, while the more recent SCAG 2024 RTP/SCS was approved in April 2024, this project uses the 2020 RTP/SCS as a reference for air quality impact analysis because it provides consistency with the relevant AQMP from 2022. As such, the Downtown West PUD would not conflict with Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook.

While the Downtown West PUD consists of a policy document that does not propose any direct development, the Downtown West PUD's proposed land use changes would allow for greater densities than are currently allowed within the PUD project area. Approval of the Downtown West PUD would not provide any goals, policies, or programs that would significantly conflict with or obstruct implementation of the applicable air quality plan. Future development resulting from implementation of the Downtown West PUD would not exceed the SCAQMD's criteria pollutant mass daily thresholds for construction and operations. Therefore, the Downtown West PUD would not conflict with Consistency Criterion No. 1.

Additionally, the Downtown West PUD would not conflict with Consistency Criterion No. 2, as implementation of the Downtown West PUD would not exceed the demographic growth forecasts in the SCAG 2020 Regional Transportation Plan/Sustainable Communities Strategy. Potential impacts related to the Downtown West PUD's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

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

Less-than-Significant Impact. A quantitative analysis was conducted to determine whether the project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS or cumulatively contribute to existing nonattainment of ambient air quality standards. See Appendix A for full analysis.

The Downtown West PUD would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards.

The significance criteria used to evaluate the project impacts to air quality are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the Downtown West PUD would (14 CCR 15000 et seq.):

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

SCAQMD has established air quality significance thresholds, as revised in April 2019, that set forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2019). The project's "regional" emissions refer to emissions that will be evaluated based on regional significance thresholds established by SCAQMD, also known as the criteria pollutant mass daily thresholds. The SCAQMD air quality significance thresholds also provide toxic air contaminant (TAC) thresholds and ambient air quality standards for criteria pollutants that are to be utilized for localized significance determination. The quantitative air quality analysis provided herein applies the SCAQMD thresholds identified in Appendix A of this MND to determine the potential for the Downtown West PUD to result in a significant impact under CEQA.

Construction Emissions

Construction scenario assumptions are detailed in Appendix A. Construction activities resulting from potential future projects developed under Downtown West PUD implementation would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and volatile organic compound [VOC] off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in emissions of particulate matter with an aerodynamic diameter equal to or less than 10 microns (PM₁₀) and particulate matter with an aerodynamic diameter equal to or less than 2.5 microns (PM_{2.5}). Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

For purposes of estimating Project emissions, construction is assumed to start in 2025 and have a duration of 20 years, reaching completion in December 2044. To estimate a single year of construction, the entire Project buildout land use quantities was scaled by 20-years of construction (i.e., 5% of total buildout) and then compressed to a 1-year period. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during construction of the 5% development scenario. Table 3 presents the estimated maximum daily construction emissions generated during construction of the 5% construction scenario for the first year of construction. Details of the emission calculations are provided in Appendix A.

Table 3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per day					
Summer						
1 Year of Construction (5% of total construction)	1.21	9.35	12.52	0.02	0.79	0.42
Winter						
1 Year of Construction (5% of total construction)	21.22	41.44	29.88	0.17	9.73	3.85
Maximum	21.22	41.44	29.88	0.17	9.73	3.85
<i>SCAQMD Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	No	No	No	No	No	No

Source: Appendix A.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District. These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

As shown in Table 3, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during the 5% construction scenario, and short-term construction impacts would be less than significant.

Operational Emissions

Operation scenario assumptions are detailed in Appendix A. While the Downtown West PUD consists of a policy document and does not propose any direct development, the Downtown West PUD's proposed land-use changes would allow for new or more dense development than is currently allowed within the PUD project area. Operation of the Downtown West PUD, due to future development within the PUD project area, could potentially generate VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from mobile sources, including vehicular traffic; energy sources such as natural gas usage; area sources, including the use of landscaping equipment and consumer products; and architectural coatings.

Table 4 presents the maximum daily area, energy, and mobile sources associated with total operational buildout of the Downtown West PUD as compared to the SCAQMD's thresholds. The SCAQMD operational thresholds are expressed as mass daily thresholds in pounds per day. Details of the emission calculations are provided in Appendix A.

Table 4. Estimated Combined Construction and Operational Criteria Air Pollutant Emissions

Estimated Maximum Net Daily Operational Emissions for Project Implementation ¹						
Emission Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per day					
Area	3.90	9.04	54.42	0.05	0.39	0.39
Energy	0.11	1.84	0.77	0.01	0.15	0.15
Mobile	-4.56	-4.92	-27.62	-0.02	4.87	1.18
Total	-0.55	5.95	27.57	0.05	5.41	1.73
SCAQMD Operational Threshold (Appendix A)	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Combined Construction and Operational Emissions (Worst-Case)						
Construction Emissions (Table 3)	21.22	41.44	29.88	0.17	9.73	3.85
Operational Emissions (above)	-0.55	5.95	27.57	0.05	5.41	1.73
Combined Construction and Operation Emissions	20.67	47.39	57.45	0.22	15.14	5.58
SCAQMD Operational Threshold (Appendix A)	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.

The values shown are the maximum summer or winter daily emissions results from CalEEMod.

See Appendix A for complete results.

¹ Emissions were calculated by subtracting the proposed Downtown West PUD's emissions by the existing scenario emissions. The existing scenario is 5 dwelling units and 56,171 square feet of commercial space.

As shown in Table 4, maximum daily operational emissions from full buildout of the Downtown West PUD would not exceed the SCAQMD daily significance thresholds for all criteria air pollutants during operations. In addition, the combined construction and operational emissions would not exceed the SCAQMD's operational emissions threshold for all criteria pollutants. Therefore,

impacts regarding cumulatively considerable net increases of any criteria pollutant for which the project region is non-attainment would be less than significant.

Cumulative localized impacts would potentially occur if construction associated with the development future development facilitated by the Downtown West PUD were to occur concurrently with another construction project or with another off-site, unrelated project. In addition to the speculative nature of the Downtown West PUD implementation, construction schedules for potential future projects unrelated to the Downtown West PUD are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD, as applicable.

The Downtown West PUD would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

Health Effects of Criteria Air Pollutants

Construction and operation of the project would generate criteria air pollutant emissions; however, estimated construction and operational emissions would not exceed the SCAQMD mass-emission daily thresholds as shown in Tables 3 and 4, respectively.

Because construction and operation of the project would not result in ozone precursor emissions (i.e., VOCs or NO_x) that would exceed the SCAQMD thresholds, as shown in Tables 3 and 4, the project is not anticipated to substantially contribute to regional ozone concentrations and their associated health impacts.

As described in threshold (c), below, CO hotspots were determined to be a less-than-significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

As with ozone and NO_x, and as shown in Tables 3 and 4, the project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAQMD's thresholds. Accordingly, the project's PM₁₀ and PM_{2.5} emissions are not expected to cause an increase in related health effects for this pollutant.

In summary, the Downtown West PUD would not result in any potentially significant contribution to local or regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Impacts would be less than significant.

- c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. The project would not expose sensitive receptors to substantial pollutant concentrations, as evaluated below.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The nearest sensitive-receptor land use are residences located approximately 50 feet south and west of the Downtown West PUD site boundary.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of project activities. The impacts were analyzed using methods consistent with those in the SCAQMD’s Final Localized Significance Threshold Methodology (SCAQMD 2009). The project is located within Source-Receptor Area 33 (Southwest San Bernardino Valley). The maximum daily on-site emissions generated by construction of the project in each construction year are presented in Table 5 and compared to the SCAQMD localized significance criteria for Source-Receptor Area 33 to determine whether project-generated on-site emissions would result in potential localized significance threshold impacts.

Table 5. Construction Localized Significance Thresholds Analysis

	NO ₂	CO	PM ₁₀	PM _{2.5}
	Pounds per Day (On Site)			
<i>Maximum</i>	18.87	18.56	3.82	1.96
SCAQMD LST Criteria ^a	118	863	5	4
Threshold Exceeded?	No	No	No	No

Source: SCAQMD 2009; Appendix A.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); PM_{2.5} = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold. Represents maximum emissions from summer and winter.

^a LST are shown for a 1-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in Source-Receptor Area 33 (southwest San Bernardino Valley).

As shown in Table 5, proposed construction activities would not generate emissions more than site-specific localized significance thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Thus, impacts would be less than significant.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. As discussed in the transportation memo (Appendix C to this MND), the proposed project is forecast to generate 13 AM peak hour trips and 16 PM peak hour trips (passenger car equivalent-adjusted).

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day.

Because the Downtown West PUD is not anticipated to increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day, a CO hotspot is not anticipated to occur.

Based on these considerations, the Downtown West PUD would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. This conclusion is supported by the analysis in the Transportation section, which demonstrates that traffic impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the South Coast Air Basin is steadily decreasing. Based on these considerations, the project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and use of heavy-duty trucks.

The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

Exhaust PM₁₀ is typically used as a surrogate for DPM. As shown in Table 5, which presents total PM₁₀ from fugitive dust and exhaust, project-generated construction PM₁₀ emissions are anticipated to be minimal and well below the SCAQMD threshold. Furthermore, the nearest sensitive receptors are located upwind of the PUD project area, as shown by the most recent Ontario Airport meteorological station data from 2012–2016 (SCAQMD 2023). Due to the meteorological data and minimal DPM emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

No residual TAC emissions and corresponding cancer health risks are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. As such, the Downtown West PUD would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed Downtown West PUD, and impacts would be less than significant.

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

Less-than-Significant Impact. While the Downtown West PUD consists of a policy document that does not propose and direct development, the land use changes proposed as part of the Downtown West PUD would allow for greater densities than are currently allowed within the PUD project area, and the Downtown West PUD would result in indirect impacts. Development allowed

for by the Downtown West PUD would generate odors from vehicles and/or equipment exhaust emissions. As these odors would be short-term (e.g., only emitted during a future development project's demolition/construction phase), intermittent, limited to on-site or site-adjacent areas, and typically emitted in an outdoor setting subject to wind and other dissipating elements, such odors would disperse rapidly and would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction of the Downtown West PUD would be less than significant.

While the Downtown West PUD identifies the general locations (e.g., zones) where future development is likely to occur, and can make certain assumptions based on the permitted use types, the precise nature (e.g., the particular tenant[s]) and site-specific location(s) of future development projects implemented under the Downtown West PUD have not yet been identified. Therefore, odor sources associated with Downtown West PUD buildout and their potential to cause a specific impact to nearby sensitive receptors also cannot be completely identified. However, land uses and operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). The project would not include these land uses. However, any development within the PUD project area would be required to comply with SCAQMD Rule 402, Nuisance, which prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property. Further, new development and/or redevelopment projects in the PUD project area requiring a Conditional Use Permit—including new commercial and vehicle-related uses within 500 feet of a sensitive use—would be required to comply with applicable Zoning Code measures related to odor abatement. Therefore, the Downtown West PUD would not result in new or more substantial odor emissions that could adversely affect a substantial number of people, and impacts would be less than significant.

Biological Resources

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

Less-than-Significant Impact. The PUD project area consists of developed land, with few vacant parcels. The surrounding areas are also developed with urban uses. The PUD project area is in proximity to known sensitive species locations including Crotch's bumble bees, pallid bats, California glossy snakes, and various sensitive bird species, as shown in Figure 5.4-1 in the TOP Supplemental EIR (City of Ontario 2022a). Development facilitated by the proposed Downtown West PUD would be located on currently developed land with a mix of commercial uses, vacant land, and residential units. Vacant land in the City may contain habitat; however, because much of it is barren ground and does not support vegetation, and because many areas of vacant land are small, surrounded by developed urban uses, and isolated from other vacant land, the habitat value is low. Because there is very little native habitat remaining in the City and the PUD project area would be located on developed, urban land, impacts to special-status species would be less than significant.

- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The PUD project area is not located on or near any riparian areas (USFWS 2023). The PUD project area is developed, urban land that does not support riparian habitat or other sensitive native habitat. Therefore, there no impacts would occur.

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

No Impact. The PUD project area is not located on or near any wetlands (USFWS 2023). Therefore, no impacts to federally protected wetlands would occur.

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

No Impact. The PUD project area is developed and paved and is located within a large urban area. No water features are located on or near the site. Therefore, the site would not interfere with the movement of any native resident or migratory fish or wildlife species, or with migratory wildlife corridors or wildlife nursery sites. No impacts would occur.

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

Less-than-Significant Impact. Section 6.05.020 of the Ontario Development Code, Tree Protection Policy and Protection Measures, contains policies and measures to preserve, protect, and maintain established and healthy heritage trees within the City. The Tree Inventory and Preservation Plan requires proposed development that contains an existing Heritage Tree to submit of a Tree Inventory and Preservation Plan prepared by a licensed landscape architect, horticulturalist, certified arborist, or other related professional (City of Ontario 2022a).

The City of Ontario Landscape Development Standards contains tree protection notes, such as establishing a Tree Protection Zone around existing trees during construction. Preliminary Landscape Plans shall include a tree report provided by a qualified landscape architect or certified arborist for trees on site proposed to be removed. Replacement trees shall be 60-inch-box trees or as approved. Two new trees shall be replaced for each removed (City of Ontario 2015b). Development under the Downtown West PUD would be required to comply with local polices or ordinances protecting biological resources and impacts would be less than significant.

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

No Impact. The PUD project area consists of developed land with few vacant parcels. As described above, many areas of vacant land are small, surrounded by developed urban uses,

and isolated from other vacant land; therefore, the habitat value is low. Policy ER-5.1 in the General Plan describes the protection of biological resources through the establishment, restoration, and conservation of high-quality habitat areas. The PUD project area is located on land designated as Mixed Use and High Density Residential (City of Ontario 2023a). Therefore, the PUD project area does not contain areas for habitat conservation. The PUD project area would be located on developed, urban land that would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.

Cultural Resources

- a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less-than-Significant Impact with Mitigation Incorporated. The PUD project area is in an area of the City that has several known and potential historical resources. The State of California awarded a grant to fund a citywide survey between 1983 and 1984 to identify potentially historic resources located within the City. Between 1986 and 1987, the City continued the survey efforts, which resulted in documentation and evaluation of the historic significance of nearly 3,000 properties and the creation of the City's Historic Resource Inventory, in which 835 properties were formally listed. In 1991, the City retained Architectural Resources Group to further analyze historic properties located within Downtown, a former redevelopment area, and recommend an improvement strategy to revitalize the area, which led to the creation and City Council adoption of the Downtown Design Guidelines. An additional intensive level Downtown survey was conducted in 2003 that updated information on buildings and identified four potential historic districts. The City currently has 100 designated local landmarks, 14 of which are located Downtown; 8 designated historic districts; 5 historic properties listed on the National Register of Historic Places; and nearly 1,500 historic resources on the City's Historic Resource Inventory that have been determined to be eligible, nominated, or designated for landmark or historic district listing.

The Downtown West PUD considers the historic context-sensitivity of Downtown and requires projects to implement the Secretary of Interior Standards (federal preservation standards), the Ontario Development Code (Historic Preservation Ordinance), Downtown Design Guidelines, and best practices for managing development and growth on private property and within the public realm. It also encourages adaptive reuse of buildings and preservation of the potential downtown historic district. Additionally, the Downtown West PUD requires issuance of a Certificate of Appropriateness pursuant to City's Development Code (Chapter 4, Permits, Actions, and Decisions) for all exterior alterations to existing buildings and new construction on vacant or redeveloped sites that are located within the PUD boundary area to lessen or avoid impacts to historic resources. Projects that meet the PUD requirements and the Development Code will be in compliance with the Secretary of Interior Standards, thereby avoiding adverse impacts to historic resources.

The purpose of the Downtown West PUD is to approve the PUD document, which sets forth development standards, design guidelines, and regulations for future development of an eight-and-a-half block area located Downtown. The Downtown West PUD in itself will not result in a direct physical impact on historic resources. However, implementation of the Downtown West PUD land use plan may result in development project impacts to known, potential, or future historic

resources if activities propose inappropriate alterations to historical resources including, but not limited to, demolition (in whole or in part), rehabilitation, or new infill construction. Figure 4, PUD Project Area Historic Resources, identifies parcels with known historical resources, buildings over the age of 45 years that have not been evaluated for historic significance, and newer buildings that have not yet reached 45 years of age.

Chapter 4 of the Development Code contains significance criteria and procedures for the designation of historic resources such as Historic Landmarks, Historic Districts, Architectural Conservation Areas, and Automatic Designations; however, not all properties within the PUD boundary have been assessed and evaluated for historic significance.

As previously stated, all plans and development projects require issuance of a Certificate of Appropriateness. Upon acceptance of the application or request, planning staff or the Historic Preservation Subcommittee will evaluate the property for historic significance and eligibility for listing on the National Register of Historic Places, the California Register of Historic Resources, or the City's Historic Resource Inventory. The review may also include the preparation of a historic resource survey, at the intensive level, pursuant to the standards set forth by the California Office of Historic Preservation. The proposed plan or project will then be evaluated for compliance with the Downtown West PUD and require findings to lessen or avoid potential impacts to historic resources (the property or proposed downtown historic district) and make findings pursuant to Chapter 4. Plans or development projects that propose alterations or demolition that threatened the integrity of the historic resource shall require historic resource tiering prior to approval of the Certificate of Appropriateness.

To provide a greater level of certainty regarding the City's preservation goals, the Development Code includes a tier system with standard criteria and procedures for evaluating the significance of historic or potentially historic resources that are 45 years old and are threatened by major modifications or demolition.

The Development Code establishes criteria for Tier I, Tier II, and Tier III properties, with Tier I and II being of the highest value. The tier system identifies resources that have the highest preservation value in terms of their architectural and/or historical contribution to the City and the method to evaluate the significance of their loss in the case of major modification or demolition. The tier system also includes minimum mitigation measures and a mitigation fee structure for Tier III. Tier I consists of properties that should not be demolished or significantly altered under any circumstances, regardless of their designation status. Tier II consists of properties where demolition of these properties should be avoided. Given this strong policy of the City and the programmatic nature of the Downtown West PUD and this MND, it is not reasonably foreseeable at this time that any projects would be proposed and approved by the City that would require the full demolition of Tier I or Tier II resources or that would not be in compliance with the Downtown West PUD. Thus, on a programmatic level, implementation of the PUD would not result in significant impacts to Tier II or Tier I historic resources. Tier III consists of all properties that are Designated Historic Landmarks, are contributing structures in Designated Historic Districts, or are Eligible Historical Resources, as defined by the Development Code. Demolition of these properties should be avoided where possible, but may be appropriate under certain circumstances. If demolition occurs, the City requires historic resources to be documented and historic features to be salvaged and requires a

demolition mitigation fee. Therefore, the Development Code does not provide a high level of protection for Tier III resources.

As a result, on January 27, 2010, TOP 2050, File No. PGPA06-001, for which an EIR (State Clearinghouse No. 2008101140) was adopted by City Council, determined that demolition of Tier III historic resources would result in significant and unavoidable impacts that cannot be fully mitigated to a level of less than significant, despite the imposition of all feasible mitigation measures identified in the TOP EIR, for which a Statement of Overriding Consideration was documented. The mitigation measures for historic resources are included as MM-CUL-1, MM-CUL-2, and MM-CUL-3 below.

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
1	437 N. Euclid Ave.	104835403	Unicare Community Health Center	1967	NS
2	429 N. Euclid Ave.	104835404	Immigration Attorney	c.1948 (NETR)	NS
3	427 N. Euclid Ave.	104835405	Aktiva Nutrition	1946	E/5S3
4	425 N. Euclid Ave.	104835406	Downtown Ontario Improvement Association	1948	E/5S3
5	421 N. Euclid Ave.	104835407	Work Boot Warehouse	c. 1930	E/5S3
6	417 and 419 N. Euclid Ave.	104835408, -09	Optometrist	c. 1950	E/5D1
7	413 and 415 N. Euclid Ave.	104835410	Rogers Flower Shop and Barber Shop	c. 1930	NS
8	401 N. Euclid Ave.	104835411	Gloria's Cocina Mexicana	1937	OL/5D1
9	120 W. D St.	104835412	Paved Parking	—	—
10	123 W. E St. and 420 N. Laurel Ave.	104835401, -02, 104835413	Unicare Community Health Center, Parking	c. 1960	NS

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
11	201 W. E St. 425 N. Laurel Av. 421 N. Laurel Av.	104835304/5/6	Paved Parking	—	—
12	221 W. E St.	104835314	Paved Parking	—	—
13	206 W. D St.	104835313	Paved Parking	—	—
14	210-220 W. D St.	104835309	Multiple-family residential	1946	E/5S3
15	322 W. D St.	104834403	St. George School Playground	Shared property with Church (c.1920)	—
16	331 and 333 N. Euclid Av.	104856604	U.S. Bank Branch	1965	E/5S3
17	317 N. Euclid	104856605	Treasure Banquet Hall	1950	E/5S3
18	311, 313, 315 N. Euclid Ave.	104856606	Cancha Verde/ Strum Brewing	c. 1931	E/5D1
19	108 W. C St.. 301/303 N. Euclid	104856607	Emmon's Building/ Granada Theater	1926	OL-T1/5S3/5D1
20	114 W. C St.	104856609	Paved Parking	—	—
21	126 W. C St.	104856610	Paved Parking	—	—
22	112 W. C St.	104856608	Paved Parking	—	—
23	115 W. D St.	104856603	Paved Parking	—	—
24	(123 W. D St) 121 W. D St.	104856602	Associated Telephone Company Building	1936	Nom-T2/ 5S2

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
25	123 W. D St.	104856601	Paved Parking	—	—
26	324 N. Laurel Ave.	104856611	Paved undeveloped lot	—	—
27	211 W. D St./ 207 W. D St.	104856113	Frontier Communications	c.1959 (NETR)	NS
28	303-305 and 311-315 N. Laurel Av.	104856107	Multiple-family residential	c. 1920	E/5S3
29	210- 212 W. C St.	104856108	Dental Kidz Club	1954	R/6XM
30	218 W. C St.	104856109	Single Family residence	1908	E/5S3
31	220 W. C St.	104856110	Vacant land	—	—
32	312 N. Palm Av.	104856112	Single Family residence and commercial building	1920	E/5S3
33	228 W. C St.	104856111	Superior Justice Law Group	1955	NS
34	245 N. Euclid Av.	104856503	Valley Dept Store	1950	E/5S3
35	233 N. Euclid Av. 223 N. Euclid Av. 235 N Euclid Av.	104856504	The Golden Web Boutique store	1916	OL/5D1
36	231 N. Euclid Av.	104856505	Unique Café	1904	OL/5D1
37	219 N. Euclid Av.	104856506	Herradura De Oro	1948	E/5S3
38	215 N. Euclid Av.	104856507	Newsboy books	1946	E/5S3

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
39	211 N. Euclid Av.	104856508	Euclid Family Dentistry	c.1925	E/5S3
40	207 N. Euclid Av.	104856509	Vacant Commercial Building	1910	OL/5S1/5D3
41	106 W. B St. 203 N. Euclid Av	104856510	Furniture Dreams (Residential on second floor)	1908	OL/5S1/5D3
42	236 N. Laurel Av.	104856501	Paved Parking	—	—
43	N/A	104856513, 104856514	Paved Parking	—	—
44	126 W. B St.	104856512	Beautiful Smiles Ontario	c. 1930	E/5S3/5D1
45	108 W. C St. 115 W St.	104856502	Bank Building (Vacant)	1936	E-T3/5S3
46	120 W. B St. 112 W. B St.	104856511	Nightmare on B Street/ Dance Studio/ Odd fellows - Eligible (Aria Kabob, Electric Beauty Salon - Historic LL)	1922	OL/5S1/5D3
47	223, 225, 229, 235 N. Laurel Ave.	104856202	Centro Legal De Accidentes & Cedar Pointe Chiropractic	1947	E/5D1
48	206,208,210, 214,216,218, 220 W. B St./ 205, 207,209,211,213,21 5 N Laurel Ave	104856203	Multiple shops including barber, Fitness, beauty,	1947	E/5S3
49	222 W. B St.	104856207	Ministerio Pan de Vida (Religious Institution)	1945	R/6XM
50	212, 214, 216, 218 N. Palm Av.	104856206	Small shops (Tax services and fitness)	1957	S
51	215 W. C St.	104856201	Great Commission Church International (Christian Church)	1948 (additions 1955,1959,1966)	E/5S3

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
52	137, 139, 143, 141 N. Euclid Ave. and 105 W. B St.	104856403	Gemmel Pharmacy	1889	N/5S3/5D1
53	129 and 133 N. Euclid Ave.	104856404	DolEx Financial Services	c. 1907	E/5S3
54	125 N. Euclid Ave.	104856405	Bravo's Store	1910	E/5S3
55	121 and 123 N. Euclid Ave.	104856406	Demolished- vacant	1894	OL/Demolishe d in 2001
56	105, 109, 111, 115, 117 N. Euclid Av.	104856407	Verizon, Bally Spa, Night club, Motorcycle run	1889	OL/5S1/5D3
57	104,108, 110 & 112 W. Holt Blvd.	104856410	Botanica, Sabor Honduren, Beauty and Barber	1895	OL-T2/5S1/5D3
58	105 N. Euclid Ave.	104856408	Xolos Birria	1888	OL/5S1/5D3
59	101 N. Euclid Ave.	104856409	T Mobile	1895	OL-T2/5S1/5D3
60	121, 123, 125,127 W. B St	104856401	B St. Professional Bldg.; Document Preparation Services Inc., Logan's Candies, Isaprint,	c. 1930	E/5D1
61	N/A	104856414	Paved Parking	—	—
62	115 W. B St. 117 & 119 W. B St.	104856402	Income Tax office and residential upper floor	1922	OL/5S3/5D1
63	114, 116, 118 W. Holt Blvd	104856411	Pirate staffing, Ontario Boxing Club	c. 1915	E-T3/ 5D1
64	108 N. Laurel Ave./ 120, 122, 124, 126 W. Holt Blvd.	104856412 and 1048564 13	Jobs, Insurance, Pawnshop, paved parking	C 1910 (additio n c. 1950)	E-T3/ 5D1
65	203 W. B St./ 123, 127, 129 N. Laurel Ave	104856313	Body X Beauty, Pet grooming, Spa, Karate	1922 (retail commercial addition c. 1940)	E/5S3

Map ID- See Figure 4	Associated Address	Parcel Number	Current Use/ Description	Year Built	Historic Status Code (Local/CA)
66	207 W. B St.	104856312	Iglesia Fuente and paved parking	1949	E/5S3
67	211, 213, 215, 217 W. B St.	104856303	Majestic Trophy, Boxing Club, Mary Kay, office	1953	E/5S3
68	N/A	104856302	Paved Parking	—	—
69	225-227-229 W. B St. and 128-130 N Palm Ave.	104856301	Evc Insurance & Services and the Vault Barbershop and Home	c. 1915 (commercial additions c. 1950)	E/5S3
70	120 N. Palm Ave.	104856311	House	c. 1915	E/5S3
71	220 W. Holt Blvd.	104856310 and 104856309	Fiesta Motors (Parking Lot)	—	Rem/6W
72	210, 212, 214, 216, 218 W. Holt Blvd.	104856308	Eagles Aere and Sams Liquor	1920	E-T3/ 5D1
73	202 W. Holt Blvd.	104856307	Flores Barber Shop, Singular Insurance Services	2004	—
74	N/A	104856306	Paved Parking	—	—
75	315 W. D St.	104857601	Paved Parking	—	—
76	325 N. Palm Ave	104857602	Paved Parking	—	—

Local Key: NS- Not Surveyed, E- Eligible, N- Nominated, OL- Ontario Landmark, T1- Tier 1, T2- Tier 2, T3- Tier 3, REM- removed from inventory, S- Surveyed. CA status codes are available at ohp.parks.ca

Mitigation Measures:

MM-CUL-1. Issuance of a Certificate of Appropriateness pursuant to City's Development Code (Chapter 4, Permits, Actions, and Decisions) is required for all exterior alterations to existing buildings, and new construction on vacant or redeveloped sites that are located within the PUD boundary area prior to plan or development project approval.

MM-CUL-2. Historic or potentially historic resources located within the PUD boundary shall be evaluated for historic significance through the City's tier system prior to the issuance of plan or development approvals.

MM-CUL-3.

- A. Partial Demolition of Tier I, II, or III Historic Resources that do not result in loss of character defining features or cause adverse impacts to the integrity of the historic resource shall be documented pursuant to the Historic American Building Survey (HABS) standards to include photographs and cataloging of the exterior and interior of the resource prior to issuance of a building permit.
- B. As established in the TOP SEIR 2050, mitigation measures for demolition (full or in part) of Tier III Historic Resources shall include the following:
 - 1) Each historic resource shall be fully documented and cataloged pursuant to Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards, to provide a record of the resource, including, but not limited to: [i] the preparation of site plans, floor plans, exterior and interior elevations, and detail drawings of character defining features (such as moldings, stairs, etc.); and [ii] photographs of the resource, including the exterior, interior, and interior and exterior character defining features (such as moldings, light fixtures, trim patterns, etc.).
 - 2) A mitigation fee established pursuant to Section 7.01.030 (Historic Preservation Mitigation Fee) shall be paid to the City prior to the issuance of a demolition permit for Tier III historic resources.
 - 3) A Certificate of Appropriateness shall not be issued for the demolition of an historic resource, either in whole or in part, until such time that a demolition permit application and a replacement structure has been approved by the City, and appropriate permits have been issued for its construction, a deferral of the replacement structure requirement is granted pursuant to Subsection G (Replacement Structure Deferral) of Section 4.02.050; or [iii] demolition is required pursuant to Section 7.01.050 (Unsafe or Dangerous Conditions) of this Development Code.
 - 4) In an effort to preserve features and artifacts from historic resources, a determination whether items within or on the resource should be salvaged must be made by the Planning Department and may include the local historical society prior to the issuance of the demolition permit. The

applicant shall be responsible for the removal, relocation, storage, and donation of such items selected for salvaging. The applicant shall provide an inventory of salvaged items to the Planning Department, and shall include a list of each item name, description, and dimension (as necessary), and the location of each item on a floor plan.

- C. Full Demolition or partial demolition which results in loss or adverse impacts to character defining features of a Tier I or Tier II Historic Resource shall require preparation of and EIR or Focus EIR.

Implementation of MM-CUL1, MM-CUL-2, and MM-CUL-3 would reduce potentially significant impacts to cultural resources (historic era-built environment) to a less-than-significant level.

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

Less-than-Significant. The PUD project area consists of developed land with few vacant parcels. Implementation of the Downtown West PUD could allow development, including grading, that requires more intensive soil exaction than in the past, which could cause the disturbance of archeological resources. However, the potential to encounter subsurface intact deposits within native soils to the depths of proposed ground disturbance within the PUD project area is considered low. In an abundance of caution, Standard Conditions of Approval (City Council Resolution No. 2010-021) are required for development plan approval, which would address unanticipated archaeological resource discovery during construction by enacting the following (City of Ontario 2010):

If any archeological or paleontological resources are found during project grading/excavation/construction, the area shall not be disturbed until the significance of the resource is determined. If determined to be significant, the resource shall be recovered by a qualified archeologist or paleontologist consistent with current standards and guidelines, or other appropriate measures implemented.

