CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: December 18, 2023

TO: Clint Kleppe, Development Manager, Extra Space Storage

FROM: Ashley Davis, Principal

SUBJECT: Class 32 Categorical Exemption for the Proposed Gardena #1009 Self Storage Building Project in Torrance, California

LSA is pleased to submit this memorandum in support of a Class 32 Categorical Exemption (CE) for the proposed Gardena #1009 Self Storage Building Project (Project) in the city of Torrance, California.

PROJECT DESCRIPTION

Existing Project Site

As shown on **Figure 1**, Regional Location (all figures provided in **Attachment A**), the Project Site is located at 17575 South Western Avenue on the border of the cities of Torrance and Gardena. The Project Site is within the jurisdiction of the City of Torrance (City). The approximately 4-acre, 175,000 square-foot (sq ft) Project Site is located at the southwestern corner of the intersection of Artesia Boulevard and South Western Avenue ("Project Site"). The Project Site consists of Assessor's Parcel Number 4096-004-014. The existing Project Site includes approximately 82,722 sq ft of self-storage uses (nine one-story buildings with a total of 796 storage units), a 2,835 sq ft two-story office building, a surface parking lot, perimeter landscaping, and an Extra Space Storage facility sign. The Project Site is generally flat in elevation. In the Project Site's existing condition, vehicular access is provided via one full access driveway along South Western Avenue. There is one gated emergency access driveway, not intended for general use, on Artesia Boulevard.

The Project Site is surrounded by a mixture of residential and commercial uses. The Project Site is immediately bounded to the north by Artesia Boulevard, to the east by South Western Avenue and commercial uses, and to the southwest by the Dominguez Channel. Regional access to the Project Site is provided by Interstate (I) 405, located approximately 0.85 mile south of the Project Site and I-110, located approximately 1.4 miles east of the Project Site. Local access to the Project Site is provided by South Western Avenue and Artesia Boulevard.

Proposed Project

The Project would demolish the northwest portion (7,623 sq ft) of the self-storage building that borders Artesia Boulevard and the adjacent 8,445 sq ft self-storage building. All other existing uses on site, including the other self-storage buildings (approximately 66,654 sq ft in total), office building, and surface parking lot, would remain. The Project would construct a 58,734 sq ft self-storage building that includes two stories above ground plus a below-ground basement, and 10 new

parking stalls attached to the building. Under post-development conditions, the total square footage on the Project Site (including the existing 66,654 sq ft of self-storage uses and the 2,835 sq ft office to remain) will be 128,223 sq ft and include a total of 1,061 storage units ("Project").

Figure 2, Conceptual Site Plan, provides an overview of the site plan, including the location of the existing buildings to remain, the proposed building and parking stalls, vehicular access, the surface parking lot, landscaping, and an Extra Space Storage facility tower sign. Office hours of operation would remain the same: 9:30 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:30 p.m. on Saturday, and closed on Sunday. Storage gate hours would also remain the same: 6:00 a.m. to 10:00 p.m. Monday through Sunday.

Zoning and General Plan Land Use Designations

According to the City's Zoning map, the Project Site is currently zoned for Limited Manufacturing (M-L). Per City Municipal Code Section 91.32.1, with approval of a Conditional Use Permit (CUP), operation of self-storage facilities is permitted on parcels zoned M-L. With approval of the CUP, the Project would be consistent with the City's zoning and the M-L zoning designation.

According to the City's General Plan, the Project Site has a current General Plan designation of General Commercial (C-GEN). Table A shows the Project's consistency with the General Plan. The Project involves development of commercial uses and would be consistent with the General Plan designation. Therefore, a General Plan Amendment (GPA) is not required for the Project.

Site Access and Parking

The Project would construct a new automatic lift gate at the emergency fire access driveway along Artesia Boulevard, which would be attached to the west side of the proposed building. The gate would remain for emergency access only. Vehicular access to the Project Site would continue to be provided via one existing driveway and automatic lift gate along South Western Avenue. The Project would include a total of 10 new parking stalls attached to the proposed self-storage building. The existing surface parking lot to remain includes 14 parking spaces, 2 of which are Americans with Disabilities Act (ADA) compliant. The Parking Analysis Memorandum (provided in **Attachment B**) concluded that, based on the application of empirical parking rates from the Institute of Transportation Engineers' *Parking Generation Manual,* Extra Space Storage facilities in the vicinity of the Project, and municipal code requirements of adjacent cities, the proposed 24-parking-space supply is within the range of demand expected for the Project and would provide adequate parking to accommodate the peak parking demand of the Project.

Building Design

The Project would include the development of an approximately 58,734 sq ft self-storage building, and 10 attached parking stalls. Under post-development conditions, the total square footage on site (including the existing 66,654 sq ft of self-storage uses and the 2,835 sq ft office to remain) will be 128,223 sq ft and will include a total of 1,061 storage units. The proposed building would consist of two stories above ground level reaching a maximum height of approximately 30 feet (ft), 11 inches, along with a subsurface basement level with a floor to floor height of 10 ft, 8 inches.

Infrastructure Improvements

As part of the project, new electricity, water, telephone, and sewer infrastructure would be constructed within the Project Site to connect the proposed building to the existing main lines. A 6-inch sewer line would be constructed to connect the proposed building to the existing 24-inch sewer line along Artesia Boulevard. Additionally, a 1-inch domestic water line and 6-inch fire water line would be constructed to connect the proposed building to the existing 8-inch water line along Artesia Boulevard. A storm drain line would also be constructed on the Project Site and connect to existing inlets bordering the proposed building.

Construction and Grading

Development of the Project would require demolition of the northwest portion (7,623 sq ft) of the self-storage building that borders Artesia Boulevard and the adjacent 8,445 sq ft self-storage building; excavation and grading of the site; delivery of materials; and construction of the building area and proposed parking stalls. Construction of the Project is anticipated to commence in the beginning of 2025 and occur for approximately 12 months with completion in expected early 2026. It is anticipated that an average of 8 to 10 construction workers would be on site each day.

Based on the preliminary grading plans, the Project would require a maximum excavation depth of 13 ft. resulting in approximately 8,040 cubic yards (cy) of cut and 390 cy of fill, resulting in a total of 7,650 cy to be exported off site. Demolition, grading, and building activities would involve the use of standard construction equipment such as scissor lifts, grading equipment, a water truck, a street sweeper, a large forklift, and standard trade trucks.

Discretionary Actions, Permits, and Other Approvals

In accordance with Sections 15050 and 15367 of the *State CEQA Guidelines*, the City is the designated Lead Agency for the Project and has principal authority and jurisdiction for California Environmental Quality Act (CEQA) actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a Project.

The discretionary actions to be considered by the City as a part of the Project include:

- Modification to an existing Conditional Use Permit, pursuance to Code Section 92.28.1
- Conditional Use Permit Tier 2 (project over 15,000 square feet), pursuant to Code Section 95.3.31; and
- Find that the Project is exempt under CEQA pursuant to a Class 32 Categorical Exemption

CALIFORNIA ENVIRONMENTAL QUALITY ACT, SECTION 15332, CLASS 32 INFILL DEVELOPMENT EXEMPTION

Under *State CEQA Guidelines* Section 15332, a project, characterized as infill development, qualifies for a Class 32 CE under CEQA if the project: (1) is consistent with the general plan and zoning ordinance; (2) occurs within city limits on a Project Site of no more than 5 acres substantially

surrounded by urban uses; (3) is located on a site that does not have value as habitat for endangered, rare, or threatened species; (4) would not result in any significant impacts relating to traffic, noise, air quality, or water quality; and (5) is adequately served by all required utilities and services.

(1) The proposed project is consistent with the General Plan and Zoning Ordinance.

No amendments to an adopted planning document would be required for implementation of the Project. The City's General Plan land use designation for the Project Site is General Commercial (C-GEN). Table A shows the Project's consistency with the applicable City's General Plan policies. The zoning of the Project Site is Limited Manufacturing (M-L). Development of 15,000 sq ft or more of commercial space is allowed, subject to Tier 2 CUP approval within the M-L zoning designation. Therefore, the Project is consistent with the General Plan and zoning but would require a CUP (Tier 2) and modification to an existing CUP. As stated above, the Parking Analysis Memorandum (**Attachment B**) concluded, based on the application of empirical parking rates from the Institute of Transportation Engineers' (ITE) *Parking Generation Manual,* 5th Edition, and Extra Space Storage facilities in Southern California, that the proposed 24-parking-space supply is within the range of demand expected for the project and would be sufficient to accommodate the peak parking demand of the 128,571 sq ft of self-storage use. Therefore, the Project is consistent with the General Plan land use designation and zoning for the Project Site.

Table A: General Plan Consistency Analysis[1]

Policies	Consistency Analysis
Land Use Element	
Objective LU.2: A compatible land use pattern.	
Policy LU.2.1: Require that new development be visually and functionally compatible with existing residential neighborhoods and industrial and commercial areas.	**Consistent.** The existing use on site is commercial self-storage. The Project includes the development of a self-storage building and associated parking stalls, which is consistent and functionally compatible with existing buildings on site and the immediate area that consists of residential and commercial uses. Therefore, the Project would be consistent with **General Plan Policy LU.2.1.**
Objective LU.3: Planning decisions that recognize the unique characteristics, opportunities, and constraints of the City's diverse neighborhoods and districts while respecting private property rights.	
Policy LU.3.1: Require new development to be consistent in scale, mass, and character with structures in the surrounding area. For distinct neighborhoods and districts, consider developing design guidelines that suit their unique characteristics. Create guidelines that offer a wide spectrum of choices and that respect the right to develop within the context of existing regulations.	**Consistent.** The Project would develop a self-storage building on a site that currently is developed with self-storage uses, which would be consistent with the character of the surrounding area. The proposed 58,734 sq ft self-storage building would also be consistent with the scale of the other self-storage buildings on site and structures in the surrounding area. Land uses surrounding the Project Site include a mixture of residential and commercial uses. Therefore, the Project would be consistent with **General Plan Policy LU.3.1.**

Table A: General Plan Consistency Analysis[1]

Policies	Consistency Analysis
Policy LU.3.4: Continue to encourage the maintenance and upgrading of existing development.	**Consistent.** The Project would demolish the northwest portion (7,623 sq ft) of the self-storage building that borders Artesia Boulevard and the adjacent 8,445 sq ft self-storage building. A new self-storage building would be constructed in place of the demolished buildings and would provide an upgraded building and amenities. Additionally, the Project would include 10 new parking stalls to maintain parking supply. Therefore, the Project would be consistent with **General Plan Policy LU.3.4.**
Objective LU.4: Land use development that complements the circulation and infrastructure network, meets the circulation demand of residents and businesses, and provides opportunities for non-automobile circulation.	
Policy LU.4.4: Maintain parking requirements that adequately meet the needs of commercial and industrial land uses and protect adjacent residential neighborhoods from overflow parking encroachment.	**Consistent.** As discussed in the consistency analysis for Policy LU.3.4, the Project would include 10 new parking stalls attached to the proposed self-storage building. In addition, the existing 14 spaces on site would remain. The proposed parking supply would meet the demand of the commercial use on site **(Attachment B)**. Therefore, the Project would be consistent with **General Plan Policy LU.4.4.**
Objective LU.11: Attractive, high-quality neighborhoods and commercial and industrial districts through the use of innovative design and architectural themes.	
Policy LU.11.5: Require that commercial and industrial developments establish a high-quality visual environment through the use of design elements such as landscape, hardscape, signage, and lighting.	**Consistent.** The Project Site currently includes landscaping along Artesia Boulevard and South Western Avenue and an Extra Space Storage tower sign along Artesia Boulevard. Landscaping on the Project Site would remain the same and the Extra Space Storage tower sign would be replaced with a new tower sign on-site. Additionally, existing lighting would remain and continue to serve all buildings on the Project Site. The use of these design elements would ensure the development includes a high-quality visual environment, therefore, the Project would be consistent with **General Plan Policy LU.11.5.**
Circulation Element	
Objective CI.5: To meet the parking needs of businesses, residents, and visitors.	
Policy CI.5.1: Require new development to accommodate project-generated parking demand on site.	**Consistent.** The Project includes the development of a new self-storage building. As discussed in the consistency analysis for Policy LU.3.4, the Project would include 10 new parking stalls attached to the proposed self-storage building that, with the existing 14 spaces to remain, would adequately serve parking demand on site. Therefore, the Project would be consistent with **General Plan Policy CI.5.1.**
Objective CI.9: Infrastructure systems that support current and future development.	
Policy CI.9.1: Require that developers, prior to issuance of building permits, demonstrate that adequate infrastructure exists or will be provided to serve proposed development and not diminish services to existing uses.	**Consistent.** The Project includes the construction of new electricity, water, telephone, and sewer infrastructure to connect the proposed building to the existing main lines. The Project would not diminish services to existing uses. Therefore, the Project would be consistent with **General Plan Policy CI.9.1.**

[1] Policies not included in Table A were determined to not be applicable to the Project.
Source: Torrance General Plan (City of Torrance 2010).
City = City of Torrance
sq ft = square foot/feet

(2) The proposed project would occur within city limits on a project site of no more than 5 acres and would be substantially surrounded by urban uses.

The Project Site is approximately 4 acres and is located at 17575 South Western Avenue on the border of Torrance and Gardena. The Project Site is within the jurisdiction of the City of Torrance. In its existing condition, the Project Site contains self-storage facilities, paved parking areas, and perimeter landscaping. The Project Site is surrounded by existing urban uses, including industrial, commercial and residential uses. The Project Site is immediately bounded to the north by Artesia Boulevard, to the east by South Western Avenue and commercial uses, and to the southwest by the Dominguez Channel. Therefore, the Project occurs within City limits on a Project Site of no more than 5 acres and is substantially surrounded by urban uses.

(3) The proposed project would be located on a site that does not have value as habitat for endangered, rare, or threatened species.

As shown on **Figure 2**, the Project Site includes approximately 82,722 sq ft of existing self-storage uses (nine one-story buildings), a 2,835 sq ft two-story office building, a surface parking lot, landscaping, and an Extra Space Storage facility tower sign. The existing landscaped areas consisting of grass and ornamental shrubs are generally located along the northern and eastern perimeters of the Project Site. The site is surrounded on all sides by urban development.

No special-status species are expected to occur on the Project Site in the existing condition because of the lack of suitable habitat. Similarly, the Project would not substantially reduce locally common wildlife populations because no suitable habitat exists on site. The Project would not significantly affect sensitive biological resources given the amount of previous development that has occurred on the Project Site and in the vicinity. Project construction and operation would have no impacts either directly or through habitat modification to any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). Therefore, the Project Site does not have value as habitat for endangered, rare, or threatened species.

The Project, like all projects, would be subject to the provisions of the Migratory Bird Treaty Act (MBTA), which prohibits disturbing or destroying active nests, and California Fish and Game Code Section 3503, which protects nests and eggs. No on-site tree removal would be part of the Project. With compliance with existing regulations, potential impacts to nesting birds would be avoided.

(4) The proposed project would not result in any significant impacts relating to traffic, noise, air quality, or water quality.

Traffic. A Transportation Analysis Memorandum (LSA, June 2023) (**Attachment C**) was prepared to identify the trip generation impacts associated with the Project. The trip generation of the Project was calculated using trip rates from the ITE's *Trip Generation Manual*, 11th Edition (2021) for Mini-Warehouse (Land Use 151). Table B, below, summarizes the project trip generation.

Table B: Project Trip Generation

Land Use	Size (ksf)	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Mini-Warehouse (Self Storage)[1]		TSF	1.45	0.06	0.04	0.10	0.08	0.09	0.17
Existing Trip Generation (To Be Demolished)									
Mini-Warehouse (Self Storage)[1]	16.068	TSF	23	1	1	2	1	1	3
Project Trip Generation (New Construction)									
Mini-Warehouse (Self Storage)[1]	58.734	TSF	85	4	2	6	5	6	10
Net Trip Generation (Project – Existing)									
Mini-Warehouse (Self Storage)[1]	**42.666**	**TSF**	**62**	**3**	**1**	**4**	**4**	**5**	**7**

[1] Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 11th Edition (2021), Land Use 151 (Mini-Warehouse)

ADT = average daily traffic

TSF = thousand square feet

As shown in Table B, the anticipated net trip generation for the Project is estimated to be approximately 62 daily trips, with 4 trips in the morning peak hour and 7 trips in the evening peak hour.