- c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less-than-Significant Impact. There are known Native American gravesites and cemeteries in the City, including Bellevue Memorial Park on the north side of G Street, between Benson Avenue and Mountain Avenue (City of Ontario 2022a). These sites are not located in the PUD project area; therefore, there are no known human remains located in the PUD project area. Should human remains be unexpectedly encountered during ground-disturbing activities, they shall be treated consistent with applicable law including, without limitation, California Health and Safety Code Section 7050.5, PRC Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains can occur until the county coroner has determined the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be,

Native American, the county coroner shall follow all required protocols according to PRC Section 5097.98. Compliance with these regulations would ensure that impacts to human remains resulting from the Downtown West PUD would be less than significant.

Energy

This section is based on technical analysis conducted by Dudek and attached to this MND as Appendix A. See Appendix A for complete results.

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

Less-than-Significant Impact. The electricity and natural gas used for construction of the proposed Downtown West PUD would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Although the Downtown West PUD would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in vehicle miles traveled (VMT) over time.

Natural gas and electricity usage would increase due to the implementation of the Downtown West PUD; however, the Downtown West PUD would be subject to the State Building Energy Efficiency Standards. Therefore, impacts to energy resources during operation would be less than significant.

Over the lifetime of the Downtown West PUD, the fuel efficiency of the vehicles being used by the residents and employees of the Downtown West PUD is expected to increase. As such, gasoline consumption would initially increase due to the implementation of the Downtown West PUD; however, the amount of gasoline consumed as a result of vehicular trips to and from the PUD project area during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and greenhouse gas (GHG) emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emission vehicles in California (CARB 2017). Additionally, in response to Senate Bill (SB) 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the SCAG planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation. As such, operation of the Downtown West PUD is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

The Downtown West PUD would create additional electricity and natural gas demand by adding 581 dwelling units, 37,886 square feet of commercial space, and 1,220 provisional parking spaces. New facilities associated with the proposed Downtown West PUD would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of non-residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The Downtown West PUD will meet applicable Title 24 requirements. Other renewable energy systems including wind turbine generation, geothermal generation, energy storage, and other renewable energy generation features are not considered technically or economically feasible and/or demonstrated for a similar

project. Additionally, site constraints include limited land availability and incompatibility with land use for large scale power generation facilities, as well as unknown interconnection feasibility and compatibility with utility provider systems. For these reasons, other on-site renewable energy systems are not considered feasible for the proposed Downtown West PUD.

In summary, implementation of the Downtown West PUD would increase the demand for electricity and natural gas at the PUD project area and petroleum consumption in the region during construction and decrease petroleum consumption during operation. As the Downtown West PUD would be consistent with current regulations and policies, the Downtown West PUD would not be wasteful or inefficient and would not result in unnecessary energy resource consumption. The project's energy consumption demands during construction and operation would conform to the state's Title 24 standards such that the Downtown West PUD would not be expected to wastefully use gas and electricity. Since the proposed Downtown West PUD would comply with Title 24 conservation standards, the proposed Downtown West PUD would not directly require the construction of new energy generation or supply facilities or result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, vehicle usage associated with the Downtown West PUD would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts would be less than significant.

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

Less-than-Significant Impact. The Downtown West PUD would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6). Part 6 of Title 24 of the California Code of Regulations and all applicable rules and regulations would reduce energy demand and increase energy efficiency related to future residential development facilitated by the Downtown West PUD. Part 6 of Title 24 of the California Code of Regulations establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies.

Title 24 also includes Part 11, the California Green Building Standards, also known as CALGreen, which sets forth voluntary and mandatory energy measures that are applicable to the Downtown West PUD under. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. On this basis, the Downtown West PUD would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

Various existing local plans would reduce energy use including SCAG's 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy and CARB's Scoping Plan. Furthermore, approval of the Downtown West PUD itself, as a policy document update, would not change these regulations and would not provide any goals, policies, or programs that would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

Geology and Soils

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

and

ii) Strong seismic ground shaking?

Less-than-Significant Impact. The City is not within any Alquist-Priolo Earthquake Fault Zone. The southern section of the San Andreas Fault, located approximately 14 to 22 miles from the City, is estimated to be capable of generating the greatest magnitude earthquake (City of Ontario 2022a). However, development facilitated by the Downtown West PUD would be required to comply with seismic safety provisions of the California Building Code (CBC) (Title 24, Part 2 of the California Code of Regulations). Compliance with the CBC would reduce hazards from seismic ground shaking to less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Groundwater levels throughout the City are greater than 50 feet below ground surface (City of Ontario 2022a). Additionally, development facilitated by the Downtown West PUD would be required to meet the most current seismic safety requirements in the CBC. Therefore, the Downtown West PUD would have a less-than-significant impact on seismic-related ground failure, including liquefaction.

iv) Landslides?

No Impact. Landslides typically occur on moderate to steep slopes that are affected by physical factors such as slope height, slope steepness, shear strength, and orientation of weak layers in the underlying geologic units. The PUD project area and surroundings area are generally flat with soils stabilized by development and landscaping. The Downtown West PUD would not result in the creation of moderate to steep slopes that may become susceptible to landslides. As such, no impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. The PUD project area is mostly developed and paved and is generally on level ground. Proposed development would result in ground surface disruption during grading and excavation, which could result in erosion, siltation, or flooding impacts. Construction activities on the PUD project area larger than 1 acre are required to prepare a stormwater pollution prevention plan that details best management practices (BMPs) to reduce the potential for erosion during construction activities. In addition, compliance with the safety provisions of the CBC would reduce the potential for erosion or loss of topsoil to a level of less than significant.

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

Less-than-Significant Impact. Unstable geologic units or soils are characterized by materials lacking in sufficient integrity to support urban development (e.g., poorly consolidated fill). The PUD project area, along with majority of the City, is located in a subsidence zone due to groundwater pumping (City of Ontario 2023a). However, the PUD project area consists of existing development, which indicates that geologic conditions in the area can support the proposed development. Individual projects facilitated by the Downtown West PUD would be required to comply with the CBC and grading plans would be reviewed by the City engineer; therefore, impacts would be less than significant.

- d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. The PUD project area is located in the northern portion of the City, which consists of primarily silty sand, sand, and gravel; such sediments are usually non-expansive or have very low expansion potential (City of Ontario 2022a). Compliance with the CBC and review of grading plans for individual projects by the City engineer would ensure that impacts would be less than significant.

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

Less-than-Significant Impact. Wastewater from the City is treated at wastewater treatment facilities owned and operated by the Inland Empire Utilities Agency (IEUA) (City of Ontario 2022a), and any new development would connect to the existing wastewater treatment facilities. The Downtown West PUD does not include the use of septic tanks. Therefore, no impact to soils relative to supporting use of septic tanks would occur.

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

Less-than-Significant Impact. The possibility of finding paleontological resources in the City is moderate to high at depths of 10 feet or more below ground surface (City of Ontario 2022a). However, the PUD project area is mostly developed and paved. Proposed development would be infill development on sites that have been previously disturbed. Development would not involve ground disturbing activities at depths of 10 feet or more; therefore, impacts would be less than significant.

Greenhouse Gas Emissions

This section is based on technical analysis conducted by Dudek and attached to this MND as Appendix A. See Appendix A for complete results.

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

Less-than-Significant Impact. The City adopted their Community Climate Action Plan (CCAP) on August 16, 2022. The 2022 CCAP is an update to the City's 2014 CCAP and accounts for SB 32, which provides statewide targets to reduce GHG emissions to 40% below 1990 levels by 2030 (City of Ontario 2022d, 2023e). The 2022 CCAP is consistent with TOP 2050 and with the CEQA Guidelines for Plans for the Reduction of Greenhouse Gas Emissions (California Code of Regulations Section 15183.5). Because the 2022 CCAP addresses GHG emissions reductions and is consistent with the requirements of AB 32, SB 32, and international efforts to reduce GHG emissions, projects that comply with the CCAP Update would have a less-than-significant GHG impact. This allows the 2022 CCAP to support and streamline environmental review of GHG emissions for future development projects in the City.

The 2022 CCAP outlines two pathways to compliance at the project development level. The first pathway consists of screening tables, which aim to provide guidance in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The second pathway consists of efficiency metric thresholds.

This analysis applies the GHG efficiency metric threshold of 1.53 metric tons (MT) of carbon dioxide equivalent (CO₂e)/dwelling unit for residential development completed after 2030, and 3.61 MT CO₂e/2,500 square feet of conditioned space developed after 2030 to the Downtown West PUD (City of Ontario 2022d). These metrics can be used in lieu of the CCAP's screening tables, which require project-level specific information that is not currently available for the proposed Downtown West PUD. These GHG efficiency metrics are appropriate in that they would achieve per capita emissions for the City that align with the state's reduction goals of 40% below 1990 levels of emissions by 2030 and 80% below 1990 levels by 2050. Because the Downtown West PUD includes both residential and nonresidential space, the residential and nonresidential components were assessed separately against their respective applicable thresholds.

Construction Emissions

Construction of future development that would be facilitated by the Downtown West PUD would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road haul trucks, on-road vendor trucks, and worker vehicles. The SCAQMD has not proposed or adopted relevant quantitative GHG thresholds for construction-generated emissions.

Table 6 presents the estimated GHG emissions generated during construction of the 5% development scenario. Details of the emission calculations are provided in Appendix A.

Table 6. Estimated Annual Construction GHG Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons			
2025 (one full year)	0.02	0.02	0.16	344.67
Total over 20 years¹	0.38	0.35	3.22	6,893.40
Total Amortized Emissions				229.78
<i>Residential Amortized Emissions²</i>				<i>217.47</i>
<i>Commercial Amortized Emissions³</i>				<i>12.31</i>

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

See Appendix A for complete results.

Amortized construction GHG emissions represent total construction GHG emissions (in MT of CO₂e) divided 30 years, which is the assumed project operational lifetime consistent with SCAQMD guidance (SCAQMD 2008).

¹ Totals may not add due to rounding.

² The construction emissions associated with the residential land uses was calculated by multiplying total amortized emissions (229.78) by 95%, which represents the residential square footage divided by the proposed project's total square footage, to get 217.47.

³ The construction emissions associated with the commercial land use was calculated by multiplying total amortized emissions (229.78) by 5%, which represents the commercial square footage divided by the proposed project's total square footage, to get 12.31.

As shown in Table 6, the estimated total GHG emissions during construction of future projects that would be facilitated by the Downtown West PUD would be approximately 6,893 MT CO₂e over the 20-year construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 230 MT CO₂e per year.

Because the residential and commercial uses of the Downtown West PUD were evaluated separately to determine their respective GHG efficiency metrics, the amortized construction emissions were split between residential and commercial based on square footage of the proposed Downtown West PUD. The 581 residential dwelling units make up 669,342 square feet of the proposed Downtown West PUD, which is 95% of the total proposed Downtown West PUD's square footage. The commercial square footage totals 37,886 square feet, which makes up 5% of the total proposed project's square footage. Therefore, 95% of the total amortized construction emissions is 217.47 MT CO₂e, which was added to the residential operational GHG emissions. The remaining 5% or 12.31 MT CO₂e was added to the commercial operational GHG emissions.

Operational Emissions

Operation of the future development that would be facilitated by the Downtown West PUD would generate GHG emissions through motor vehicle trips; landscape equipment operation and hearths (area sources); energy use (natural gas and electricity); solid waste disposal; water supply, treatment, and distribution; and refrigerants. As with the air quality analysis, mobile source GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) based on EMFAC 2021 emission factors. Emissions from each category are discussed in the following text with respect to the Downtown West PUD. CalEEMod was used to calculate the annual GHG emissions. Operational year 2045 was assumed to be the first full year of operation following completion of construction.

The operational emissions associated with the commercial portion of the Downtown West PUD were evaluated separately against their respective efficiency threshold. The estimated

operational commercial project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and refrigerants are shown in Table 7.

Table 7. Project GHG Efficiency - Commercial

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year ¹			
Area	0.77	<0.01	<0.01	0.77
Energy	55.45	0.01	<0.01	55.82
Mobile	1,960.07	0.063	0.09	1,988.21
Waste	3.55	0.35	0	12.42
Water	3.15	0.09	<0.01	6.10
Refrigerants	0	0	0	0.04
Total	2,022.99	0.52	0.09	2,063.36
<i>Amortized construction emissions (Table 6)</i>				12.31
Total operational + amortized construction emissions				2,075.67
Existing Emissions²				2,021.06
Total Net Emissions³				54.61
Project Efficiency (MT CO₂e/2,500 SF)⁴				3.60
<i>Ontario CAP Post-2030 Commercial Efficiency Threshold</i>				3.61
Threshold Exceeded?				No

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; SF = square feet; <0.01 = less than 0.01.

See Appendix A for complete results.

- ¹ The Downtown West PUD emissions reflect operational year 2045.
- ² CalEEMod was used to calculate the GHG emissions associated with existing residential and commercial space to be redeveloped as a result of this project. The existing scenario to be redeveloped includes 5 dwelling units and 56,171 square feet of commercial building space.
- ³ Net emissions were calculated by subtracting the existing emissions from the total operational and amortized emissions associated with the project.
- ⁴ Project efficiency is calculated by dividing the net emissions (54.61 MT CO₂e) by 2,500 SF and multiplying by the proposed project's commercial square footage (37,886 SF) to get 3.60 MT CO₂e/2,500 SF.

As shown in Table 7, estimated annual GHG emissions generated by future commercial development that would be facilitated by the Downtown West PUD would be approximately 2,063 MT CO₂e per year as a result of Downtown West PUD operation. Estimated annual project-generated operational emissions in 2045 and amortized Downtown West PUD construction emissions would be approximately 2,076 MT CO₂e per year. The estimated annual net operational emissions after removal of existing operational emissions would be approximately 54.61 MT CO₂e per year. As explained previously, the efficiency metric threshold used is 3.61 MT CO₂e/2,500 square feet per year. The proposed Downtown West PUD is anticipated to facilitate a maximum of 37,886 square feet of commercial building space by 2045. Accordingly, the proposed Downtown West PUD would result in an efficiency of 3.60 MT CO₂e/2,500 square feet per year, which would not exceed the applied efficiency metric threshold of 3.61 MT CO₂e/2,500 square feet per year.

The operational emissions associated with the residential portion of the Downtown West PUD were evaluated separately against their respective efficiency metric threshold. The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles,

solid waste generation, water usage and wastewater generation, and refrigerants are shown in Table 8.

Table 8. Project GHG Efficiency - Residential

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year ¹			
Area	144.74	<0.01	<0.01	144.94
Energy	901.06	0.10	0.01	906.07
Mobile	1,666.18	0.05	0.08	1,690.41
Waste	38.33	3.83	0	134.11
Water	27.18	0.79	0.02	52.61
Refrigerants	0	0	0	0.77
Total	2,777.50	4.78	0.10	2,928.91
<i>Amortized construction emissions (Table 6)</i>				217.47
Total operational + amortized construction emissions				3,146.38
Existing Emissions²				1,946.38
Total net emissions³				1,200.00
Project Efficiency (MT CO₂e/du)⁴				2.07
<i>Ontario CAP Post-2030 Residential Efficiency Threshold</i>				1.53
Threshold Exceeded?				Yes

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; du = dwelling unit; <0.01 = less than 0.01.

See Appendix A for complete results.

- ¹ The Downtown West PUD emissions reflect operational year 2045.
- ² CalEEMod was used to calculate the GHG emissions associated with existing residential and commercial space to be redeveloped as a result of this project. The existing scenario is 5 dwelling units and 56,171 square feet of commercial building space.
- ³ Net emissions were calculated by subtracting the existing emissions from the total operational and amortized emissions associated with the project.
- ⁴ Project efficiency is calculated by dividing the total operational and amortized construction emissions (3,146.38 MT CO₂e) by the Downtown West PUD's number of dwelling units (581) to get 2.07 MT CO₂e/du.

As shown in Table 8, estimated annual GHG emissions generated by future residential development that would be facilitated by the Downtown West PUD would be approximately 2,929 MT CO₂e per year as a result of Downtown West PUD operation. Estimated annual project-generated operational emissions in 2045 and amortized Downtown West PUD construction emissions would be approximately 3,146 MT CO₂e per year. The estimated annual net operational emissions after removal of existing operational emissions would be approximately 1,200 MT CO₂e per year. As explained previously, the efficiency metric threshold used is 1.53 MT CO₂e/dwelling unit per year. The proposed Downtown West PUD is anticipated to facilitate a maximum of 581 dwelling units by 2045. Accordingly, the proposed Downtown West PUD would result in an efficiency of 2.07 MT CO₂e/ dwelling unit per year, which would exceed the applied efficiency metric threshold of 1.53 MT CO₂e/du/year. Therefore, GHG emissions generated by the Downtown West PUD would have a potentially significant impact; however, future project development proposals under the scope of the Downtown West PUD shall implement screening table measures that achieve the requisite points per the City's CCAP screening tables. With implementation of the screening tables measures, impacts would be less than significant.

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

Less-than-Significant Impact. A project's consistency with the CCAP is projected to result in emissions that would meet the GHG reduction target established under SB 32 and Executive Order S-03-05 and progress towards the state's carbon neutrality goal. The Downtown West PUD would be consistent with the CCAP and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, impacts would be less than significant.

Hazards and Hazardous Materials

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

Less-than-Significant Impact. Development facilitated by the Downtown West PUD would increase commercial and residential uses in the City, therefore increasing the amount of hazardous materials being transported, used, or disposed of in the City. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or environment. With adherence to state and local regulations, impacts associated with routine transport, use, and disposal of hazardous materials would be less than significant.

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

Less-than-Significant Impact. Construction and operation under the Downtown West PUD would involve relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, grease, adhesive materials, and solvents. These materials are not considered acutely hazardous and are used routinely throughout urban environments for both construction and operation of typical projects. Further, these materials would be transported, handled, and disposed in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Impacts would be less than significant.

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

Less-than-Significant Impact. The closest school to the PUD project area is St. George School, located approximately 0.02 miles northwest of the PUD project area. As described above, construction and operation under the proposed Downtown West PUD would involve use, storage, and disposal of small amounts of hazardous materials on the PUD. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or environment. With adherence to state and local regulations, impacts associated with routine transport, use, and disposal of hazardous materials would be less than significant.

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

Less-than-Significant Impact. The California Department of Toxic Substances Control's EnviroStor database tracks cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination. According to the database search, no cleanup sites are located in the PUD project area. Three evaluation cleanup sites that have been referred to a local agency are located approximately 0.05 miles south of the PUD project area (DTSC 2023). The State Water Resources Control Board's GeoTracker database identifies leaking underground storage tanks, waste discharge sites, oil and gas sites, and other waste or cleanup sites. A review of GeoTracker identified one closed leaking underground storage tank cleanup site within the PUD project area (GTE Ontario ID No. T0607100264). This site was closed in 1993.

Two more closed leaking underground storage tank cleanup sites were identified surrounding the PUD project area including Imperial Thrift and Loan Prop. (ID No. T0607100428), located approximately 0.5 miles west of the PUD project area, and TOSCO/76 Station #5606 (ID No. T0607100482), located approximately 0.5 miles northeast of the PUD project area (SWRCB 2023). The PUD project area is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and the nearby sites are closed cases; therefore, no impact would occur.

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

Less-than-Significant Impact. The PUD project area is located approximately 1.5 miles northwest of the Ontario International Airport. The PUD project area is not within an airport safety zone and is located in the 60-65 decibel community noise equivalent level noise contour zone, as depicted in the Ontario International Airport Land Use Compatibility Plan. The PUD project area is within the Airspace Avigation Easement Area and the allowable height for the PUD project area is 70 feet to 100 feet, as shown in the Airspace Protection Zones Map in the Ontario International Airport Land Use Compatibility Plan (Ontario Airport Planning 2018). The highest height proposed for development under the Downtown West PUD is 65 feet. The proposed development would be similar to the existing uses of the PUD project area and would not introduce new hazards to aircraft operations. Therefore, impacts would be less than significant.

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

Less-than-Significant Impact. The City has prepared the 2018 Hazard Mitigation Plan with the intent of reducing and/or eliminating loss of life and property from natural hazards. Policy S2-3 in the plan requires compliance with state and federal law and does not permit facilities using, storing, or otherwise involved with substantial quantities of on-site hazardous materials to be located in the 100-year flood zone unless all standards of elevation, flood proofing, and storage have been implemented to the satisfaction of the Building Department (City of Ontario 2018). Additionally, the City provides disaster preparedness and outlines hazard specific preparation through the

ReadyOntario website (City of Ontario 2023c). The closest fire station is located approximately 0.3 miles to the east of the PUD project area; therefore, the PUD project area would be served by the nearby station. With compliance with the building standards outlined in the Hazard Mitigation Plan and Municipal Code, impacts would be less than significant.

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

Less-than-Significant Impact. The PUD project area is not located in a Fire Hazard Severity Zone, as shown in TOP 2050 Figure S-05, Fire Hazard Severity Zones (City of Ontario 2023a). In the event of an emergency, fire response services for the PUD project area are provided by the Ontario Fire Department. Proposed development would be constructed in conformance with Title 24, which includes building requirements that prevent and protect against fire ignition and the spread of potential wildland fires. Therefore, impacts to people or structures, either directly or indirectly, from a significant risk of loss, injury, or death involving wildland fires would be less than significant.

Hydrology and Water Quality

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

Less-than-Significant Impact. Construction facilitated by the Downtown West PUD would involve ground-disturbing activities for grading that could result in sediment discharge in stormwater runoff. Additionally, construction would involve the use of oil, lubricants, and other chemicals that could be discharged from leaks or accidental spills. These potential sediment and chemical discharges during construction would have the potential to impact water quality in receiving water bodies. However, any construction activities disturbing 1 or more acres of land, or less than 1 acre of land if part of a larger development, must comply with the State Water Resources Control Board Construction General Permit, which requires development of a stormwater pollution prevention plan to protect water quality. This requires implementation of construction BMPs such as silt fences, inlet protection, and site stabilization techniques to ensure that stormwater runoff from the construction work areas does not cause degradation of water quality in receiving water bodies. Through the incorporation of BMPs through implementation of stormwater pollution prevention plan requirements, impacts associated with water quality standards during construction would be less than significant.

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

Less-than-Significant Impact. The PUD project area is located within the Chino Creek Watershed. The Chino Basin Watermaster has determined the safe yield for the basin and has assigned individual pumping allocations to each water purveyor to ensure that the total groundwater production does not exceed the safe yield (City of Ontario 2022a). Nearly all of the PUD project area is developed with urban uses and not available for groundwater recharge. Therefore, substantial decrease in impermeable surfaces in the City would not result from development of the Downtown West PUD. The Downtown West PUD would not result in substantial impacts that would impede sustainable groundwater management of the basin compared to what is existing.

The Chino Groundwater Basin is adjudicated and is considered by the Department of Water Resources to be a very low priority groundwater basin (DWR 2023). Each water purveyor has an allotted amount of water that can be pumped from the basin so that the safe yield is not exceeded; therefore, impacts would be less than significant.

- c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river 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?

Less-than-Significant Impact. The Downtown West PUD would not result in a substantial change in impervious surfaces within the PUD project area. The majority of the PUD project area is currently developed with mixed uses and residential. Development facilitated by the Downtown West PUD would feature drainage facilities that connect to existing drainage infrastructure. Therefore, implementation of the Downtown West PUD would not substantially alter the existing drainage pattern of the site or area in a way that would cause substantial erosions, flooding, polluted runoff, or changes to flood flows. Impacts would be less than significant.

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

Less-than-Significant Impact. The City is located outside a tsunami hazard zone (DOC 2023b). As shown in Figure S-03, Flood Hazard Zones, of TOP 20250 the PUD project area is located outside of a Federal Emergency Management Agency Floodplain Zone. Figure S-04 shows that the PUD project area, and the majority of the City, is in a zone of potential inundation from San Antonio Dam (City of Ontario 2023a), which is located approximately 6.3 miles from the PUD project area. The PUD project area is currently mostly developed and urban; new improvements and development facilitated by the Downtown West PUD would be similar in use to what exists and would not significantly increase the risk of pollutants due to inundation beyond what currently exists in the City. Impacts would be less than significant.

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

No Impact. The City's groundwater supplies are from the Chino Groundwater Basin, which is managed by the Chino Basin Watermaster. The Chino Basin is exempt from legislative requirements under the Sustainable Groundwater Management Act and is not required to prepare a groundwater sustainability plan (City of Ontario 2022a). The Downtown West PUD contains guidelines for development and private investments, public realm improvements, and activations and art. The Downtown West PUD would not involve groundwater extraction or affect

recharge in a way that would produce any effect on the local groundwater supply or groundwater table. Operations of the proposed Downtown West PUD would be similar to existing operations on the PUD project area and would not violate any water quality standards or water discharge requirements. Therefore, the Downtown West PUD would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impacts would occur.

Land Use and Planning

- a) Would the project physically divide an established community?

Less-than-Significant Impact. The proposed Downtown West PUD would contain guidelines for development and private investments, public realm improvements, activations, and art. The PUD project area is currently developed with a mix of commercial uses, vacant land, and residential units.. All other development or improvements facilitated by the Downtown West PUD would not change the land use or zoning of the PUD project area. The PUD project area is zoned as Downtown – MU and HDR; therefore, revitalizing the downtown area and adding residential units would be consistent with the site's intended uses. The Downtown West PUD would not result in a removal of an existing means of access, such as a road or bridge, that would impede mobility with an existing community and other areas. The Downtown West PUD includes improvements such as a potential paseo connection and alley improvements that would increase connectivity in the downtown area. The proposed Downtown West PUD would not physically divide an established community, and impacts would be less than significant.

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

No Impact. The PUD project area is designated in the General Plan as MU Downtown and is zoned as MU-1 and HDR-45. All other blocks would be within the allowed proposed density in TOP 2050. Table 9 shows the existing land use designation of each site, the allowed densities, and required parking per housing unit.

Table 9. Downtown West PUD TOP 2050 Consistency

Block	TOP 2050 Land Use Designation	Proposed Land Use Designation	TOP 2050 Allowed Density for Proposed Land Use Designation	Proposed Density (du/acre)	Parking Required for Housing Units	Total Parking provided
A	Mixed Use	Mixed Use	25.0 to 75.0	n/a	n/a	n/a
B	Mixed Use	Mixed Use	25.0 to 75.0	75	30	32
C	Mixed Use	Mixed Use	25.0 to 75.0	75	132	219
D	Mixed Use	Mixed Use	25.0 to 75.0	39	58	58
E	Mixed Use	Mixed Use	25.0 to 75.0	75	78	78
F	Mixed Use	Mixed Use	25.0 to 75.0	60	190	460
G	Mixed Use	Mixed Use	25.0 to 75.0	75	80	80
H	Mixed Use	Mixed Use	25.0 to 75.0	30	78	78

Table 9. Downtown West PUD TOP 2050 Consistency

Block	TOP 2050 Land Use Designation	Proposed Land Use Designation	TOP 2050 Allowed Density for Proposed Land Use Designation	Proposed Density (du/acre)	Parking Required for Housing Units	Total Parking provided
I	Mixed Use	High Density Residential	25.1 to 45.0	30	70	70
Fronting Euclid Avenue	Mixed Use	Mixed Use	25.0 to 75.0	75 max.	145	145
Total					861	1,220

Source: City of Ontario 2022a.

Note: n/a = not applicable.

As shown in Table 9 above, the Downtown West PUD would be consistent with the existing TOP 2050 Land Use Designations' density and parking requirements. Implementation of the Downtown West PUD would not conflict with the applicable zoning and other regulations.

In addition, TOP 2050 includes future buildout of the City. Table 10 shows the applicable land use future build out assumptions.

Table 10. TOP 2050 Future Buildout Table

Land Use	Acres	Assumed Density/Intensity	TOP 2050 Housing Units for Land Use	TOP 2050 Non-Residential Square Feet for Land Use
MU Downtown	128	60% of the area at 35 du/acre, 40% of the area at 0.80 FAR for office and retail	2,678	1,777,586

Source: City of Ontario 2022c.

Note: du/acre = dwelling unit per acre; FAR = floor area ratio.

The PUD project area consists of approximately 21.58 acres of proposed MU Downtown. The development allowed under the Downtown West PUD would be within the allowed TOP 2050 buildout housing units and non-residential square feet for the proposed land uses. The Downtown West PUD, at maximum buildout, would result in a fraction of the allowable buildout throughout the City. Therefore, no impact would occur.

Mineral Resources

- a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

And

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

No Impact. According to Figure 5.12-1, Areas of Mineral Resource Significance, in the TOP Supplemental EIR, the PUD project area is within Mineral Resource Zones (MRZ) 2 and 3. MRZ-2 includes zones where adequate information indicates that significant mineral deposits are present, or there is a likelihood of their presence, and development should be controlled. MRZ-3 includes zones where the significance of mineral deposits cannot be determined from the available data (City of Ontario 2022a). TOP 2050 Policy ER-5.5, Mining Operations, prohibits future mining operations where the resource extraction activities are incompatible with existing or proposed adjacent land uses. Areas identified with potential mineral resources have been developed with urban uses and are not suitable for mineral resource extraction (City of Ontario 2023a). The PUD project area is designated as mixed use and high density residential, which are uses that are incompatible with resources extraction activities; therefore, there would be no impact to loss of available of known mineral resources or mineral resource recovery sites.

Noise

This section is based on technical analysis conducted by Dudek and attached to this MND as Appendix B, Noise Technical Memorandum. See Appendix B for complete results.

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

Construction Noise

Less-than-Significant Impact With Mitigation Incorporated. The PUD project area is located within TOP 2050 Mixed Use-Downtown land use. As an implementation tool for TOP 2050 on a localized basis, the Downtown West PUD would facilitate development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. The intensity of construction activities and the distance between future construction zones and existing noise-sensitive receivers (i.e., residences, nursing care facilities, hospitals, lodging facilities) under the Downtown West PUD would not be materially different from assumptions regarding construction of future development of the area under TOP 2050.

The TOP Supplemental EIR concluded that construction could generate noise levels in excess of 80 A-weighted decibels equivalent continuous noise level and generate noise disturbances for prolonged periods of time at noise-sensitive receptors. Safety Element Policy S-4.1, Noise Mitigation, would help minimize the construction noise impacts through enforcement of Municipal Code Chapter 29, Section 5-29.09, which limits construction, remodeling, digging, grading, demolition, or any other related building activity to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on weekends. The Downtown West PUD would not result in new or a substantial increase in the magnitude of impacts compared to TOP 2050. Nevertheless, construction-related noise impacts from the Downtown West PUD would be potentially significant. Adherence to mitigation from the TOP Supplemental EIR would therefore

be required in order to avoid significant temporary construction noise impacts. The TOP Supplemental EIR mitigation measure regarding construction noise is presented below.