Circulation Plans/Policies. The Project would not alter any transit, roadway, bicycle, or pedestrian facilities. Therefore, it would not conflict with any program, plan, ordinance, or policy addressing these components of the local circulation system.

Traffic Screening Criteria. The Project is located within 0.5 mile of a high-quality transit corridor at the intersection of South Western Avenue and 166th Street. According to the City's *Traffic Impact Assessment (TIA) Guidelines for Land Use Projects* (dated January 2021), transit-based screening cannot occur if the project has a floor area ratio (FAR) of less than 0.75.[1] The Project's net FAR will be 0.24 and, as a result, the screening criteria is not met.

According to the City of Torrance *Traffic Circulation Analysis (TCA) Guidelines* (July 1, 2020), the Project is exempt from a Level of Service (LOS) Based Traffic Circulation Analysis because it is not expected to generate 500 or more net new daily trips.[2] Similarly, according to the TIA Guidelines, because the Project would generate less than a net increase of 110 daily trips, it would be considered a small project and be presumed to have a less than significant impact. [3]

Operational Deficiencies/Emergency Access. The Project would construct a new automatic lift gate at the emergency fire access driveway along Artesia Boulevard, which would be attached to the west side of the proposed building. The gate would remain for emergency access only.

[1] City of Torrance. 2021. Traffic Impact Assessment Guidelines for Land Use Projects. Page 15. Website: https://www.torranceca.gov/home/showpublisheddocument/63027/637539099775370000 (accessed December 6, 2023).

[2] City of Torrance. 2020. Traffic Circulation Analysis (TCA) Guidelines. Website: https://www.torranceca.gov/our-city/public-works/civil-and-traffic-engineering/traffic-engineering/traffic-impact-analysis-guidelines (accessed December 6, 2023).

[3] City of Torrance. 2021. Traffic Impact Assessment Guidelines for Land Use Projects. Page 11. Website: https://www.torranceca.gov/home/showpublisheddocument/63027/637539099775370000 (accessed December 6, 2023).

Vehicular access to the Project Site would continue to be provided via one existing driveway and automatic lift gate along South Western Avenue. Therefore, the Project would not create operational deficiencies or interfere with emergency access. The Project meets the criteria for an LOS-Based TCA exemption and the criteria to be screened out from a detailed VMT analysis due to its classification as a small project. Therefore, the Project would have a less than significant impact on transportation.

Noise. The *Noise and Vibration Technical Memorandum* (Noise and Vibration Impact Analysis) (LSA 2023) prepared for the Project is provided in **Attachment D**.

Noise Standards

Construction Noise

Project construction would result in short-term noise and vibration. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of various types of construction noise and vibration would vary from 1 day to several weeks, depending on the phase of construction. The levels and types of impacts that may occur during construction are described below.

The first type of short-term construction noise would result from the transport of construction equipment and materials to the Project Site and construction worker commutes. These transportation activities would incrementally raise noise levels on access roads leading to the site. It is expected that larger trucks used in equipment delivery would generate higher noise impacts than vehicles associated with worker commutes. The single-event noise from equipment trucks passing at a distance of 50 ft from a sensitive noise receptor would reach a maximum level of 84 A-weighted decibels (dBA) maximum instantaneous noise level (L_{max}). However, the pieces of heavy equipment for construction activities would be moved on site just once and would remain on site for the duration of each construction phase. In addition to the equipment deliveries, the greatest construction traffic volume would occur during the grading phase when approximately 249 daily trips between hauling and worker trips would occur. These trips would not add any significant volume to the daily traffic noise in the project vicinity as 2005 ADTs on Artesia Boulevard and Western Avenue are 36,000 and 32,000, respectively. Because the total number of daily vehicle trips would be minimal when compared to existing traffic volumes on the affected streets, the noise level changes associated with these trips would be much less than 1 dBA and would not be perceptible. Therefore, equipment transport noise and construction-related worker commute impacts would be short term and would not result in a significant off-site noise impact. No mitigation is required.

The second type of short-term noise impact is related to noise generated during demolition, site preparation, grading, building construction, architectural coating, and paving on the Project Site. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the Project Site. Therefore, the noise levels would vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related

noise ranges to be categorized by work phase. Table C lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 ft between the construction equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1–2 minutes of full-power operation followed by 3–4 minutes at lower power settings.

Table D shows the construction phases, the expected duration of each phase, the equipment expected to be used during each phase, the composite noise levels of the equipment at 50 ft, the distance of the nearest sensitive receptor from the average location of construction activities (a distance of 355 ft from the center of the Project Site), and noise levels expected during each phase of construction. While it is likely that architectural coating activities could overlap with building construction or paving, those combined activities would be less than construction noise levels generated during demolition. Conservatively, these noise level projections do not take into account intervening topography or barriers.

It is expected that average noise levels during construction at the nearest sensitive receptor, the mobile home park to the west, at 1914 Artesia Boulevard, would approach 70 dBA equivalent continuous noise level (L_{eq}) during the demolition phase, which would occur for a duration of approximately 20 days. Average noise levels during other construction phases would range from 57 dBA L_{eq} to 69 dBA L_{eq}. These predicted noise levels would only occur when all construction equipment is operating simultaneously; therefore, these noise levels are assumed to be conservative in nature because this would not occur.

Table C: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 ft
Compressor	100	81
Concrete Mixer	40	85
Concrete Pump	40	85
Crane	16	83
Dozer	40	80
Forklift	20	75
Front [End] Loader	40	79
Generator	100	78
Grader	8	85
Scraper	40	88
Welder	40	74

Sources: *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* (USEPA 1971); Roadway Construction Noise Model (FHWA 2006).
FHWA = Federal Highway Administration
ft = foot/feet
L_{max} = maximum instantaneous sound level
USEPA = United States Environmental Protection Agency

Table D: Construction Noise Levels by Phase

Phase	Duration (days)	Equipment	Composite Noise Level at 50 ft (dBA L_{eq})	Distance to Nearest Sensitive Receptor (ft)[1]	Noise Level at Receptor (dBA L_{eq})
Demolition	20	1 concrete/industrial saw, 1 dozer, and 3 tractors	88	355	70
Site Preparation	2	1 grader, 1 dozer, and 1 tractor	85	355	68
Grading	4	1 grader, 1 dozer, and 2 tractors	86	355	69
Building Construction	200	1 crane, 1 forklift, 1 generator set, 1 tractor, and 3 welders	83	355	66
Paving	10	1 cement and mortar mixer, 1 paver,1 piece of paving equipment, 1 roller, and 1 tractor	85	355	68
Architectural Coating	100	1 air compressor	74	355	57

Source: Compiled by LSA (2023).

[1] Distances are from the average location of construction activity for each phase, assumed to be the center of the Project Site. Residential uses to the west are 190 ft from the edge of construction activity.

dBA L_{eq} = average A-weighted hourly noise level

ft = foot/feet

Although the project construction-related short-term noise levels have the potential to be higher than the ambient noise in the project vicinity, construction noise would cease to occur once the project construction is completed, and therefore would not result in a noise increase in excess of standards established in the City's General Plan or noise ordinance. Furthermore, the construction-related noise levels would be below the 80 dBA L_{eq} criteria established by the Federal Transit Administration (FTA) for residential uses. The project would be constructed in compliance with the requirements of the City's Noise Ordinance, which states that construction activities shall only occur between the hours of 7:30 a.m. and 6:00 p.m., Monday through Friday, and between 9:00 a.m. and 5:00 p.m. on Saturdays. With incorporation of best business practices for noise reduction, the overall noise levels generated will be minimized, and construction noise impacts would be less than significant. No mitigation is required.

Operational Noise

According to the Transportation Analysis Memorandum prepared for the Project, the Project would result in a net increase of 62 average daily trips (ADT) based on the proposed increase in square footage (**Attachment C**). Based on the ADTs provided by the City of Torrance (*Daily Traffic Counts*[1]), the ADT along Artesia Boulevard and Western Avenue in the project vicinity is approximately 36,000 and 32,000, respectively based on projections for the year 2005. While the existing ADT is likely higher, using 36,000 and 32,000 ADT as the existing count would be a conservative approach as traffic volumes typically increase over time as population increases, typically referred to as ambient growth.

[1] City of Torrance. 2005. *Citywide Traffic Counts* – Existing (2005) Weekday Roadway Segment ADT.

The results of the calculations show that an increase of less than 0.01 dBA CNEL is expected along Artesia Boulevard and Western Avenue. A noise level increase of less than 3 dBA would not be perceptible to the human ear; therefore, the project would not generate a substantial permanent increase in ambient noise levels in excess of applicable standards and the impact would be less than significant.

The project would include rooftop heating, ventilation, and air conditioning (HVAC) units. The HVAC equipment could operate 24 hours per day. Rooftop HVAC equipment would generate sound power levels (SPL) of up to 87 dBA SPL or 72 dBA L_{eq} at 5 ft, based on manufacturer data (Trane[1]). Tables E and F show the results of the peak-hour daytime and off-peak-hour nighttime operational noise assessment. The results indicated that operational noise levels would be below the City of Torrance Municipal Code, Section 46.2.6 daytime and nighttime hourly noise level standards of 55 dBA L_{eq} and 50 dBA L_{eq}, respectively. Additionally, ambient noise levels would not increase by 5 dBA or more. Operations of the Project would be less than significant.

Table E: Peak Hour Daytime Exterior Noise Level Impacts

Receptor	Direction	Existing Quietest Daytime Noise Level (dBA L_{eq})	Project-Generated Noise Levels (dBA L_{eq})	Potential Operational Noise Impact?[1]	Exceeds Threshold?
Mobile Homes	West	65.6	52.0	No	No
Hotel	East	72.0	49.9	No	No

Source: Compiled by LSA (2023).

[1] A potential operational noise impact would occur if (1) the quietest existing daytime ambient hour is less than 55 dBA L_{eq} and project noise impacts are greater than 55 dBA L_{eq}, OR (2) the quietest daytime ambient hour is greater than 55 dBA L_{eq} and project noise impacts are 5 dBA greater than the quietest daytime ambient hour.

dBA = A-weighted decibels

L_{eq} = equivalent continuous noise level

[1] Trane. n.d. Fan Performance - *Product Specifications RT-PRC023AU-EN*.

Table F: Off-Peak Hour Nighttime Exterior Noise Level Impacts

Receptor	Direction	Existing Quietest Nighttime Noise Level (dBA L_{eq})	Project-Generated Noise Levels (dBA L_{eq})	Potential Operational Noise Impact?[1]	Exceeds Threshold?
Mobile Homes	West	57.7	46.7	No	No
Hotel	East	64.4	44.6	No	No

Source: Compiled by LSA (2023).

[1] A potential operational noise impact would occur if (1) the quietest nighttime ambient hour is less than 50 dBA L_{eq} and project noise impacts are greater than 50 dBA L_{eq}, OR (2) the quietest nighttime ambient hour is greater than 50 dBA L_{eq} and project noise impacts are 5 dBA greater than the quietest nighttime ambient hour.

dBA = A-weighted decibels

L_{eq} = equivalent continuous noise level

Groundborne Vibration

Construction Vibration

Vibration standards included in the FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018) (FTA Manual)[1] are used in this analysis for ground-borne vibration impacts on human annoyance.

Ground-borne noise and vibration from construction activity would be low. The City's Municipal Code does not include specific criteria for assessing vibration impacts associated with damage to structures. Therefore, for the purpose of determining the significance of vibration impacts experienced at sensitive uses surrounding the Project Site, the guidelines within the 2018 FTA Manual have been used to determine vibration impacts. The FTA Manual (2018) guidelines show that a vibration level of up to 0.2 inch per second (in/sec) in peak particle velocity (PPV) is considered safe for buildings consisting of non-engineered timber and masonry and would not result in any construction vibration damage. Therefore, in order to be conservative, the 0.2 in/sec in the PPV threshold has been used when evaluating vibration impacts at the nearest structures to the site.

Table G provides reference PPV values and vibration levels (in terms of VdB) from typical construction vibration sources at 25 ft. While there is currently limited information regarding vibration source levels specific to the equipment that would be used for the project, to provide a comparison of vibration levels expected for a project of this size, a large bulldozer would generate 0.089 PPV (in/sec) of ground-borne vibration when measured at 25 ft, based on the FTA Manual.

[1] Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed December 6, 2023).

Table G: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS VdB re 1 µin/sec.
µin/sec = micro-inches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity in decibels

The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would only be used at or near the project setback line). The closest structure to the external construction activities is the convenience store associated with commercial uses to the southeast, which is within approximately 22 ft from the project's southeastern construction boundary. Using the reference data from Table E, it is expected that vibration levels generated by a large bulldozer and other large equipment within 22 ft of the project boundary would generate ground-borne vibration levels of 0.108 PPV (in/sec) or higher at the closest structures to the Project Site. This vibration level would not exceed the 0.2 in/sec PPV threshold considered safe for fragile buildings. All other buildings are farther away in distance and would experience lower vibration levels. Therefore, construction would not result in any vibration damage, and impacts would be less than significant.

Operational Vibration

Because the rubber tires and suspension systems of buses and other on-road vehicles provide vibration isolation and reduce noise, it is unusual for on-road vehicles to cause ground-borne noise or vibration. When on-road vehicles cause such effects as the rattling of windows, the source is almost always airborne noise. Most problems with on-road vehicle-related noise and vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing the bump or filling the pothole will usually solve the problem. The Project would have roads with smooth pavement and would not result in significant ground-borne noise or vibration impacts from vehicular traffic. Based on a desktop review, the adjacent roadways to the project site are paved and are not expected to exacerbate any vibration levels from passing trucks. Additionally, based on a reference vibration level of 0.076 in/sec PPV, structures more than 20 ft from the roadways that contain project trips would experience vibration levels below the most conservative standard of 0.12 in/sec PPV; therefore, vibration levels generated from project-related traffic on the adjacent roadways would be less than significant.

Airport/Airstrip/Airport Land Use Plan. The Project Site is approximately 3.5 miles southeast of the Hawthorne Municipal Airport and there are no helipads or private airstrips within 2 miles of the Project Site. Therefore, because the Project site is not within 2 miles of a public airport, the

Project would not expose people residing or working in the Project vicinity to excessive noise levels from aircraft noise.

Air Quality. The *Air Quality Technical Memorandum* (Air Quality Analysis) (LSA, October 2023) prepared for the Project is provided in **Attachment E**.

The Project Site is located in the South Coast Air Basin (Basin). Air quality in the Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The California Emissions Estimator Model (CalEEMod) was used to calculate emissions from construction and operation of the Project.

Air Quality Plans. A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD Air Quality Management Plan (AQMP). Pursuant to the methodology provided in the SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2022 AQMP is affirmed when a project (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The Project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated below; therefore, the project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. The Project Site is currently zoned for Limited Manufacturing (M-L). Per City Municipal Code Section 91.32.1, with approval of a Conditional Use Permit (CUP) operation of self-storage facilities is permitted on parcels zoned M-L.

To determine the proposed Project's consistency with the 2022 AQMP, the project must be consistent with the AQMP growth assumptions, which are based, in part, on assumptions made by local planning agencies in the SCAG's Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) regarding population, housing, and growth trends. According to SCAG's 2020–2045 RTP/SCS, the City's population, households, and employment are forecast to increase by approximately 6,000 residents, 1,700 households, and 7,200 jobs, respectively,

between 2016 and 2045 and would total 153,000 residents, 57,300 households, and 133,800 jobs by 2045.[1] The proposed Project would include a 58,734 sq ft self-storage building, parking, and associated improvements. Based on information provided by the Project Applicant, the proposed Project would have approximately two employees, similar to existing employment conditions. It is anticipated that the additional two employees would fall within the 7,200 projected jobs for the City. Therefore, it is assumed that it the Project's labor demand would not substantially increase population, households, or employment. As such, the Project would be consistent with SCAG's growth assumptions for new job growth in the region as identified in the RTP/SCS.