MM-NOI-1 Construction Noise Abatement

Construction activities associated with new development that occurs near sensitive receptors shall be evaluated for potential noise impacts. Construction contractors shall implement the following measures for construction activities in the City of Ontario. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans. The City of Ontario Planning and Building Departments shall verify that grading, demolition, and/or construction plans submitted include these notations prior to issuance of demolition, grading, and/or building permits:

1. Construction activity is limited to the hours between 7:00 am and 6:00 pm Monday through Friday and 9:00 am to 6:00 pm Saturdays and Sundays, as prescribed in Municipal Code Section 5-29.09.
2. During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques wherever feasible (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds).
3. Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
4. Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
5. Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.
6. Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City's Engineering Department.
7. At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.
8. Signs shall be posted at the job site entrance(s), within the onsite construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.
9. During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

10. Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier and may be lined on the construction side with an acoustical blanket, curtain, or equivalent absorptive material (City of Ontario 2022a).

Operational Noise (Stationary)

Less-than-Significant Impact. New commercial, residential, and mixed-use development under the Downtown West PUD is not anticipated to result in greater density than envisioned under TOP 2050. As described in the Development Code Chapter 6.0, new development may trend toward taller vertical structures than exist today, but with mechanical systems (principally for heating, ventilation, and air conditioning) situated on the roof of such structures, new noise sources would generally be at a further distance to any neighboring noise-sensitive receivers, thus reducing noise at the ground level as compared to lower profile buildings with the same roof-mounted equipment. Adaptive re-use of existing structures would likely involve more modern and efficient mechanical systems, with the same or lower noise generation than equipment associated with the original occupancy of such structures. Impacts would be less than significant.

Traffic Noise

Less-than-Significant Impact. Under the Downtown West PUD, the placement of housing, jobs, and amenities in closer proximity to each other and design strategies focused on the pedestrian and a variety of multimodal options will make walking and other forms of active transportation a desirable alternative to driving. The PUD project area would be served by existing roadway, transit, and pedestrian facilities and proposes improvements along B Street, Euclid Avenue Streetscape, alley improvements, and a West Valley Connector Bus Rapid Transit Station. Such improvements would be expected to counter an increase in the number of single-occupancy vehicle trips that could otherwise be associated with introduction of new housing units and commercial space. As such, implementation of the Downtown West PUD would not be anticipated to generate a greater number of vehicle trips compared to TOP 2050, and traffic noise level increases due to the Downtown West PUD would be less than significant.

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

Construction Vibration

Less-than-Significant Impact with Mitigation Incorporated. The TOP Supplemental EIR concluded that construction of future development allowed under TOP 2050 could generate vibration levels that exceed structural damage thresholds established by the Federal Transit Authority (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). The Downtown West PUD would not result in new or a substantial increase in the magnitude of impacts compared to TOP 2050. Nevertheless, construction-related vibration impacts from the Downtown West PUD would be potentially significant. Adherence to mitigation

from the TOP Supplemental EIR would therefore be required in order to avoid significant temporary construction-related vibration impacts. The TOP Supplemental EIR mitigation measure regarding construction-related vibration is presented below.

MM-NOI-2 Construction Vibration Abatement

Prior to issuance of a building permit, individual projects that involve vibration intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers near sensitive receptors shall be evaluated for potential vibration impacts. For construction within 135 feet of fragile structures, such as historical resources, within 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses shall be used, such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.

Operational Vibration

Less Than Significant. Vibration generation associated with commercial facilities is typically only associated with very large/heavy equipment that includes a rotating component or impact function. Commercial operations envisioned within the PUD would be expected to generate limited levels of ground vibration, which are unlikely to be perceptible beyond the property line of the facility. Therefore, vibration from future commercial operations developed under the PUD would be less than significant.

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

Less-than-Significant Impact. The PUD project area is located approximately 1.5 miles northwest of the Ontario International Airport. The PUD project area is located in the 60–65 decibels community noise equivalent level noise contour zone, as depicted in the Ontario International Airport Land Use Compatibility Plan (City of Ontario 2024). New residential or other noise-sensitive land uses constructed as part of the Downtown PUD would not be exposed to airport-related noise levels in excess of 65 A-weighted decibels community noise equivalent level. Impacts would be less than significant.

Population and Housing

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

Less-than-Significant Impact. The proposed Downtown West PUD would facilitate 581 residential units. As described above in Table 9, the Downtown West PUD would result in densities less than they allowable TOP 2050 densities. Therefore, the number of residences that would be developed within the PUD project area is consistent with planned growth in the General Plan Land Use Element, and unplanned growth would not occur.

In addition, the City's Housing Element analyzes existing housing and housing needs within the City and prepares goals, policies, and programs to further the development, improvement, and preservation of housing. The Housing Element was adopted March 1, 2022, and revised August 2022. The PUD project area is located within the Downtown Plan in the Housing Element. The Downtown Plan's vision is to facilitate new mixed-use and residential development, including 634 units in the Downtown Plan area (City of Ontario 2022b). The Downtown West PUD proposes 581 residential units; therefore, the Downtown West PUD would be consistent with the approved Housing Element. The growth facilitated by the Downtown West PUD is within the previously approved standards and would further define the design standards and guidelines for developers in efforts to revitalize Downtown Ontario.

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

Less-than-Significant Impact. The PUD project area contains existing residential units; however, the majority of development would be located on existing commercial or vacant land. The Downtown West PUD would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. At full buildout, the Downtown West PUD would facilitate the addition of 581 units; therefore, no replacement housing elsewhere would be needed and impacts would be less than significant.

Public Services

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

Less-than-Significant Impact. The City of Ontario Fire Department provides fire services throughout the City. The fire department operates out of 10 stations staffed by 186 sworn firefighters and 41 professional staff members serving the community across six bureaus—Operations/Airport Services, Fire Prevention, Support Services, EMS, Training and Professional

Services, and Administrative Services (City of Ontario 2023d). The closest fire station is located approximately 0.3 miles east of the PUD project area.

The proposed Downtown West PUD would allow for 581 additional housing units and therefore would increase the demand for emergency fire services. However, implementation of the proposed Downtown West PUD would be required to adhere to the California Fire Code (CFC), as included in the City's Municipal Code Chapter 4. Future development would be reviewed by the City and the City of Ontario Fire Department on an individual basis and would be required to comply with requirements at the time building permits are issued, including the payment of development impact fees that contribute to funding for additional staffing, facilities, and equipment. Provision of a new or physically altered fire station that could cause environmental impacts would not be required. Therefore, impacts related to fire protection services from the proposed Downtown West PUD would be less than significant.

ii) Police protection?

Less-than-Significant Impact. The City of Ontario Police Department (OPD) provides police protection services to the City. The OPD has a standard of having approximately 225 police officers per 100,000 people. As of 2022, the OPD was allotted 300 police officers and met this standard (City of Ontario 2022a). Buildout of the proposed Downtown West PUD would result in increased population and development and would result in an increased demand on police protection services. Future development facilitated by the Downtown West PUD would also be subject to development impact fees that pay for police services. In addition, future development would be reviewed by the City on an individual basis and required to comply with regulations at the time building permits are issued. Therefore, with payment of development impact fees, the proposed Downtown West PUD would not result in a substantial adverse impact associated with the provision of additional police facilities or services, and impacts to police services would be less than significant.

iii) Schools?

Less-than-Significant Impact. The PUD project area is served by Chaffey Joint Union High School District (CJUHS) and Ontario-Montclair School District (OMSD). The closest school to the PUD project area is St. George School, located approximately 0.02 miles northwest of the PUD project area.

Each school district that serves the City assesses its needs individually based on student generation rates from residential development and charges development impact fees accordingly. Residential development in the City facilitated by the Downtown West PUD would require payments to corresponding school districts. These payments accommodate the need for new facilities based on the increase in student population in each district (City of Ontario 2022a).

The majority of school districts within Ontario have existing capacity to accommodate TOP 2050 buildout and population increase, including the CJUHS. The OMSD indicated that any increase in residential development will impact OMSD school facilities; however, information provided by OMSD shows that most of its schools can accommodate the District's projections for the next 10 years (City of Ontario 2022a); therefore, because the proposed Downtown West PUD is consistent with the land uses and densities in TOP 2050, the school districts would have the existing capacity to

accommodate the proposed Downtown West PUD. Therefore, impacts related to school facilities would be less than significant with the Government Code required fee payments.

iv) Parks?

Less-than-Significant Impact. The TOP 2050 Parks and Recreation Element contains policies regarding park requirements in the City. Policy PR-1.5 aims to provide 5 acres of parkland (public and private) per 1,000 residents and Policy PR-1.6 aims to provide a minimum of 2 acres of developed private park space per 1,000 residents (City of Ontario 2023a). The proposed Downtown West PUD would not result in a substantial increase in population such that new facilities would be required to serve the Downtown West PUD. In addition, the project applicants would be required to pay development impact fees for parks and recreation facilities. Therefore, with payment of development impact fees, the proposed Downtown West PUD would have a less-than-significant impact related to the provision of park and recreational facilities.

v) Other public facilities?

Less-than-Significant Impact. Development facilitated by the proposed Downtown West PUD could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, because the PUD project area is already served by other services and the proposed Downtown West PUD would be consistent with the approved TOP 2050, the proposed Downtown West PUD would not result in the need for new or physically altered facilities to provide other services, the construction of which could cause significant environmental impacts. Therefore, impacts would be less than significant.

Recreation

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

Less-than-Significant Impact. The City uses the established parkland standard of 3 acres per 1,000 residents. The City has approximately 481 acres of parkland (City of Ontario 2022a). Based on a population of 175,265 (U.S. Census Bureau 2020), the City currently requires 526 acres of parkland.

Future growth facilitated by the Downtown West PUD would increase the demand for parks and increase existing park usage. The Quimby Act is a funding mechanism for parkland acquisition. Under this act and pursuant to the City's Municipal Code, residential subdivisions must dedicate parkland or pay in lieu fees to enable the City to acquire a ratio of 3 acres of parkland per 1,000 residents (City of Ontario 2022a). Therefore, with the inclusion of in lieu fees, impacts would be less than significant.

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

Less-than-Significant Impact. The City has 481 acres of parkland, and buildout of TOP 2050 would provide 900 acres of additional parkland (City of Ontario 2022a). Therefore, with the addition of

new parkland throughout the City, the proposed Downtown West PUD would not require the construction or expansion of recreational facilities, and impacts would be less than significant.

Transportation

This section is based on technical analysis conducted by Dudek and attached to this MND as Appendix C, Transportation Technical Memorandum. See Appendix C for complete results.

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

Less-than-Significant Impact. The Mobility Element of TOP 2050 mentions that access and connectivity to mobility options will be integrated into neighborhoods, center, corridors and districts in the City (City of Ontario 2023a). The placement of housing, jobs, and amenities in closer proximity to each other and design strategies focused on the pedestrian and a variety of multimodal options will make walking and other forms of active transportation a desirable alternative to driving. This is consistent with the Downtown West PUD, which is proposing development regulations and planning and design principals to govern the development or redevelopment of an eight-and-a-half block area of the City with residential and commercial uses.

The proposed Downtown West PUD would be consistent with and not impede the implementation of the following Mobility Element goals (City of Ontario 2023a):

1. Goal M1: A system of roadways that meets the mobility needs of a dynamic and prosperous Ontario.
2. Goal M2: A system of trails and corridors that facilitate and encourage active modes of transportation.
3. Goal M3: A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit-dependent.
4. Goal M4: An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts.
5. Goal M5: A proactive leadership role in helping identify and facilitate implementation of strategies that address regional transportation challenges (City of Ontario 2023a).

Euclid Avenue, Palm Avenue, E Street, and Holt Boulevard provide primary access to the PUD project area. The City is served by bus services provided by OmniTrans, which operates Routes 61, 83, and 84 in the PUD project area. The City is served by passenger rail services by Amtrak and Metrolink. The Amtrak station is located at 198 E Emporia Street, approximately 0.2 miles southeast of the Euclid Avenue/Holt Avenue intersection. The Ontario East station (Metrolink-Riverside line) is located at 3330 E Francis Street approximately 5.8 miles southeast of the Euclid Avenue/Holt Avenue intersection. The City's downtown core is well served by pedestrian facilities, with sidewalks provided along most streets and crosswalks provided at all major intersections. There are several existing and proposed bicycle facilities shown in TOP 2050 Figure M-02, Multipurpose Trails and Bikeways, that serve the PUD project area.

The PUD project area would be served by existing roadway, transit, and pedestrian facilities and proposes improvements along B Street, Euclid Avenue Streetscape, alley improvements, and a

West Valley Connector Bus Rapid Transit Station. As such, the Downtown West PUD would not conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

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

Less-than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The Updated CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts," and define VMT as "the amount and distance of automobile travel attributable to a project." "Automobile" refers to on-road passenger vehicles, specifically cars and light trucks. The Office of Planning and Research has clarified in its Technical Advisory (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

Based on the San Bernardino County Transportation Authority Transportation Analysis Model VMT evaluation tool,² the individual projects or parcels are located in two traffic analysis zones (TAZs) (i.e., 5364501 and 53645201).

The individual parcels or projects within the Downtown West PUD may be screened from conducting a detailed project-level VMT assessment if they meet at least some of the following screening criteria:

1. **Transit Priority Area Screening:** Projects located within 0.5 miles of an existing "major transit stop" or an "existing stop along a high-quality transit corridor" may be presumed to have a less-than-significant impact absent substantial evidence to the contrary. In addition to its proximity to transit, the project would meet the following:
 1. A minimum floor area ratio of 0.75
 2. Provide no more parking than City Development code mandates
 3. Be consistent with the applicable Sustainable Communities Strategy
 4. Do not replace affordable housing units with a smaller number of moderate or high-income residential units

Based on the evaluation tool, several Assessor's Parcel Numbers in the TAZ would meet the Transit Priority Area screening. The Downtown West PUD would ensure during development plan review that individual projects would also meet the conditions for floor area ratio, parking, consistency with Sustainable Communities Strategy, and not replacing affordable housing units, as outlined above.

2. **Low VMT Area Screening:** Projects are presumed to result in less-than-significant VMT impacts if located in low VMT-generating model TAZs. These TAZs generate total daily VMT per service population that is less than the baseline level for the City's buildout. Based on

² San Bernardino County Transportation Authority VMT Screening Tool accessed at <https://sbcta.maps.arcgis.com/apps/webappviewer/index.html?id=779a71bc659041ad995cd48d9ef4052b>

the evaluation tool, several project Assessor's Parcel Numbers are within a low VMT-generating area and would meet this screening criterion.

3. **Project Type Screening:** Projects that meet the criteria described below can be screened from further VMT review and are presumed to have a less-than-significant impact:

- Residential, office, retail or a mix of these land uses within 0.5 miles of an existing major transit stop
- Local-serving retail uses not greater than 50,000 square feet in size;
- Projects with a Neighborhood Commercial TOP 2050 Land Use designation
- Redevelopment of a site to a residential or office that would generate fewer VMT than the existing use

Each project within the Downtown West PUD is likely to meet one of the above-mentioned screening criteria and therefore it is anticipated to have a less than significant VMT impact. If the screening criteria is not met, the applicant would need to submit project level VMT analysis and additional mitigation to mitigate impacts. Therefore, the Downtown West PUD would not conflict or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be less than significant.

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

Less-than-Significant Impact. The Downtown West PUD proposes to redevelop several existing residential and commercial parcels; however, it does not propose any new roads or intersections. Individual projects including residential and commercial development would be subject to, and designed in accordance with, City standards and specifications that address potential design hazards including sight distance, driveway placement and access, and signage and striping. Additionally, any new improvements to roadway facilities associated with individual projects would be constructed based on design and access standards consistent with the City's Traffic and Transportation Guidelines (City of Ontario 2020b).

During construction, if any temporary road closures are anticipated, the contractor will implement a traffic control plan (if required) and standard construction management practices to maintain access for all road users and emergency vehicles. As such, traffic from the project entering and exiting the individual sites would be able to do so safely at the driveways. Therefore, the Downtown West PUD would not substantially increase hazards due to a roadway design feature or introduce incompatible uses. Impacts would be less than significant.

d) Would the project result in inadequate emergency access?

Less-than-Significant Impact. The proposed Downtown West PUD does not propose any new roadways or intersections, and it would not include any standards that would result in inadequate emergency access. The individual project design and access details such as new or modified driveway locations or curb cuts are unknown at the time of this writing. Therefore, this document does not consider impacts to emergency access to properties in the PUD project area or particular streets along which parcels have been identified for development. The Downtown West PUD may allow for

greater densities than are currently allowed as proposed in the plan, policies, and zoning standards for Downtown and would facilitate temporary construction activities within the area, which could temporarily result in impacts to the circulation system. The individual projects would be designed and constructed to local standards and comply with the fire code and emergency access requirements of the fire department. Upon completion, the projects or parcels would continue to be accessible via existing or new driveways along streets in the Downtown area. Therefore, the construction or operation of the proposed Downtown West PUD would not result in inadequate emergency access, and impacts would be less than significant.

Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Less-than-Significant Impact. A Native American Heritage Commission (NAHC) record search for the Sacred Lands File (SLF) for the Downtown West PUD was negative for known Native American heritage resources within the PUD project area. Therefore, the Downtown West PUD would not adversely affect tribal cultural resources (TCRs) that are listed or eligible for listing in the state or local register. Impacts would be less than significant.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less-than-Significant Impact with Mitigation Incorporated. The SLF is maintained by the NAHC and represents a curation of "sacred lands" or TCRs provided by tribal entities and Native American representatives. While the NAHC SLF records search results were negative for known Native American heritage resources within the PUD project area, for various reasons, tribal entities and Native American representatives do not always report sacred lands or TCRs to the NAHC. As such, the NAHC's SLF is not a comprehensive list, and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs or cultural resources. The NAHC provided a list of 20 individuals/tribal entities who would potentially have specific knowledge as to whether or not other cultural resources are identified within the PUD project area that could be at risk. Future development facilitated by the Downtown West PUD would be required to undergo project-specific tribal consultation.

The City sought to enter into tribal consultation with all tribes listed as a result of the NAHC records request. Two tribes, the Gabrieleno Band of Mission Indians – Kizh Nation and the San Manuel Nation, requested consultation. Information was provided that the PUD project area exists within Serrano ancestral territory. There were no concerns with the Downtown West

PUD's implementation; however, mitigation measures were requested. MM-CUL-4, MM-CUL-5, MM-CUL-6, MM-TCR-1, and MM-TCR-2 are provided below.

In addition, in an abundance of caution and in an effort to protect unknown TCRs, the City has developed Standard Conditions of Approval (City Council Resolution No. 2010-021) to ensure the proper treatment of unknown subsurface cultural and tribal cultural resources in the event of an inadvertent discovery. Significant impacts are not expected. However, City-to-tribal government consultation pursuant to AB 52 and SB 18 will continue for future projects as required by state laws.

MM-CUL-4.

In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

MM-CUL-5.

If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

MM-CUL-6.

If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

MM-TCR-1.

The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed in CR-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

MM-TCR-2.

Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.

Note: Yuhaaviatam of San Manuel Nation realizes that there may be additional tribes claiming cultural affiliation to the area; however, Yuhaaviatam of San Manuel Nation can only speak for itself. The Tribe has no objection if the agency, developer, and/or archaeologist wishes to consult with other tribes in addition to YSMN and if the Lead Agency wishes to revise the conditions to recognize additional tribes.

Utilities and Service Systems

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

Less-than-Significant Impact. The Downtown West PUD would contain guidelines for development and private investments, public realm improvements, and activations and art. Development facilitated by the Downtown West PUD would connect to the existing water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities surrounding the PUD project area. Construction impacts, such as ground disturbance, to make these utility connections could result in minimal impacts to soil such as soil displacement, erosion, or runoff; however, implementation of BMPs would minimize the amount of erosion and/or siltation that would have the potential to occur during construction. Impacts would be less than significant.

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

Less-than-Significant Impact. Residential development facilitated by the Downtown West PUD would result in an increase in residential uses and therefore an increase in water usage. The City is served by the Ontario Municipal Utilities Company and IEUA. The IEUA and the cities within its service area plan for increased demand with future development (City of Ontario 2022a). In addition, the PUD project area is primarily developed; therefore, development facilitated by the Downtown West PUD would be served by existing water infrastructure.

The Downtown West PUD would comply with TOP 2050 Policy LU-1.3, requiring adequate infrastructure and services for all development, and Policy LU-4, requiring that the necessary infrastructure and services be in place prior to or concurrently with development. The purpose of Policies ER-1.1 through ER-1.5 are to ensure that water supplies and demands in the City are met (City of Ontario 2023a). The Downtown West PUD is consistent with the land uses and projected growth in TOP 2050; therefore, sufficient water supplies would be available to serve the PUD project area and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

- c) Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less-than-Significant Impact. The proposed Downtown West PUD would be consistent with the approved TOP 2050, which accounts for buildout at the PUD project area. IEUA has two facilities that serve the City: Regional Water Recycling Plant No. 1 (RP-1) and Regional Water Recycling Plant No. 5 (RP-5). RP-5 is currently under expansion and expected to be completed in 2025 (City of Ontario 2022a). Therefore, with the expanded future wastewater capacity of the City, development under the Downtown West PUD is not expected to exceed wastewater capacity, and impacts would be less than significant.

- d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. Development facilitated by the Downtown West PUD would comply with Section 4.408 of the 2022 CALGreen building code, which requires that at least 65% of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Development would also comply with AB 341, which mandates recycling for commercial and multifamily residential land uses. In accordance with AB 1826, future businesses that generate organic waste in amounts over a certain threshold would be mandated to recycle organic matter (City of Ontario 2022a). As such, the Downtown West PUD would not impair the attainment of solid waste reduction goals.

In addition, the Downtown West PUD would comply with TOP 2050 Policies ER-2.1, ER-2.2, and ER-2.3, which describe a cost-effective, integrated waste management system that meets or exceeds state and federal recycling and waste diversion mandates through meeting or exceeding AB 939 requirements, prohibiting the disposal of hazardous and electronic waste into the municipal waste stream, and purchasing recycled-content products (City of Ontario 2023a). With compliance of the applicable regulations, the Downtown West PUD impacts would be less than significant.

- e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The proposed Downtown West PUD would result in new development that would generate an increased amount of solid waste. As described above, development would be required to comply with the 2022 CALGreen building code, AB 341, and AB 1826. The Downtown West PUD would be consistent with all state regulations, as ensured through the City's development project permitting process. Therefore, the proposed Downtown West PUD would comply with all solid waste statutes and regulations, and impacts would not occur.

Wildfire

- a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The City has prepared the 2018 Hazard Mitigation Plan with the intent of reducing and/or eliminating loss of life and property from natural hazards. The City is located in a Local Responsibility Area. Fire protection for the City is the responsibility of the Ontario Fire Department. The Ontario Fire Department consists of 10 fire stations located throughout the City (City of Ontario 2018). The closest fire station is located approximately 0.3 miles east of the PUD project area. Additionally, the City provides disaster preparedness and outlines hazard specific preparation through the ReadyOntario website (City of Ontario 2023c). Title 9 of the Municipal Code provides development standards and fire reduction strategies including providing for fire access roads, maintaining a defensible space of non-combustible vegetation around structures, and installing indoor sprinkler systems (City of Ontario 2018). The PUD project area is not located in a Fire Hazard Severity Zone, as shown in TOP 2050 Figure S-05, Fire Hazard Severity Zones (City of Ontario 2023a); is served by a nearby fire station; and would comply with the fire regulations and standards outlined in the Hazard Mitigation Plan and Municipal Code. Therefore, impacts would be less than significant.

- b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. The PUD project area is not located in a Fire Hazard Severity Zone, as shown in TOP 2050 Figure S-05, Fire Hazard Severity Zones. However, Santa Ana winds and commercial and industrial facilities could increase the possibilities of fires in the City. Goals and policies in TOP 2050 are aimed at reducing the risks of damage due to fires. Implementation of the CFC and CBC (Policy S-3.1), maintenance of fire and emergency medical services (Policy S-3.3), designing new development with fire prevention considerations (Policy S-3.8), and other measures listed in TOP 2050 would reduce the risk of fire in the City (City of Ontario 2023a). With adherence to the CFC, CBC, and TOP 2050, the Downtown West PUD would not exacerbate risk or result in post-wildfire hazards. Impacts would be less than significant.

- c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-Significant Impact. As previously discussed, the Downtown West PUD would not exacerbate fire risk. Construction facilitated by the Downtown West PUD would comply with CFC requirements to manage and minimize fire risk during construction. Operation of the proposed development would not contain potential sources for fire risk. As such, the Downtown West PUD would not result in installation or maintenance of associated infrastructure that may exacerbate fire risk. Impacts would be less than significant.

- d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-Significant Impact. As previously described, the PUD project area is not located in a Fire Hazard Severity Zone or a Federal Emergency Management Agency Flood Zone and is located in a flat, developed area of the City (City of Ontario 2023a). In addition, the Downtown West PUD would not substantially alter the drainage of the existing site, as the site is mostly developed or paved and connected to existing stormwater systems. Therefore, the Downtown West PUD would not expose people or structures to significant risks from post-fire slope instability or drainage changes. Impacts would be less than significant.

Mandatory Findings of Significance

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

Less-than-Significant Impact with Mitigation Incorporated. The PUD area is an urban redevelopment area. Potential impacts related to sensitive and special-status habitat, wildlife species, and plant species are discussed in the Biological Resources section. As discussed in the Biological Resources section, impacts to biological resources would be less than significant. The proposed Downtown West PUD would not substantially degrade the quality of the environment or impact fish or wildlife species or plant communities. As discussed in the Cultural Resources section, potential impacts to cultural resources would be reduced to a level below significance with incorporation of mitigation measures. In addition, as discussed in the Tribal Cultural Resources section, the Downtown West PUD would not result in impacts to TCRs. The proposed Downtown West PUD would not eliminate important examples of the major periods of California history or prehistory. Overall, impacts would be less than significant with incorporation of MM-CUL-1, MM-CUL-2, and MM-CUL-3 and MM-TCR-1 and MM-TCR-2.

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

Less-than-Significant Impact with Mitigation Incorporated. As indicated in the analysis presented throughout this MND, the proposed Downtown West PUD would not result in significant and unavoidable impacts in any issue area. MM-CUL-1, MM-CUL-2, MM-CUL-3, MM-CUL-4, MM-CUL-5, MM-CUL-6, MM-TCR-1, MM-TCR-2, MM-NOI-1, and MM-NOI-2 would reduce impacts to below a level of significance.

The proposed Downtown West PUD does not propose development, rather it would facilitate future development and improvements in the PUD project area through design guidelines and standards. Cumulative projects would be analyzed at the time that development facilitated by the Downtown West PUD are proposed.

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

Less-than-Significant Impact with Mitigation Incorporated. The potential for adverse direct or indirect impacts to human beings was considered throughout this MND. Based on this evaluation, there is no substantial evidence that construction or operations facilitated by the Downtown West PUD with the proposed mitigation measures incorporated would result in a substantial adverse effect on human beings. Impacts would be less than significant with incorporation of mitigation measures.