Additionally, based on the proposed Project size (58,734 sq ft), the proposed Project is not considered a project of Statewide, regional, or areawide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries, residential developments of more than 500 dwelling units, and shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space) as defined in the California Code of Regulations (CCR) (Title 14, Division 6, Chapter 3, Article 13, Section 15206(b)). Because the proposed Project would not be defined as a regionally significant project under CEQA, it does not meet the SCAG Intergovernmental Review criteria.

Based on the consistency analysis presented above, the proposed Project would be consistent with the regional AQMP.

Criteria Pollutant Analysis. SCAQMD has established daily emissions thresholds for construction and operation of proposed projects in the Basin. The emission thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks. Table H lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table H: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD Air Quality Significance Thresholds (April 2019).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compound

[1] Southern California Association of Governments (SCAG). 2020. Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy. Website: https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020 (accessed October 2023).

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which the SCAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and a cumulative impact.

Additionally, the significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

The following analysis assesses the potential Project-level air quality impacts associated with construction and operation of the proposed Project.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by demolition, grading, building construction, paving, and other activities. Emissions from construction equipment are also anticipated and would include carbon monoxide (CO), nitrogen oxides (NO_X), volatile organic compounds (VOCs), directly emitted particulate matter less than 2.5 microns or 10 microns in diameter ($PM_{2.5}$ or PM_{10}, respectively), and toxic air contaminants such as diesel exhaust particulate matter.

Project construction activities would include demolition, grading, site preparation, building construction, architectural coating, and paving activities. Construction-related effects on air quality from the Project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, whereas fine particles would be dispersed over greater distances from the construction site.

SCAQMD has established Rule 403: Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. Water or other soil stabilizers can be used to control dust, resulting in emissions reductions of 50 percent or more.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, sulfur oxides (SO_X), NO_X, VOCs, and some

soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

CalEEMod was used to calculate emissions from on-site construction equipment and from worker and vehicle trips to the site. Construction of the proposed Project would begin in 2024 and would continue for approximately 12 months. The proposed Project would include 16,068 sq ft of demolition and would include the net export of 7,650 CY of soil, which was included in CalEEMod. This analysis assumes the use of Tier 2 construction equipment and that the proposed Project would comply with SCAQMD Rule 403 measures, which were also included in CalEEMod. All other construction details are not yet known; therefore, default assumptions (e.g., construction worker and truck trips and fleet activities) from CalEEMod were used. Construction emissions are summarized in Table I below.

Table I: Construction Emissions

Construction Phase	Maximum Daily Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Demolition	0.7	20.5	15.7	<0.1	1.1	0.7	0.2	0.6
Site Preparation	0.5	15.7	12.4	<0.1	2.5	0.4	1.2	0.4
Grading	0.9	40.8	23.0	0.1	7.4	0.8	2.6	0.7
Building Construction	0.6	13.9	12.5	<0.1	0.4	0.6	0.1	0.5
Paving	0.4	8.5	7.4	<0.1	0.2	0.4	<0.1	0.3
Architectural Coating	5.5	1.1	1.3	<0.1	0.1	0.1	<0.1	0.1
Peak Daily Emissions	**6.1**	**40.8**	**23.0**	**0.1**	**8.2**		**3.3**	
SCAQMD Threshold	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**		**55.0**	
Significant?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (October 2023).
Note: Some values may not appear to add correctly due to rounding. Maximum emissions of VOCs occurred during the overlapping building construction and architectural coating phases.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table I, construction emissions associated with the Project would not exceed the daily SCAQMD thresholds for VOCs, NO_X, CO, sulfur oxides (SO_X), $PM_{2.5}$, or PM_{10} emissions. Therefore, construction of the Project would not result in emissions that would result in a cumulatively considerable net increase of any criteria pollutant for which the project is in nonattainment under an applicable federal or State ambient air quality standard (AAQS).

Operational Emissions

Long-term air pollutant emissions associated with operation of the Project include emissions from area, energy, and mobile sources. Area-source emissions include architectural coatings, consumer products, and landscaping. Energy-source emissions result from activities in buildings that use natural gas. As discussed above, the proposed project would be all-electric and would not include any natural gas; therefore, the Project would not result in energy-source emissions.

Mobile-source emissions are from vehicle trips associated with operation of the Project. Area-source emissions consist of direct sources of air emissions at the Project Site, including architectural coatings, consumer products, and use of landscape maintenance equipment.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emissions processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Long-term operational emissions associated with the Project were calculated using CalEEMod. The proposed Project would construct a 58,734 sq ft self-storage building and 10 new parking stalls. Therefore, the proposed Project analysis was conducted using land use codes *Unrefrigerated Warehouse No-Rail* and *Parking Lot.* Trip generation rates used in CalEEMod for the Project were based on the Project's trip generation, which identifies that the proposed project would generate 85 ADT.[1] In addition, the proposed Project would be all-electric and would not include any natural gas or wood-burning devices, which was assumed in CalEEMod. When Project-specific data were not available, default assumptions from CalEEMod were used to estimate Project emissions. Table J provides the Project's estimated operational emissions.

Table J: Project Operational Emissions

Emission Type	Pollutant Emissions (lbs/day)					
	VOCs	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	0.3	0.2	2.4	<0.1	0.5	0.1
Area Sources	1.8	<0.1	2.6	<0.1	<0.1	<0.1
Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Emissions	**2.1**	**0.2**	**5.0**	**<0.1**	**0.5**	**0.1**
SCAQMD Threshold	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Some values may not appear to add correctly due to rounding.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

The results shown in Table J indicate the Project would not exceed the significance criteria for daily VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the Project would contribute to congestion at intersections and along roadway segments in the vicinity of the Project Site. Localized air quality impacts would

[1] LSA. 2023. *Project Trip Generation Table* (LSA Project No. 20231465). June 15.

occur when emissions from vehicular traffic increase as a result of the Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions.

CO transport is extremely limited; under normal meteorological conditions, 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 local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable LOS or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of Project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate Project vicinity are not available. Ambient CO levels monitored at the Compton station at 700 North Bullis Road (the closest station to the Project Site), showed a highest recorded 1-hour concentration of 4.5 parts per million (ppm) (the State standard is 20 ppm) and a highest 8-hour concentration of 3.7 ppm (the State standard is 9 ppm) during the past 3 years.[1] The highest CO concentrations would normally occur during peak traffic hours. Thus, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The Project is expected to result in a net trip generation of approximately 62 daily trips, with 4 trips in the a.m. peak hour and 7 trips in the p.m. peak hour. As the Project would not generate 100 or more a.m. or p.m. peak-hour trips, it did not meet the criteria for an evaluation of study area intersection or roadway segment LOS. Therefore, given the extremely low level of CO concentrations in the project area and the lack of traffic impacts at any intersections, Project-related vehicles are not expected to result in CO concentrations exceeding the State or federal CO standards. No CO hot spots would occur, and the Project would not result in any Project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors. SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[2] This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed Project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area (SRA), and the distance to the Project. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality.

LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. For the proposed Project, the appropriate SRA for the LST is the Southwest Coastal LA County area (SRA 3). SCAQMD provides LST screening tables for

1 United States Environmental Protection Agency (USEPA). 2023. Outdoor Air Quality Data.

2 SCAQMD. 2008. *Final Localized Significance Threshold Methodology.* July.

25-, 50-, 100-, 200-, and 500-meter source-receptor distances. As identified above, the closest sensitive receptor to the project site is the Torrance Mobile Home Park located approximately 200 ft southwest of the project site. As such, the distance of 200 feet (61 meters) was used. Based on the anticipated construction equipment, it is assumed that the maximum daily disturbed acreage for the proposed project would be 3.5 acres.[1] Tables J and K list the emissions thresholds that apply during Project construction and operation.

As discussed above, the closest sensitive receptor to the Project Site is the Torrance Mobile Home Park, located approximately 200 ft southwest. An LST analysis was completed to show the construction and operational impacts at 61 meters to the nearest sensitive receptors to the Project Site in SRA 3 based on a 3.5-acre daily disturbance area. Tables K and L show the results of the LST analysis during project construction and operation, respectively.

Table K: Project Localized Construction Emissions

Source	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	19.6	14.6	3.3	1.8
Localized Significance Threshold	**161.0**	**1,688.0**	**38.0**	**10.0**
Significant?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Source Receptor Area 3, based on a 3.5-acre construction disturbance daily area, at a distance of 200 feet from the project boundary.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter

Table L: Project Localized Operational Emissions

Source	Pollutant Emissions (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	<1.0	2.7	<1.0	<1.0
Localized Significance Thresholds	**161.0**	**1,688.0**	**9.7**	**2.8**
Significant?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Source Receptor Area 3, based on a 3.5-acre operational daily area, at a distance of 200 feet from the project boundary.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter

By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions detailed in Table L assume all area- and energy-source emissions would occur on site and 5 percent of the project-related new mobile sources, which is an estimate of the amount of Project-related on-site vehicle and truck travel, would occur on site. Considering the total trip length included in CalEEMod, the 5 percent assumption is

[1] SCAQMD. n.d. *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf (accessed October 2023).

conservative. Table L indicates the localized operational emissions would not exceed the LSTs at nearby residences. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

As detailed in Tables K and L, the emission levels indicate that the Project would not exceed SCAQMD LSTs during project construction or operation. The Project's peak operational on-site NO_x emissions are less than 1 pound per day (lb/day). Due to the small size of the Project in relation to the overall Basin, the level of emissions is not sufficiently high to use a regional modeling program to correlate health effects on a basin-wide level. On a regional scale, the quantity of emissions from the Project is incrementally minor. Because the SCAQMD has not identified any other methods to quantify health impacts from small projects, and due to the size of the Project, it is speculative to assign any specific health effects to small project-related emissions. However, based on this localized analysis, the Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would not expose sensitive receptors to substantial levels of pollutant concentrations.

Other Emissions, including Odors. Heavy-duty equipment on the Project Site during construction would emit odors, primarily from equipment exhaust. However, the construction activity would cease after individual construction is completed and would not impact a substantial number of people. No other sources of objectionable odors have been identified for the Project.

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, the Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Water Quality.

Water Quality Standards

Construction Impacts

Construction activities would involve disturbance, grading, and excavation of soil, which could result in temporary erosion and movement of sediments into the storm drain system, particularly during precipitation events. However, the Project would comply with all applicable National Pollutant Discharge Elimination System (NPDES) permit requirements to reduce impacts to water quality. Projects that disturb greater than 1 acre of soil are subject to the regulatory requirements of the *State Water Resources Control Board (SWRCB) Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order WQ 2022-0057-DWQ NPDES No. CAS000002) (Construction General Permit). Because the Project would disturb more than 1 acre, the Applicant would be required to obtain coverage under the Construction General Permit, which requires the

preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) including, but not limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Compliance with the standard requirements of the Construction General Permit and the City's Municipal Code would ensure that construction impacts related to surface water quality would be less than significant.

Operational Impacts

Project operation would be subject to the requirements of the *California Regional Water Quality Control Board, Los Angeles Region Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles Counties* (Order No. R4-2021-0105 NPDES, No. CAS004004) (Regional Phase I MS4 NPDES Permit). In compliance with the permit requirements, a Low Impact Development (LID) Plan has been prepared for the Project (**Attachment F**). The Project LID Plan includes a description of the existing and proposed site drainage and proposed BMPs. The Project would not substantially alter existing drainage patterns of the Project Site. Furthermore, the Project would implement an underground detention system and biofiltration system (modular wetlands) to capture and treat stormwater during Project operation in compliance with the applicable NPDES permit requirements. The biofiltration system would drain into the curb face on Artesia Boulevard. All new proposed storm drainpipes and structures will be sized during final design to convey the proposed peak flows. Because the Project would implement the requirements of the applicable NPDES permit and associated BMPs, impacts to surface water quality would be less than significant.

Groundwater Impacts. Project operation would not require groundwater extraction. In the existing condition, the Project Site is 87.6 percent impervious surface, which precludes substantial infiltration. Furthermore, the soils on site have low permeability and therefore do not allow for infiltration. Post-project conditions within the 0.92-acre construction area would result in 88.5 percent impervious area (0.81 acre) and 11.5 percent pervious area (0.11 acre). As noted above, soils on site have low permeability. Therefore, the Project would not result in an appreciable change in existing conditions.

According to the *Geotechnical Engineering Report* (Terracon 2023) prepared for the Project, groundwater was encountered between 18.5 and 34.5 ft below ground surface (bgs). Historic groundwater elevations indicate shallow groundwater depths around 34 ft bgs. Excavation during construction would be to a maximum depth of 13 ft bgs. Due to the depth of groundwater and the proposed depth of excavation, it is not anticipated that groundwater would be encountered during construction. Therefore, the project would not decrease groundwater supplies or interfere with groundwater recharge.

Erosion or Siltation. During construction activities soil would be exposed and drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above, the Construction General Permit requires the preparation of a SWPPP to

identify construction BMPs to be implemented as part of the Project to reduce impacts on water quality during construction, including those impacts associated with soil erosion and siltation. The Project would comply with the requirements of the Construction General Permit and the City's Municipal Code, therefore, construction impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation is required.

Surface Runoff. The Project would increase the amount of impervious surface within the 0.92-acre construction area by 0.9 percent (0.008 acre). As discussed above, project construction would comply with the requirements of the Construction General Permit and would include the preparation and implementation of a SWPPP. The SWPPP would include construction BMPs to control and direct on-site surface runoff to ensure that stormwater runoff from the construction site does not exceed the capacity of the stormwater drainage systems. Due to the small increase in impervious surface and implementation of stormwater BMPs, Project impacts related to on- or off-site flooding from an increase in surface runoff would be less than significant, and no mitigation is required.

Runoff Exceeding Existing Drainage Systems. Drainage patterns would be temporarily altered during grading and other construction activities, and construction-related pollutants could be spilled, leaked, or transported via storm runoff into adjacent drainages and downstream receiving waters. As previously discussed, the Project would comply with the requirements set forth by the Construction General Permit and SWPPP, which would specify BMPs to be implemented to control the discharge of pollutants in stormwater runoff as a result of construction activities. The Project would cause a minimal increase in impervious surface and would implement an underground detention system and biofiltration system (modular wetlands) to capture and treat stormwater. For these reasons, the Project would not result in an exceedance in capacity of existing or planned stormwater drainage systems. No mitigation is required.

Flooding and Inundation. According to Federal Emergency Management Agency Flood Insurance Rate Map No. 06037C1935F (June 2008), the Project Site is not within a 100-year floodplain. Specifically, the Project Site is within Zone X, an area of minimal flood hazard (outside the 500-year floodplain). According to the California Department of Conservation (2021),[1] the Project Site is not within a tsunami hazard zone. Therefore, no project-related impacts associated with flood flows or release of pollutants from inundation would occur.

Water Quality Control or Groundwater Management Plan. As discussed above, the Project does not have the potential to impact groundwater quality, interfere with groundwater recharge, or decrease groundwater supplies. No groundwater extraction or dewatering is expected during construction and therefore the Project would not interfere with the sustainable management of the groundwater basin. Additionally, project operations would not require groundwater extraction. For these reasons, the Project would not conflict with or obstruct the implementation of a sustainable groundwater management plan. Additionally, Project would comply with the applicable NPDES permits, which require the preparation of a SWPPP and implementation of construction and operational BMPs to reduce pollutants of concern in

[1] California Department of Conservation. 2021. Los Angeles County Tsunami Hazard Areas. Website: https://www.conservation.ca.gov/cgs/tsunami/maps/los-angeles (accessed November 10, 2023).

stormwater runoff. As such, the project would not result in water quality impacts that would conflict with Los Angeles RWQCB's Water Quality Control Plan (Basin Plan)[1]. Impacts related to conflict with a water quality control plan would be less than significant, and no mitigation is required.