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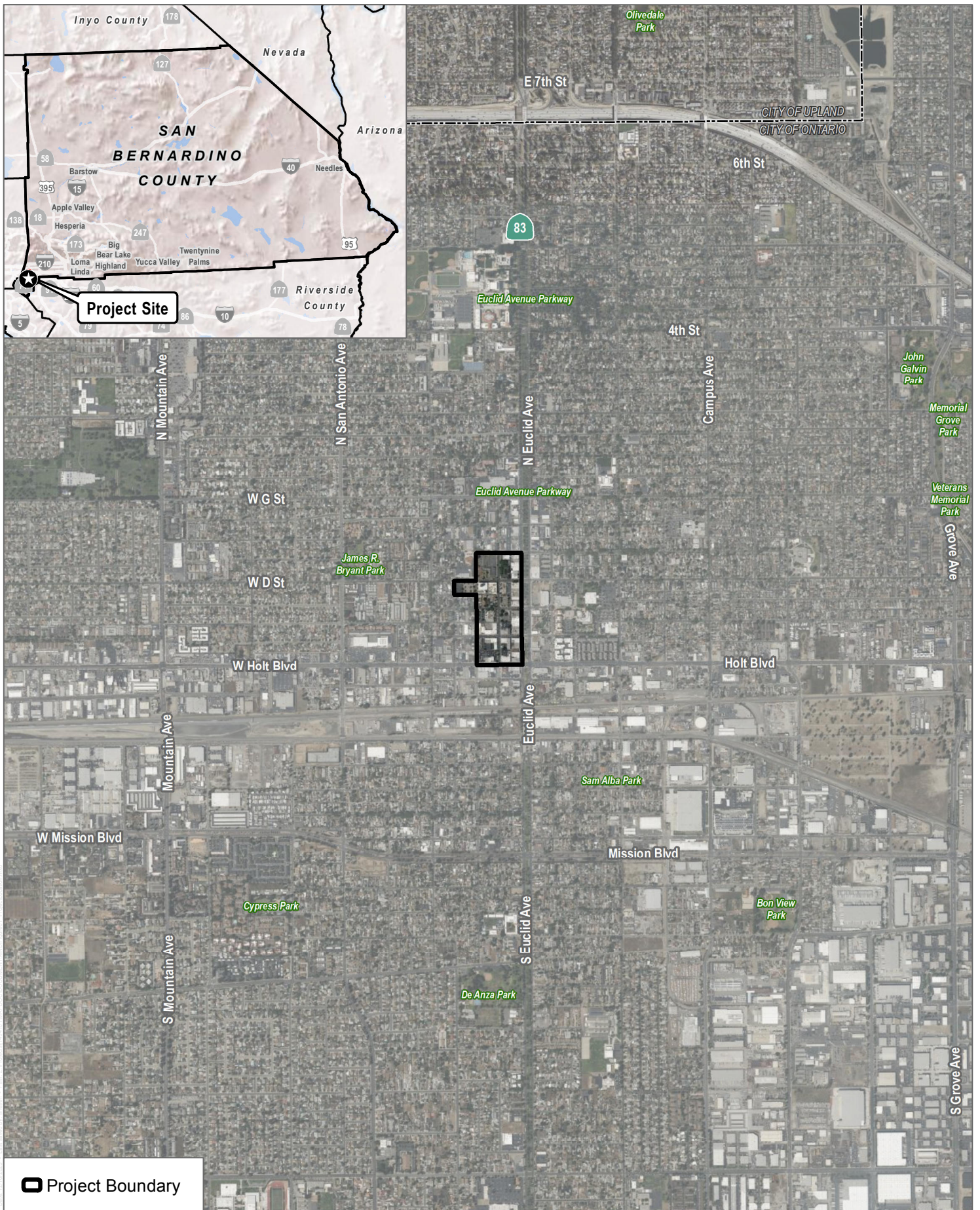
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List of Preparers

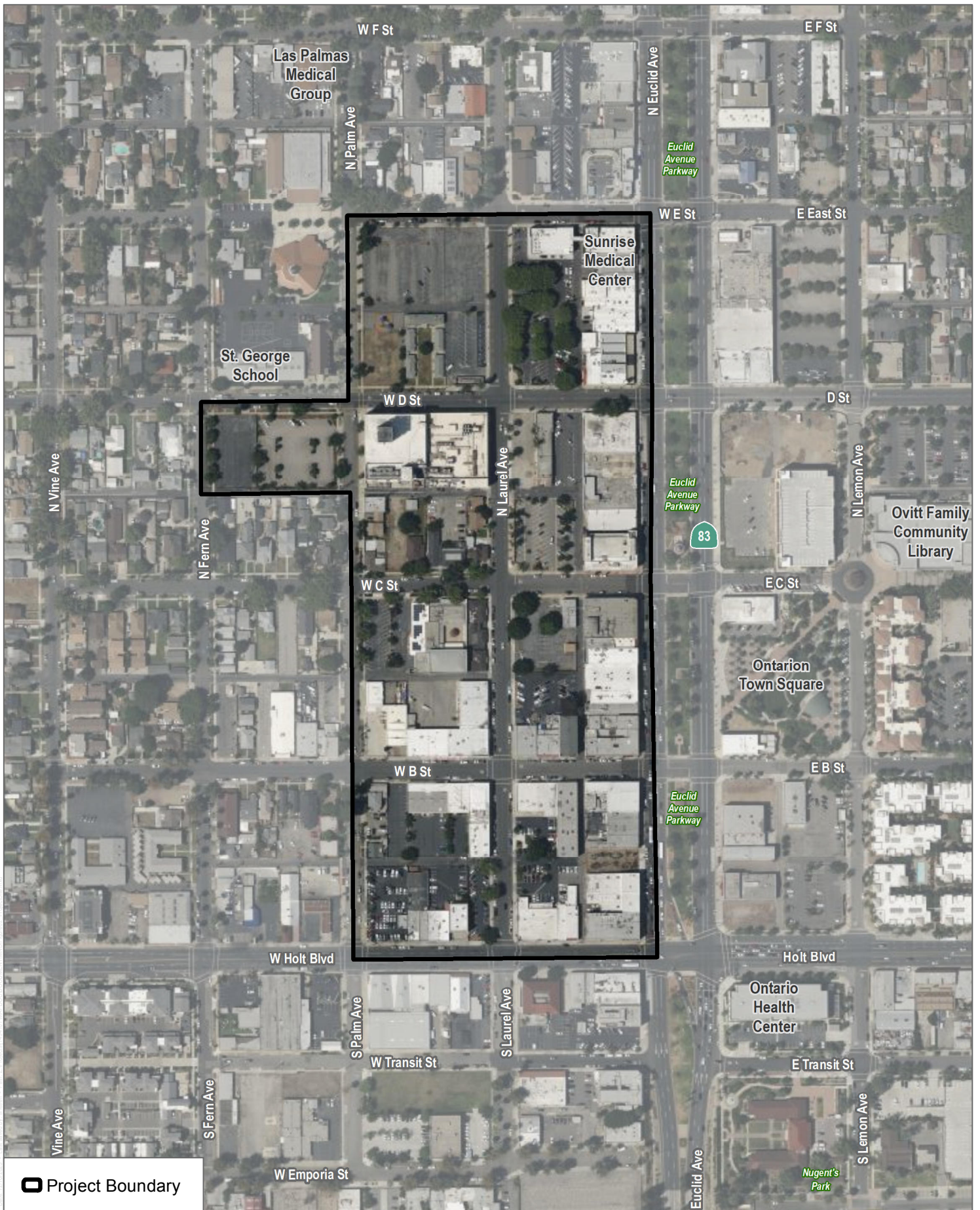
Carey Fernandes
Tuesday Christopher
Shane Russett
Ames Knowles
Mark Storm
Sabita Tewani
Katie Haley

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SOURCE: Bing Imagery 2023, Open Street Maps 2019

FIGURE 1
Regional Location
Downtown West PUD



SOURCE: Bing Imagery 2023, Open Street Maps 2019

FIGURE 2

PUD Project Area

Downtown West PUD

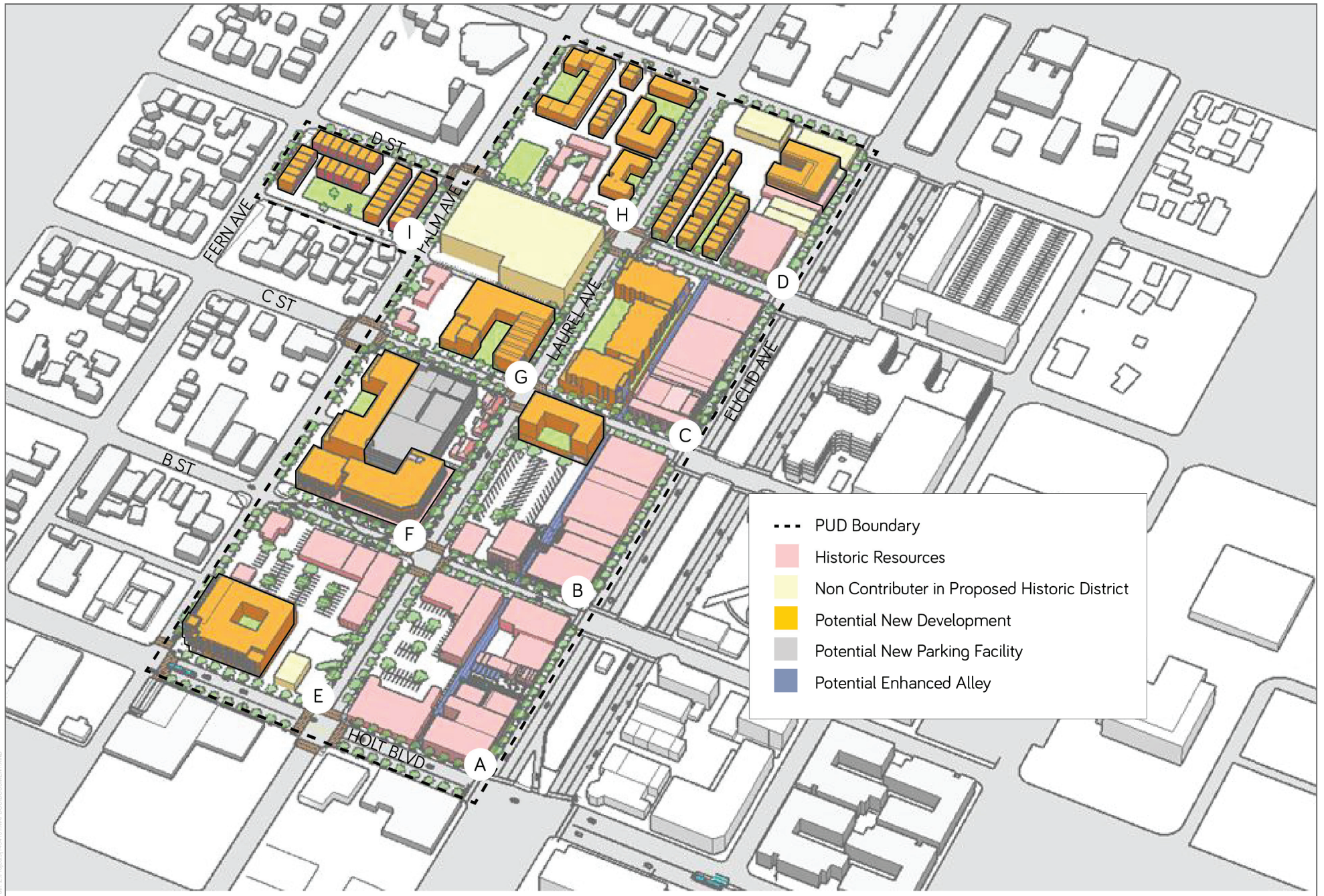


FIGURE 3
Site Plan

Downtown West PUD

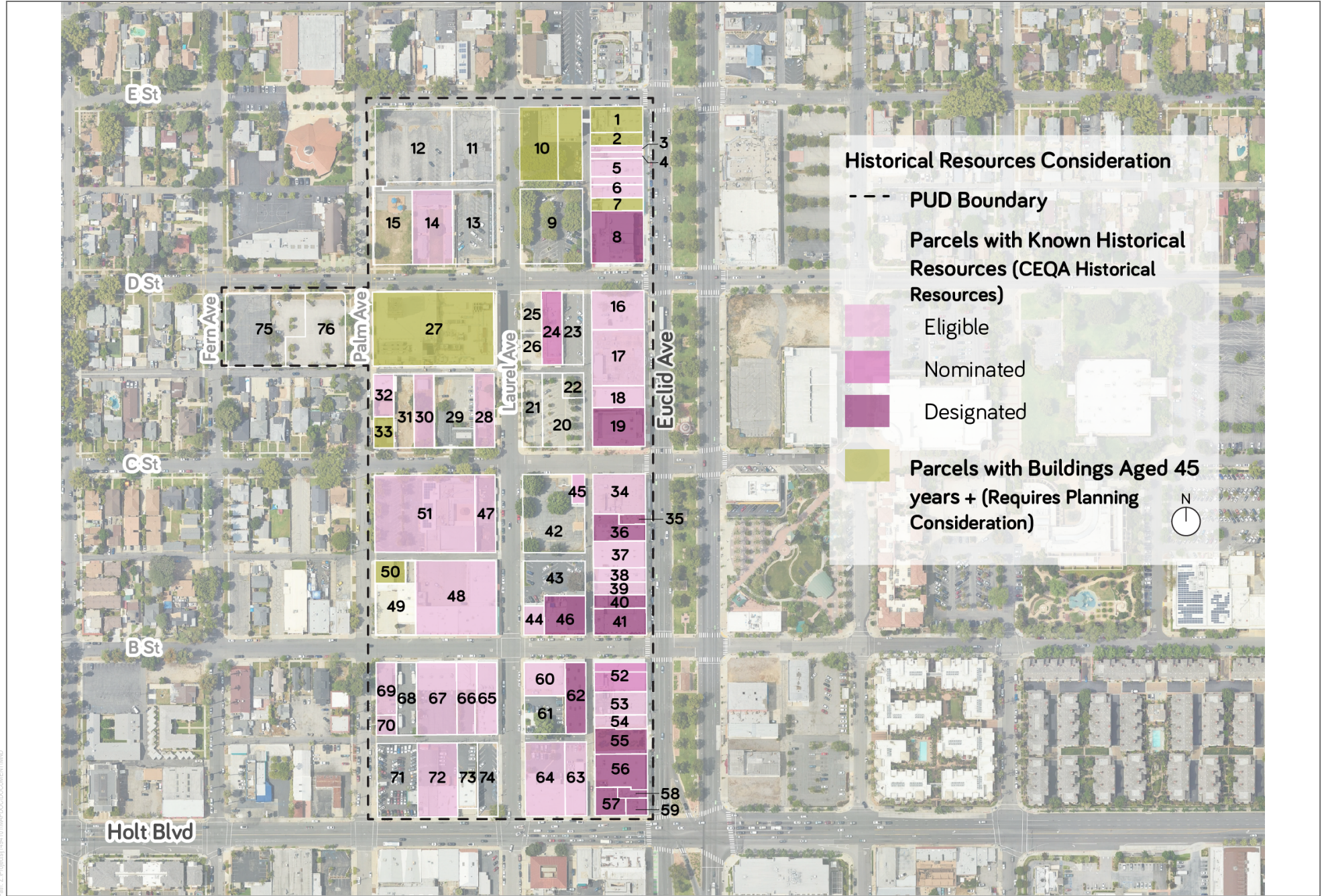


FIGURE 4

PUD Project Area Historic Resources

Downtown West PUD

Appendix A

Air Quality, Greenhouse Gas Emissions, and Energy Memorandum

MEMORANDUM

To: City of Ontario
From: Shane Russett, Dudek
Subject: Downtown West PUD – Air Quality, Greenhouse Gas Emissions, and Energy Memorandum
Date: 3/22/2024
cc: Carey Fernandes, Dudek
Attachment: A – Downtown West PUD Final Detailed Report

Dudek is pleased to present the following air quality, greenhouse gas (GHG) emissions, and energy assessment for the proposed Downtown West PUD (project) located in the City of Ontario, California (City). This memorandum estimates and assesses air quality, GHG emissions, and energy impacts from the project in accordance with the California Environmental Quality Act (CEQA) Guidelines and City of Ontario standards.

1 Project Description

The City seeks to further define and create the Downtown West PUD to streamline the PUD process for developers and property owners in efforts to revitalize downtown Ontario. The Downtown West PUD contains the following sections: (1) Introduction; (2) Vision and Guiding Principles; (3) District and Block Plan; (4) Zoning and Land Use Plan; (5) Development Regulations and Guidelines; (6) Public Realm Standards and Guidelines; and (7) Administration.

The Downtown West PUD would facilitate: development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. Proposed development and private investments would include new mixed use/infill, new shared use parking, and façade improvements. Proposed public realm improvement areas of focus include improvements along B Street, Euclid Avenue Streetscape, alley improvements, a consolidated trash area, and public art. The PUD encourages “activation” that can include pop-up events, Euclid Avenue programs, B Street Farmer’s Market, alley art and signage, gateway signage, and a potential paseo connection.

2 Air Quality Assessment

2.1 Background

The PUD project area is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

SCAQMD administers SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). 2022 AQMP (SCAQMD 2022), which was adopted by the SCAQMD Governing Board in December 2022. The SCAQMD 2022 AQMP was developed to address the attainment of the 2015 national 8-hour ozone ambient air quality standard (70 parts per billion) for the SCAB and Coachella Valley. The 2022 AQMP provides actions, strategies, and steps needed to reduce air pollutant emissions and meet the ozone standard by 2037 (SCAQMD 2022).

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether the project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O₃, as well as CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

Regarding NAAQS and CAAQS attainment status,¹ the SCAB is designated as a nonattainment area for federal and state O₃ and PM_{2.5} standards (CARB 2022a; EPA 2023a). The SCAB is also designated as a nonattainment area for state PM₁₀ standards; however, it is designated as an attainment area for federal PM₁₀ standards. The SCAB is designated as an attainment area for federal and state CO and NO₂ standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.²

2.2 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the Project would (14 CCR 15000 et seq.):

1. Conflict with or obstruct implementation of the applicable air quality plan.

¹ An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the EPA and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

² Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the Project would have a significant impact on air quality.

SCAQMD has established air quality significance thresholds, as revised in March 2023, that set forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2023a). The project’s “regional” emission refers to emissions that will be evaluated based on regional significance thresholds established by SCAQMD, also known as the criteria pollutant mass daily thresholds. The SCAQMD air quality significance thresholds also provide toxic air contaminant (TAC) thresholds and ambient air quality standards for criteria pollutants that are to be utilized for localized significance determination. The quantitative air quality analysis provided herein applies the SCAQMD thresholds identified in Table 1 to determine the potential for the Project to result in a significant impact under CEQA.

Table 1. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	Construction (Pounds per Day)	Operation (Pounds per Day)
VOCs	75	55
NO _x	100	55
CO	550	550
SO _x	150	150
PM ₁₀	150	150
PM _{2.5}	55	55
Lead ^a	3	3
TACs and Odor Thresholds		
TACs ^b	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and acute hazard index ≥ 1.0 (Project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants ^c		
NO ₂ 1-hour average NO ₂ annual arithmetic mean	SCAQMD is in attainment; Project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; Project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state /federal)	

Table 1. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	Construction (Pounds per Day)	Operation (Pounds per Day)
PM ₁₀ 24-hour average	10.4 µg/m ³ (construction) ^d	
PM ₁₀ annual average	2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM _{2.5} 24-hour average	10.4 µg/m ³ (construction) ^d 2.5 µg/m ³ (operation)	

Source: SCAQMD 2023.

Notes: SCAQMD = South Coast Air Quality Management District; VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; TAC = toxic air contaminant; NO₂ = nitrogen dioxide; ppm = parts per million; µg/m³ = micrograms per cubic meter.

GHG emissions thresholds for industrial proposed Projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not included in Table 1 as they will be addressed within the GHG emissions analysis and not the air quality study.

- ^a The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
- ^b TACs include carcinogens and non-carcinogens.
- ^c Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
- ^d Ambient air quality threshold are based on SCAQMD Rule 403.

The phasing out of leaded gasoline started in 1976. As gasoline no longer contains lead, the proposed Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

In addition to the emission-based thresholds listed in Table 1, SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project as a result of construction activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. To account for truck activity, it was assumed that each truck would travel 1,000 feet on-site. For Project sites of 5 acres or less, the SCAQMD LST Methodology includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO₂, CO, PM₁₀, and PM_{2.5}) without performing Project-specific dispersion modeling (SCAQMD 2009). The Project would disturb less than 5 acres per day, so it is appropriate to use the lookup tables for the LST evaluation.

The LST significance thresholds for NO₂ and CO represent the allowable increase in concentrations above background levels in the vicinity of a Project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM₁₀ represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for PM_{2.5} is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the PM_{2.5} ambient air quality standards. The allowable emission rates depend on the following parameters:

- Source-receptor area (SRA) in which the Project is located
- Size of the Project site
- Distance between the Project site and the nearest sensitive receptor (e.g., residences, schools, hospitals)

The Project site is located in SRA 33 (Southwest San Bernardino Valley). LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances. In accordance with the SCAQMD *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, the Project would disturb a maximum of 1-acre per day during the grading phase. The nearest sensitive-receptor land use are residences located approximately 50 feet south and east of the Project site boundary. As such, the LST receptor distance was assumed to be 25 meters, the most conservative distance option. The LST values from the SCAQMD lookup tables for SRA 33 (Southwest San Bernardino Valley) for a 1-acre Project site and a receptor distance of 25 meters are shown in Table 2.

Table 2. Localized Significance Thresholds for Source-Receptor Area 33 (Southwest San Bernardino Valley)

Pollutant	Threshold (pounds/day)
Construction	
NO ₂	118
CO	863
PM ₁₀	5
PM _{2.5}	4

Source: SCAQMD 2009.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter
 Localized significance thresholds were determined based on the values for a 1-acre site at a distance of 25 meters from the nearest sensitive receptor.

2.3 Approach and Methodology

The California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate emissions from the construction phase of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities (CAPCOA 2022).

2.3.1 Construction

To determine if the Downtown West PUD, particularly the land-use changes or programs that would provide for 581 dwelling units, 37,886 square feet of commercial building, and 1,220 provisional parking spaces, would exceed the SCAQMD mass daily thresholds, a development scenario was modeled using CalEEMod Version 2022.1. For purposes of estimating Downtown West PUD emissions, construction is assumed to start in 2025 and have a duration of 20 years, reaching completion in December 2044. While construction specifics for buildout of the Project are not known, the analysis contained herein is based on the first full year of construction (2025), which is the estimated worst-case construction year because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years. To estimate a single year of construction, the entire Downtown West PUD buildout land use quantities was scaled by 20-years of construction (i.e., five percent of total buildout) and then compressed to a 1-year period. CalEEMod default values for buildout of five percent of the Downtown West PUD was estimated to take approximately 0.95 years; therefore, corresponding construction equipment were multiplied by a factor of 0.95 to account for the lengthened 1-year period (i.e., increasing the schedule length by double and decreasing intensity by dividing the equipment by 2). Worker and vendor trips were similarly multiplied by 0.95. CalEEMod default trip length values were used for the distances for all

construction-related trips. The resulting 1-year construction assumptions are provided for each year of construction (duration of phases is approximate):

- Demolition: 21 days
- Site Preparation: 2 days
- Grading: 4 days
- Building Construction: 211 days
- Paving: 11 days
- Application of Architectural Coatings: 11 days

While only one phase of each type of construction activity is included in the model run, it is anticipated that this model scenario would include construction activity at more than one site within the PUD project area. Not all future development would require all of the construction phases assumed above; however, the following six default CalEEMod construction phases were included to present the potential range of emissions and capture a potential maximum daily and annual scenario: demolition, site preparation, grading, building construction, paving, and architectural coating. For example, due to the developed nature of most parcels in the PUD project area, many future projects may only require a demolition phase (of existing buildings and asphalt pavement) and minor site preparation phase prior to building construction, while some future projects may require renovation, which would be less intensive (and therefore, less polluting) than a full reconstruction of a development site. In addition, some future projects may not require any demolition, but would require site preparation and/or grading to prepare the site for development. To conservatively estimate emissions from demolition, it was assumed that 100% of the potential residential and commercial space would require demolition of existing structures. Grading quantities are currently not identified; grading is anticipated to be minimal within the PUD project area because the PUD project area is generally built out, and therefore, it is likely that the majority of grading for the PUD project area took place during initial building development. Additionally, the Downtown West PUD would not be likely to require the construction of built-environment features requiring substantial grading activities with the exception of one parking garage with on level of subterranean parking. To capture potential haul truck trips during the grading phase, it was assumed that 10,000 cubic yards would be exported during the grading phase for the 1-year construction scenario.

The construction equipment mix and vehicle trips used for estimating the project-generated construction emissions are shown in Table 3, Construction Scenario Assumptions. For the analysis, it was assumed that heavy construction equipment would be operating at the site 5 days per week (22 days per month) during proposed Downtown West PUD construction.³

³ As shown in Table 3, most equipment was assumed to operate for up to 8 hours per day. In reality, it is anticipated that equipment would be used for less than 8 hours a day when considering mandated worker breaks and that equipment would only be operated when needed; in addition, it is anticipated that the construction areas are within infill areas, and that not every piece of equipment could be in operation at the same time. Therefore, the equipment usage hours are anticipated to be conservative.

Table 3. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition	14	4	38	Concrete/Industrial Saws	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	3	8
Site Preparation	8	4	0	Graders	1	8
				Rubber Tired Dozers	1	7
				Tractors/Loaders/Backhoes	1	8
Grading	10	4	314	Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	7
Building Construction	30	8	0	Cranes	1	6
				Forklifts	1	6
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	1	6
				Welders	3	8
Paving	14	0	0	Cement and Mortar Mixers	1	6
				Pavers	1	6
				Paving Equipment	1	8
				Rollers	1	7
				Tractors/Loaders/Backhoes	1	8
Architectural Coating	8	0	0	Air Compressors	1	6

Emissions generated during construction (and operation) of the project are subject to the rules and regulations of the SCAQMD. Rule 403, Fugitive Dust, requires the implementation of measures to control the emission of visible fugitive/nuisance dust, such as wetting soils that would be disturbed. It was assumed that the active sites would be watered at least two times daily in compliance SCAQMD Rule 403 (SCAQMD 2005). The application of architectural coatings, such as exterior/interior paint and other finishes, and the application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings that comply with the requirements of SCAQMD’s Rule 1113, Architectural Coatings.⁴

⁴ SCAQMD Rule 1113, Architectural Coatings, requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

2.3.2 Operations

To determine if the Downtown West PUD would exceed the SCAQMD mass daily thresholds, the full future potential buildout of the Downtown West PUD, including 581 dwelling units, 644,942 square feet of commercial building space, and 1,220 provisional parking spaces, was modeled using CalEEMod Version 2022.1. An operational year of 2045 was assumed to provide an estimate of emissions of the anticipated buildout of development.

The emissions of the proposed Downtown West PUD's operational scenario were calculated by subtracting the operational emissions from the existing scenario of the Downtown West PUD to achieve the net scenario. The existing scenario includes 5 dwelling units and 56,171 square feet of commercial building space.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

It is assumed that any future residential development resulting from implementation of the proposed Downtown West PUD would not include woodstoves or wood-burning fireplaces, per SCAQMD Rule 445. SCAQMD Rule 445, Wood Burning Devices, states that "no person shall permanently install a wood-burning device into any new development" (SCAQMD 2020). Exemptions to SCAQMD Rule 445 include where there is no existing infrastructure for natural gas service within 150 feet of the property line or those 3,000 or more feet above mean sea level; however, these exemptions are not anticipated to be common per the anticipated parcels under the development of the 581 dwelling units.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SCAQMD's Rule 1113, Architectural Coatings, governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SCAQMD 2016). CalEEMod default values were assumed, including the surface area to be painted, the VOC content of architectural coatings, and the reapplication rate of 10% of area per year.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape

equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants. However, natural gas combustion would occur within the PUD project area itself, in association with equipment that uses natural gas. As such, its use within the PUD project area is estimated and modeled in CalEEMod. The natural gas use from residential land uses is calculated in CalEEMod based on the Residential Appliance Saturation Study. For nonresidential buildings, CalEEMod energy intensity values (natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database.

Mobile Sources

Mobile sources for the development scenario would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the parcels developed. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The default vehicle mix provided in CalEEMod 2022.1, which is based on CARB's Mobile Source Emissions Inventory model (EMFAC) version 2021, was applied for all land use types. Emission factors representing year 2045 were used to estimate emissions associated with the final buildout year associated with implementation of the Downtown West PUD.

Applied trip generation rates for the buildout development scenario are based on the traffic data provided in the Transportation Section of the Draft IS/MND and Institute of Transportation Engineers (ITE) 11th edition trip rates for the proposed land uses. The residential trip rates were scaled down to account for about 10% internal capture. Mid-rise apartments were assumed for 411 dwelling units, and low-rise apartments were assumed for 141 dwelling units. Condos/townhouses were assumed for the remaining 29 of 581 dwelling units. Strip mall was assumed for all 37,886 square feet of commercial space.

2.4 Impact Analysis

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

Less-than-Significant Impact. As previously discussed, the PUD project area is located within the SCAB, which is within the jurisdictional boundaries of the South Coast Air Quality Management District SCAQMD.

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2022 AQMP and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the

currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Regarding Consistency Criterion No.1, the response to Threshold Section 2.4.2, below, evaluates the potential for the Downtown West PUD to violate any air quality standard or contribute substantially to an existing or projected air quality violation, which applies the SCAQMD mass daily construction and operational thresholds.

Based on the five percent construction scenario discussed in Section 2.4.2 below, it was determined that construction of future development projects from implementation of the Downtown West PUD would not exceed the SCAQMD mass daily construction thresholds for all criteria air pollutants, as shown in Table 4, below. In addition, the operation of any future development projects, as allowed by the Downtown West PUD, would not exceed the SCAQMD mass daily operational thresholds for all criteria air pollutants, for full operational buildout of the Downtown West PUD and for a combined construction and operational scenario, as detailed in Table 5, below.

Because the total anticipated development associated with implementation of the Downtown West PUD would not exceed the SCAQMD mass daily regional thresholds, the Downtown West PUD would not result in an increase in the frequency or severity of existing air quality violations. As such, the Downtown West PUD would be consistent with Consistency Criterion No. 1 of the SCAQMD CEQA Air Quality Handbook.

Regarding Consistency Criterion No. 2, while striving to achieve the NAAQS for ozone (O₃) and fine particulate matter (PM_{2.5}) and the CAAQS for O₃, coarse particulate matter (PM₁₀) and PM_{2.5} through a variety of air quality control measures, the 2022 AQMP also accommodates planned growth in the SCAB. Projects are considered consistent with and would not conflict with or obstruct implementation of the 2022 AQMP, if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook).

The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the SCAG for its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020), which is based on general plans for cities and counties in the SCAB, for the development of the AQMP emissions inventory (SCAQMD 2022). The SCAG 2020 RTP/SCS, and associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2022 AQMP is generally consistent with local government plans. While no specific development projects are proposed at this time, implementation of the Downtown West PUD would facilitate additional population growth, additional housing units, and a decrease in density of commercial space within the PUD project area. Changes in the population, housing, or employment growth projections associated with the Downtown West PUD have the potential to affect SCAG's demographic projections, and therefore, the assumptions of the SCAQMD's AQMP. However, development that occurs from implementation of the Downtown West PUD would be consistent with SCAG's regional goals of providing infill housing, improving the jobs-to-housing balance, and integrating land uses near major transportation corridors.

In the SCAG 2020 RTP/SCS Demographics and Growth Forecast, it was predicted that between 2016 and 2045, the City of Ontario's population would increase by 96,900, households would increase by 28,500, and employment would increase by 55,400. Downtown West PUD implementation, which would facilitate the development of 581 dwelling units and 37,886 square feet of commercial space at buildout in 2045, would not result in growth that would exceed these growth forecasts or change the underlying land use assumptions utilized in the 2022 AQMP. As such the Downtown West PUD would not conflict with Consistency Criterion No.2 of the SCAQMD CEQA Air Quality Handbook.

While the Downtown West PUD consists of a policy document that does not propose any direct development, the Downtown West PUD 's proposed land use changes would allow for greater densities than are currently allowed within the PUD project area. Additionally, approval of the Downtown West PUD would not provide any goals, policies, or programs that would significantly conflict with or obstruct implementation of the applicable air quality plan. Future development resulting from implementation of the Downtown West PUD would not exceed the SCAQMD's criteria pollutant mass daily thresholds for construction and operations. Therefore, the Downtown West PUD would not conflict with Consistency Criterion No. 1.

Additionally, the Downtown West PUD would not conflict with Consistency Criterion No. 2, as implementation of the Downtown West PUD would not exceed the demographic growth forecasts in the SCAG 2020 RTP/SCS. Potential impacts related to the Downtown West PUD's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

2.4.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

The project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as shown in Table 1, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS.

The project would result in a cumulatively considerable net increase for O₃, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 1. These emission-based thresholds for O₃ precursors are intended to serve as a surrogate for an O₃ significance threshold (i.e., the potential for adverse O₃ impacts to occur) because O₃ itself is not emitted directly, and the effects of an individual project's emissions of O₃ precursors (i.e., VOCs and NO_x) on O₃ levels in ambient air cannot be determined through air quality models or other quantitative methods.

As described in the Project Description, the Downtown West PUD is intended to function as a set of development regulations, planning, and design principles to govern the development or redevelopment of an eight and a half block area in downtown Ontario, California, but does not include or propose any site-specific development that could directly result in construction or operational impacts to the environment. However, implementation of the Downtown West PUD would encourage development in a manner consistent with the Downtown West PUD, which

would facilitate additional future development. Therefore, this Draft IS/MND does not assess the site-specific construction and operation details of each future development within the PUD project area. Rather, it assesses the impacts associated with changes to existing land uses and the associated overall effects of buildout of the Downtown West PUD through 2045, where reasonably foreseeable physical changes to the environment could occur. Analysis at a parcel or site-specific level was not conducted because, unless otherwise noted within this assessment, the specific locations of project development (and its chronologic sequence or concurrence) that may be implemented in the future are speculative.

Therefore, since specifics for construction and operation of future development under the proposed Downtown West PUD are not known, the California Emissions Estimator Model (CalEEMod) default values were assumed based on development land use type and size.

Construction Emissions

Construction activities resulting from potential future projects developed under Downtown West PUD implementation would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM10 and PM2.5 emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NOx, CO, SOx, PM10, and PM2.5. Construction emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Therefore, such emissions levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts.

Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during construction of the five percent development scenario. Table 4, Estimated Maximum Daily Construction Criteria Air Pollutant Emissions, presents the estimated maximum daily construction emissions generated during construction of the five percent construction scenario, for the first year of construction. Details of the emission calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per day					
Summer						
1 Year of Construction (5 percent of total construction)	1.21	9.35	12.52	0.02	0.79	0.42
Winter						
1 Year of Construction (5 percent of total construction)	21.22	41.44	29.88	0.17	9.73	3.85
Maximum	21.22	41.44	29.88	0.17	9.73	3.85
<i>SCAQMD Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per day					
Threshold Exceeded?	No	No	No	No	No	No

Source: Attachment A.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District.

These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

As shown in Table 4, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during the five percent construction scenario, and short-term construction impacts would be less than significant.

Operational Emissions

While the Downtown West PUD consists of a policy document and does not propose any direct development, the Downtown West PUD’s proposed land-use changes would allow for new or more dense development than is currently allowed within the PUD project area. Operation of the Downtown West PUD, due to future development within the PUD project area, could potentially generate VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from mobile sources, including vehicular traffic; energy sources from natural gas usage; area sources, including the use of landscaping equipment and consumer products; and from architectural coatings. Emissions associated with long-term operations were quantified using CalEEMod using a combination of project-specific information (i.e., land use inputs and trip rates) and CalEEMod default values for the buildout of the Downtown West PUD.

The SCAQMD does not provide emission-based thresholds or provide guidance on how to evaluate large area projects and programmatic development such as the Downtown West PUD. To provide a conservative analysis of indirect emissions associated with buildout of the Downtown West PUD, emissions from full buildout of the Downtown West PUD are compared to the SCAQMD’s project-level emission-based daily thresholds. Furthermore, because of the potential for Downtown West PUD construction to overlap with operation of portions of the Downtown West PUD, construction emissions from Table 4 are added to operational emissions in Table 5, below.

Table 5, Estimated Combined Construction and Operational Criteria Air Pollutant Emissions, presents the maximum daily area, energy, and mobile sources associated with total operational buildout of the Downtown West PUD as compared to the SCAQMD’s thresholds. The SCAQMD operational thresholds are expressed as mass daily thresholds in pounds per day. Details of the emission calculations are provided in Attachment A.

Table 5. Estimated Combined Construction and Operational Criteria Air Pollutant Emissions

Estimated Maximum Net Daily Operational Emissions for Project Implementation ¹						
Emission Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per day					
Area	3.90	9.04	54.42	0.05	0.39	0.39
Energy	0.11	1.84	0.77	0.01	0.15	0.15
Mobile	-4.56	-4.92	-27.62	-0.02	4.87	1.18

Table 5. Estimated Combined Construction and Operational Criteria Air Pollutant Emissions

Estimated Maximum Net Daily Operational Emissions for Project Implementation¹						
Total	-0.55	5.95	27.57	0.05	5.41	1.73
<i>SCAQMD Operational Threshold (Table 1)</i>	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Combined Construction and Operational Emissions (Worst-Case)						
Construction Emissions (Table 5)	21.22	41.44	29.88	0.17	9.73	3.85
Operational Emissions (above)	-0.55	5.95	27.57	0.05	5.41	1.73
Combined Construction and Operation Emissions	20.67	47.39	57.45	0.22	15.14	5.58
<i>SCAQMD Operational Threshold (Table 1)</i>	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.

The values shown are the maximum summer or winter daily emissions results from CalEEMod. See Attachment A for complete results.

¹ Emissions were calculated by subtracting the proposed Downtown West PUD’s emissions by the existing scenario emissions. The existing scenario is 5 dwelling units and 56,171 square feet of commercial space.

As shown in Table 5, maximum daily operational emissions from full buildout of the Downtown West PUD would not exceed the SCAQMD daily significance thresholds for all criteria air pollutants during operations. In addition, the combined construction and operational emissions would not exceed the SCAQMD’s operational emissions threshold for all criteria pollutants. Therefore, impacts regarding cumulatively considerable net increases of any criteria pollutant for which the project region is non-attainment would be less than significant.

By its nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development (such as the cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities), and the SCAQMD develop and implement plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project’s individual emissions would have a cumulative contribution on air quality. If a project’s emissions would exceed the applied significance thresholds, it would have a cumulative contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

As previously described, the Downtown West PUD consists of a policy document and does not propose any direct development. However, implementation of the Downtown West PUD’s proposed land-use changes would allow for more dense development in the PUD project area than is currently allowed under existing conditions. In considering cumulative impacts from the development allowed for by the Downtown West PUD, the analysis must specifically evaluate a project’s contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the CAAQS and NAAQS. As discussed in section 2.3.2, the SCAB has been designated as a national nonattainment area for O₃ and PM_{2.5}, and a California nonattainment area for O₃, PM₁₀,

and PM_{2.5}. Due to the speculative nature of construction and since the size of development of each individual project is unknown, development of the Downtown West PUD may result in a cumulatively considerable increase in emissions of criteria air pollutants for which the SCAB is designated as nonattainment under the NAAQS or CAAQS.

Cumulative localized impacts would potentially occur if construction associated with the development future development facilitated by the Downtown West PUD were to occur concurrently with another construction project or with another off-site, unrelated project. In addition to the speculative nature of the Downtown West PUD implementation, construction schedules for potential future projects unrelated to the Downtown West PUD are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD, as applicable. For example, cumulative PM₁₀ and PM_{2.5} emissions would be reduced because all future projects would be subject to SCAQMD Rule 403, which sets forth general and specific requirements to control fugitive dust at all construction sites in the SCAB. In addition, cumulative VOC emissions would be subject to SCAQMD Rule 1113, which regulate VOC limits in architectural coatings. In addition, future non-discretionary projects that would be implemented under the Downtown West PUD would be subject to the federal, state and local regulations mentioned above.

The Downtown West PUD would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

Health Effects of Criteria Air Pollutants

Construction and operation of the project would generate criteria air pollutant emissions; however, estimated construction and operational emissions would not exceed the SCAQMD mass-emission daily thresholds as shown in Tables 4 and 5, respectively. As previously discussed, the SCAB has been designated as a federal nonattainment area for O₃ and PM_{2.5} and a state nonattainment area for O₃, PM₁₀, and PM_{2.5}.

Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2023). VOCs and NO_x are precursors to O₃, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SCAB due to O₃ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O₃ ambient air quality standards tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O₃ precursors is speculative because of the lack of quantitative methods to assess this impact. Because construction and operation of the project would not result in O₃ precursor emissions (i.e., VOCs or NO_x) that would exceed the SCAQMD thresholds, as shown in Tables 4 and 5, the project is not anticipated to substantially contribute to regional O₃ concentrations and their associated health impacts.

Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2023). Construction and operation of the project would not generate NO_x emissions that would exceed the SCAQMD mass daily thresholds; therefore, construction and operation of the project is not anticipated to contribute to exceedances of the NAAQS and CAAQS for NO₂ or contribute to associated health effects. In addition, the SCAB is designated as in attainment of the NAAQS and CAAQS for NO₂, and the existing NO₂ concentrations in the area are well below the NAAQS and CAAQS standards.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2023). CO tends to be a localized impact associated with congested intersections. CO hotspots are discussed under Section 2.4.3 as a less-than-significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

Health effects associated with PM₁₀ and PM_{2.5} include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2023). As with O₃ and NO_x, and as shown in Tables 4 and 5, the project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAQMD's thresholds. Accordingly, the project's PM₁₀ and PM_{2.5} emissions are not expected to cause an increase in related health effects for this pollutant.

In summary, the Downtown West PUD would not result in any potentially significant contribution to local or regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Impacts would be less than significant.

2.4.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

The project would not expose sensitive receptors to substantial pollutant concentrations, as evaluated below.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The nearest sensitive-receptor land use are residences located approximately 50 feet south and west of the Downtown West PUD site boundary.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2009). The project is located within Source-Receptor Area 33 (Southwest San Bernardino Valley). This analysis applies the SCAQMD LST values for a 1-acre site within Source-Receptor Area 33 with a receptor distance of 25 meters (82 feet), which is the shortest available distance provided in the SCAQMD's methodology.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with off-road equipment exhaust and fugitive dust generation. According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Trucks and worker trips associated with the project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. On-site emissions from truck trips were limited to 0.25 miles of estimated on-site activity within the LST analysis. The maximum daily on-site emissions generated by construction of the project in each construction year are presented

in Table 6 and compared to the SCAQMD localized significance criteria for Source-Receptor Area 33 to determine whether project-generated on-site emissions would result in potential LST impacts.

Table 6. Construction Localized Significance Thresholds Analysis

	NO ₂	CO	PM ₁₀	PM _{2.5}
	Pounds per Day (On Site)			
<i>Maximum</i>	18.87	18.56	3.82	1.96
<i>SCAQMD LST Criteria^a</i>	118	863	5	4
Threshold Exceeded?	No	No	No	No

Source: SCAQMD 2009; Attachment A.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); PM_{2.5} = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

Represents maximum emissions from summer and winter.

^a LST are shown for a 1-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in Source-Receptor Area 33 (southwest San Bernardino Valley).

As shown in Table 6, proposed construction activities would not generate emissions more than site-specific LSTs for NO_x, CO PM₁₀ and PM_{2.5}. Thus, impacts would be less than significant.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed “CO hotspots.” The transport of CO is extremely limited, as it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. As discussed in the Transportation Section of the MND, the proposed project is forecast to generate 13 AM peak hour trips and 16 PM peak hour trips (PCE-adjusted).

At the time that the SCAQMD Handbook (SCAQMD 1993) was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP⁵ (SCAQMD 2003b) for the four worst-case intersections in the SCAB:

1. Wilshire Boulevard and Veteran Avenue
2. Sunset Boulevard and Highland Avenue
3. La Cienega Boulevard and Century Boulevard
4. Long Beach Boulevard and Imperial Highway

⁵ SCAQMD’s CO hotspot modeling guidance has not changed since 2003.

At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. The 2003 AQMP projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 parts per million at the Sunset Boulevard and Highland Avenue intersection in 2002 and the maximum 8-hour CO concentration was 3.4 parts per million at the Wilshire Boulevard and Veteran Avenue in 2002.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. Because the project is not anticipated to increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day, a CO hotspot is not anticipated to occur.

Based on these considerations, the project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. This conclusion is supported by the analysis in the Transportation Section of the MND, which demonstrates that traffic impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Based on these considerations, the project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the nearest sensitive receptors to the project site are the single-family residences located approximately 50 feet north and east of the project site.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and use of heavy-duty trucks.

State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and has adopted appropriate control measures for sources of these TACs. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Exhaust PM₁₀ is typically used as a surrogate for DPM, and as shown in Table 6, which presents total PM₁₀ from fugitive dust and exhaust, project-generated construction PM₁₀ emissions are anticipated to be minimal, and well below the SCAQMD threshold. Furthermore, the nearest sensitive receptors are located upwind of the PUD project area, as shown by the most recent Ontario Airport meteorological station data from 2012-2016 (SCAQMD 2023b). Due to the meteorological data and minimal DPM emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

No residual TAC emissions and corresponding cancer health risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. CARB has published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as “schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities.” The Air Quality and Land Use Handbook is a guide for siting of new sensitive land uses, and CARB recommends that sensitive receptors not be located downwind or in proximity to such sources to avoid potential health hazards. The enumerated facilities or sources include the following: high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas dispensing facilities. The Downtown West PUD would not include any of the above-listed land uses associated with generation of TAC emissions. For the reasons previously described, the Downtown West PUD would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed Downtown West PUD, and impacts would be less than significant.

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

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

While the Downtown West PUD consists of a policy document that does not propose and direct development, the land use changes proposed as part of the Downtown West PUD would allow for greater densities than are currently allowed within the PUD project area, and the Downtown West PUD would result in indirect impacts. Development allowed for by the Downtown West PUD would generate odors from vehicles and/or equipment exhaust emissions. Odors produced would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. As these odors would be short-term (e.g., only emitted during a future development project’s demolition/construction phase), intermittent, limited to on-site or site-adjacent areas, and typically emitted in an outdoor setting subject to wind and other dissipating elements, such odors would disperse rapidly and would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction of the Downtown West PUD would be less than significant.

While the Downtown West PUD identifies the general locations (e.g. zones) where future development is likely to occur, and can make certain assumptions based on the permitted use types, the precise nature (e.g. the particular tenant[s]) and site-specific location(s) of future development projects implemented under the Downtown West PUD have not yet been identified. Therefore, odor sources associated with Downtown West PUD buildout and their

potential to cause a specific impact to nearby sensitive receptors also cannot be completely identified. However, any development within the PUD project area would be required to comply with SCAQMD Rule 402, Nuisance, which prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property. Further, new development and/or redevelopment projects in the PUD project Area requiring a CUP—including new commercial and vehicle-related uses within 500 feet of a sensitive use—would be required to comply with applicable Zoning Code measures related to odor abatement. Therefore, the Downtown West PUD would not result in new or more substantial odor emissions that could adversely affect a substantial number of people, and impacts would be less than significant.

3 Greenhouse Gas Emissions Assessment

3.1 Background

3.1.1 Climate Change Overview

Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance.

The greenhouse effect is the trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

3.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5).⁶ The three GHGs evaluated herein are CO₂, CH₄, and N₂O because these gases would be emitted during project construction and operation.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with

⁶ Climate-forcing substances include greenhouse gases (GHGs) and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

CalEEMod Version 2020.4.0, this GHG emissions analysis assumed the GWP for CH₄ is 25 (i.e., emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

3.1.3 Global Warming Potential

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with CalEEMod Version 2020.4.0, this GHG emissions analysis assumed the GWP for CH₄ is 25 (i.e., emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

3.2 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to GHGs are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to GHG emissions would occur if the Project would:

- A. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed Project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated at a project level under CEQA.

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). A lead agency may use a "model or methodology" to estimate greenhouse gas emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (14 CCR 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.

5. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

6. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In addition, the CEQA Guidelines specify that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7(c)).

The extent to which a project increases or decreases GHG emissions in the existing environmental setting should be estimated in accordance with Section 15064.4, Determining the Significance of Impacts from Greenhouse Gas Emissions, of the State CEQA Guidelines. The State CEQA Guidelines indicate that when calculating GHG emissions resulting from a project, lead agencies shall make a good-faith effort based on scientific and factual data (Section 15064.4 (a)), and lead agencies have discretion to select the model or methodology deemed most appropriate for enabling decision makers to intelligently assess the project’s incremental contribution to climate change (Section 15064.4 (c)).

The State CEQA Guidelines do not indicate an amount of GHG emissions that constitutes a significant impact on the environment. Instead, they authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4(a) and 15064.7(c)).

In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008a). This guidance document, which builds on the previous guidance prepared by the CAPCOA, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 metric tons carbon dioxide-equivalent (MT CO_{2e}) per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD 2008b). The 10,000 MT CO_{2e} per-year threshold, which was derived from GHG reduction targets established in Executive Order (EO) S-03-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

- Tier 1** Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

- Tier 2** Consider whether or not the project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_{2e} per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_{2e} per year), commercial projects (1,400 MT CO_{2e} per year), and mixed-use projects (3,000 MT CO_{2e} per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_{2e} per year would be used for all non-stationary source projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_{2e} per service population for project level analyses and 6.6 MT CO_{2e} per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Significance will be determined via the Ontario Community Climate Action Plan (CCAP) 2022 update. For disclosure purposes only, per the SCAQMD guidance, Project emissions will be compared to the SCAQMD's draft threshold of 3,000 MT CO_{2e} per year. Construction emissions will be amortized over the operational life of the Project, which is assumed to be 30 years (SCAQMD 2008a). This impact analysis, therefore, adds amortized construction emissions to the estimated annual operational emissions and then compares operational emissions to the proposed SCAQMD threshold of 3,000 MT CO_{2e} per year.

3.3 Approach and Methodology

3.3.1 Construction

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.3.1 in order to provide a conservative scenario of potential construction activity as a result of the Downtown West PUD. This analysis assumes that five percent of the future development under the Downtown West PUD would be developed within one year, which was quantified in CalEEMod. Due to the speculative nature of construction, CalEEMod default values were relied on for the assumed land use type and size.

3.3.2 Operations

As with the air quality analysis, mobile source GHG emissions were estimated using CalEEMod based on EMFAC2021 emission factors. Emissions from each category are discussed in the following text with respect to the Downtown West PUD. CalEEMod was used to calculate the annual GHG emissions. Operational year 2045 was assumed to be the first full year of operation following completion of construction.

The net emissions of the proposed Downtown West PUD's operational scenario were calculated by subtracting the operational emissions from the existing scenario from the estimated operational emissions of Downtown West PUD. The existing scenario includes 5 dwelling units and 56,171 square feet of commercial building space.

Area. CalEEMod was used to estimate GHG emissions from the Downtown West PUD's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. It was assumed that 100% of the landscaping equipment would be gasoline powered. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

Energy. In CalEEMod 2022.1, the default energy use from nonresidential land uses is based on 2019 consumption estimates from the CEC's 2018-2030 Uncalibrated Commercial Sector Forecast (Commercial Forecast), and the energy use from residential land uses is based on the 2019 Residential Appliance Saturation Survey (RASS). The Commercial Forecast and RASS datasets derive energy intensities of different end use categories for different land use subtypes for electricity demand forecast zones (EDFZ) throughout the state. However, the energy use estimates are based on existing buildings and residences and are not representative of those constructed in compliance with energy efficiency requirements of the latest Title 24 Building Energy Efficiency Standards (e.g., the average residence surveyed in the RASS was constructed in 1974). Therefore, per Appendix D, Technical Source Documentation for Emissions Calculations, of the CalEEMod Version 2022.1 User Guide, "the default energy consumption estimates provided in CalEEMod based on the Commercial Forecast and RASS are very conservative, overestimating expected energy use compared to what would be expected for new buildings subject to the latest Energy Code with more stringent energy efficiency measures" (CAPCOA 2022).

Mobile Sources. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the State. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the Downtown West PUD's motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles in 2045 for the Project to the extent it was captured in EMFAC 2021.

Solid Waste. The Downtown West PUD would generate solid waste, and therefore, result in CO₂e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the Downtown West PUD land uses. No diversion was assumed; however, it should be noted that this is a conservative assumption, as AB 939, Integrated Waste Management Act requires a 50% solid waste diversion rate and the goal for the State is 75% diversion by 2020 in accordance with AB 341.

Water and Wastewater Treatment. Supply, conveyance, treatment, and distribution of water for the Downtown West PUD land uses require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the Downtown West PUD land uses requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. The indoor and outdoor water use and electricity consumption from water use, and wastewater generation were estimated using CalEEMod default values for the Downtown West PUD.

Refrigerants. Refrigerants are substances used in equipment for air conditioning (A/C) and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses

refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate.

3.4 Impact Analysis

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

Less-than-Significant Impact. The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that

Neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (OPR 2018)

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Amendments to Section 15064.4 of the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 specifies that a lead agency "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." Section 15064.4 also provides lead agencies with the discretion to determine whether to assess those emissions quantitatively or to rely on a qualitative analysis or performance-based standards. In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

The City of Ontario adopted their Community Climate Action Plan (CCAP) on August 16, 2022. The 2022 CCAP is an update to Ontario's 2014 CCAP and accounts for SB 32, which provides statewide targets to reduce GHG emissions to 40 percent below 1990 levels by 2030 (City of Ontario 2022). The 2022 CCAP is consistent with The Ontario

Plan 2050 and with the CEQA Guidelines for Plans for the Reduction of Greenhouse Gas Emissions (California Code of Regulations Section 15183.5). Because the 2022 Update to the CCAP addresses GHG emissions reductions and is consistent with the requirements of AB 32, SB 32, and international efforts to reduce GHG emissions, Projects that comply with the CCAP Update would have a less than significant GHG impact. This allows the 2022 CCAP to support and streamline environmental review of GHG emissions for future development projects in the City.

The 2022 CCAP outlines two pathways to compliance at the project development level. The first pathway consists of Screening Tables which aim to provide guidance in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The second pathway consists of efficiency metric thresholds.

This analysis applies the GHG efficiency metric threshold of 1.53 MTCO₂e/dwelling unit for residential development completed after 2030, and 3.61 MTCO₂e/2,500 square feet of conditioned space developed after 2030 to the Downtown West PUD (City of Ontario 2022). These metrics can be used in lieu of the CCAP’s Screening Tables, which require project-level specific information that is not currently available for the proposed Downtown West PUD. These GHG efficiency metrics are appropriate in that they would achieve per capita emissions for the City of Ontario that align with the State’s reduction goals of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels of emissions by 2050. Because the Downtown West PUD includes both residential and nonresidential space, the residential and nonresidential components would be assessed separately against their respective applicable thresholds.

Construction Emissions

Construction of future development that would be facilitated by the Downtown West PUD would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road haul trucks, on-road vendor trucks, and worker vehicles. The SCAQMD has not proposed or adopted relevant quantitative GHG thresholds for construction-generated emissions.

Table 7 presents the estimated GHG emissions generated during construction of the five percent development scenario. Details of the emission calculations are provided in Attachment A.

Table 7. Estimated Annual Construction GHG Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons			
2025 (one full year)	0.02	0.02	0.16	344.67
Total over 20 years*	0.38	0.35	3.22	6,893.40
Total Amortized Emissions				229.78
<i>Residential Amortized Emissions¹</i>				<i>217.47</i>
<i>Commercial Amortized Emissions²</i>				<i>12.31</i>

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

See Attachment A for complete results.

Amortized construction GHG emissions represent total construction GHG emissions (in MT of CO₂e) divided 30 years, which is the assumed project operational lifetime consistent with SCAQMD guidance (SCAQMD 2008c).

* Totals may not add due to rounding.

¹ The construction emissions associated with the residential land uses was calculated by multiplying total amortized emissions (229.78) by 95%, which represents the residential square footage divided by the proposed project’s total square footage, to get 217.47.

² The construction emissions associated with the commercial land use was calculated by multiplying total amortized emissions (229.78) by 5%, which represents the commercial square footage divided by the proposed project’s total square footage, to get 12.31.

As shown in Table 7, the estimated total GHG emissions during construction of future projects that would be facilitated by the Downtown West PUD would be approximately 6,893 MT CO₂e over the 20-year construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 230 MT CO₂e per year.

Because the residential and commercial uses of the Downtown West PUD were evaluated separately to determine their respective GHG efficiency metrics, the amortized construction emissions were split between residential and commercial based on square footage of the proposed Downtown West PUD. The 581 residential dwelling units make up 669,342 square feet of the proposed Downtown West PUD, which is 95% of the total proposed Downtown West PUD’s square footage. The commercial square footage totals 37,886 square feet, which makes up 5% of the total proposed project’s square footage. Therefore, 95% of the total amortized construction emissions is 217.47 MT CO₂e, which was added to the residential operational GHG emissions. The remaining 5% or 12.31 MT CO₂e was added to the commercial operational GHG emissions.

Operational Emissions

Operation of the future development that would be facilitated by the Downtown West PUD would generate GHG emissions through motor vehicle trips; landscape equipment operation and hearths (area sources); energy use (natural gas and electricity); solid waste disposal; water supply, treatment, and distribution; and refrigerants.

The operational emissions associated with the commercial portion of the Downtown West PUD was evaluated separately against its respective efficiency threshold. The estimated operational commercial project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and refrigerants are shown in Table 8, Project GHG Efficiency - Commercial.

Table 8. Project GHG Efficiency - Commercial

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year*			
Area	0.77	<0.01	<0.01	0.77
Energy	55.45	0.01	<0.01	55.82
Mobile	1,960.07	0.063	0.09	1,988.21
Waste	3.55	0.35	0	12.42
Water	3.15	0.09	<0.01	6.10
Refrigerants	0	0	0	0.04
Total	2,022.99	0.52	0.09	2,063.36
<i>Amortized construction emissions (Table 7)</i>				<i>12.31</i>
Total operational + amortized construction emissions				2,075.67
Existing Emissions¹				2,021.06
Total Net Emissions²				54.61
Project Efficiency (MT CO₂e/2,500 SF)³				3.60
<i>Ontario CAP Post-2030 Commercial Efficiency Threshold</i>				<i>3.61</i>
Threshold Exceeded?				No

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; SF = square feet; <0.01 = less than 0.01.

¹ CalEEMod was used to calculate the GHG emissions associated with existing residential and commercial space to be redeveloped as a result of this project. The existing scenario to be redeveloped includes 5 dwelling units and 56,171 square feet of commercial building space.

- 2 Net emissions were calculated by subtracting the existing emissions from the total operational and amortized emissions associated with the project.
 - 3 Project efficiency is calculated by dividing the net emissions (54.61 MT CO_{2e}) by 2,500 SF and multiplying by the proposed project’s commercial square footage (37,886 SF) to get 3.60 MT CO_{2e}/2,500 SF.
 - * The Project emissions reflect operational year 2045.
- See Attachment A for complete results.

As shown in Table 8, estimated annual GHG emissions generated by future commercial development that would be facilitated by the Downtown West PUD would be approximately 2,063 MT CO_{2e} per year as a result of Downtown West PUD operation. Estimated annual project-generated operational emissions in 2045 and amortized Downtown West PUD t construction emissions would be approximately 2,076 MT CO_{2e} per year. The estimated annual net operational emissions after removal of existing operational emissions would be approximately 54.61 MT CO_{2e} per year. As explained previously, the efficiency metric threshold used is 3.61 MT CO_{2e}/2,500 SF/year. The proposed Downtown West PUD is anticipated to facilitate a maximum of 37,886 SF of commercial building space by 2045. Accordingly, the proposed Downtown West PUD would result in an efficiency of 3.60 MT CO_{2e}/2,500 SF/year, which would not exceed the applied efficiency metric threshold of 3.61 MT CO_{2e}/2,500 SF/year.

The operational emissions associated with the residential portion of the was evaluated separately against its respective efficiency metric threshold. The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and refrigerants are shown in Table 9, Project GHG Efficiency - Commercial.

Table 9. Project GHG Efficiency - Residential

Emission Source	CO ₂	CH ₄	N ₂ O	CO _{2e}
	Metric Tons per Year*			
Area	144.74	<0.01	<0.01	144.94
Energy	901.06	0.10	0.01	906.07
Mobile	1,666.18	0.05	0.08	1,690.41
Waste	38.33	3.83	0	134.11
Water	27.18	0.79	0.02	52.61
Refrigerants	0	0	0	0.77
Total	2,777.50	4.78	0.10	2,928.91
<i>Amortized construction emissions (Table 7)</i>				<i>217.47</i>
Total operational + amortized construction emissions				3,146.38
Existing Emissions¹				1,946.38
Total net emissions²				1,200.00
Project Efficiency (MT CO_{2e}/du)³				2.07
<i>Ontario CAP Post-2030 Residential Efficiency Threshold</i>				<i>1.53</i>
Threshold Exceeded?				Yes

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO_{2e} = carbon dioxide equivalent; du = dwelling unit; <0.01 = less than 0.01.

¹ CalEEMod was used to calculate the GHG emissions associated with existing residential and commercial space to be redeveloped as a result of this project. The existing scenario is 5 dwelling units and 56,171 square feet of commercial building space.

² Net emissions were calculated by subtracting the existing emissions from the total operational and amortized emissions associated with the project.

³ Project efficiency is calculated by dividing the total operational and amortized construction emissions (3,146.38 MT CO_{2e}) by the Project’s number of dwelling units (581) to get 2.07 MT CO_{2e}/du.

* The Project emissions reflect operational year 2045.

See Attachment A for complete results.

As shown in Table 9, estimated annual GHG emissions generated by future commercial development that would be facilitated by the Downtown West PUD would be approximately 2,929 MT CO₂e per year as a result of Downtown West PUD operation. Estimated annual project-generated operational emissions in 2045 and amortized Downtown West PUD construction emissions would be approximately 3,146 MT CO₂e per year. The estimated annual net operational emissions after removal of existing operational emissions would be approximately 1200 MT CO₂e per year. As explained previously, the efficiency metric threshold used is 1.53 MT CO₂e/du/year. The proposed Downtown West PUD is anticipated to facilitate a maximum of 581 dwelling units by 2045. Accordingly, the proposed Project would result in an efficiency of 2.07 MT CO₂e/du/year, which would exceed the applied efficiency metric threshold of 1.53 MT CO₂e/du/year. Therefore, GHG emissions generated by the Downtown West PUD would have a potentially significant impact, however Downtown West PUD shall implement Screening Table Measures that achieve the requisite points per the City's Community Climate Action Plan (CCAP) Screening Tables. With implementation of the Screening Tables Measures, impacts would be less than significant.

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

Less-than-Significant Impact. A project's consistency with the CCAP is projected to result in emissions that would meet the GHG reduction target established under SB 32 and Executive Order S-03-05 and progress towards the State's carbon neutrality goal. Projects would be consistent with the CCAP and would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, impacts would be less than significant.

4 Energy Assessment

4.1 Background

4.1.1 Electricity

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into electrical energy. The delivery of electricity involves a number of system components, including power generation facilities, transmission and distribution lines, substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Production of electricity and its conveyance through the power grid occur in response to market demand.

Energy capacity, or electrical power, is generally measured in watts while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 watts, the energy required to keep the bulb on for 1 hour would be 100 Wh. If 10 100-watt bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts, which is 1 million watts, while energy usage is measured in megawatt-hours (1 million watt-hours) or gigawatt-hours (1 billion watt-hours).

4.1.2 Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

4.1.3 Petroleum

According to the U.S. Energy Information Administration, California as a whole consumes approximately 29 billion gallons of petroleum per year. Countywide total petroleum use by on-road vehicles only (i.e., not including construction off-road equipment) is expected to be 1.4 billion gallons per year in 2030 (EIA 2023). In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel.

4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have a significant effect on the environment with respect to energy if the project would:

- A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.
- B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The above listed Appendix G energy thresholds are applied herein.

4.3 Approach and Methodology

4.3.1 Construction

Future construction activities that would be reasonably foreseeable due to the proposed land use and policy changes set forth in the Downtown West PUD would increase demands for electricity, natural gas, gasoline, and diesel consumption in the PUD project area, which are evaluated below.

Electricity

Energy use from construction of future residential, commercial, and parking developments would primarily occur in association with fuel use by vehicles and other equipment to conduct construction activities.

The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. The electricity used for construction activities

would be temporary and minimal; it would be within the supply and infrastructure service capabilities of Southern California Edison (SCE), and it would not require additional local or regional capacity. The electricity demand during construction is anticipated to be minimal as future projects would be built over time during the 20-year planning horizon. The electricity used for any potential future construction activities would be temporary and minimal.

Natural Gas

Natural gas is not anticipated to be required during Downtown West PUD construction because construction of new buildings and facilities typically do not consume natural gas. Peak energy demand specifically applies to electricity; because natural gas (and petroleum) are liquid, these energy resources do not have the same constraints as electricity supply. Nonetheless, any use of natural gas is anticipated to be sufficiently served by existing supply from SoCalGas and would not require additional local or regional capacity. Any minor amounts of natural gas that may be consumed because of construction would be temporary and negligible and would not have an adverse effect.⁷

Petroleum

Heavy-duty equipment associated with construction during development allowed for by the Downtown West PUD would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the individual parcels within the PUD project area and haul trucks exporting demolition material or other materials off site or importing material. Construction workers would travel to and from each of the parcels within the PUD project area throughout the duration of construction. Appendix A lists the assumed equipment usage and vehicle trips.