Overall, the Project would not result in impacts associated with hydrology and water quality.

(1) The project site is adequately served by all required utilities and services.

The Project Site is served by all utilities and public services in the existing condition. Specific utilities and public service providers serving the Project Site include the following:

Water	Torrance Municipal Water
Wastewater	Sanitation Districts of Los Angeles County (LACSD)
Fire	Torrance Fire Department
Police	Torrance Police Department
Schools	Torrance Unified School District
Landfill	Private waste haulers
Electricity	Southern California Edison
Natural Gas	Southern California Gas Company

The Project Site is currently developed for qualified urban uses as defined by Public Resources Code (PRC) Section 21072. The Project would continue the existing self-storage use on the Project Site. As such, the Project Site is served by all utilities and service providers in the existing condition.

Torrance Municipal Water is the water provider for the Project Site. The Public Works Department of the City of Torrance maintains and operates the sewer collection system, including storm drains, catch basins, and sewer lines. Water usage for operation of the proposed additions to the self-storage uses on site would be minimal, limited to irrigation for the existing landscaping and fire suppression systems. The new self-storage building would require similar water use as the existing buildings on site and project operation would not substantially increase water usage on the Project Site compared to existing conditions due the use as a storage facility. Wastewater would only be generated from the office use and fire suppression systems in the unlikely event of a fire. The Project would utilize the existing on-site water and wastewater distribution systems to serve the new building. The on-site systems would be constructed in compliance with the City's building and plumbing codes in its Municipal Code. The proposed on-site distribution systems would connect to the existing water and wastewater facilities located within the Project Site. Extension of the water and wastewater infrastructure from the existing system within the Project Site would be a routine part of the construction process and would not have a material environmental impact. The water and wastewater facility

[1] Regional Water Quality Control Board, Los Angeles Region 4. 2014. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan). Website: https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html (accessed December 7, 2023).

improvements would be limited to the Project Site, and connection points would remain as they exist now.

CALIFORNIA ENVIRONMENTAL QUALITY ACT CATEGORICAL EXEMPTIONS—EXCEPTIONS

State CEQA Guidelines Section 15300.2 provides exceptions to categorical exemptions that apply to specific types of projects. The exceptions to the CEs pursuant to Section 15300.2 of the *State CEQA Guidelines* are the following:

(a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located—a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply in all instances, except where the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

The Project does not rely on the specific classes of exemptions (3, 4, 5, 6, and 11) called out at the beginning of exception 15300.2(a). This exception does not apply to the Project.

Nonetheless, if this exception were applicable to a Class 32 exemption, the Project would still not qualify as an exception to the exemption. The Project Site is at 17575 South Western Avenue. The Project Site is characterized by pavement, storage facilities, and landscaping associated with the existing on-site use. The Project Site is surrounded on all sides by urban development and is zoned and designated for Limited Manufacturing (M-L). Therefore, the site is not particularly sensitive in terms of environmental resources, and there are no mapped environmentally sensitive habitat areas within or in close proximity to the Project Site. In addition, the Project, like all projects, would be subject to the provisions of the MBTA, which prohibits disturbing or destroying active nests, and California Fish and Game Code Section 3503, which protects nests and eggs.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place over time is significant.

The Project is an infill development project in an urban area. According to the Governor's Office of Planning and Research, the term "infill development" refers to building within unused and underutilized lands within existing development patterns, typically, but not exclusively, in urban areas.[1] The Project Site and surrounding areas were previously developed for qualified urban uses as defined by PRC Section 21072.

The Project would be consistent with existing land use and visual patterns typical of an urban built environment. No amendments to an adopted planning document would be required for implementation of the Project, nor would the project divide an established community. Therefore, the Project would not contribute to a significant cumulative land use impact.

[1] Governor's Office of Planning and Research. Infill Development. Website: https://opr.ca.gov/planning/land-use/infill-development/ (accessed November 6, 2023).

Neither the Project Site nor any other site in the city is currently used for agricultural or farmland production. Neither the Project Site nor the local area is particularly sensitive in terms of biological resources, and there are no mapped environmentally sensitive habitat areas within or in close proximity to the Project Site. The Project would not result in the loss of known mineral resources or a locally important mineral resource recovery site.

The Project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the Project. Although there are other self-storage facilities in the area, there are no other proposed projects of the same type within the immediate vicinity of the Project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with SCAQMD's standard construction measures. The Project's short-term construction CO, NO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed the LSTs. Therefore, construction of the Project would have a less than significant impact with regard to regional and localized emissions and would not result in cumulatively considerable impacts.

The Project Site was previously disturbed and developed with existing structures. The Project consists of the demolition and replacement of existing self-storage facilities. As such, ground-disturbing activities associated with project construction activities are not likely to directly or indirectly destroy a unique paleontological resource or site or a unique geological feature due to the disturbed nature of the Project Site and the limited depth of excavation (13 ft bgs).

The Project Site, like all of Southern California, would be subject to seismic ground shaking in the event of an earthquake. The Project would be required to comply with the California Building Code in effect at the time of construction and would not exacerbate an existing geologic or seismic hazard.

The Project is not located in an airport land use plan or within 2 miles of a public or private airstrip. The nearest airport is Hawthorne Municipal Airport, approximately 3.5 miles from the Project Site. Due to the nature of this project (i.e., self-storage), it would not contribute to the creation of a hazard to the public or the environment involving the transport, use, or disposal of hazardous materials.

As discussed above, with compliance with the applicable NPDES permit requirements and implementation of BMPs, project impacts to hydrology and water quality would be less than significant. It is assumed for the purposes of this analysis that the other projects would also comply with applicable NPDES permit requirements and would also result in less than significant impacts related to hydrology and water quality.

The Project would not induce substantial population growth or displace housing or substantial numbers of people. The Project would not provide new housing opportunities or extend roads or other infrastructure to areas not previously served. The project would include the demolition of existing self-storage buildings and construction of a larger self-storage facility. However, the proposed building additions would not represent a net increase in businesses or jobs because the Project Site would continue to operate as a self-storage facility, similar to existing

conditions. Therefore, no impacts to population growth would occur because it is unlikely the project would create new jobs in the area. Similarly, because the Project would not increase population in Torrance, construction and operation of the self-storage facility would not be anticipated to 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.

Upon completion of construction, the Project Site would operate in a nearly identical manner as its current operation. Therefore, the Project would not alter cumulative regional demand for fire protection services and would have a less than significant impact. The Project also would not decrease the officer-to-resident ratio in Torrance or trigger the need for new or physically altered police facilities. Pursuant to California Education Code Section 17620(a)(1), the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. Applicants/developers for all projects would be required to pay such fees to reduce any impacts associated with new commercial development on school services.

As stated above, the Project Site and the surrounding areas were previously developed for qualified urban uses as defined by PRC Section 21072. As such, the site is served by all utilities in the existing condition. Torrance Municipal Water is the water provider for the Project Site. The City of Torrance Department of Public Works maintains and operates the sewer collection system, including storm drains and sewer systems. Installation of water and sewer facilities sufficient to serve a Project is a standard condition for development projects. The Project would also pay any required water and sewer connection fees. The Project Site and other regional projects in the city would be provided waste disposal from private waste haulers and existing landfills. The Project would not be expected to result in or contribute to a significant impact related to waste disposal.

The Safety Element of the Torrance General Plan (adopted 2010) does not discuss wildfire risk in Torrance. Policy S 6.3 of the Safety Element requires the adoption of safety standards for areas in the city susceptible to hillside wildfires. The Project site is not located on or near a hillside area, is generally flat, and is surrounded by urban uses; therefore, it is not subject to substantial wildfire risk.

In summary, the Project is an infill development project in an urban area. The Project would rely on and can be accommodated by the existing road system, public services, and utilities. Although there are other self-storage facilities in the area, there are no other proposed projects of the same type within the immediate vicinity of the Project that would cause significant cumulative impacts. Impacts of the Project would not be cumulatively considerable in connection with the effects of past projects, the effects of other current projects, or the effects of probable future projects.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

The Air Quality Analysis and the Noise and Vibration Impact Analysis for the Project conclude that the Project would not result in a significant impact related to these topics. No amendments to an adopted land use or planning document would be required for implementation of the Project, and the Project would be consistent with the City's Municipal Code requirements. The Project would continue the existing self-storage use on-site and would operate in a nearly identical manner as its current operation. Given the urban nature of the Project Site and the compatibility of the Project with the character of the surrounding uses, there is no evidence to indicate that the Project would have a significant effect on the environment due to unusual circumstances.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified Environmental Impact Report.

The nearest eligible State-designated scenic highway to the Project Site is State Route (SR) 1, which is approximately 11.3 miles southeast of the Project Site. Therefore, the Project does not have the potential to damage resources within a State-designated scenic highway. The City of Torrance adopted a Historic Preservation Program that aims to preserve historic resources that reflect important themes in the City's heritage. The Torrance Tract Preservation Plan focuses on residentially zoned areas within in the Torrance Tract Overlay Zone. The Project Site is not located within the Torrance Tract Overlay Zone and is not zoned for residential use. Therefore, the Project Site is not subject to the Historic Preservation Plan or Historic Preservation Ordinance (City Municipal Code Section 91.50.010). The Project Site is developed with a self-storage facility; none of the existing structures on the Project Site are over 50 years old and, therefore, are not eligible for listing as historic resources.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List (Cortese List) has been compiled by the California Environmental Protection Agency (CalEPA) Hazardous Materials Data Management Program. The California Department of Toxic Substances Control (DTSC) compiles information from subsets of the following databases to make up the Cortese List:

1. The DTSC list of contaminated or potentially contaminated hazardous waste sites listed in the California Sites database (formerly known as ASPIS);
2. The California SWRCB listing of leaking underground storage tanks (LUSTs); and
3. The California Integrated Waste Management Board list of sanitary landfills that have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF; now Assembly Bill 3750).

The Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (EnviroStor 2023).[1] The Project Site is located within 0.25 mile of two current LUST cleanup sites (GeoTracker 2023)[2]. Honeywell Inc., located 0.13 mile northeast of the Project Site at 17300 South Western Avenue, has been under remediation since 2015. Groundwater at this site potentially flows toward the Project Site; however, a groundwater extraction and treatment system has been installed and, based on distance, this site is not anticipated to impact the Project. Products/Avnet Inc., located 0.16 mile west of the Project Site at 2040 Artesia Boulevard, has been inactive since 2014. These LUST sites are either inactive or in remediation and are not anticipated to impact the Project.

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

As described in City of Torrance Municipal Code Section 91.50.010, the historic preservation ordinance promotes the protection and enhancement of historic resources important to the City's heritage. The buildings on the Project Site were constructed in approximately 1975 and 1976. As the existing buildings on the Project Site are not 50 years old, they are not old enough to be considered historical resources and are not eligible for listed at the Federal, State, or local levels. Because of the age of the existing buildings, they do not need to be evaluated as historical resources pursuant to CEQA. As such, project construction and operation would have no impacts to "historical resources" pursuant to *State CEQA Guidelines* Section 5064.5.

CONCLUSION

In summary, the Project will not result in any specific or general exceptions to the use of a CE as detailed under *State CEQA Guidelines* Section 15332. The Project would not cause any impacts to traffic, noise, air quality, or water quality. The Project Site does not have value as habitat for endangered, rare, or threatened species. The Project would not result in damage to a scenic resource within a highway officially designated as a State Scenic Highway. The Project Site is not on any list compiled pursuant to Section 65962.5 of the Government Code. Furthermore, no unusual circumstances or potential cumulative impacts would occur that may reasonably create an environmental impact. Therefore, the Project is exempt from the provisions of CEQA as specified by the *State CEQA Guidelines* identified above.

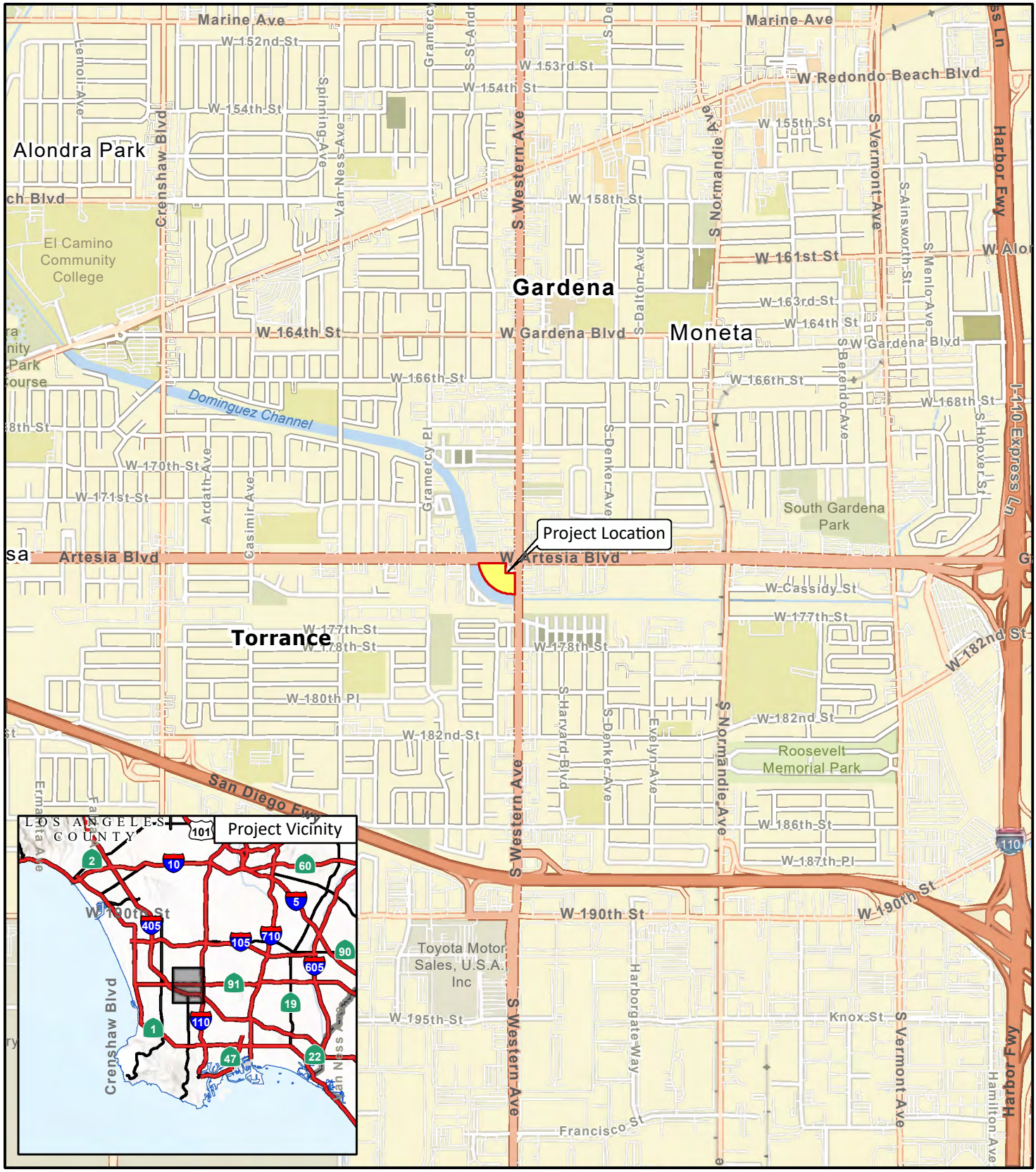
Attachments:
- A: Figures 1 and 2
- B: Parking Analysis Memorandum
- C: Transportation Analysis Memorandum
- D. Noise and Vibration Impact Analysis Memorandum
- E: Air Quality Technical Memorandum
- F: Low Impact Development Plan

[1] Department of Toxic Substances Control. 2023. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/ (accessed November 10, 2023).