4.3.2 Operations

Future operation of development that would be reasonably foreseeable due to the proposed land use and policy changes set forth in the Downtown West would increase demands for electricity, natural gas, gasoline, and diesel consumption in the PUD project area, which are evaluated below.

Electricity

Project operation would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. CalEEMod was used to estimate project emissions from electricity uses (see Attachment A for calculations).

The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the heating, ventilation, and air conditioning [HVAC] system; water heating system; and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses). Title 24

⁷ While no natural gas is anticipated to be used during construction as construction equipment is typically diesel-fueled, the possibility of natural gas use is acknowledged in the event a natural gas-fueled piece of equipment is used or a natural gas-fueled hot water boiler is used for pipe relining. However, as noted previously, all equipment was assumed to be diesel-fueled in CalEEMod.

of the California Code of Regulations serves to enhance and regulate California’s building standards. The most recent amendments to Title 24, Part 6, referred to as the 2022 standards, became effective on January 1, 2023.

Natural Gas

The operation of the residential, commercial, and parking space would require natural gas for various purposes, including building heating and cooling, service water heating, and appliances. Default natural gas usage rates in CalEEMod for the proposed land use and climate zone were used.

The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses). Title 24 of the California Code of Regulations serves to enhance and regulate California’s building standards. The most recent amendments to Title 24, Part 6, referred to as the 2023 standards, became effective on January 1, 2023.

Petroleum

During operations, the majority of fuel consumption resulting from the future development facilitated by the Downtown West PUD would involve the use of motor vehicles, as well as fuels used for alternative modes of transportation that may be used by residents, employees and visitors of the future development. Petroleum fuel consumption associated with motor vehicles traveling to and from future development is a function of the VMT as a result of operation of the development of the Downtown West PUD. Similar to the construction worker and vendor trips, fuel consumption from worker and truck trips are estimated by converting the total CO₂ emissions from operation of the project to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel.

4.4 Impact Analysis

4.4.1 Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

The electricity and natural gas used for construction of the proposed Downtown West PUD would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project’s overall energy consumption. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in vehicle miles traveled (VMT) over time.

Construction Use

Construction is estimated to occur intermittently over the planning horizon of the Downtown West PUD, which is 20 years. The estimated energy demand from the five percent development scenario was multiplied by the estimated number of years till Downtown West PUD buildout (i.e., 20 years) to estimate the annual petroleum consumption from construction.

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles, is shown in Table 10.

Table 10. Total Proposed Project Construction Petroleum Demand

Project	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Total for one year	20,373	6,304	2,455	4,669
Total over 20 years	407,465	126,089	49,108	93,377

Source: Attachment A.

In summary, construction associated with the potential future development facilitated by the Downtown West PUD over 20 years is conservatively anticipated to consume 93,377 gallons of gasoline and 582,662 gallons of diesel. Each year, it is anticipated that implementation of the Downtown West PUD would consume on average 4,669 gallons of gasoline and 29,133 gallons of diesel.⁸

Notably, the Downtown West PUD would be subject to CARB’s In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Overall, the Downtown West PUD would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state.

Additionally, any future development facilitated by the Downtown West PUD would be required to adhere to all federal, state, and local requirements for energy efficiency, including the latest Title 24 standards. Considering these requirements, the Downtown West PUD would not result in the inefficient, wasteful, or unnecessary consumption of building energy. Therefore, construction impacts would be less than significant, and no mitigation is required.

Operational Use

Electricity

Default electricity generation rates in CalEEMod were used based on the proposed land use and climate zone. The increase in electricity demand for the existing scenario of 5 dwelling units and 37,886 square feet of commercial space, and the future potential buildout of the 581 dwelling units, and 37,886 square feet of commercial space, and 1,220 provisional parking spaces is presented in Table 11.

⁸ For disclosure only, by comparison, California as a whole consumes approximately 29 billion gallons of petroleum per year. Countywide total petroleum use by on-road vehicles only (i.e., not including construction off-road equipment) is expected to be 1.4 billion gallons per year in 2030 (EIA 2023).

Table 11. Project Annual Operational Electricity Demand Summary

Land Use	Electricity Demand (kWh/year)
Existing Scenario	
Apartments Mid Rise	21,581
Strip Mall	546,450
<i>Total Existing Electricity Demand</i>	<i>568,031</i>
Project Scenario	
Apartments Mid Rise	1,773,943
Apartments Low Rise	660,691
Condo/Townhouse	140,608
Strip Mall	368,568
Enclosed Parking Structure	1,708,699
<i>Total Project Electricity Demand</i>	<i>4,652,509</i>
Net Electricity Demand¹	4,084,478

Notes: Attachment A.
 kWh = kilowatt hours.

¹ Net electricity demand was calculated by subtracting the existing scenario's total electricity demand from the Project scenario's total electricity demand.

As shown in Table 11, the increase in potential development is estimated to have a net total electrical demand of approximately 4 million kilowatt-hours per year. The energy demand calculations do not consider all the potential future energy-saving regulations and code requirements that are currently unknown for the Downtown West PUD buildout year of 2045. Such as Title 24 2022 standards which would increase the required amount of solar for non-residential spaces compared to the 2019 standards. As such, the Downtown West PUD's electricity use would likely be lower than the calculations presented above. Additionally, the applicable Title 24 standards would further ensure that the energy demands would not be inefficient, wasteful, or otherwise unnecessary. Therefore, impacts would be less than significant.

Natural Gas

The increase in natural gas demand for the existing scenario of 5 dwelling units and 37,886 square feet of commercial space, and the future potential buildout of the 581 dwelling units, and 37,886 square feet of commercial space, and 1,220 provisional parking spaces is presented in Table 12.

Table 12. Project Annual Operational Natural Gas Demand Summary

Land Use	Natural Gas Demand (kBTU/year)
Existing Scenario	
Apartments Mid Rise	55,186
Strip Mall	331,156
<i>Total Existing Electricity Demand</i>	<i>386,342</i>

Table 12. Project Annual Operational Natural Gas Demand Summary

Land Use	Natural Gas Demand (kBtu/year)
Proposed Scenario	
Apartments Mid Rise	4,536,281
Apartments Low Rise	2,348,575
Condo/Townhouse	546,427
Strip Mall	223,357
Enclosed Parking Structure	0
<i>Total Project Natural Gas Demand</i>	<i>7,654,640</i>
Net Natural Gas Demand¹	7,268,298

Notes: Attachment A.

kBTU = thousand British Thermal Units.

¹ Net natural gas demand was calculated by subtracting the existing scenario's total electricity demand from the Project scenario's total electricity demand.

As shown in Table 12, the net increase in residential, commercial, and parking space is estimated to have a total natural gas demand of 7,268,298 Thousand British Thermal Units per year. Any future development facilitated by the Downtown West PUD is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Prior to development at individual parcel sites, applicants would ensure that the proposed development would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Thus, the natural gas consumption related to development facilitated by the Downtown West PUD would not be considered inefficient or wasteful, and impacts would be less than significant.

Petroleum

Fuel estimates for existing scenario of 5 dwelling units and 37,886 square feet of commercial space, and the future potential buildout the 581 dwelling units, and 37,886 square feet of commercial space, and 1,220 provisional parking spaces are provided in Table 13.

Table 13. Project Annual Operational Petroleum Demand Summary

Land Use	Annual VMT	Estimated Annual Fuel Consumption (Gallons)		
		Gasoline	Diesel	Total
Existing Demand	10,234,940	376,238	44,244	420,462
Project Demand	15,162,016	363,477	56,798	420,275
Net Demand¹	4,927,075	-12,761	12,554	-207

Notes: Attachment A.

VMT = Vehicle miles traveled.

Totals may not sum due to rounding.

¹ Net natural gas demand was calculated by subtracting the existing scenario's total electricity demand from the Project scenario's total electricity demand.

As summarized in Table 13, the potential buildout of the future development facilitated by the Downtown West PUD would result in a increase in annual VMT of approximately 4,927,075 annually and an estimated decrease in annual fuel demand of 207 gallons of petroleum per year. Fuel would be provided by current and future commercial

vendors. The Downtown West PUD does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT or associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Additionally, the general location of the parcels within the rezoning program proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. Furthermore, approval of the Downtown West PUD itself, as a policy document update, would not change these regulations related to transportation energy consumption. Therefore, transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Summary

In summary, although natural gas and electricity usage would increase due to the implementation of the Downtown West PUD, the Downtown West PUD would be subject to the State Building Energy Efficiency Standards. The Downtown West PUD would see an increase in petroleum use during construction and a decrease in petroleum use during operation. Vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts to energy resources during operation would be less than significant.

Over the lifetime of the Downtown West PUD, the fuel efficiency of the vehicles being used by the residents and employees of the Downtown West PUD is expected to increase. As such, the amount of gasoline consumed as a result of vehicular trips to and from the PUD project area during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emission vehicles in California (CARB 2017). Additionally, in response to Senate Bill (SB) 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the SCAG planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation. As such, operation of the Downtown West PUD is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

The Downtown West PUD would create additional electricity and natural gas demand by 581 dwelling units, 37,886 square feet of commercial space, and 1,220 provisional parking spaces. New facilities associated with the proposed Downtown West PUD would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of non-residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The Downtown West PUD will meet applicable Title 24 requirements, other renewable energy systems including wind turbine generation, geothermal generation, energy storage and other renewable energy generation features are not considered technically or economically feasible and or demonstrated for a similar project. Additionally, site constraints include limited land availability and incompatibility with land use for large scale power generation facilities as well as unknown interconnection feasibility and compatibility with utility provider systems. For these reasons other onsite renewable energy systems are not considered feasible for the proposed Downtown West PUD.

In summary, implementation of the Downtown West PUD would increase the demand for electricity and natural gas at the PUD project area and petroleum consumption in the region during construction and decrease petroleum consumption during operation. However, as the Downtown West PUD would be consistent with current regulations and policies, the Downtown West PUD would not be wasteful, inefficient, and would not result in unnecessary energy resource consumption. The project's energy consumption demands during construction and operation would conform to the State's Title 24 standards such that the Downtown West PUD would not be expected to wastefully use gas and electricity. Since the proposed Downtown West PUD would comply with Title 24 conservation standards, the proposed Downtown West PUD would not directly require the construction of new energy generation or supply facilities or result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, vehicle usage associated with the Downtown West PUD would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts would be less than significant.

4.4.2 Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Downtown West PUD would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR, Part 6). Part 6 of Title 24 of the California Code of Regulations and all applicable rules and regulations would reduce energy demand and increase energy efficiency related to future residential development facilitated by the Downtown West PUD. Part 6 of Title 24 of the California Code of Regulations establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies.

Title 24 also includes Part 11, CALGreen. Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the Downtown West PUD under the California Green Building Standards, also known as CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. On this basis, the Downtown West PUD would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

Various existing local plans would reduce energy use including SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy and CARB's Scoping Plan. Furthermore, approval of the Downtown West PUD itself, as a policy document update, would not change these regulations and would not provide any goals, policies, or programs that would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

5 Conclusions

Criteria air pollutant emissions generated during construction and operation of the project would not exceed the SCAQMD's significance thresholds or result in a cumulatively considerable net increase in emissions. Similarly, the project would not create a CO hotspot or result in substantial health risk impacts at sensitive receptors within the vicinity. Therefore, the project would result in a less than significant impact to air quality.

Estimated total GHG emissions would be below the SCAQMD's draft threshold of 3,000 MT CO₂e per year. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Accordingly, potential cumulative GHG impacts would be less than significant.

Regarding energy, the construction demand for electricity and petroleum under the proposed project would not be unusual or wasteful as compared to overall local and regional demand for energy resources. The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the project would result in a less than significant impacts to energy.

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Attachment A

Downtown West PUD Final Detailed Report

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Downtown West PUD Construction - Final Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Downtown West PUD Construction - Final
Construction Start Date	1/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06705502342919, -117.65113490660374
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5242
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

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
Enclosed Parking with Elevator	61.0	Space	0.55	24,400	0.00	—	—	—

Strip Mall	1.89	1000sqft	0.04	1,894	0.00	—	—	—
Apartments Mid Rise	20.6	Dwelling Unit	0.54	21,022	0.00	—	68.0	—
Condo/Townhouse	1.45	Dwelling Unit	0.09	2,610	0.00	—	5.00	—
Apartments Low Rise	7.00	Dwelling Unit	0.44	8,615	0.00	—	23.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.46	1.21	9.35	12.5	0.02	0.33	0.46	0.79	0.31	0.11	0.42	—	2,471	2,471	0.11	0.07	2.26	2,496
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.61	21.2	41.4	29.9	0.17	0.92	13.2	14.1	0.87	5.08	5.95	—	24,428	24,428	2.40	3.60	1.22	25,562
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.05	1.47	7.13	8.65	0.02	0.25	0.69	0.94	0.23	0.18	0.41	—	2,046	2,046	0.12	0.11	0.97	2,082
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.27	1.30	1.58	< 0.005	0.05	0.13	0.17	0.04	0.03	0.07	—	339	339	0.02	0.02	0.16	345

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.46	1.21	9.35	12.5	0.02	0.33	0.46	0.79	0.31	0.11	0.42	—	2,471	2,471	0.11	0.07	2.26	2,496
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.61	21.2	41.4	29.9	0.17	0.92	13.2	14.1	0.87	5.08	5.95	—	24,428	24,428	2.40	3.60	1.22	25,562
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.05	1.47	7.13	8.65	0.02	0.25	0.69	0.94	0.23	0.18	0.41	—	2,046	2,046	0.12	0.11	0.97	2,082
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.27	1.30	1.58	< 0.005	0.05	0.13	0.17	0.04	0.03	0.07	—	339	339	0.02	0.02	0.16	345

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	1.75	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	3.24	3.24	—	0.49	0.49	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.80	0.87	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	144
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.8	23.8	< 0.005	< 0.005	—	23.8
Demolition	—	—	—	—	—	—	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.01	129
Hauling	0.33	0.05	3.29	1.78	0.02	0.03	0.70	0.74	0.03	0.19	0.23	—	2,629	2,629	0.28	0.43	0.14	2,764
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.01	7.44
Hauling	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	0.02	0.02	0.14	159
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.18	1.18	< 0.005	< 0.005	< 0.005	1.23
Hauling	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.3

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	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	1.56	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement:	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

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Dust From Material Movement:	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	103	103	< 0.005	< 0.005	0.01	105
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.01	129
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.57	0.57	< 0.005	< 0.005	< 0.005	0.58
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.71
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12

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	0.00	0.00
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3.5. Grading (2025) - Unmitigated

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

Location	TOG	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	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement:	—	—	—	—	—	—	7.24	7.24	—	3.45	3.45	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement:	—	—	—	—	—	—	0.01	0.01	—	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	< 0.005	0.01	131
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.01	129
Hauling	2.75	0.44	27.2	14.7	0.15	0.28	5.82	6.10	0.28	1.59	1.87	—	21,720	21,720	2.28	3.56	1.20	22,839
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.44	1.44	< 0.005	< 0.005	< 0.005	1.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.42
Hauling	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	238	238	0.03	0.04	0.22	250
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.24	0.24	< 0.005	< 0.005	< 0.005	0.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.4	39.4	< 0.005	0.01	0.04	41.5

3.7. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.62	5.17	5.80	0.01	0.19	—	0.19	0.17	—	0.17	—	1,041	1,041	0.04	0.01	—	1,045
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.94	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	172	172	0.01	< 0.005	—	173
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.13	2.34	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	423	423	0.02	0.01	1.57	429
Vendor	0.02	0.01	0.27	0.15	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	247	247	0.02	0.04	0.69	259
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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.76	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	388	388	0.02	0.01	0.04	392
Vendor	0.02	0.01	0.29	0.15	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	247	247	0.02	0.04	0.02	259
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.07	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	227	227	0.01	0.01	0.39	230
Vendor	0.01	< 0.005	0.17	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	143	143	0.01	0.02	0.17	150
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.06	38.1
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.6	23.6	< 0.005	< 0.005	0.03	24.8
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	0.00

3.9. Paving (2025) - Unmitigated

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

Location	TOG	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	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.9	29.9	< 0.005	< 0.005	—	30.0
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.95	4.95	< 0.005	< 0.005	—	4.97
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
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	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.53	5.53	< 0.005	< 0.005	0.01	5.61
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	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.92	0.92	< 0.005	< 0.005	< 0.005	0.93

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	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	0.00

3.11. Architectural Coating (2025) - Unmitigated

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

Location	TOG	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	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	21.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Architectural Coatings	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.67	0.67	< 0.005	< 0.005	—	0.67

Architect Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	103	103	< 0.005	< 0.005	0.01	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	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.16	3.16	< 0.005	< 0.005	0.01	3.20
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	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.52	0.52	< 0.005	< 0.005	< 0.005	0.53
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	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	0.00

4. Operations Emissions Details

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)

Vegetatio	TOG	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	TOG	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	TOG	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	1/1/2025	1/29/2025	5.00	21.0	—
Site Preparation	Site Preparation	1/30/2025	2/1/2025	5.00	2.00	—
Grading	Grading	2/2/2025	2/7/2025	5.00	4.00	—
Building Construction	Building Construction	2/8/2025	12/1/2025	5.00	211	—
Paving	Paving	12/2/2025	12/16/2025	5.00	11.0	—
Architectural Coating	Architectural Coating	12/17/2025	12/31/2025	5.00	11.0	—

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	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
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

Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
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	14.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	38.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

Site Preparation	—	—	—	—
Site Preparation	Worker	8.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	314	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	30.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.00	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	14.0	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	8.00	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	65,300	21,767	3,917	1,067	1,435

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	67,814	—
Site Preparation	—	—	1.88	0.00	—
Grading	—	10,000	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.55

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
Enclosed Parking with Elevator	0.55	100%
Strip Mall	0.00	0%
Apartments Mid Rise	—	0%
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	19.6	annual days of extreme heat
Extreme Precipitation	6.05	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	84.6
AQ-PM	97.3
AQ-DPM	97.5
Drinking Water	93.3
Lead Risk Housing	73.0

Pesticides	1.66
Toxic Releases	62.1
Traffic	34.7
Effect Indicators	—
CleanUp Sites	69.8
Groundwater	59.6
Haz Waste Facilities/Generators	94.1
Impaired Water Bodies	0.00
Solid Waste	91.0
Sensitive Population	—
Asthma	59.0
Cardio-vascular	72.0
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	79.6
Housing	87.2
Linguistic	70.9
Poverty	90.5
Unemployment	3.21

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	30.82253304
Employed	25.70255357
Median HI	3.990760939

Education	—
Bachelor's or higher	36.23764917
High school enrollment	100
Preschool enrollment	64.31412806
Transportation	—
Auto Access	8.494803028
Active commuting	13.85859104
Social	—
2-parent households	45.13024509
Voting	31.9645836
Neighborhood	—
Alcohol availability	13.5249583
Park access	81.35506224
Retail density	86.15424099
Supermarket access	88.28435776
Tree canopy	58.14192224
Housing	—
Homeownership	3.849608623
Housing habitability	26.02335429
Low-inc homeowner severe housing cost burden	58.46272296
Low-inc renter severe housing cost burden	22.2764019
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	6.685486975
Arthritis	41.4
Asthma ER Admissions	36.3
High Blood Pressure	56.0

Cancer (excluding skin)	55.0
Asthma	19.7
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	36.9
Life Expectancy at Birth	18.9
Cognitively Disabled	64.4
Physically Disabled	5.0
Heart Attack ER Admissions	25.3
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	33.9
Pedestrian Injuries	90.6
Physical Health Not Good	30.9
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	41.7
Current Smoker	29.7
No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	30.4
English Speaking	14.1
Foreign-born	61.3
Outdoor Workers	85.0

Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.9
Traffic Density	31.4
Traffic Access	87.4
Other Indices	—
Hardship	78.4
Other Decision Support	—
2016 Voting	42.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	17.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Based on 5% of buildout info.
Operations: Vehicle Data	Based on traffic report trip generation rates.
Operations: Hearths	Based on SCAQMD Rule 445.
Construction: Construction Phases	Scaled to be 1 full year of construction.
Construction: Trips and VMT	Rounded up to nearest even whole number and scaled to match 1 year of construction.

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Downtown West PUD Proposed Operations - Residential - Final
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06705502342919, -117.65113490660374
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5242
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

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
Enclosed Parking Structure	1,220	Space	11.0	488,000	0.00	—	—	—

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Apartments Mid Rise	411	Dwelling Unit	10.8	422,494	0.00	—	1,360	—
Apartments Low Rise	141	Dwelling Unit	8.81	172,294	0.00	—	467	—
Condo/Townhouse	29.0	Dwelling Unit	1.81	52,200	0.00	—	96.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Transportation	T-1	Increase Residential Density

2. Emissions Summary

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.8	27.3	15.5	111	0.23	0.97	17.3	18.3	0.96	4.40	5.35	278	33,061	33,339	29.2	0.87	8.87	34,337
Mit.	12.1	25.7	14.2	95.3	0.18	0.95	12.1	13.1	0.94	3.08	4.01	278	28,166	28,444	29.1	0.66	7.60	29,376
% Reduced	13%	6%	9%	14%	21%	2%	30%	29%	2%	30%	25%	—	15%	15%	1%	23%	14%	14%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.81	20.8	15.4	48.0	0.22	0.92	17.3	18.2	0.92	4.40	5.31	278	31,849	32,126	29.2	0.89	4.74	33,126
Mit.	5.14	19.2	13.9	34.9	0.17	0.90	12.1	13.0	0.90	3.08	3.97	278	27,265	27,543	29.1	0.68	4.71	28,476
% Reduced	25%	7%	9%	27%	21%	2%	30%	29%	2%	30%	25%	—	14%	14%	1%	24%	1%	14%

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Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.1	24.2	7.32	80.2	0.16	0.30	15.9	16.2	0.29	4.04	4.33	278	20,811	21,089	29.0	0.82	6.34	22,067
Mit.	8.54	22.8	5.97	67.6	0.12	0.28	11.1	11.4	0.27	2.83	3.10	278	16,498	16,776	28.9	0.63	5.83	17,691
% Reduced	15%	6%	19%	16%	27%	6%	30%	30%	6%	30%	28%	—	21%	20%	< 0.5%	24%	8%	20%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	4.42	1.34	14.6	0.03	0.05	2.90	2.96	0.05	0.74	0.79	46.0	3,446	3,492	4.80	0.14	1.05	3,653
Mit.	1.56	4.17	1.09	12.3	0.02	0.05	2.03	2.08	0.05	0.52	0.57	46.0	2,731	2,778	4.78	0.10	0.96	2,929
% Reduced	15%	6%	19%	16%	27%	6%	30%	30%	6%	30%	28%	—	21%	20%	< 0.5%	24%	8%	20%

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.75	5.27	4.49	52.1	0.16	0.07	17.3	17.4	0.06	4.40	4.46	—	16,315	16,315	0.49	0.68	4.24	16,534
Area	7.82	21.9	9.16	58.0	0.06	0.75	—	0.75	0.74	—	0.74	0.00	11,186	11,186	0.21	0.02	—	11,198
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	13.8	27.3	15.5	111	0.23	0.97	17.3	18.3	0.96	4.40	5.35	278	33,061	33,339	29.2	0.87	8.87	34,337
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	5.57	5.09	4.82	43.5	0.15	0.07	17.3	17.4	0.06	4.40	4.46	—	15,278	15,278	0.51	0.70	0.11	15,500
Area	1.02	15.6	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	6.81	20.8	15.4	48.0	0.22	0.92	17.3	18.2	0.92	4.40	5.31	278	31,849	32,126	29.2	0.89	4.74	33,126
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.13	4.68	4.52	41.9	0.14	0.06	15.9	16.0	0.06	4.04	4.10	—	14,377	14,377	0.47	0.66	1.70	14,586
Area	4.73	19.4	0.92	37.5	0.01	0.08	—	0.08	0.08	—	0.08	0.00	874	874	0.02	< 0.005	—	875
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	10.1	24.2	7.32	80.2	0.16	0.30	15.9	16.2	0.29	4.04	4.33	278	20,811	21,089	29.0	0.82	6.34	22,067
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.94	0.85	0.83	7.65	0.03	0.01	2.90	2.92	0.01	0.74	0.75	—	2,380	2,380	0.08	0.11	0.28	2,415
Area	0.86	3.55	0.17	6.84	< 0.005	0.02	—	0.02	0.01	—	0.01	0.00	145	145	< 0.005	< 0.005	—	145
Energy	0.04	0.02	0.34	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	901	901	0.10	0.01	—	906
Water	—	—	—	—	—	—	—	—	—	—	—	7.68	19.5	27.2	0.79	0.02	—	52.6
Waste	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Total	1.84	4.42	1.34	14.6	0.03	0.05	2.90	2.96	0.05	0.74	0.79	46.0	3,446	3,492	4.80	0.14	1.05	3,653

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)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.03	3.69	3.14	36.5	0.11	0.05	12.1	12.2	0.04	3.08	3.12	—	11,420	11,420	0.34	0.48	2.97	11,574
Area	7.82	21.9	9.16	58.0	0.06	0.75	—	0.75	0.74	—	0.74	0.00	11,186	11,186	0.21	0.02	—	11,198
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	12.1	25.7	14.2	95.3	0.18	0.95	12.1	13.1	0.94	3.08	4.01	278	28,166	28,444	29.1	0.66	7.60	29,376
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.90	3.56	3.38	30.4	0.10	0.05	12.1	12.2	0.04	3.08	3.12	—	10,695	10,695	0.35	0.49	0.08	10,850
Area	1.02	15.6	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	5.14	19.2	13.9	34.9	0.17	0.90	12.1	13.0	0.90	3.08	3.97	278	27,265	27,543	29.1	0.68	4.71	28,476
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.59	3.28	3.17	29.3	0.10	0.04	11.1	11.2	0.04	2.83	2.87	—	10,064	10,064	0.33	0.46	1.19	10,210
Area	4.73	19.4	0.92	37.5	0.01	0.08	—	0.08	0.08	—	0.08	0.00	874	874	0.02	< 0.005	—	875
Energy	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	5,442	5,442	0.60	0.05	—	5,473
Water	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Waste	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63

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Total	8.54	22.8	5.97	67.6	0.12	0.28	11.1	11.4	0.27	2.83	3.10	278	16,498	16,776	28.9	0.63	5.83	17,691
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.66	0.60	0.58	5.35	0.02	0.01	2.03	2.04	0.01	0.52	0.52	—	1,666	1,666	0.05	0.08	0.20	1,690
Area	0.86	3.55	0.17	6.84	< 0.005	0.02	—	0.02	0.01	—	0.01	0.00	145	145	< 0.005	< 0.005	—	145
Energy	0.04	0.02	0.34	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	901	901	0.10	0.01	—	906
Water	—	—	—	—	—	—	—	—	—	—	—	7.68	19.5	27.2	0.79	0.02	—	52.6
Waste	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Total	1.56	4.17	1.09	12.3	0.02	0.05	2.03	2.08	0.05	0.52	0.57	46.0	2,731	2,778	4.78	0.10	0.96	2,929

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	3.73	3.42	2.91	33.8	0.10	0.04	11.2	11.3	0.04	2.85	2.90	—	10,591	10,591	0.32	0.44	2.75	10,734
Apartments Low Rise	1.91	1.75	1.49	17.3	0.05	0.02	5.76	5.78	0.02	1.46	1.48	—	5,426	5,426	0.16	0.23	1.41	5,499

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Condo/Townhouse	0.10	0.10	0.08	0.95	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	297	297	0.01	0.01	0.08	301
Total	5.75	5.27	4.49	52.1	0.16	0.07	17.3	17.4	0.06	4.40	4.46	—	16,315	16,315	0.49	0.68	4.24	16,534
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	3.62	3.30	3.13	28.2	0.10	0.04	11.2	11.3	0.04	2.85	2.90	—	9,918	9,918	0.33	0.45	0.07	10,062
Apartments Low Rise	1.85	1.69	1.60	14.5	0.05	0.02	5.76	5.78	0.02	1.46	1.48	—	5,082	5,082	0.17	0.23	0.04	5,155
Condo/Townhouse	0.10	0.09	0.09	0.79	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	278	278	0.01	0.01	< 0.005	282
Total	5.57	5.09	4.82	43.5	0.15	0.07	17.3	17.4	0.06	4.40	4.46	—	15,278	15,278	0.51	0.70	0.11	15,500
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	0.62	0.57	0.55	5.07	0.02	0.01	1.92	1.93	0.01	0.49	0.50	—	1,577	1,577	0.05	0.07	0.19	1,600
Apartments Low Rise	0.30	0.27	0.26	2.45	0.01	< 0.005	0.93	0.93	< 0.005	0.24	0.24	—	761	761	0.02	0.03	0.09	772
Condo/Townhouse	0.02	0.01	0.01	0.13	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	41.7	41.7	< 0.005	< 0.005	< 0.005	42.3
Total	0.94	0.85	0.83	7.65	0.03	0.01	2.90	2.92	0.01	0.74	0.75	—	2,380	2,380	0.08	0.11	0.28	2,415

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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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.61	2.39	2.04	23.7	0.07	0.03	7.87	7.90	0.03	2.00	2.03	—	7,414	7,414	0.22	0.31	1.93	7,514
Apartments Low Rise	1.34	1.23	1.04	12.1	0.04	0.02	4.03	4.05	0.01	1.02	1.04	—	3,799	3,799	0.11	0.16	0.99	3,850
Condo/Townhouse	0.07	0.07	0.06	0.66	< 0.005	< 0.005	0.22	0.22	< 0.005	0.06	0.06	—	208	208	0.01	0.01	0.05	211
Total	4.03	3.69	3.14	36.5	0.11	0.05	12.1	12.2	0.04	3.08	3.12	—	11,420	11,420	0.34	0.48	2.97	11,574
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.53	2.31	2.19	19.8	0.07	0.03	7.87	7.90	0.03	2.00	2.03	—	6,943	6,943	0.23	0.32	0.05	7,043
Apartments Low Rise	1.30	1.18	1.12	10.1	0.03	0.02	4.03	4.05	0.01	1.02	1.04	—	3,557	3,557	0.12	0.16	0.03	3,609
Condo/Townhouse	0.07	0.06	0.06	0.55	< 0.005	< 0.005	0.22	0.22	< 0.005	0.06	0.06	—	195	195	0.01	0.01	< 0.005	198