[2] State Water Resources Control Board. 2023. GeoTracker Map. Website: https://geotracker.waterboards.ca.gov/ (accessed November 10, 2023).

ATTACHMENT A

FIGURES 1 AND 2



LSA

FIGURE 1

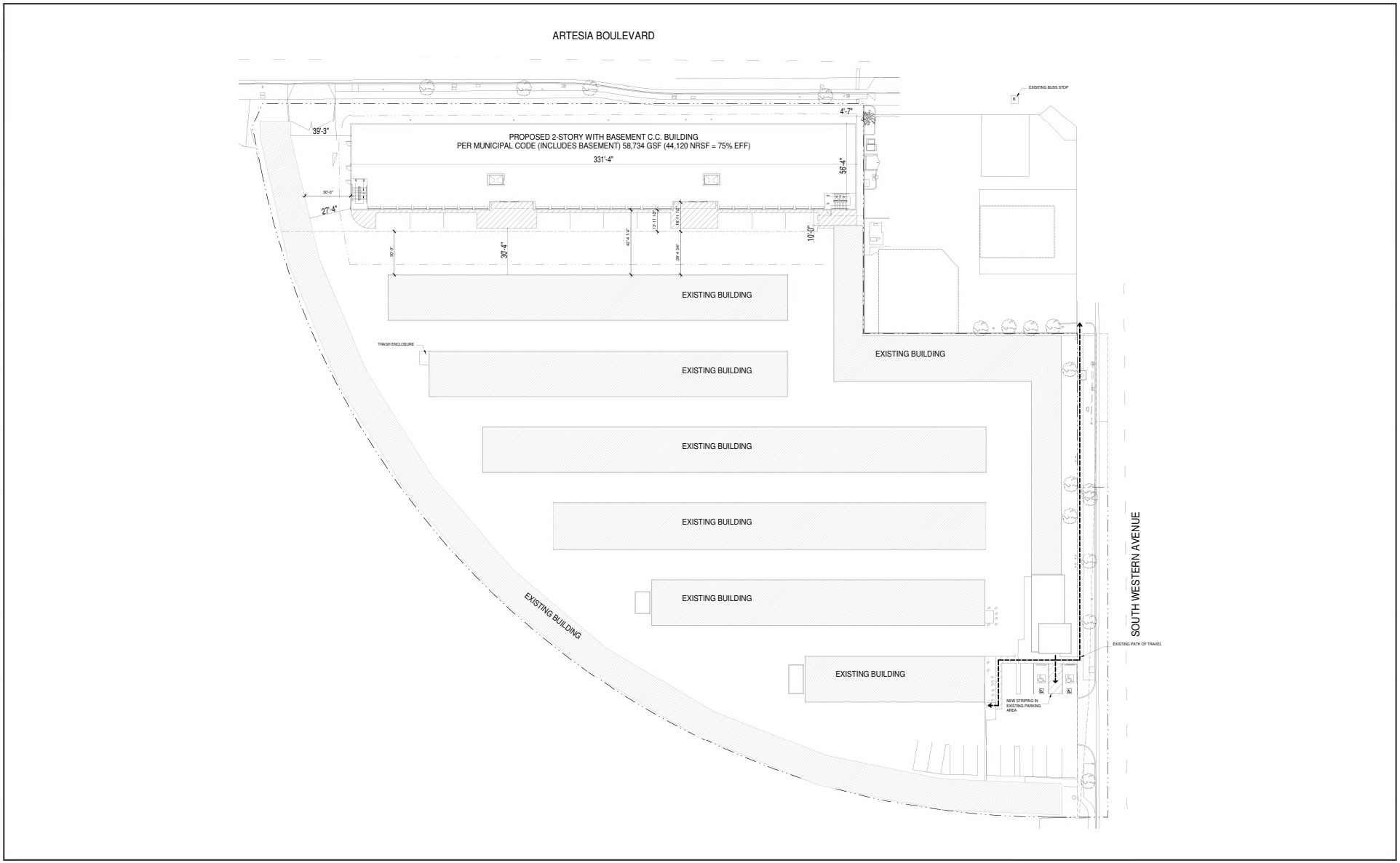
0 1000 2000
FEET

SOURCE: Esri (2023)

Gardena #1009 Self-Storage Building Project

Regional Location

J:\20231465\GIS\Pro\Gardena #1009 Self-Storage Building Project\Gardena #1009 Self-Storage Building Project.aprx (9/10/2023)



LSA

FIGURE 2

N

0 50 100

FEET

SOURCE: Extra Space Storage, Inc.

I:\20231465\G\Conceptual_Site_Plan.ai (10/30/2023)

Gardena #1009 Self-Storage Building Project

Conceptual Site Plan

ATTACHMENT B

PARKING ANALYSIS MEMORANDUM

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

October 10, 2023

Clint Kleppe
Extra Space Development
2795 East Cottonwood Parkway, Suite 400
Salt Lake City, UT 84121

Subject: Parking Analysis for the 17575 South Western Avenue Extra Space Storage Project, Torrance, California (LSA Project No. 20231465)

Dear Mr. Kleppe:

LSA has prepared this parking analysis for the proposed self-storage building project (project) at 17575 South Western Avenue in Torrance, California. The proposed site is adjacent to commercial, manufactural, and light manufactural uses.

This parking analysis is to determine whether the proposed parking supply provided on site would accommodate the expected peak parking demand for the proposed project. To determine the parking demand of the proposed project, LSA has analyzed parking requirements from the Institute of Transportation Engineers (ITE) *Parking Generation Manual, 5th Edition*, and additional empirical data parking studies to further justify the number of parking spaces recommended for the proposed project.

PROJECT DESCRIPTION

The proposed project is the addition of a two-story and basement self-storage building within an existing Extra Space facility, located at 17575 South Western Avenue. The existing self-storage facility includes 85,868 sf with 796 storage units. The project would demolish two existing one-story self-storage buildings totaling 16,031 square feet (sf) (including 192 storage units) and replace them with a new two-story building (plus basement) self-storage facility totaling 58,734 sf (including 457 storage units). The net new self-storage use is 42,703 sf. The total self-storage use on site including the project expansion will be 128,571 sf with 1,061 storage units.

The existing project site includes 14 parking spaces. No existing parking spaces will be removed by the project. The new facility will provide 10 additional parking spaces for a total of 24 parking spaces on site, and two loading areas adjacent to the new building. The site's access will be maintained via a full-access driveway along South Western Avenue. The project site plan is provided as Attachment A.

PARKING ANALYSIS

City of Torrance Requirements

According to the Torrance Municipal Code (TMC) Section 93.1.1, the off-street parking requirements in Torrance do not include self-storage or mini warehouse uses. The City's Code rather includes parking requirements for more intensive warehouse and storage uses. According to the City's requirements (Section 93.2.33), one parking space is required for each 1,500 sf of floor area, plus one space for every 250 sf of office area. Based on the City's requirement for warehouse and storage uses, the proposed self-storage project (58,734 sf) would require 40 parking spaces. The remaining existing facility (69,837 sf) would require 47 spaces. Although the site currently contains 14 spaces, the site can accommodate the full 47 spaces through "reserve spaces" which are existing one-story storage units that can be converted

to parking spaces in the event it is determined that additional parking is needed. The expansion project would not affect the ability to accommodate reserve spaces.

Self-storage facilities typically demand less parking than other types of commercial establishments. More detailed evidence supporting this is provided in the following analysis.

National Parking Rates

LSA referenced parking rates from the nationally recognized ITE *Parking Generation Manual*, 5th Edition. Rates are derived from a compilation of multiple parking surveys across the country and calculated to generate an average parking rate for mini-warehouse/self-storage use.

As such, the ITE Parking Generation Manual states that, for mini-warehouse/self-storage land uses, a parking rate of 0.10 spaces per 1,000 sf on weekdays and 0.09 spaces per 1,000 sf on weekends should be used. Application of these rates would require the project (a 58,734 total sf Extra Space Storage facility) to provide 6 parking spaces on weekdays and 6 parking spaces on weekends for the site. The project would provide a total of 10 parking spaces and 2 temporary loading spaces. In addition, the total self-storage sf provided on site will be 128,571 sf. Based on the ITE rates, the project site should provide 13 total parking spaces. As described above, there will be 24 spaces provided on site.

Surveyed Self Storage Parking Rates

A parking study was prepared for a similar Extra Space Storage project in the city of Inglewood (*Parking Demand Analysis for the Extra Space 1070 Inglewood Project, City of Inglewood, California,* LLG 2021). This analysis was based on empirical data collected at two Extra Space Storage facilities in Southern California (i.e., 3846 Century Boulevard in Inglewood and 5855 West Centinela Avenue in Los Angeles). A parking ratio (per storage unit) was developed based on the surveyed self-storage facilities. The parking study and empirical data are included in Attachment B.

The highest aggregate calculated parking demand ratio based on the surveys was 0.013 spaces per unit. Applying this to the total 457 units proposed would require a parking supply of 6 spaces on site. Application of this rate to the total number of storage units provided on the project site (1,061 units) would require 14 parking spaces. As described above, there will be 24 spaces provided on site.

The *Trip Generation and Parking Study for Public Storage Facilities in Los Angeles Area* (Crain & Associates 1987, provided as Attachment C) is an analysis of five different self-storage facilities in Southern California. This study was based on data collected through multiday parking lot and driveway surveys. According to this study, the average parking rate is 0.01 parking space per self-storage unit. Application of this rate to the proposed project of 457 storage units on site would require 5 parking spaces. Application of this rate to the total number of storage units provided on the project site (1,061 units) would require 11 parking spaces. As described above, there will be 24 spaces provided on site.

CONCLUSION

Based on the application of empirical parking rates from the ITE *Parking Generation Manual,* Extra Space Storage facilities in Southern California, and Crain & Associates research, the proposed 10 parking space supply for the proposed project expansion and 24 spaces provided for the self-storage facility is within the range of demand expected for the project and would be sufficient to accommodate the peak parking demand of the self-storage facility in Torrance.

Should a parking issue arise on site, the applicant will designate “reserve spaces” which are existing one-story storage units that can be converted to parking spaces.

Should you have any questions, please do not hesitate to contact me at (949) 553-0666 or email me at ken.wilhelm@lsa.net.

Sincerely,

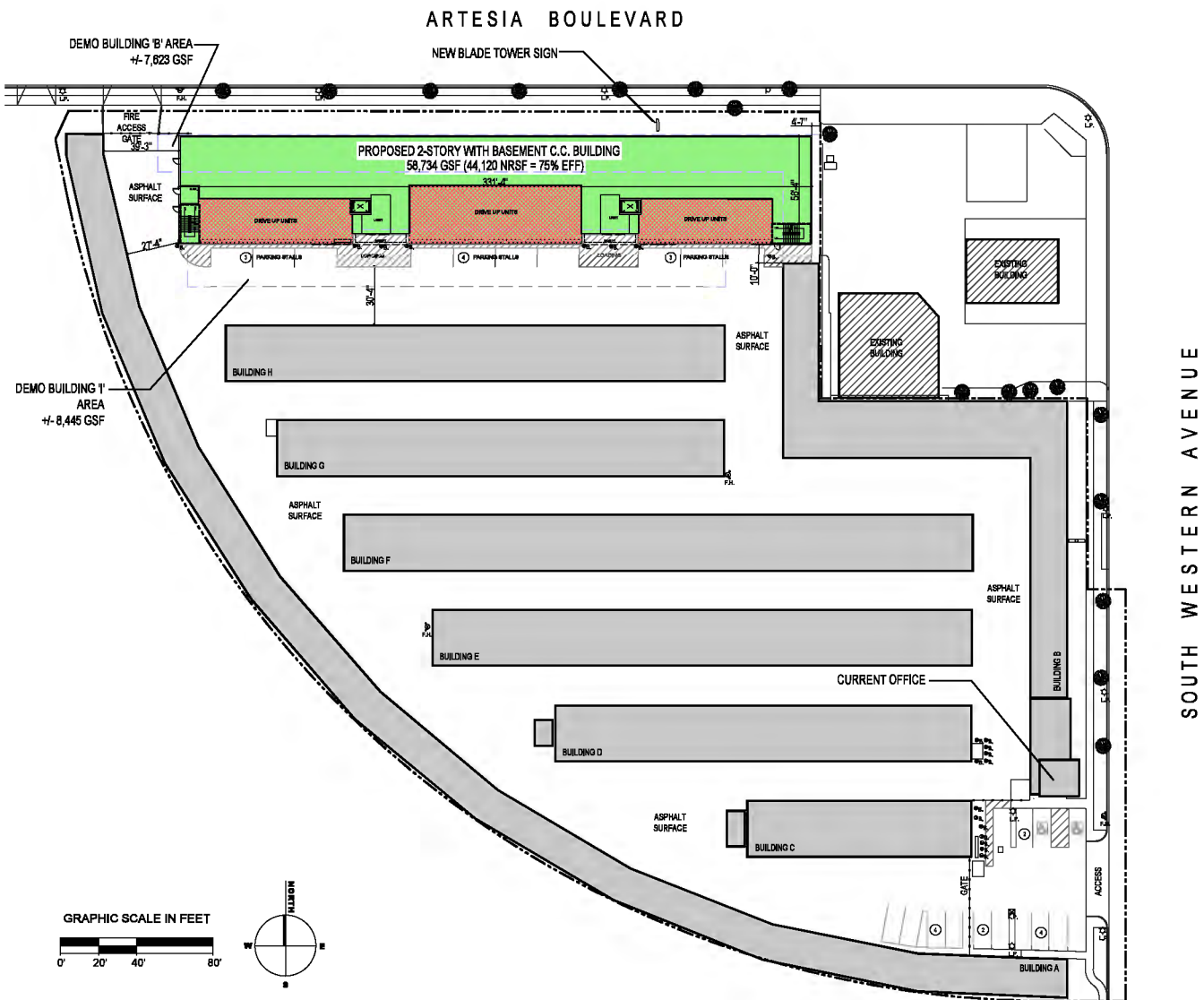
LSA Associates, Inc.

Ken Wilhelm
Principal

Attachments: A – Site Plan
B – Parking Demand Analysis for the Extra Space 1070 Inglewood Project, City of Inglewood, California (LLG 2021)
C – Trip Generation and Parking Study for Public Storage Facilities in Los Angeles Area (Crain & Associates 1987)

ATTACHMENT A

SITE PLAN



1 PROPOSED SITE PLAN
N.T.S.

SHEET TITLE:
PROPOSED SITE PLAN B

PROJECT LOCATION:
EXTRA SPACE STORAGE #1009
17575 S WESTERN AVE,
GARDENA, CA 90248

EXTRA SPACE STORAGE, Inc..
CORPORATE OFFICE
2795 East Cottonwood Parkway, Suite 400
Salt Lake City, Utah 84121

DATE
08/02/23

SHEET NUMBER
A-02

THESE DRAWINGS ARE FOR REFERENCE USE ONLY AND ARE NOT FOR CONSTRUCTION. ARCHITECT TO USE THESE DRAWINGS FOR REFERENCE ONLY. ARCHITECT/ENGINEER IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CODE REQUIREMENTS AS REQUIRED BY LOCAL JURISDICTIONS.