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Total	3.90	3.56	3.38	30.4	0.10	0.05	12.1	12.2	0.04	3.08	3.12	—	10,695	10,695	0.35	0.49	0.08	10,850
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	0.43	0.40	0.38	3.55	0.01	0.01	1.35	1.35	0.01	0.34	0.35	—	1,104	1,104	0.04	0.05	0.13	1,120
Apartments Low Rise	0.21	0.19	0.18	1.71	0.01	< 0.005	0.65	0.65	< 0.005	0.17	0.17	—	533	533	0.02	0.02	0.06	541
Condo/Townhouse	0.01	0.01	0.01	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	29.2	29.2	< 0.005	< 0.005	< 0.005	29.6
Total	0.66	0.60	0.58	5.35	0.02	0.01	2.03	2.04	0.01	0.52	0.52	—	1,666	1,666	0.05	0.08	0.20	1,690

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	1,221	1,221	0.15	0.02	—	1,230
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,267	1,267	0.16	0.02	—	1,277
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	472	472	0.06	0.01	—	476

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Condo/T	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,061	3,061	0.39	0.05	—	3,084
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	1,221	1,221	0.15	0.02	—	1,230
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,267	1,267	0.16	0.02	—	1,277
Apartme nts Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	472	472	0.06	0.01	—	476
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,061	3,061	0.39	0.05	—	3,084
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	202	202	0.03	< 0.005	—	204
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.03	< 0.005	—	211
Apartme nts Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	78.2	78.2	0.01	< 0.005	—	78.8
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	507	507	0.06	0.01	—	511

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	1,221	1,221	0.15	0.02	—	1,230
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,267	1,267	0.16	0.02	—	1,277
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	472	472	0.06	0.01	—	476
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,061	3,061	0.39	0.05	—	3,084
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	1,221	1,221	0.15	0.02	—	1,230
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,267	1,267	0.16	0.02	—	1,277
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	472	472	0.06	0.01	—	476
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,061	3,061	0.39	0.05	—	3,084

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Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	202	202	0.03	< 0.005	—	204
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.03	< 0.005	—	211
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	78.2	78.2	0.01	< 0.005	—	78.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	507	507	0.06	0.01	—	511

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.13	0.07	1.15	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,454	1,454	0.13	< 0.005	—	1,458
Apartments Low Rise	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	753	753	0.07	< 0.005	—	755
Condo/Townhouse	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176

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Total	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	2,382	2,382	0.21	< 0.005	—	2,388
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.13	0.07	1.15	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,454	1,454	0.13	< 0.005	—	1,458
Apartments Low Rise	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	753	753	0.07	< 0.005	—	755
Condo/Townhouse	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Total	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	2,382	2,382	0.21	< 0.005	—	2,388
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.02	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02	—	241	241	0.02	< 0.005	—	241
Apartments Low Rise	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
Condo/Townhouse	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.0	29.0	< 0.005	< 0.005	—	29.1
Total	0.04	0.02	0.34	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	394	394	0.03	< 0.005	—	395

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)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.13	0.07	1.15	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,454	1,454	0.13	< 0.005	—	1,458
Apartments Low Rise	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	753	753	0.07	< 0.005	—	755
Condo/Townhouse	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Total	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	2,382	2,382	0.21	< 0.005	—	2,388
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.13	0.07	1.15	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,454	1,454	0.13	< 0.005	—	1,458
Apartments Low Rise	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	753	753	0.07	< 0.005	—	755
Condo/Townhouse	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Total	0.22	0.11	1.88	0.80	0.01	0.15	—	0.15	0.15	—	0.15	—	2,382	2,382	0.21	< 0.005	—	2,388
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	0.02	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02	—	241	241	0.02	< 0.005	—	241
Apartments Low Rise	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
Condo/Townhouse	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.0	29.0	< 0.005	< 0.005	—	29.1
Total	0.04	0.02	0.34	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	394	394	0.03	< 0.005	—	395

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.02	0.51	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Consumer Products	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	6.80	6.35	0.48	54.4	< 0.005	0.05	—	0.05	0.04	—	0.04	—	175	175	0.01	< 0.005	—	176
Total	7.82	21.9	9.16	58.0	0.06	0.75	—	0.75	0.74	—	0.74	0.00	11,186	11,186	0.21	0.02	—	11,198

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.02	0.51	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Consumer Products	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.02	15.6	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	125	125	< 0.005	< 0.005	—	125
Consumer Products	—	2.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.85	0.79	0.06	6.79	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0
Total	0.86	3.55	0.17	6.84	< 0.005	0.02	—	0.02	0.01	—	0.01	0.00	145	145	< 0.005	< 0.005	—	145

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.02	0.51	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021

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Consumer	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	6.80	6.35	0.48	54.4	< 0.005	0.05	—	0.05	0.04	—	0.04	—	175	175	0.01	< 0.005	—	176
Total	7.82	21.9	9.16	58.0	0.06	0.75	—	0.75	0.74	—	0.74	0.00	11,186	11,186	0.21	0.02	—	11,198
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.02	0.51	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Consumer Products	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.02	15.6	8.67	3.69	0.06	0.70	—	0.70	0.70	—	0.70	0.00	11,010	11,010	0.21	0.02	—	11,021
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	125	125	< 0.005	< 0.005	—	125
Consumer Products	—	2.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.85	0.79	0.06	6.79	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0
Total	0.86	3.55	0.17	6.84	< 0.005	0.02	—	0.02	0.01	—	0.01	0.00	145	145	< 0.005	< 0.005	—	145

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	32.8	83.3	116	3.38	0.08	—	225
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3	28.6	39.8	1.16	0.03	—	77.1
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.32	5.88	8.20	0.24	0.01	—	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	32.8	83.3	116	3.38	0.08	—	225
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3	28.6	39.8	1.16	0.03	—	77.1

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Condo/T	—	—	—	—	—	—	—	—	—	—	—	2.32	5.88	8.20	0.24	0.01	—	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.43	13.8	19.2	0.56	0.01	—	37.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.86	4.73	6.60	0.19	< 0.005	—	12.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.38	0.97	1.36	0.04	< 0.005	—	2.63
Total	—	—	—	—	—	—	—	—	—	—	—	7.68	19.5	27.2	0.79	0.02	—	52.6

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	32.8	83.3	116	3.38	0.08	—	225
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3	28.6	39.8	1.16	0.03	—	77.1

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Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.32	5.88	8.20	0.24	0.01	—	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	32.8	83.3	116	3.38	0.08	—	225
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3	28.6	39.8	1.16	0.03	—	77.1
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.32	5.88	8.20	0.24	0.01	—	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	46.4	118	164	4.77	0.11	—	318
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.43	13.8	19.2	0.56	0.01	—	37.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.86	4.73	6.60	0.19	< 0.005	—	12.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.38	0.97	1.36	0.04	< 0.005	—	2.63
Total	—	—	—	—	—	—	—	—	—	—	—	7.68	19.5	27.2	0.79	0.02	—	52.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	164	0.00	164	16.4	0.00	—	573
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	56.2	0.00	56.2	5.62	0.00	—	197
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.4
Total	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	164	0.00	164	16.4	0.00	—	573
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	56.2	0.00	56.2	5.62	0.00	—	197

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Condo/T	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.4
Total	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.1	0.00	27.1	2.71	0.00	—	94.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	9.31	0.00	9.31	0.93	0.00	—	32.6
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.91	0.00	1.91	0.19	0.00	—	6.70
Total	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	164	0.00	164	16.4	0.00	—	573
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	56.2	0.00	56.2	5.62	0.00	—	197

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Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.4
Total	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	164	0.00	164	16.4	0.00	—	573
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	56.2	0.00	56.2	5.62	0.00	—	197
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.4
Total	—	—	—	—	—	—	—	—	—	—	—	232	0.00	232	23.1	0.00	—	810
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.1	0.00	27.1	2.71	0.00	—	94.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	9.31	0.00	9.31	0.93	0.00	—	32.6
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.91	0.00	1.91	0.19	0.00	—	6.70
Total	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Apartments	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03	
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23	
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03	

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Apartments	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77

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	TOG	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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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	TOG	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	TOG	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)

Equipment Type	TOG	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)

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

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

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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	TOG	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	TOG	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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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	TOG	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

5. Activity Data

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
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	1,702	1,536	1,279	590,400	15,868	14,322	11,930	5,505,845
Apartments Low Rise	784	872	673	284,917	7,311	8,130	6,272	2,657,024
Condo/Townhouse	42.9	47.7	36.8	15,599	400	445	343	145,466

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Apartments Mid Rise	1,191	1,075	895	413,280	11,108	10,025	8,351	3,854,092
Apartments Low Rise	549	610	471	199,442	5,118	5,691	4,391	1,859,917
Condo/Townhouse	30.0	33.4	25.8	10,919	280	312	240	101,826

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	370
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	41
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	127
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	14
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	26
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	3
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 Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	370
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	41
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

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Wood Fireplaces	0
Gas Fireplaces	127
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	14
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	26
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	3
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)
1310150.7	436,717	21,523	2,391	28,697

5.10.3. Landscape Equipment

Season	Unit	Value
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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)
Enclosed Parking Structure	1,708,699	261	0.0330	0.0040	0.00
Apartments Mid Rise	1,773,943	261	0.0330	0.0040	4,536,281
Apartments Low Rise	660,691	261	0.0330	0.0040	2,348,575
Condo/Townhouse	140,608	261	0.0330	0.0040	546,427

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)
Enclosed Parking Structure	1,708,699	261	0.0330	0.0040	0.00
Apartments Mid Rise	1,773,943	261	0.0330	0.0040	4,536,281
Apartments Low Rise	660,691	261	0.0330	0.0040	2,348,575
Condo/Townhouse	140,608	261	0.0330	0.0040	546,427

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking Structure	0.00	0.00
Apartments Mid Rise	17,130,963	0.00
Apartments Low Rise	5,877,046	0.00
Condo/Townhouse	1,208,754	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking Structure	0.00	0.00
Apartments Mid Rise	17,130,963	0.00
Apartments Low Rise	5,877,046	0.00
Condo/Townhouse	1,208,754	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking Structure	0.00	—
Apartments Mid Rise	304	—
Apartments Low Rise	104	—
Condo/Townhouse	21.4	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking Structure	0.00	—
Apartments Mid Rise	304	—
Apartments Low Rise	104	—
Condo/Townhouse	21.4	—

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 Mid 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 Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	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 Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

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Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	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
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	19.6	annual days of extreme heat
Extreme Precipitation	6.05	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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	2	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

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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	2	1	1	3
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	84.6
AQ-PM	97.3
AQ-DPM	97.5
Drinking Water	93.3
Lead Risk Housing	73.0
Pesticides	1.66
Toxic Releases	62.1
Traffic	34.7
Effect Indicators	—
CleanUp Sites	69.8
Groundwater	59.6
Haz Waste Facilities/Generators	94.1
Impaired Water Bodies	0.00
Solid Waste	91.0
Sensitive Population	—
Asthma	59.0
Cardio-vascular	72.0
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	79.6
Housing	87.2
Linguistic	70.9
Poverty	90.5

Unemployment	3.21
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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	30.82253304
Employed	25.70255357
Median HI	3.990760939
Education	—
Bachelor's or higher	36.23764917
High school enrollment	100
Preschool enrollment	64.31412806
Transportation	—
Auto Access	8.494803028
Active commuting	13.85859104
Social	—
2-parent households	45.13024509
Voting	31.9645836
Neighborhood	—
Alcohol availability	13.5249583
Park access	81.35506224
Retail density	86.15424099
Supermarket access	88.28435776
Tree canopy	58.14192224
Housing	—
Homeownership	3.849608623

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Housing habitability	26.02335429
Low-inc homeowner severe housing cost burden	58.46272296
Low-inc renter severe housing cost burden	22.2764019
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	6.685486975
Arthritis	41.4
Asthma ER Admissions	36.3
High Blood Pressure	56.0
Cancer (excluding skin)	55.0
Asthma	19.7
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	36.9
Life Expectancy at Birth	18.9
Cognitively Disabled	64.4
Physically Disabled	5.0
Heart Attack ER Admissions	25.3
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	33.9
Pedestrian Injuries	90.6
Physical Health Not Good	30.9
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	41.7
Current Smoker	29.7

No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	30.4
English Speaking	14.1
Foreign-born	61.3
Outdoor Workers	85.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.9
Traffic Density	31.4
Traffic Access	87.4
Other Indices	—
Hardship	78.4
Other Decision Support	—
2016 Voting	42.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	17.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Based on buildout info.
Operations: Vehicle Data	Based on Dudek trip generation. Accounts for 10% internal capture.
Operations: Hearths	Based on SCAQMD Rule 445.

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Downtown West PUD Proposed Operations - Commercial - Final
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06705502342919, -117.65113490660374
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5242
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

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
Strip Mall	37.9	1000sqft	0.87	37,886	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.90	5.38	3.75	45.0	0.13	0.06	14.5	14.6	0.06	3.69	3.75	26.8	14,021	14,048	3.14	0.58	3.79	14,303
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.46	4.97	4.01	36.0	0.13	0.06	14.5	14.6	0.06	3.69	3.75	26.8	13,144	13,171	3.15	0.60	0.33	13,428
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.24	4.76	3.71	35.3	0.12	0.06	13.1	13.2	0.05	3.33	3.39	26.8	12,192	12,219	3.11	0.55	1.64	12,463
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.77	0.87	0.68	6.43	0.02	0.01	2.40	2.41	0.01	0.61	0.62	4.44	2,019	2,023	0.52	0.09	0.27	2,063

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

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Mobile	4.60	4.20	3.67	43.3	0.13	0.06	14.5	14.6	0.05	3.69	3.74	—	13,665	13,665	0.40	0.56	3.56	13,847
Area	0.29	1.18	0.01	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.78	6.78	< 0.005	< 0.005	—	6.80
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	335	335	0.04	< 0.005	—	337
Water	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Waste	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	4.90	5.38	3.75	45.0	0.13	0.06	14.5	14.6	0.06	3.69	3.75	26.8	14,021	14,048	3.14	0.58	3.79	14,303
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.46	4.06	3.95	35.9	0.12	0.06	14.5	14.6	0.05	3.69	3.74	—	12,795	12,795	0.41	0.58	0.09	12,978
Area	—	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	335	335	0.04	< 0.005	—	337
Water	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Waste	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	4.46	4.97	4.01	36.0	0.13	0.06	14.5	14.6	0.06	3.69	3.75	26.8	13,144	13,171	3.15	0.60	0.33	13,428
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.04	3.67	3.64	34.1	0.12	0.05	13.1	13.2	0.05	3.33	3.38	—	11,839	11,839	0.38	0.53	1.41	12,009
Area	0.20	1.09	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.64	4.64	< 0.005	< 0.005	—	4.66
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	335	335	0.04	< 0.005	—	337
Water	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Waste	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	4.24	4.76	3.71	35.3	0.12	0.06	13.1	13.2	0.05	3.33	3.39	26.8	12,192	12,219	3.11	0.55	1.64	12,463
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.74	0.67	0.67	6.22	0.02	0.01	2.40	2.41	0.01	0.61	0.62	—	1,960	1,960	0.06	0.09	0.23	1,988
Area	0.04	0.20	< 0.005	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.77	0.77	< 0.005	< 0.005	—	0.77

Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.4	55.4	0.01	< 0.005	—	55.8
Water	—	—	—	—	—	—	—	—	—	—	—	0.89	2.26	3.15	0.09	< 0.005	—	6.10
Waste	—	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.35	0.00	—	12.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.77	0.87	0.68	6.43	0.02	0.01	2.40	2.41	0.01	0.61	0.62	4.44	2,019	2,023	0.52	0.09	0.27	2,063

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	4.60	4.20	3.67	43.3	0.13	0.06	14.5	14.6	0.05	3.69	3.74	—	13,665	13,665	0.40	0.56	3.56	13,847
Total	4.60	4.20	3.67	43.3	0.13	0.06	14.5	14.6	0.05	3.69	3.74	—	13,665	13,665	0.40	0.56	3.56	13,847
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	4.46	4.06	3.95	35.9	0.12	0.06	14.5	14.6	0.05	3.69	3.74	—	12,795	12,795	0.41	0.58	0.09	12,978
Total	4.46	4.06	3.95	35.9	0.12	0.06	14.5	14.6	0.05	3.69	3.74	—	12,795	12,795	0.41	0.58	0.09	12,978
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.74	0.67	0.67	6.22	0.02	0.01	2.40	2.41	0.01	0.61	0.62	—	1,960	1,960	0.06	0.09	0.23	1,988
Total	0.74	0.67	0.67	6.22	0.02	0.01	2.40	2.41	0.01	0.61	0.62	—	1,960	1,960	0.06	0.09	0.23	1,988

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.03	< 0.005	—	265
Total	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.03	< 0.005	—	265
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.03	< 0.005	—	265
Total	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.03	< 0.005	—	265
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.6	43.6	0.01	< 0.005	—	43.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	43.6	43.6	0.01	< 0.005	—	43.9

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.6	71.6	0.01	< 0.005	—	71.8
Total	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.6	71.6	0.01	< 0.005	—	71.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Strip Mall	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.6	71.6	0.01	< 0.005	—	71.8
Total	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.6	71.6	0.01	< 0.005	—	71.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.9	11.9	< 0.005	< 0.005	—	11.9
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.9	11.9	< 0.005	< 0.005	—	11.9

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.27	0.01	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.78	6.78	< 0.005	< 0.005	—	6.80
Total	0.29	1.18	0.01	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.78	6.78	< 0.005	< 0.005	—	6.80
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.03	< 0.005	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.77	0.77	< 0.005	< 0.005	—	0.77
Total	0.04	0.20	< 0.005	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.77	0.77	< 0.005	< 0.005	—	0.77

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Total	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8
Total	—	—	—	—	—	—	—	—	—	—	—	5.38	13.6	19.0	0.55	0.01	—	36.8

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.89	2.26	3.15	0.09	< 0.005	—	6.10
Total	—	—	—	—	—	—	—	—	—	—	—	0.89	2.26	3.15	0.09	< 0.005	—	6.10

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Total	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Total	—	—	—	—	—	—	—	—	—	—	—	21.4	0.00	21.4	2.14	0.00	—	75.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.35	0.00	—	12.4
Total	—	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.35	0.00	—	12.4

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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

5.9. 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
Strip Mall	2,063	1,957	951	689,441	20,507	19,452	9,453	6,853,681

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
0	0.00	56,829	18,943	—

5.10.3. Landscape Equipment

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)
Strip Mall	368,568	261	0.0330	0.0040	223,357

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	2,806,312	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
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Strip Mall	39.8	—
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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
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	19.6	annual days of extreme heat
Extreme Precipitation	6.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth

Wildfire	0.00	annual hectares burned
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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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	84.6
AQ-PM	97.3
AQ-DPM	97.5
Drinking Water	93.3
Lead Risk Housing	73.0
Pesticides	1.66
Toxic Releases	62.1
Traffic	34.7

Effect Indicators	—
CleanUp Sites	69.8
Groundwater	59.6
Haz Waste Facilities/Generators	94.1
Impaired Water Bodies	0.00
Solid Waste	91.0
Sensitive Population	—
Asthma	59.0
Cardio-vascular	72.0
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	79.6
Housing	87.2
Linguistic	70.9
Poverty	90.5
Unemployment	3.21

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	30.82253304
Employed	25.70255357
Median HI	3.990760939
Education	—
Bachelor's or higher	36.23764917
High school enrollment	100

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Preschool enrollment	64.31412806
Transportation	—
Auto Access	8.494803028
Active commuting	13.85859104
Social	—
2-parent households	45.13024509
Voting	31.9645836
Neighborhood	—
Alcohol availability	13.5249583
Park access	81.35506224
Retail density	86.15424099
Supermarket access	88.28435776
Tree canopy	58.14192224
Housing	—
Homeownership	3.849608623
Housing habitability	26.02335429
Low-inc homeowner severe housing cost burden	58.46272296
Low-inc renter severe housing cost burden	22.2764019
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	6.685486975
Arthritis	41.4
Asthma ER Admissions	36.3
High Blood Pressure	56.0
Cancer (excluding skin)	55.0
Asthma	19.7
Coronary Heart Disease	43.7

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Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	36.9
Life Expectancy at Birth	18.9
Cognitively Disabled	64.4
Physically Disabled	5.0
Heart Attack ER Admissions	25.3
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	33.9
Pedestrian Injuries	90.6
Physical Health Not Good	30.9
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	41.7
Current Smoker	29.7
No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	30.4
English Speaking	14.1
Foreign-born	61.3
Outdoor Workers	85.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.9
Traffic Density	31.4

Traffic Access	87.4
Other Indices	—
Hardship	78.4
Other Decision Support	—
2016 Voting	42.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	17.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Based on buildout info.
Operations: Vehicle Data	Based on Dudek trip generation.

Operations: Hearths

Based on SCAQMD Rule 445.

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Downtown West PUD Existing Operations - Residential - Final
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06705502342919, -117.65113490660374
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5242
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

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 Mid Rise	5.00	Dwelling Unit	0.13	422,494	0.00	—	17.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	11.2	0.20	3.58	0.01	0.36	0.15	0.51	0.35	0.04	0.39	49.3	311	360	0.40	0.01	3.70	377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.54	11.2	0.20	3.18	0.01	0.36	0.15	0.51	0.35	0.04	0.39	49.3	299	348	0.40	0.01	3.04	365
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	9.95	0.11	1.00	< 0.005	0.03	0.14	0.17	0.03	0.04	0.06	5.65	209	215	0.27	0.01	3.30	228
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	1.82	0.02	0.18	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.94	34.7	35.6	0.04	< 0.005	0.55	37.7

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

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Mobile	0.10	0.09	0.08	0.75	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	181	181	0.01	0.01	0.67	184
Area	1.48	11.1	0.11	2.83	0.01	0.36	—	0.36	0.35	—	0.35	46.8	90.2	137	0.14	< 0.005	—	141
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.3	38.3	< 0.005	< 0.005	—	38.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Waste	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Total	1.58	11.2	0.20	3.58	0.01	0.36	0.15	0.51	0.35	0.04	0.39	49.3	311	360	0.40	0.01	3.70	377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.08	0.09	0.63	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.02	173
Area	1.45	11.1	0.10	2.54	0.01	0.36	—	0.36	0.35	—	0.35	46.8	89.5	136	0.14	< 0.005	—	140
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.3	38.3	< 0.005	< 0.005	—	38.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Waste	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Total	1.54	11.2	0.20	3.18	0.01	0.36	0.15	0.51	0.35	0.04	0.39	49.3	299	348	0.40	0.01	3.04	365
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.08	0.08	0.62	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	163	163	0.01	0.01	0.28	166
Area	0.12	9.87	0.01	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	3.21	6.65	9.86	0.01	< 0.005	—	10.1
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.3	38.3	< 0.005	< 0.005	—	38.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Waste	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Total	0.21	9.95	0.11	1.00	< 0.005	0.03	0.14	0.17	0.03	0.04	0.06	5.65	209	215	0.27	0.01	3.30	228
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.01	0.02	0.11	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	27.0	27.0	< 0.005	< 0.005	0.05	27.5
Area	0.02	1.80	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.53	1.10	1.63	< 0.005	< 0.005	—	1.68

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Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.34	6.34	< 0.005	< 0.005	—	6.37
Water	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.51
Waste	—	—	—	—	—	—	—	—	—	—	—	0.34	0.00	0.34	0.03	0.00	—	1.19
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Total	0.04	1.82	0.02	0.18	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.94	34.7	35.6	0.04	< 0.005	0.55	37.7

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.10	0.09	0.08	0.75	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	181	181	0.01	0.01	0.67	184
Total	0.10	0.09	0.08	0.75	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	181	181	0.01	0.01	0.67	184
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.09	0.08	0.09	0.63	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.02	173
Total	0.09	0.08	0.09	0.63	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.02	173
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.02	0.11	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	27.0	27.0	< 0.005	< 0.005	0.05	27.5

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Total	0.02	0.01	0.02	0.11	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	27.0	27.0	< 0.005	< 0.005	0.05	27.5
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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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	20.6	20.6	< 0.005	< 0.005	—	20.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	20.6	20.6	< 0.005	< 0.005	—	20.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	20.6	20.6	< 0.005	< 0.005	—	20.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	20.6	20.6	< 0.005	< 0.005	—	20.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	3.41	3.41	< 0.005	< 0.005	—	3.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	3.41	3.41	< 0.005	< 0.005	—	3.43

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.7	17.7	< 0.005	< 0.005	—	17.7
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.7	17.7	< 0.005	< 0.005	—	17.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.7	17.7	< 0.005	< 0.005	—	17.7
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.7	17.7	< 0.005	< 0.005	—	17.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.93	2.93	< 0.005	< 0.005	—	2.94
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.93	2.93	< 0.005	< 0.005	—	2.94

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.45	1.31	0.10	2.54	0.01	0.36	—	0.36	0.35	—	0.35	46.8	89.5	136	0.14	< 0.005	—	140
Consumer Products	—	9.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Architectural	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.76	0.76	< 0.005	< 0.005	—	0.76
Total	1.48	11.1	0.11	2.83	0.01	0.36	—	0.36	0.35	—	0.35	46.8	90.2	137	0.14	< 0.005	—	141
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.45	1.31	0.10	2.54	0.01	0.36	—	0.36	0.35	—	0.35	46.8	89.5	136	0.14	< 0.005	—	140
Consumer Products	—	9.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.45	11.1	0.10	2.54	0.01	0.36	—	0.36	0.35	—	0.35	46.8	89.5	136	0.14	< 0.005	—	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.02	0.02	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.53	1.01	1.55	< 0.005	< 0.005	—	1.59
Consumer Products	—	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Total	0.02	1.80	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.53	1.10	1.63	< 0.005	< 0.005	—	1.68

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Total	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Total	—	—	—	—	—	—	—	—	—	—	—	0.40	1.36	1.75	0.04	< 0.005	—	3.08
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.51
Total	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.51

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Total	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Total	—	—	—	—	—	—	—	—	—	—	—	2.05	0.00	2.05	0.20	0.00	—	7.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.34	0.00	0.34	0.03	0.00	—	1.19
Total	—	—	—	—	—	—	—	—	—	—	—	0.34	0.00	0.34	0.03	0.00	—	1.19

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.03	3.03
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50

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

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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	TOG	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

5.9. 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 Mid Rise	22.7	20.5	17.1	7,876	212	191	159	73,453

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
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Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	4
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)
855550.35	285,183	0.00	0.00	—

5.10.3. Landscape Equipment

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 Mid Rise	21,581	349	0.0330	0.0040	55,186

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	208,406	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	3.80	—

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 Mid 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 Mid 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
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	19.6	annual days of extreme heat
Extreme Precipitation	6.05	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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	2	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

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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	2	1	1	3
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.

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Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.6
AQ-PM	97.3
AQ-DPM	97.5
Drinking Water	93.3
Lead Risk Housing	73.0
Pesticides	1.66
Toxic Releases	62.1
Traffic	34.7
Effect Indicators	—
CleanUp Sites	69.8
Groundwater	59.6
Haz Waste Facilities/Generators	94.1
Impaired Water Bodies	0.00
Solid Waste	91.0
Sensitive Population	—
Asthma	59.0
Cardio-vascular	72.0
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	79.6
Housing	87.2
Linguistic	70.9
Poverty	90.5
Unemployment	3.21

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	30.82253304
Employed	25.70255357
Median HI	3.990760939
Education	—
Bachelor's or higher	36.23764917
High school enrollment	100
Preschool enrollment	64.31412806
Transportation	—
Auto Access	8.494803028
Active commuting	13.85859104
Social	—
2-parent households	45.13024509
Voting	31.9645836
Neighborhood	—
Alcohol availability	13.5249583
Park access	81.35506224
Retail density	86.15424099
Supermarket access	88.28435776
Tree canopy	58.14192224
Housing	—
Homeownership	3.849608623
Housing habitability	26.02335429
Low-inc homeowner severe housing cost burden	58.46272296

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Low-inc renter severe housing cost burden	22.2764019
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	6.685486975
Arthritis	41.4
Asthma ER Admissions	36.3
High Blood Pressure	56.0
Cancer (excluding skin)	55.0
Asthma	19.7
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	36.9
Life Expectancy at Birth	18.9
Cognitively Disabled	64.4
Physically Disabled	5.0
Heart Attack ER Admissions	25.3
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	33.9
Pedestrian Injuries	90.6
Physical Health Not Good	30.9
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	41.7
Current Smoker	29.7
No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—

Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	30.4
English Speaking	14.1
Foreign-born	61.3
Outdoor Workers	85.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.9
Traffic Density	31.4
Traffic Access	87.4
Other Indices	—
Hardship	78.4
Other Decision Support	—
2016 Voting	42.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	17.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Based on buildout info.
Operations: Vehicle Data	Based on traffic report trip generation rates.
Operations: Hearths	Based on SCAQMD Rule 445.