ATTACHMENT B

PARKING DEMAND ANALYSIS FOR THE EXTRA SPACE 1070 INGLEWOOD PROJECT, CITY OF INGLEWOOD, CALIFORNIA (LLG 2021)

MEMORANDUM

To:	Danny Morris Extra Space Storage	Date:	April 20, 2021
From:	Clare M. Look-Jaeger, P.E. CL-Jaeger Chin S. Taing, PTP, RSP1 CST Linscott, Law & Greenspan, Engineers	LLG Ref:	1-21-4426-1
Subject:	**Parking Demand Analysis for the Extra Space 1070 Inglewood Project, City of Inglewood, California**		

This memorandum has been prepared by Linscott, Law & Greenspan, Engineers (LLG) to summarize the parking demand analysis prepared for the proposed development of the Extra Space storage facility ("proposed project") located at 3846 West Century Boulevard in the City of Inglewood, California. Pursuant to our coordination, this analysis was prepared so that a determination could be made as to the adequacy of the future planned parking supply to meet the anticipated peak parking demand following development of the proposed project. The memorandum provides a review of the following:

- A description of the proposed site conditions, including a review of the proposed parking supply;
- Off-street parking requirements applicable to the project site pursuant to the City of Inglewood Municipal Code;
- A review of off-street parking requirements for self-storage facilities in other neighboring jurisdictions;
- A review of the potential parking demand using published parking demand ratios for self-storage facilities (e.g., as summarized in the Institute of Transportation Engineers [ITE] *Parking Generation* publication[1]);
- A review of the observed weekday and weekend day parking demand at other Extra Space self-storage facilities within the study area (i.e., through the conduct of site-specific/empirical surveys);
- A forecast of peak parking demand for the project site employing the empirical parking ratio, and;
- A conclusion regarding adequacy of the proposed parking supply to accommodate the forecast future peak parking demand.

Existing Setting

The existing site is currently developed with an Extra Space storage facility on an approximate 1.3-acre site situated along the south side of Century Boulevard, just west of Doty Avenue in the City of Inglewood, California. The vicinity map is

[1] Institute of Transportation Engineers *Parking Generation Manual*, 5th Edition, Washington D.C., 2019.

LINSCOTT LAW & GREENSPAN engineers

Engineers & Planners
Traffic
Transportation
Parking

Linscott, Law & Greenspan, Engineers
600 S. Lake Avenue
Suite 500
Pasadena, CA 91106
626.796.2322 T
626.792.0941 F
www.llgengineers.com

Pasadena
Irvine
San Diego
Woodland Hills

Philip M. Linscott, PE (1924-2000)
William A. Law, PE (1921-2018)
Jack M. Greenspan, PE (Ret.)
Paul W. Wilkinson, PE (Ret.)
John P. Keating, PE
David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE
Walter B. Musial, PE
Kalyan C. Yellapu, PE

displayed in ***Figure 1***. The site is generally bounded by Century Boulevard to the north, existing vacant land for the future Arena development to the south, future Arena access roadway and an industrial warehouse to the east, and hotel use/s to the west. The existing site comprises a 53,785 square-foot Extra Space self-storage facility that is planned to be demolished as part of the proposed project development.

Project Description

The proposed project consists of the redevelopment of a self-storage facility with approximately 196,170 square feet of net rentable area which may consist of roughly 2,000 storage units. The proposed project is planned to provide a total of 51 at-grade parking spaces, including one accessible parking space, all within the center of the project site. Vehicular access to the project site will be accommodated via one site driveway on Century Boulevard. ***Figure 2*** provides an illustration of the conceptual project site plan as well as the changes to the overall parking supply with the proposed self-storage facility.

Parking Calculation Per City of Inglewood Municipal Code

A calculation of the Code parking requirement was prepared in accordance with the City of Inglewood Municipal Code off-street parking requirements (Section 12-45, Industrial and Storage Parking Requirements). In accordance with the Municipal Code parking regulations, the parking requirements applicable to the self-storage facility are as follows:

- Self-Storage Facilities — 1.0 parking space for each 2,000 square feet of gross floor area

---

Source: City of Inglewood Municipal Code (Section 12-45)

Through strict application of the Municipal Code parking regulations, the following parking requirement would be calculated for the proposed project:

- Self-Storage Warehouse: 196,170 SF x 1.0 space/2,000 SF = 98 spaces

  Total Code Required Project Parking = 98 spaces

Based on the above calculation, the City Code parking requirement for the project would consist of a total of 98 parking spaces. When comparing the above Municipal Code parking requirement to the proposed project parking supply of 51 spaces, a theoretical shortfall of 47 parking spaces is calculated. Based on reviews of other parking standards established by other agencies in surrounding communities and parking demand characteristics at other existing self-storage facilities similar to the

proposed project, parking demand could be expected to be much lower for the project than what is currently required by strict application of the City Code. The following sections provide a summary of these reviews.

As part of the parking supply, the project must also provide a minimum of two (2) handicap accessible space in the parking area. This complies with the Americans with Disabilities Act requirement of a minimum of two (2) spaces of the total on-site parking supply as accessible space (i.e., for parking facilities with 51 to 75 spaces with one in every six handicap spaces being van accessible).

Other Agency Parking Requirements

Research was also conducted regarding the parking requirements for the self-storage warehousing land use in other jurisdictions and is summarized below for informational purposes only. The parking requirement for the proposed project based on application of the parking ratios from the various agencies are as follows:

- City of Hawthorne
  The City of Hawthorne Municipal Code (Section 17.58.030, Required Parking), specifies the parking requirements for self-storage facilities as one (1) space for each 2,000 square feet of gross floor area for the first 10,000 square feet and one (1) space for each 4,000 square feet thereafter. Application of this parking requirement to the proposed project would result in a theoretical off-street parking requirement of 52 parking spaces (i.e., [10,000 square feet x 1 space / 2,000 square feet = 5 spaces] + [186,170 square feet x 1 space / 4,000 square feet = 47 spaces] = 52 spaces). The project's proposed parking supply of 51 parking spaces would therefore be just shy of meeting the theoretical parking requirement specified by the City of Hawthorne Municipal Code.

- City of Los Angeles
  The City of Los Angeles Municipal Code (Section 12.21.A.4 Number of Parking Spaces Required), specifies the parking requirements for self-storage facilities as one (1) space for each 500 square feet of floor area for the first 10,000 square feet, and one (1) parking space for each 5,000 square feet of floor area in excess of the first 10,000 square feet. Application of this parking requirement to the proposed project would result in a theoretical off-street parking requirement of 57 parking spaces (i.e., [10,000 square feet x 1 space / 500 square feet = 20 spaces] + [186,170 square feet x 1 space / 5,000 square feet = 37 spaces] = 57 total spaces). The project's proposed parking supply of 51 parking spaces would therefore not

adequately accommodate the theoretical parking requirement specified by the City of Los Angeles Municipal Code.

- City of El Segundo
  The City of El Segundo Municipal Code (Section 15-15-06, Required Parking Spaces), specifies the parking requirements for self-storage facilities as one (1) space for each 5,000 square feet of gross floor area or each 50 storage units, with a minimum of 5 total spaces. Application of this parking requirement to the proposed project would result in a theoretical off-street parking requirement of 39 parking spaces (i.e., 196,170 square feet x 1 space / 5,000 square feet = 39 spaces). The project's proposed parking supply of 51 parking spaces would therefore adequately accommodate the theoretical parking requirement specified by the City of El Segundo Municipal Code.

- County of Los Angeles
  The County of Los Angeles Municipal Code (Section 22.112.070, Required Parking Spaces), specifies the parking requirements for self-storage facilities as one (1) space per 1,000 square feet of gross floor area of warehousing areas and one (1) space per 400 square feet of gross floor area of office space. Application of this parking requirement to the proposed project would result in a theoretical off-street parking requirement of 198 parking spaces (i.e., [194,372 square feet x 1 space / 1,000 square feet = 194 spaces] + [1,798 square feet of office space x 1 space / 400 square feet = 4 spaces] = 198 spaces). The project's proposed parking supply of 51 parking spaces would therefore not adequately accommodate the theoretical parking requirement specified by the County of Los Angeles Municipal Code.

Generally, while it is found that three (3) jurisdictions in the area (i.e., City of Hawthorne, City of Los Angeles, and City of El Segundo) would theoretically require fewer or roughly the same number parking spaces than the City of Inglewood Municipal Code parking ratio for self-storage warehousing land uses, the variance in requirements is extensive. Thus, application of the City's self-storage warehouse land use parking ratio to the proposed project is not recommended based on LLG's experience, as it typically overstates actual parking demand.

As stated above, these parking standards are provided for informational purposes only as it is recognized that parking demand is also influenced by a site's proximity to other influences including other comparable sites, employment, adjacent and convenient public transportation services, etc.

Parking Demand Based on ITE Parking Ratios

In addition to reviewing the Code parking requirements of various agencies, the average peak parking demand for various land use types is often estimated using ratios published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*[2], 5th Edition. The *Parking Generation Manual* presents the state-of-the-practice understanding of the relationship between parking demand and various characteristics associated with individual land use developments, based on parking studies conducted at locations throughout North America. When utilizing the ITE publication, the parking demand for the proposed project can be calculated based upon ratios per 100 storage units for the self-storage facility. The average parking rate for Land Use Code 151 (Mini-Warehouse) on a typical weekday is 1.36 parked vehicles per 100 storage units, while the average parking rate on a typical Saturday is 0.94 parked vehicles per 100 storage units. Application of the Land Use Code 151 average parking demand ratios to the proposed project would result in a forecast weekday peak parking demand of 27 vehicles (i.e., 1.36 parked vehicles x 2,000 units / 100 units = rounded to 27 parked vehicles), which is 71 spaces fewer than what would be required through strict application of the City's Code.

Empirical Parking Demand Studies of Existing Self-Storage Facilities

This section summarizes site-specific self-storage parking accumulation surveys that have been conducted by LLG. Empirical parking demand studies of existing Extra Space self-storage sites in the study area have been conducted and are included for purposes of this parking analysis. The purpose of these studies was to determine existing parking demand ratios for other self-storage facilities that are similar in nature to the proposed project and to be able to compare the forecast parking demand using the derived empirical parking ratios to those determined simply through strict application of the City's Municipal Code.

Existing Extra Space Storage Facilities

In order to determine the expected actual peak parking demand for the proposed project, a site-specific parking demand analysis was conducted for two (2) existing Extra Space self-storage facilities in the surrounding area as shown in ***Figure 3***. The sites selected for the analysis are as follows:

- Extra Space Storage, 3846 Century Boulevard, Inglewood, California (563 storage units, 53,785 SF)

[2] Institute of Transportation Engineers *Parking Generation Manual*, 5th Edition, Washington D.C., 2019.

- Extra Space Storage, 5855 West Centinela Avenue, Los Angeles, California (1,147 storage units, 76,856 SF)

Parking accumulation surveys were conducted at each of the sites by a traffic count subconsultant (The Traffic Solution) in hourly time increments on a typical mid-week day (i.e., Tuesday) from 8:00 AM to 8:00 PM, and on a typical weekend day (i.e., Saturday) from 8:00 AM to 8:00 PM in March/April 2021. Brief summaries of the parking accumulation surveys are presented below and further detailed in ***Tables 1*** and ***2*** for the weekday and weekend day, respectively:

- Extra Space Storage, 3846 Century Boulevard
  - On Wednesday, March 31, 2021, the peak parking demand occurred at 10:00 AM when seven (7) vehicles were parked at the site.
  - On Saturday, April 3, 2021 the peak parking demand occurred at 1:00 PM when five (5) vehicles were parked at the site.
- Extra Space Storage, 5855 West Centinela Avenue
  - On Wednesday, March 31, 2021, the peak parking demand occurred at 5:00 PM when 14 vehicles were parked at the site.
  - On Saturday, April 3, 2021 the peak parking demand occurred at 1:00 PM when 15 vehicles were parked at the site.

Existing Derived Peak Parking Demand Ratio

By comparing the peak parking demand at each site to the number of occupied storage units, the existing peak parking demand ratio can be calculated for each of the existing self-storage facilities. The calculated peak parking demand ratios for both survey locations are summarized in ***Table 3***. The aggregate peak parking demand ratio, which blends the peak parking demand and number of occupied units for all sites in order to reduce the variation due to individual characteristics at each site, is also presented in *Table 3*. It is concluded that the peak parking demand ratio, based on the aggregate of both existing Extra Space Storage sites, is 0.013 vehicles per occupied storage unit for the weekday and 0.012 vehicles per occupied storage unit for the weekend (Saturday).

Forecast Project Peak Parking Demand

As described above, based on the empirical surveys conducted at the comparable sites, the highest aggregate peak parking demand ratio was determined to be 0.013 spaces per occupied storage unit. Application of this peak parking demand ratio is appropriate as it results in the most conservative analysis based on the empirical site-specific survey data. Application of this peak parking demand ratio to the proposed 2,000-unit self-storage project yields a forecast peak parking demand of 26 parking spaces (i.e., 0.013 spaces/occupied storage unit x 2,000 storage units = rounded to 26 spaces) which assumes that all storage units are fully occupied. In comparison, this empirically derived peak parking demand (i.e., 26 spaces) is fairly similar to the parking demand forecast (i.e., 27 spaces) when applying the ITE parking ratio for self-storage facilities to the proposed project.

As previously noted, the parking supply for the project is planned to total 51 on-site spaces. Therefore, it is concluded that the proposed parking supply for the project is sufficient to accommodate the empirically-derived peak parking demand of 26 vehicles. During other time periods of the day and other days of the week, a greater parking surplus could be expected for the proposed project.

Summary of Key Findings and Conclusions

This parking demand analysis was prepared for the Extra Space 1070 Inglewood project in order to determine if sufficient on-site parking exists to adequately accommodate the future peak parking demand following full occupancy of self-storage facility. Based on the parking analysis, the following conclusions are made:

1. Pursuant to the application of the City of Inglewood Municipal Code parking requirements to the future planned project, a total of 98 parking spaces would be required. When compared to the total future parking supply of 51 spaces, a theoretical shortfall of 47 parking spaces is calculated.

2. Research was also conducted regarding the parking requirements for the self-storage warehousing land use in other nearby jurisdictions for informational purposes only. Generally, while it is found that three (3) jurisdictions in the area (i.e., City of Hawthorne, City of Los Angeles, and City of El Segundo) would theoretically require fewer or roughly the same number parking spaces than the City of Inglewood Municipal Code parking ratio for self-storage warehousing land uses, the variance in requirements is extensive. As such, application of the City's self-storage warehouse land use parking ratio to the proposed project is not recommended based on LLG's experience.

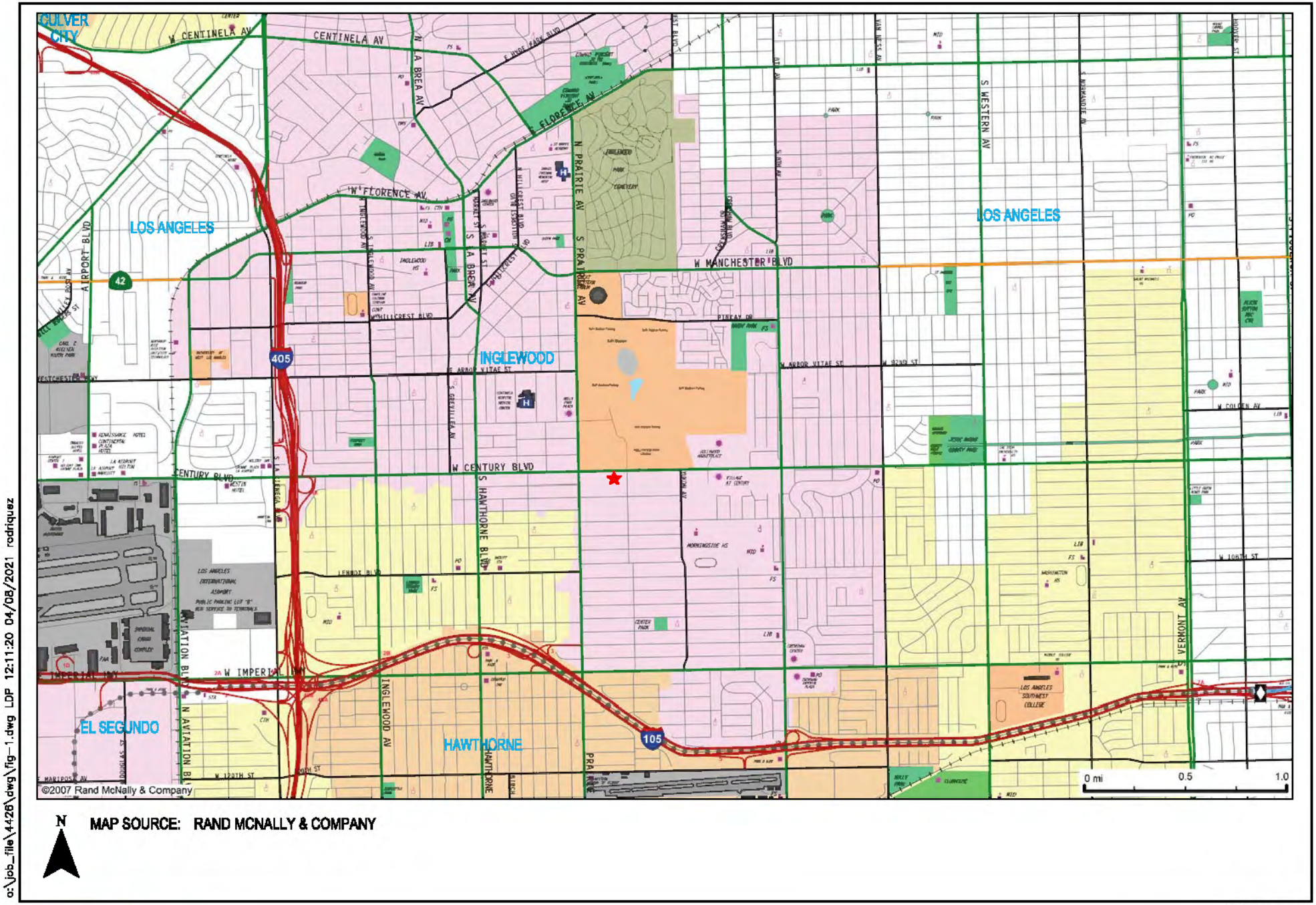
3. The average parking ratio for ITE Land Use Code 151 (Mini-Warehouse) on a typical weekday is 1.36 parked vehicles per 100 storage units, while the average parking ratio on a typical Saturday is 0.94 parked vehicles per 100 storage units. Application of the Land Use Code 151 average parking demand ratios to the proposed project would result in a forecast weekday peak parking demand of 27 vehicles (i.e., 1.36 parked vehicles x 2,000 units / 100 units = rounded to 27 parked vehicles).

4. Empirical parking demand studies of two (2) existing self-storage facilities have been conducted in order to determine existing parking demand ratios for other Extra Space self-storage sites. The derived peak parking demand ratio, based on the aggregate of both existing Extra Space Storage sites, is 0.013 vehicles per occupied storage unit for the weekday and 0.012 vehicles per occupied storage unit for the weekend (Saturday).

5. Application of the empirical peak parking demand ratio to the proposed project yields a forecast peak parking demand of 26 parking spaces (i.e., 0.013 spaces/occupied storage unit x 2,000 storage units = rounded to 26 spaces). Both the empirically derived peak parking demand (i.e., 26 spaces) and the ITE-generated parking demand (i.e., 27 spaces) are much lower than the City's Code parking requirement of 98 spaces. Therefore, LLG recommends employment of either the site-specific parking ratio or the ITE parking ratio to the proposed project in order to determine the adequacy of the proposed parking supply to meet the forecast parking demand.

Please feel free to contact us at 626.796.2322 should you have any questions regarding this parking assessment conducted for the Extra Space 1070 Inglewood project.

c: File



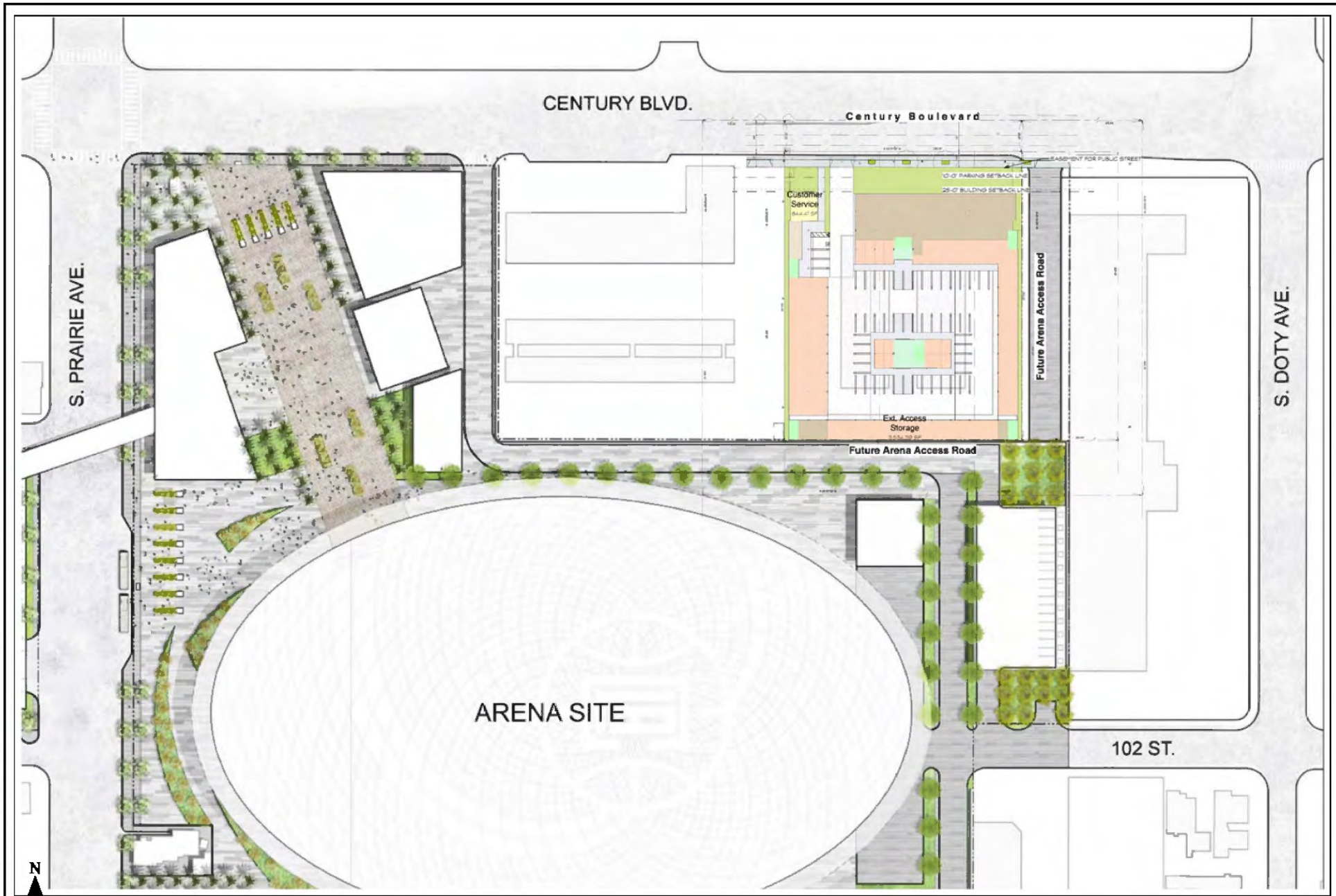
o:\job_file\4426\dwg\fig-1.dwg LDP 12:11:20 04/08/2021 rodriguez

L. N. SCOTT LAW & GREENSAL engineers

★ Project Site

Figure 1
Site Vicinity Map

Extra Space 1070 Project



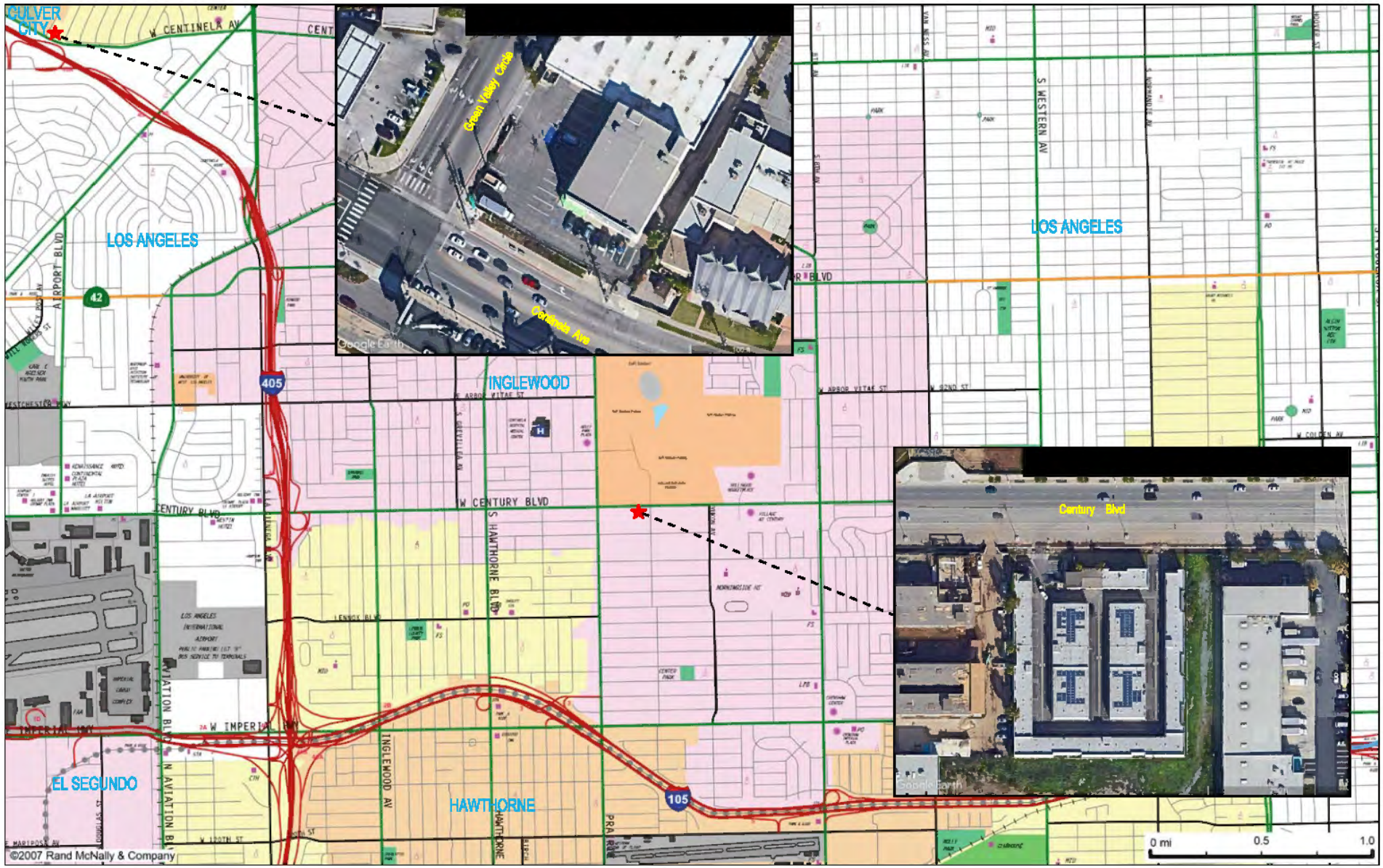
MAP SOURCE: JAMES GOODMAN ARCHITECTURE

c:\job_file\4426\dwg\fig-2.dwg LDP 07:52:23 03/19/2021 rodriquez

LINSCOTT LAW & GREENSPAN engineers

Figure 2
Site Plan

Extra Space 1070 Project



MAP SOURCE: RAND MCNALLY & COMPANY

o:\job_file\4426\dwg\fig-3.dwg LDP 13:20:30 04/14/2021 rodriquez

Figure 3
Survey Site Locations

Extra Space 1070 Project

Table 1
PARKING ACCUMULATION SURVEYS
EXTRA SPACE STORAGE (SURFACE PARKING LOTS)
WEDNESDAY, MARCH 31, 2021

PARKING LOCATION	[1] NO. OF SPACES	TIME OF DAY [2]																							
		8:00 AM		9:00 AM		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM	
		OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT
3846 W. Century Boulevard, Inglewood Site																											
Standard Spaces	33	2	6.1%	2	6.1%	6	18.2%	5	15.2%	6	18.2%	3	9.1%	3	9.1%	2	6.1%	3	9.1%	3	9.1%	2	6.1%	2	6.1%	0	0.0%
Accessible Van Spaces	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total Inglewood Site Parking	**34**	**2**	**5.9%**	**2**	**5.9%**	**7**	**20.6%**	**5**	**14.7%**	**6**	**17.6%**	**3**	**8.8%**	**3**	**8.8%**	**2**	**5.9%**	**3**	**8.8%**	**3**	**8.8%**	**2**	**5.9%**	**2**	**5.9%**	**0**	**0.0%**
5855 W. Centinela Avenue, Los Angeles Site																											
Standard Spaces	16	7	43.8%	7	43.8%	7	43.8%	8	50.0%	7	43.8%	7	43.8%	9	56.3%	7	43.8%	7	43.8%	10	62.5%	7	43.8%	7	43.8%	6	37.5%
Reserved Spaces	4	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%	3	75.0%
Loading Spaces	3	0	0.0%	1	33.3%	2	66.7%	1	33.3%	1	33.3%	3	100.0%	1	33.3%	0	0.0%	1	33.3%	1	33.3%	0	0.0%	1	33.3%	1	33.3%
Accessible Van Spaces	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total Los Angeles Site Parking	**24**	**10**	**41.7%**	**11**	**45.8%**	**12**	**50.0%**	**12**	**50.0%**	**11**	**45.8%**	**13**	**54.2%**	**13**	**54.2%**	**10**	**41.7%**	**11**	**45.8%**	**14**	**58.3%**	**10**	**41.7%**	**11**	**45.8%**	**10**	**41.7%**
Total Both Sites Parking Demand	**58**	**12**	**20.7%**	**13**	**22.4%**	**19**	**32.8%**	**17**	**29.3%**	**17**	**29.3%**	**16**	**27.6%**	**16**	**27.6%**	**12**	**20.7%**	**14**	**24.1%**	**17**	**29.3%**	**12**	**20.7%**	**13**	**22.4%**	**10**	**17.2%**

[1] Parking inventory confirmed by LLG Engineers in March 2021.
[2] The existing hourly parking demand was determined based on parking occupancy counts conducted at the surface parking lots for each site by The Traffic Solution in March/April 2021.

Table 2
PARKING ACCUMULATION SURVEYS
EXTRA SPACE STORAGE (SURFACE PARKING LOTS)
SATURDAY, APRIL 3, 2021

PARKING LOCATION	[1] NO. OF SPACES	TIME OF DAY [2] 8:00 AM		9:00 AM		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM	
		OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT
3846 W. Century Boulevard, Inglewood Site																											
Standard Spaces	33	3	9.1%	4	12.1%	2	6.1%	4	12.1%	4	12.1%	5	15.2%	2	6.1%	2	6.1%	1	3.0%	1	3.0%	1	3.0%	0	0.0%	0	0.0%
Accessible Van Spaces	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total Inglewood Site Parking	**34**	**3**	**8.8%**	**4**	**11.8%**	**2**	**5.9%**	**4**	**11.8%**	**4**	**11.8%**	**5**	**14.7%**	**2**	**5.9%**	**2**	**5.9%**	**1**	**2.9%**	**1**	**2.9%**	**1**	**2.9%**	**0**	**0.0%**	**0**	**0.0%**
5855 W. Centinela Avenue, Los Angeles Site																											
Standard Spaces	16	8	50.0%	9	56.3%	8	50.0%	9	56.3%	9	56.3%	10	62.5%	9	56.3%	7	43.8%	7	43.8%	7	43.8%	5	31.3%	5	31.3%	5	31.3%
Reserved Spaces	4	3	75.0%	3	75.0%	4	100.0%	4	100.0%	4	100.0%	4	100.0%	4	100.0%	4	100.0%	4	100.0%	4	100.0%	3	75.0%	3	75.0%	3	75.0%
Loading Spaces	3	1	33.3%	0	0.0%	0	0.0%	1	33.3%	1	33.3%	1	33.3%	1	33.3%	1	33.3%	1	33.3%	1	33.3%	0	0.0%	0	0.0%	0	0.0%
Accessible Van Spaces	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total Los Angeles Site Parking	**24**	**12**	**50.0%**	**12**	**50.0%**	**12**	**50.0%**	**14**	**58.3%**	**14**	**58.3%**	**15**	**62.5%**	**14**	**58.3%**	**12**	**50.0%**	**12**	**50.0%**	**12**	**50.0%**	**8**	**33.3%**	**8**	**33.3%**	**8**	**33.3%**
Total Both Sites Parking Demand	**58**	**15**	**25.9%**	**16**	**27.6%**	**14**	**24.1%**	**18**	**31.0%**	**18**	**31.0%**	**20**	**34.5%**	**16**	**27.6%**	**14**	**24.1%**	**13**	**22.4%**	**13**	**22.4%**	**9**	**15.5%**	**8**	**13.8%**	**8**	**13.8%**

[1] Parking inventory confirmed by LLG Engineers in March 2021.
[2] The existing hourly parking demand was determined based on parking occupancy counts conducted at the surface parking lots for each site by The Traffic Solution in March/April 2021.