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Downtown West PUD Existing Operations - Commercial - Final
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06705502342919, -117.65113490660374
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5242
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

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
Strip Mall	56.2	1000sqft	1.29	56,171	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.0	14.1	11.4	109	0.25	0.19	21.6	21.8	0.17	5.48	5.65	39.8	26,635	26,675	5.28	1.21	96.9	27,265
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.7	12.8	12.2	89.5	0.24	0.18	21.6	21.7	0.17	5.48	5.65	39.8	24,997	25,036	5.33	1.25	2.85	25,545
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.9	12.0	11.4	86.6	0.22	0.17	19.5	19.7	0.16	4.95	5.11	39.8	23,182	23,222	5.22	1.16	38.5	23,736
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.16	2.19	2.09	15.8	0.04	0.03	3.56	3.59	0.03	0.90	0.93	6.58	3,838	3,845	0.87	0.19	6.38	3,930

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

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Mobile	13.6	12.4	11.3	107	0.25	0.17	21.6	21.7	0.16	5.48	5.64	—	25,970	25,970	1.23	1.18	96.5	26,450
Area	0.43	1.75	0.02	2.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.0	10.0	< 0.005	< 0.005	—	10.1
Energy	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	628	628	0.06	0.01	—	631
Water	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Waste	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	14.0	14.1	11.4	109	0.25	0.19	21.6	21.8	0.17	5.48	5.65	39.8	26,635	26,675	5.28	1.21	96.9	27,265
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.7	11.5	12.2	89.4	0.24	0.17	21.6	21.7	0.16	5.48	5.64	—	24,341	24,341	1.28	1.22	2.50	24,741
Area	—	1.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	628	628	0.06	0.01	—	631
Water	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Waste	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	12.7	12.8	12.2	89.5	0.24	0.18	21.6	21.7	0.17	5.48	5.65	39.8	24,997	25,036	5.33	1.25	2.85	25,545
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.5	10.4	11.3	84.9	0.22	0.16	19.5	19.6	0.15	4.95	5.10	—	22,520	22,520	1.17	1.13	38.2	22,924
Area	0.30	1.62	0.01	1.67	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.88	6.88	< 0.005	< 0.005	—	6.91
Energy	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	628	628	0.06	0.01	—	631
Water	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Waste	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	11.9	12.0	11.4	86.6	0.22	0.17	19.5	19.7	0.16	4.95	5.11	39.8	23,182	23,222	5.22	1.16	38.5	23,736
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.11	1.90	2.07	15.5	0.04	0.03	3.56	3.59	0.03	0.90	0.93	—	3,728	3,728	0.19	0.19	6.32	3,795
Area	0.05	0.30	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.14	1.14	< 0.005	< 0.005	—	1.14

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Energy	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	104	104	0.01	< 0.005	—	105
Water	—	—	—	—	—	—	—	—	—	—	—	1.32	4.48	5.80	0.14	< 0.005	—	10.2
Waste	—	—	—	—	—	—	—	—	—	—	—	5.26	0.00	5.26	0.53	0.00	—	18.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Total	2.16	2.19	2.09	15.8	0.04	0.03	3.56	3.59	0.03	0.90	0.93	6.58	3,838	3,845	0.87	0.19	6.38	3,930

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	13.6	12.4	11.3	107	0.25	0.17	21.6	21.7	0.16	5.48	5.64	—	25,970	25,970	1.23	1.18	96.5	26,450
Total	13.6	12.4	11.3	107	0.25	0.17	21.6	21.7	0.16	5.48	5.64	—	25,970	25,970	1.23	1.18	96.5	26,450
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	12.7	11.5	12.2	89.4	0.24	0.17	21.6	21.7	0.16	5.48	5.64	—	24,341	24,341	1.28	1.22	2.50	24,741
Total	12.7	11.5	12.2	89.4	0.24	0.17	21.6	21.7	0.16	5.48	5.64	—	24,341	24,341	1.28	1.22	2.50	24,741
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	2.11	1.90	2.07	15.5	0.04	0.03	3.56	3.59	0.03	0.90	0.93	—	3,728	3,728	0.19	0.19	6.32	3,795
Total	2.11	1.90	2.07	15.5	0.04	0.03	3.56	3.59	0.03	0.90	0.93	—	3,728	3,728	0.19	0.19	6.32	3,795

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	522	522	0.05	0.01	—	525
Total	—	—	—	—	—	—	—	—	—	—	—	—	522	522	0.05	0.01	—	525
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	522	522	0.05	0.01	—	525
Total	—	—	—	—	—	—	—	—	—	—	—	—	522	522	0.05	0.01	—	525
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	86.4	86.4	0.01	< 0.005	—	86.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	86.4	86.4	0.01	< 0.005	—	86.9

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	106	106	0.01	< 0.005	—	106
Total	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	106	106	0.01	< 0.005	—	106
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	106	106	0.01	< 0.005	—	106
Total	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	106	106	0.01	< 0.005	—	106
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.6	17.6	< 0.005	< 0.005	—	17.6
Total	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.6	17.6	< 0.005	< 0.005	—	17.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.40	0.02	2.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.0	10.0	< 0.005	< 0.005	—	10.1
Total	0.43	1.75	0.02	2.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.0	10.0	< 0.005	< 0.005	—	10.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.14	1.14	< 0.005	< 0.005	—	1.14
Total	0.05	0.30	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.14	1.14	< 0.005	< 0.005	—	1.14

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Total	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4
Total	—	—	—	—	—	—	—	—	—	—	—	7.97	27.1	35.0	0.82	0.02	—	61.4

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Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.32	4.48	5.80	0.14	< 0.005	—	10.2
Total	—	—	—	—	—	—	—	—	—	—	—	1.32	4.48	5.80	0.14	< 0.005	—	10.2

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Total	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Total	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.26	0.00	5.26	0.53	0.00	—	18.4
Total	—	—	—	—	—	—	—	—	—	—	—	5.26	0.00	5.26	0.53	0.00	—	18.4

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

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06

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

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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	TOG	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

5.9. 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
Strip Mall	3,059	2,901	1,410	1,022,187	30,404	28,840	14,015	10,161,488

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
0	0.00	84,257	28,086	—

5.10.3. Landscape Equipment

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)
Strip Mall	546,450	349	0.0330	0.0040	331,156

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	4,160,728	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
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Strip Mall	59.0	—
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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
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	19.6	annual days of extreme heat
Extreme Precipitation	6.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth

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Wildfire	0.00	annual hectares burned
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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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	84.6
AQ-PM	97.3
AQ-DPM	97.5
Drinking Water	93.3
Lead Risk Housing	73.0
Pesticides	1.66
Toxic Releases	62.1
Traffic	34.7

Effect Indicators	—
CleanUp Sites	69.8
Groundwater	59.6
Haz Waste Facilities/Generators	94.1
Impaired Water Bodies	0.00
Solid Waste	91.0
Sensitive Population	—
Asthma	59.0
Cardio-vascular	72.0
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	79.6
Housing	87.2
Linguistic	70.9
Poverty	90.5
Unemployment	3.21

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	30.82253304
Employed	25.70255357
Median HI	3.990760939
Education	—
Bachelor's or higher	36.23764917
High school enrollment	100

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Preschool enrollment	64.31412806
Transportation	—
Auto Access	8.494803028
Active commuting	13.85859104
Social	—
2-parent households	45.13024509
Voting	31.9645836
Neighborhood	—
Alcohol availability	13.5249583
Park access	81.35506224
Retail density	86.15424099
Supermarket access	88.28435776
Tree canopy	58.14192224
Housing	—
Homeownership	3.849608623
Housing habitability	26.02335429
Low-inc homeowner severe housing cost burden	58.46272296
Low-inc renter severe housing cost burden	22.2764019
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	6.685486975
Arthritis	41.4
Asthma ER Admissions	36.3
High Blood Pressure	56.0
Cancer (excluding skin)	55.0
Asthma	19.7
Coronary Heart Disease	43.7

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Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	36.9
Life Expectancy at Birth	18.9
Cognitively Disabled	64.4
Physically Disabled	5.0
Heart Attack ER Admissions	25.3
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	33.9
Pedestrian Injuries	90.6
Physical Health Not Good	30.9
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	41.7
Current Smoker	29.7
No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	30.4
English Speaking	14.1
Foreign-born	61.3
Outdoor Workers	85.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.9
Traffic Density	31.4

Traffic Access	87.4
Other Indices	—
Hardship	78.4
Other Decision Support	—
2016 Voting	42.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	17.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Based on buildout info.
Operations: Vehicle Data	Based on Dudek trip generation.

Operations: Hearths

Based on SCAQMD Rule 445.

Appendix B

Noise Memorandum

MEMORANDUM

To: City of Ontario
From: Mark Storm, INCE Bd. Cert., Dudek
Subject: Downtown West PUD – Noise Memorandum
Date: March 28, 2024
cc: Carey Fernandes, Dudek

Dudek is pleased to present the following noise assessment for the proposed Downtown West Planned Unit Development (PUD) located in the City of Ontario, California (City). The purpose of this memorandum is to present predicted noise levels from construction and operation of the Downtown West PUD and evaluate potential noise impacts resulting from project implementation under the California Environmental Quality Act (CEQA).

1 Project Description

The City seeks to further define and create the Downtown West PUD to streamline the PUD process for developers and property owners in efforts to revitalize downtown Ontario. The Downtown West PUD contains the following sections: (1) Introduction, (2) Vision and Guiding Principles, (3) District and Block Plan, (4) Zoning and Land Use Plan, (5) Development Regulations and Guidelines, (6) Public Realm Standards and Guidelines, and (7) Administration.

The Downtown West PUD would facilitate: development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. Proposed development and private investments would include new mixed use/infill, new shared use parking, and façade improvements. Proposed public realm improvement areas of focus include improvements along B Street, Euclid Avenue Streetscape, alley improvements, a consolidated trash area, and public art. The PUD encourages “activation,” which can include pop-up events, Euclid Avenue programs, B Street Farmer’s Market, alley art and signage, gateway signage, and a potential paseo connection.

2 Environmental Setting

Noise Background/Characteristics

Pressure fluctuations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting, called “A”

weighting, is used for typical environmental sound levels; A-weighting de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is also often referred to as the “noise level” and is referenced in units of A-weighted decibels (dBA). Table 1 provides examples of A-weighted noise levels from common sound sources.

Table 1. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
—	110	Rock band
Jet flyover at 1,000 feet	100	—
Gas lawn mower at 3 feet	90	—
Diesel truck at 50 feet, at 50 mph	80	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime gas lawn mower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area Heavy traffic at 300 feet	60	Normal speech at 3 feet
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.

Notes: mph = miles per hour.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear (Caltrans 2013). Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA increase is readily noticeable. The human ear perceives a 10 dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

An individual’s noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. The equivalent noise level (L_{eq}), also referred to as the average sound level, is a single-number representing the fluctuating sound level in dB over a specified period of time. It is a sound-energy average of the fluctuating level and is equal to a constant unchanging sound of that dB level. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver.

Vibration Characteristics

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible. In quantifying vibration, the peak particle velocity (ppv) is most frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). The Federal Transit Authority (FTA) has established structural damage thresholds for different types of construction: 0.12 inches per second [in/sec] PPV for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry.

3 Regulatory Setting

The following subsections summarize relevant laws, ordinances, regulations, policies, standards, and guidance that establish noise and vibration impact significance assessment criteria for the proposed Downtown West PUD.

3.1 Federal

There are no federal noise standards that would directly regulate environmental noise during construction and operation of the Downtown West PUD. The following is provided because guidance summarized herein is used or pertains to the analysis.

3.1.1 Federal Transit Administration

In its Transit Noise and Vibration Impact Assessment guidance manual, the FTA recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an 8-hour period (FTA 2018) when “detailed” construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project.

3.1.2 Federal Interagency Committee on Noise

Some guidance regarding the determination of a substantial permanent increase in ambient noise levels in the project vicinity above existing levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations (FICON 1992). The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a qualitative measure of the adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of average day-night sound level (L_{dn}). The changes in noise exposure that are shown below are expected to result in equal changes in annoyance at sensitive land uses. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources and permanent non-transportation noise sources.

- Outdoor ambient sound level without the project is less than 60 dBA L_{dn} , then a project-attributed increase of 5 dBA or more would be considered significant
- Outdoor ambient sound level without the project is between 60 and 65 dBA L_{dn} , project-attributed increase of 3 dBA or more would be considered significant
- Outdoor ambient sound level without the project is greater than 65 dBA L_{dn} , then project-attributed increase of 2 dBA or more would be considered significant

3.2 State of California

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 dBA community noise equivalent level (CNEL) and “conditionally acceptable” up to 70 dBA CNEL. Multiple-family residential uses are “normally acceptable” up to 65 dBA CNEL and “conditionally acceptable” up to 70 dBA CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 dBA CNEL, as are office buildings and business, commercial, and professional uses.

3.3 Local

With the proposed Downtown West PUD sited within the City of Ontario, the City’s relevant municipal code requirements and general plan policies and goals represent the primary source of impact assessment standards.

3.3.1 City of Ontario Municipal Code

3.3.1.1 Noise

Operational noise impacts for projects are governed by the City of Ontario Municipal Code, Section 5-29.04 (Noise, Exterior Noise Standards). Table 2 contains the City’s exterior property line noise limits.

Table 2. City of Ontario Exterior Noise Standards

Allowable Exterior Noise Level		Allowed Equivalent Noise Level, L_{eq}	
Noise Zone	Type of Land Use	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
I	Single-Family Residential	65 dBA	45 dBA
II	Multi-Family Residential, Mobile Home Parks	65 dBA	50 dBA
III	Commercial Property	65 dBA	60 dBA
IV	Residential Portion of Mixed Use	70 dBA	70 dBA
V	Manufacturing and Industrial, Other Uses	70 dBA	70 dBA

Note: dBA = A-weighted decibel.

The City's standard goes on to state that the ambient noise level shall be the standard if the measured level exceeds those shown in Table 2.

Section 5-29.04(b) of the City's Municipal Code states that it is unlawful for any person at any location within the City to create noise, or to allow the creation of any noise, on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

1. The noise standard for the applicable zone for any 15-minute period
2. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus 20 dBA for any period of time (measured using A-weighted slow response)

Section 5-29.04(c) of the City's Municipal Code states that in the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

Section 5-29.06(d), Exemptions, states that construction noise sources are exempt. The City regulates noise from construction activities by regulating the hours during which construction is conducted. Section 5.29.09, Construction Activity Noise Regulations, limits construction noise on weekdays to between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m.

3.3.1.2 Vibration

The City's General Plan notes that the City has not established thresholds for vibration perception and damage.

4 Noise and Vibration Impacts Assessment

4.1 Thresholds of Significance

The following significance criteria, included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), will determine the significance of a noise impact. Impacts related to noise would be significant if the proposed Downtown West PUD would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive groundborne vibration or groundborne noise levels.
- 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, the exposure of people residing or working in the project area to excessive noise levels.

4.2 Impact Analysis

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

Less-than-Significant Impact With Mitigation Incorporated. The PUD project area is located within The Ontario Plan (TOP) Mixed Use-Downtown Land Use. As an implementation tool for the TOP on a localized basis, the Downtown West PUD will facilitate development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. The intensity of construction activities and the distance between future construction zones and existing noise-sensitive receivers (i.e., residences, nursing care facilities, hospitals, lodging facilities) under the Downtown West PUD would not be materially different from assumptions regarding construction of future development of the area under TOP 2050.

The TOP 2050 Supplemental Environmental Impact Report (SEIR) concluded that construction could generate noise levels in excess of 80 dBA L_{eq} and generate noise disturbances for prolonged periods of time at noise-sensitive receptors. Safety Element Policy S-4.1, Noise Mitigation, would help minimize the construction noise impacts through enforcement of Municipal Code Chapter 29, Section 5-29.09, which limits construction, remodeling, digging, grading, demolition, or any other related building activity to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on weekends. The proposed Downtown West PUD would not result in new or a substantial increase in the magnitude of impacts compared to the 2050 TOP. Nevertheless, construction-related noise impacts from the proposed Downtown West PUD would be potentially significant. Adherence to mitigation from the TOP 2050 SEIR would therefore be required in order to avoid significant temporary construction noise impacts. The TOP 2050 SEIR mitigation measure regarding construction noise is presented below.

MM-NOI-1 **Construction Noise Abatement.** Construction activities associated with new development that occurs near sensitive receptors shall be evaluated for potential noise impacts. Construction contractors shall implement the following measures for construction activities in the City of Ontario. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans. The City of Ontario Planning and Building Departments shall verify that grading, demolition, and/or construction plans submitted include these notations prior to issuance of demolition, grading, and/or building permits:

1. Construction activity is limited to the hours between 7:00 am and 6:00 pm Monday through Friday and 9:00 am to 6:00 pm Saturdays and Sundays, as prescribed in Municipal Code Section 5-29.09.
2. During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques wherever feasible (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds).

3. Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
4. Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
5. Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.
6. Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City's Engineering Department.
7. At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.
8. Signs shall be posted at the job site entrance(s), within the onsite construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.
9. During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.
10. Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier and may be lined on the construction side with an acoustical blanket, curtain, or equivalent absorptive material (City of Ontario 2022).

Operational Noise (Stationary)

Less-than-Significant Impact. New commercial, residential, and mixed-use development under the Downtown West PUD is not anticipated to result in greater density than envisioned under TOP 2050. New development may trend toward taller vertical structures than exist today, but with mechanical systems (principally for heating, ventilation, and air conditioning) situated on the roof of such structures, new noise sources would generally be at a further distance to any neighboring noise-sensitive receivers, thus reducing noise at the ground level as compared to lower profile buildings with the same roof-mounted equipment. Adaptive re-use of existing structures would likely involve more modern and efficient mechanical systems, with the same or lower noise generation than equipment associated with the original occupancy of such structures.

Traffic Noise

Less-than-Significant Impact. Under the Downtown West PUD, the placement of housing, jobs, and amenities in closer proximity to each other and design strategies focused on the pedestrian and a variety of multimodal options will make walking and other forms of active transportation a desirable alternative to driving. The PUD project area would be served by existing roadway, transit, and pedestrian facilities and proposes improvements along B Street, Euclid Avenue Streetscape, alley improvements, and a West Valley Connector Bus Rapid Transit Station. Such improvements would be expected to counter an increase in the number of single-occupancy vehicle trips that could otherwise be associated with introduction of new housing units and commercial space. As such, implementation of the Downtown West PUD would not be anticipated to generate a greater number of vehicle trips compared to TOP 2050, and traffic noise level increases due to the Downtown West PUD would be less than significant.

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

Construction Vibration

Less-than-Significant Impact With Mitigation Incorporated. The TOP 2050 SEIR concluded that construction of future development allowed under TOP 2050 could generate vibration levels that exceed structural damage thresholds established by the FTA (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). The proposed Downtown West PUD would not result in new or a substantial increase in the magnitude of impacts compared to TOP 2050. Nevertheless, construction-related vibration impacts from the proposed Downtown West PUD would be potentially significant. Adherence to mitigation from the TOP 2050 SEIR would therefore be required in order to avoid significant temporary construction-related vibration impacts. The TOP 2050 SEIR mitigation measure regarding construction-related vibration is presented below.

MM-NOI-2 Construction Vibration Abatement. Prior to issuance of a building permit, individual projects that involve vibration intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers near sensitive receptors shall be evaluated for potential vibration impacts. For construction within 135 feet of fragile structures, such as historical resources, within 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses shall be used, such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.

Operational Vibration

Less-than-Significant Impact. Vibration generation associated with commercial facilities is typically only associated with very large/heavy equipment that includes a rotating component or impact function. Commercial operations envisioned within the PUD would be expected to generate limited levels of ground vibration, which are unlikely to be perceptible beyond the property line of the facility. Therefore, vibration from future commercial operations developed under the PUD would be less than significant.

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

Less-than-Significant Impact. The PUD project area is approximately 1.5 miles northwest of the Ontario International Airport. The PUD project area is located in the 60–65 dB CNEL noise contour zone, as depicted in the Ontario International Airport Land Use Compatibility Plan (City of Ontario 2024). New residential or other noise-sensitive land uses constructed as part of the Downtown PUD would not be exposed to airport-related noise levels in excess of 65 dBA CNEL. Impacts would be less than significant.

5 References Cited

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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City of Ontario. 2022. The Ontario Plan 2050 Final Supplemental Environmental Impact Report. August 2022. https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/The%20Ontario%20Plann/EIR/Final_DraftSEIR_TOP2050.pdf

City of Ontario. 2024. Ontario International Airport – Inter Agency Collaborative. Accessed March 2024. <https://www.ontarioca.gov/planning/ont-iac>

FICON. 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. Federal Interagency Committee on Noise. August 1992.

FTA (U.S. Department of Transportation, Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

Appendix C

Transportation Memorandum

MEMORANDUM

To: City of Ontario
From: Sabita Tewani, AICP, PTP, Dudek
Subject: Downtown West PUD – Transportation Memorandum
Date: April 26, 2024
cc: Carey Fernandes, Dudek

Dudek is pleased to present the following transportation assessment for the proposed Downtown West Planned Unit Development (PUD) located in the City of Ontario, California (City). This section analyzes the potential transportation impacts of the Downtown West PUD including impacts to vehicle miles traveled (VMT) per California Environmental Quality Act (CEQA) Guidelines Section 15064.3(b). Pursuant to Senate Bill (SB) 743, the focus of transportation analysis changed from the level of service, or vehicle delay, metric to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018, and the use of this methodology was required statewide on July 1, 2020. The City has adopted guidelines per City’s Resolution No. 2020-071 adopting Vehicle Miles Traveled Thresholds for Determining Significance of Transportation Impacts Through CEQA in Conformance with SB 743 (City of Ontario 2020a). The City requires CEQA transportation analysis and impacts to be assessed based on VMT and non-CEQA analysis and improvements to be based on the City’s The Ontario Plan 2050 Mobility Element, which contains local level of service and other transportation-related policies. This section provides CEQA analyses and, if required, project-specific traffic studies would be conducted to assess the project-specific operational traffic effects on the adjacent street network.

1.0 Project Description

The City seeks to further define and create the Downtown West PUD to streamline the PUD process for developers and property owners in efforts to revitalize downtown Ontario. The Downtown West PUD contains the following sections: (1) Introduction, (2) Vision and Guiding Principles, (3) District and Block Plan, (4) Zoning and Land Use Plan, (5) Development Regulations and Guidelines, (6) Public Realm Standards and Guidelines, and (7) Administration.

The Downtown West PUD would facilitate development of a mix of uses and historic preservation; transformation of select existing buildings through adaptive reuse; and design guidelines for new development, Euclid Avenue, alleys, managed infrastructure, and the public realm. Proposed development and private investments would include new mixed use/infill, new shared use parking, and façade improvements. Proposed public realm improvement areas of focus include improvements along B Street, Euclid Avenue Streetscape, alley improvements, a consolidated trash area, and public art. The PUD encourages “activation,” which can include pop-up events, Euclid Avenue programs, B Street Farmer’s Market, alley art and signage, gateway signage, and a potential paseo connection.

2.0 Trip Generation

Trip generation estimates for the proposed Downtown West PUD are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition (2021). Table 17 provides the estimated trip generation for the proposed residential (approximately 581 units) development per site and commercial development (approximately 18,285 square feet less commercial space compared to the existing conditions). As shown in Table 17 below, the proposed Downtown West PUD would generate approximately 4,481 daily trips, 301 AM peak hour trips and 391PM peak hour trips. However, with demolition of existing commercial/retail uses and some residences, the net new trip generation of the Downtown West PUD is estimated to be approximately 1,982 net new daily trips, 175 net new AM peak hour trips and 124 net new PM peak hour trips.

Table 1. Downtown West PUD Trip Generation

Land Use	Size/Units		Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates¹									
Single Family Attached (ITE 215)	Per DU		7.20	0.12	0.36	0.48	0.34	0.23	0.57
Multi Family Low-Rise (ITE 220)	Per DU		6.74	0.10	0.30	0.40	0.32	0.19	0.51
Multi Family Mid-Rise (ITE 221)	Per DU		4.54	0.09	0.28	0.37	0.24	0.15	0.39
Strip Retail (< 40 K) (ITE 822)	Per TSF		54.45	1.42	0.94	2.36	3.30	3.30	6.59
Project Trip Generation									
Site A Block 1 - Retail	7.5	TSF	408	11	7	18	25	25	49
Site B Block 2 - 4 or 5 story Residential	22	DU	100	2	6	8	5	4	9
Site B Block 2 - Retail	1.5	TSF	82	2	1	4	5	5	10
Site C Block 3 - Retail	4.386	TSF	239	6	4	10	14	14	29
Site C Block 3 - Residential	90	DU	409	8	25	33	21	14	35
Site D Block 4 - Townhomes	29	DU	209	3	11	14	10	7	17
Site E Block 4 - 4 story Residential	58	DU	263	5	16	21	14	9	23
Site F Block 6 - 4 story Residential	141	DU	640	12	40	52	34	21	55
Site G Block 7 - 3 story Residential	59	DU	398	6	18	24	19	11	30
Site H Block 8 - 3 story Residential	47	DU	317	5	14	19	15	9	24
Site I Block 9 - 3 story residential	35	DU	236	3	11	14	11	7	18
Fronting Euclid Ave - Residential	100	DU	454	9	28	37	24	15	39
Fronting Euclid Ave - Retail	22.5	TSF	1,225	32	21	53	74	74	148
Total Proposed Residential			3,025	52	169	222	153	97	249
Total Proposed Retail			1,954	51	34	85	118	118	236
Internal Capture ²			-498	-2	-4	-6	-49	-39	-87
Project Trip Generation with Internal Capture			4,481	101	199	301	222	176	398

Net New Trip Generation									
Residential	581	DU	3,025	52	169	222	153	97	249
Existing Residential to be demolished	5	DU	-47	-1	-3	-4	-3	-2	-5
	-								
Net New Retail Use	18.28 5	TSF	-996	-26	-17	-43	-60	-60	-120
Estimated Net New Project Trip Generation			1,982	25	149	175	90	34	124

Note: Some rounding error may occur in totals.

1. Daily and peak hour trip rates from Institute of Transportation Engineers Trip Generation Manual, 11th Edition 2021.
2. Consistent with the ITE Trip Generation Handbook, project trip generation was adjusted to account for internal capture (10% in the daily, 2% in the AM and 18% in the PM peak hour) between the residential and retail developments using NCHRP methodology.

3.0 Transportation Impacts Assessment

3.1 Thresholds of Significance

The significance criteria used to evaluate the Downtown West PUD impacts to transportation are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this transportation analysis, a significant impact would occur if the Downtown West PUD would (14 CCR 15000 et seq.):

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.

3.2 Impact Analysis

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

Less-than-Significant Impact. The Mobility Element of The Ontario Plan 2050 mentions that access and connectivity to mobility options will be integrated into neighborhoods, centers, corridors, and districts in the City. The placement of housing, jobs, and amenities in closer proximity to each other and design strategies focused on the pedestrian and a variety of multimodal options will make walking and other forms of active transportation a desirable alternative to driving. This is consistent with the Downtown West PUD, which is proposing development regulations and planning and design principals to govern the development or redevelopment of an eight-and-a-half block area of the City with residential and commercial uses.

The proposed Downtown West PUD would be consistent with and not impede the implementation of the following Mobility Element goals (City of Ontario 2023):

Goal M1 A system of roadways that meets the mobility needs of a dynamic and prosperous Ontario.

Goal M2 A system of trails and corridors that facilitate and encourage active modes of transportation.

Goal M3 A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit-dependent.

Goal M4 An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts.

Goal M5 A proactive leadership role in helping identify and facilitate implementation of strategies that address regional transportation challenges.

Euclid Avenue, Palm Avenue, E Street, and Holt Boulevard provide primary access to the PUD project area. The City is served by bus services provided by OmniTrans, which operates Routes 61, 83, and 84 in the PUD project area. The City is served by passenger rail services by Amtrak and Metrolink. The Amtrak station is located at 198 E Emporia Street, approximately 0.2 miles southeast of the Euclid Avenue/Holt Avenue intersection. The Ontario East station (Metrolink-Riverside line) is located at 3330 E Francis Street, approximately 5.8 miles from the southeast of the Euclid Avenue/Holt Avenue intersection. The City's downtown core is well served by pedestrian facilities, with sidewalks provided along most streets and crosswalks provided at all major intersections. There are several existing and proposed bicycle facilities shown in The Ontario Plan 2050 Figure M-02, Multipurpose Trails and Bikeways, that serve the Downtown West PUD.

The Downtown West PUD would be served by existing roadway, transit, and pedestrian facilities and proposes improvements along B Street, Euclid Avenue Streetscape, alley improvements, and a West Valley Bus Rapid Transit Station. As such, the Downtown West PUD would not conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

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

Less-than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The Updated CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts," and define VMT as "the amount and distance of automobile travel attributable to a project." "Automobile" refers to on-road passenger vehicles, specifically cars and light trucks. The Governor's Office of Planning and Research has clarified in its Technical Advisory (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

Based on the San Bernardino County Transportation Authority Transportation Analysis Model VMT evaluation tool,¹ the individual projects or parcels are located in two traffic analysis zones (TAZs) (i.e., 5364501 and 53645201).

The individual parcels or projects within the Downtown West PUD may be screened from conducting a detailed project-level VMT assessment if they meet at least one of the following screening criteria:

- **Transit Priority Area Screening:** Projects located within 0.5 miles of an existing “major transit stop” or an “existing stop along a high-quality transit corridor” may be presumed to have a less-than-significant impact absent substantial evidence to the contrary. In addition to its proximity to transit, the project would meet the following:
 - A minimum floor area ratio of 0.75
 - Provide no more parking than City Development Code mandates
 - Be consistent with the applicable Sustainable Communities Strategy
 - not replace affordable housing units with a smaller number of moderate or high-income residential units

Based on the evaluation tool, several assessor’s parcel numbers in the TAZ would meet the transit priority area screening. The Downtown West PUD would ensure that individual projects would also meet the conditions for floor area ratio, parking, consistency with the Sustainable Communities Strategy, and not replacing affordable housing units, as outlined above.

- **Low VMT Area Screening:** Projects are presumed to result in less-than-significant VMT if located in a low VMT-generating model TAZ. These TAZs generate total daily VMT per service population that is less than the baseline level for the City’s buildout. Based on the evaluation tool, several assessor’s parcel numbers are within a low VMT-generating area and would meet this screening criterion.
- **Project Type Screening:** Projects that meet the criteria described below can be screened from further VMT review and are presumed to have a less-than-significant impact:
 - Residential, office, retail, or a mix of these land uses within 0.5 miles of an existing major transit stop
 - Local-serving retail uses not greater than 50,000 square feet in size; Projects with a Neighborhood Commercial TOP Land Use designation
 - Redevelopment of a site to a residential or office that would generate fewer VMT than the existing use

Each project within the Downtown West PUD is likely to meet one of the above-mentioned screening criteria and therefore can be presumed to have a less-than-significant VMT impact. Therefore, the projects and the Downtown West PUD would not conflict or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3) and impacts would be less than significant.

¹ San Bernardino County Transportation Authority VMT Screening Tool accessed at <https://sbcta.maps.arcgis.com/apps/webappviewer/index.html?id=779a71bc659041ad995cd48d9ef4052b>

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

Less-than-Significant Impact. The Downtown West PUD proposes to redevelop several existing residential and commercial parcels; however, it does not propose any new roads or intersections. Individual projects, including residential and commercial development, would be subject to, and designed in accordance with, City standards and specifications that address potential design hazards including sight distance, driveway placement and access, and signage and striping. Additionally, any new improvements to roadway facilities associated with individual projects would be constructed based on design and access standards consistent with the City's Traffic and Transportation Guidelines (City of Ontario 2020b).

During construction, if any temporary road closures are anticipated, the contractor will implement a traffic control plan (if required) and standard construction management practices to maintain access for all road users and emergency vehicles. As such, traffic from the project entering and exiting the individual sites would be able to do so safely at the driveways. Therefore, Downtown West PUD would not substantially increase hazards due to a roadway design feature or introduce incompatible uses. Impacts would be less than significant.

3.2.4 Would the project result in inadequate emergency access?

Less-than-Significant Impact. The proposed Downtown West PUD does not propose any new roadways or intersections, and it would not include any standards that would result in inadequate emergency access. The individual project design and access details, such as new or modified driveway locations or curb cuts, are unknown at the time of this writing. Therefore, this document does not consider impacts to emergency access to properties in the PUD project area or particular streets along which parcels have been identified for development. The Downtown West PUD may allow for greater densities than are currently allowed as proposed in the plan, policies, and zoning standards for Downtown and would facilitate temporary construction activities within the area, which could temporarily result in impacts to the circulation system. The individual projects would be designed and constructed to local standards and comply with the fire code and emergency access requirements of the fire department. Upon completion, the projects or parcels would continue to be accessible via existing or new driveways along streets in the Downtown area. Therefore, the construction or operation of the proposed Downtown West PUD would not result in inadequate emergency access, and impacts would be less than significant.

4 References

City of Ontario. 2020a. Resolution No. 2020-071 adopting Vehicle Miles Traveled Thresholds for Determining Significance of Transportation Impacts Through CEQA in Conformance with SB 743. June.

City of Ontario. 2020b. Traffic and Transportation Guidelines, August 2013, Revised January 2020.

City of Ontario. 2023. The Ontario Plan. Accessed August 2023. <https://www.ontarioca.gov/OntarioPlan>