Table 3
SUMMARY OF PEAK PARKING RATIOS [1]
Existing Extra Space Self-Storage Facilities

Date	OBSERVED PEAK PARKING DEMAND SPACES	TOTAL UNITS UNITS	TOTAL OCCUPIED UNITS OCC. UNITS	PEAK PARKING RATIOS (PER OCC. UNIT) SPS/OCC. UNIT	PEAK PARKING RATIOS APPLIED TO PROPOSED PROJECT OCC. UNITS	SPACES
Extra Space Storage, 3846 Century Boulevard, Inglewood						
Wednesday, March 31, 2021	7 [2]	563	540	0.013	2,000	26
Saturday, April 3, 2021	5 [3]	563	547	0.009	2,000	18
Extra Space Storage, 5855 West Centinela Avenue, Los Angeles						
Wednesday, March 31, 2021	14 [4]	1,147	1,085	0.013	2,000	26
Saturday, April 3, 2021	15 [5]	1,147	1,085	0.014	2,000	28
Aggregate of Both Sites						
Wednesday, March 31, 2021	21	1,710	1,625	0.013	2,000	26
Saturday, April 3, 2021	20	1,710	1,632	0.012	2,000	24

[1] Based on parking accumulation surveys conducted by The Traffic Solution on Saturday, April 3 and Wednesday, March 31, 2021 at existing Extra Space Self-Storage facilities.

[2] The peak parking demand occurred at 10:00 AM on Wednesday, March 31, 2021.

[3] The peak parking demand occurred at 1:00 PM on Saturday, April 3, 2021.

[4] The peak parking demand occurred at 5:00 PM on Wednesday, March 31, 2021.

[5] The peak parking demand occurred at 1:00 PM on Saturday, April 3, 2021.

ATTACHMENT C

TRIP GENERATION AND PARKING STUDY FOR PUBLIC STORAGE FACILITIES IN LOS ANGELES AREA (CRAIN & ASSOCIATES 1987)

TRIP GENERATION AND PARKING STUDY FOR PUBLIC STORAGE FACILITIES IN LOS ANGELES AREA

Prepared for:

PUBLIC STORAGE, INC.

Prepared by:

Crain & Associates
2007 Sawtelle Boulevard, Suite 4
Los Angeles, California 90025
(213) 473-6508

September 1987

INTRODUCTION

Public Storage, Inc. (PSI), a developer of self-storage, mini-warehouse facilities throughout the country, retained Crain & Associates to conduct a study of its facilities in the Los Angeles area to determine their trip-generating characteristics. In addition, PSI requested that a parking analysis be performed for these facilities in conjunction with the trip generation study. Results of both analyses would be compared to current standards and requirements to determine whether those standards and requirements may be appropriate for these type of facilities.

The following report describes the subject facilities, methodology, analysis, findings and conclusions of the study. An Appendix also is included, which summarizes the data collected.

DESCRIPTION OF FACILITIES

PSI is the largest developer and manager of self-storage facilities in the United States. Generally, a PSI facility consists of one to seven buildings, single-story and/or multi-story, containing an aggregate of between 300 and 1,000 storage spaces or units. The facilities are leased for storage purposes only. Other uses such as retail, repair and fabrication, are prohibited in the lease agreement. Storage space is leased by both individuals and businesses.

A facility site is approximately two to five acres, located in or near large population centers and close to concentrations of apartment complexes, single-family residences and commercial developments. The sites usually can be seen and/or accessed from a freeway or major thoroughfare.

Each facility has a security manager's quarters in one of the buildings near the site entrance. The manager's quarters includes a small office for transacting business with present and prospective tenants. The area containing the storage units is a secured area. Access into and out of this area is enabled by electrically operated gates opened by a push-button, coded-control mechanism, with each tenant having his or its own special access code number.

Parking is provided on-site near the manager's quarters and the storage buildings. However, parking for the storage buildings may not actually be striped since the layout of the buildings and the tenant's need to have close-by parking may preclude an effective striped parking arrangement. Instead, large unmarked areas are available near and between the buildings, which allow convenient parking access to most storage units.

There are approximately 70 PSI sites in the Los Angeles area at the present time, ranging between 20,000 and 140,000 square feet of available building area. The majority are in the 40,000 to 80,000 square-foot category, with the average size between 62,000 and 63,000 square feet. Overall, about 85 percent of these facilities in this area are occupied.

METHODOLOGY AND ANALYSIS

Initially, it was decided to try to utilize the computerized access tapes generated by the PSI facilities. As described earlier, each PSI facility is equipped with a push-button, coded-control security device. This device is linked to a monitor-computer, which registers the identity of any tenant at any given time. Through this means, the identity and total count of tenant vehicles can be obtained for any period. This information is continually provided on a printed tape each day.

By matching the entering and leaving code numbers, along with the corresponding times, peak-hour as well as 24-hour trip generation rates could be computed relatively easily. Similarly, the elapsed time between inbound and outbound code numbers would yield the length of stay of each vehicle, which would infer parking duration and, consequently, parking accumulation, the total number of vehicles parking in a given area at a given time. The peak parking accumulation would be the measure of most critical parking need, from which parking rates could be calculated.

Thus, it appeared that both trip generation and parking information could be readily derived from the register tapes. Further, since each PSI facility could furnish these tapes, a large sample size covering an extended period of time could be examined, allowing for more confidence and less statistical error in the final results.

Since data analysis of the nearly 70 facilities in the area was not feasible, PSI was requested to furnish printed tapes for ten of its more active facilities in the area, covering the same two-week period, including weekends. Unfortunately, upon close examination of the tapes, it was found that the information recorded was

unreliable and inaccurate and could not be rectified by selecting other sites and/or time periods.

The major flaw was that many vehicles were registered as entering a facility but never leaving or vice-versa. Thus, at the end of the day the inbound and outbound flows were not balanced, with many vehicles unmatched. Based on conversations with the managers of these faciliites, there should be an equal number of entering and departing vehicles each day, except in unusual circumstances.

It was obvious from random field checks that the reason for the large discrepancies on the coded tapes was due to tailgating; that is, one vehicle immediately following another vehicle into or out of the facility after the lead driver had opened the security gate. Since the gates have some delay before they close, it is possible for other vehicles to go through without code-accessing. This could occur 10 to 25 percent of the time, especially during periods of peak usage when more vehicles access the system. In addition, it was noted that the coded security system applied only to those entering and leaving the secured storage area. Visitors and others parking near the manager's quarters had unrestricted access and were not monitored by the computer. Therefore, even if the printouts were reliable, they would not fully account for the total peak-hour or daily trip generation of the facility.

It was concluded that the only way to obtain complete and accurate information for all vehicles accessing a facility would be by continuous human observation. Since such field surveys can be very expensive and time-consuming, it was decided to conduct surveys at five of the previously selected ten sites in the Los Angeles area. The five selected sites were as follows:

Name of Facility	Address	Size of Facility: Available Units	Size of Facility: Available Square Feet
Glendale/San Fernando	4820 San Fernando Road, Glendale	929	88,710
La Cienega	3401 South La Cienega Boulevard, Los Angeles	1,224	98,230
Long Beach/Cherry	4140 Cherry Avenue, Long Beach	706	70,500
Los Angeles/Beverly	3636 Beverly Boulevard, Los Angeles	1,171	81,426
Wilmington	501 East Pacific Coast Highway, Wilmington	1,119	133,859

Each site was surveyed on two weekdays, Tuesday and Thursday, and a Saturday during the month of July, 1987. Field personnel recorded every vehicle using all facility driveways, inbound and outbound, from 7:00 AM to 7:30 PM each day. (These observations were 30 minutes longer than the 7:00 AM to 7:00 PM period that these facilities were open.) Determinations were made as to whether those accessing the sites were tenants, visitors or other type of trip-makers (such as lost drivers, "U"-turners, illegal parkers, etc.). Lastly, times were recorded for each entering and departing vehicle.

As mentioned previously, these five facilities were considered by PSI to be among its more highly used facilities. At the time of the field surveys, these facilities had an average occupancy of 95 percent. It could be anticipated, therefore, that the surveys probably would result in trip generation and parking rates higher than might be expected were a much broader spectrum of facilities examined.

It also should be noted that during the month of July, PSI was advertising a bargain rate to attract new tenants. Large banners were placed outside these facilities, advertising a $1 rental fee for the first month of tenancy. The increase in traffic due to the campaign could be expected to further skew the trip generation and parking demand at these sites toward higher than normal results. For these reasons, it could be said that the study includes somewhat "worst case" type conditions.

Since field observations were not made during the 7:30 PM to 7:00 AM period when the facilities were closed, it cannot be said that the collected data absolutely account for all traffic that might have accessed the facilities in a 24-hour period. It is possible that during the late evening or early morning hours, the manager, his family and/or visitors, may have generated a few trips. However, these potential after-hours trips would be a very small amount. They would have only a negligible effect on the overall trip generation and none on the critical peak-hour generations since all trips were recorded during the regular time period. For practical purposes, it would be reasonable to assume that the total trip generation observed during the 7:00 AM to 7:30 PM period represents the 24-hour trip generation.

Upon completion of the field surveys, the collected data were reviewed and analyzed manually for each day and site. In most cases, complete and balanced inbound and outbound vehicle movements were found. Where discrepancies occurred, the differences were extremely slight, amounting to only one vehicle more or less than the opposing movement. (In those instances, one additional vehicle was added later to the daily tally to achieve an exact balance.)

For peak-hour trip generation, the data were analyzed for the highest number of vehicle trips recorded for a 60-minute period during the peak-hour periods of 7:00 to 10:00 AM and 3:00 to 6:00 PM. In addition, an analysis was made of the peak trip

generation, the highest 60-minute vehicle measurement at each facility, regardless of the time of day. These numbers, as well as the total daily trip generation of the facility, were then related to the available storage area of the facility. As an additional step, the trip generations also were related to the occupancy of each facility. These calculations yielded trip generation rates according to available and occupied units, and available and occupied square feet. These rates were further analyzed in order to determine average trip generation values for both a weekday and a Saturday. As a final procedure, these rates were compared to the trip generation rates given for a "Mini-Warehouse" use in the nationally recognized *Institute of Transportation Engineers Trip Generation Manual (Third Edition, 1982).*

All of the relevant information regarding the aggregated field data, trip generation analysis and comparison of trip generation rates has been assembled in Tables 1 through 5 in the Appendix.

Using the same information gathered for the trip generation study, a manual analysis was performed to determine the parking needs of these facilities. The analysis focused only on the expected parking usage associated with the storage facilities themselves, that is, the secured areas where the vast majority of the parking demand occurs as tenants access their units. No analysis was made of the parking situation in the nonsecured areas of the facilities. Since the survey was oriented toward evaluating the amount of parking needed within the secured area, no records were made of the actual parking maneuvers around the storage buildings.

By performing a parking accumulation analysis, a profile of the total number of vehicles assumed to have been parked inside at the end of each hourly period was obtained for each day and site. A peak parking accumulation analysis also was

made to determine the maximum number of vehicles parked at any one time, no matter how brief the period. The hourly and peak parking accumulation results are depicted graphically in Figures 1 through 5 of the Appendix.

It is evident from those figures that except at one site, the highest peak parking accumulation occurred on Saturday. Therefore, to determine a parking rate that should be adequate for even most periods of high parking demand, the Saturday peak parking accumulation quantities at each facility were used. These quantities were divided by the appropriate storage sizes, available and occupied, of each facility, resulting in individual parking generation rates. These rates were then combined to arrive at average parking rates, as shown in Table 6, Appendix.

For comparison purposes, several local governmental agencies in the Los Angeles area were contacted regarding parking requirements for self-storage or mini-warehouse uses. Only a few jurisdictions presently have parking requirements specifically for such uses. Most agencies continue to rely on industrial or manufacturing use parking requirements or variations thereof. Table 7, Appendix, lists current parking requirements of some of these agencies.

Using the current code parking requirements of the appropriate jurisdictions for the five study facilities, a comparison was made with the parking quantities calculated according to the average parking rate determined above. An additional comparison was made with the highest peak parking accumulation found for each facility. These comparisons are shown in Table 8 of the Appendix.

FINDINGS AND CONCLUSIONS

Findings

Although the sample size for the trip generation and parking study was rather small, each of the five study facilities was surveyed extensively. From the information collected in the study, the following findings about Public Storage (PSI) facilities in the Los Angeles area are indicated:

Trip Generation

- PSI facilities are a relatively low trip-generating use.
- The PM peak-hour trip generation is greater than the AM peak-hour generation.
- The peak trip generation usually occurs between noon and closing time, and frequently does not coincide with the PM peak-hour generation. The peak trip generation is approximately 15 percent of the 24-hour generation.
- The Saturday 24-hour trip generation is approximately 35 to 40 percent higher than the weekday generation, although the Saturday AM peak-hour generation is only slightly higher than the weekday AM peak-hour generation.
- Approximately 75 percent of the trip generation is due to tenant use trips; the remainder is attributable to visitor and other type of trips.

- The trip rates determined in this study for weekday AM and PM peak hours and peak generation are very similar to the Institute of Transportation Engineers (ITE) rates for a mini-warehouse use. The rates also are quite similar for Saturday peak generation. However, the study's 24-hour rates are about 25 percent less for a weekday and about 15 percent more for Saturday.

- The basis of trip generation, either "per (storage) unit" or "per 1,000 gross square feet," generally yield similar results, with the per unit basis being slightly more accurate.

Parking Demand

- Peak parking accumulation in the storage facility area (i.e., tenant parking) does not necessarily coincide with the peak trip generation of the facility.

- Peak parking accumulation in the storage facility area usually occurs on Saturday and usually after 12 PM.

- The average duration of parking in the storage facility area is approximately 30 to 35 minutes per vehicle.

- Unless variances are granted, the code parking requirements of most local jurisdictions for self-storage/mini-warehouse facilities generally are excessive by at least 100 percent.

Conclusions

Based on the findings indicated above, it can be concluded that PSI facilities and similar self-storage facilities are relatively low trip generators during both the peak

and 24-hour periods. The results of this study tend to validate the ITE weekday and Saturday trip generations rates for the most critical AM and PM peak-hour and peak generation periods. For weekday and Saturday 24-hour trip generation, there is less similarity between the study rates and the ITE rates. Nevertheless, intuitively as well as based on study observations, it does appear that the ITE Saturday 24-hour trip generation rate should be higher, at least equal to its weekday rate.

It also can be concluded that most typical code parking requirements for industrial and manufacturing uses and which are commonly used by many jurisdictions, are inappropriate for self-storage type facilities. Such parking requirements are much greater than necessary for even the normal peak parking demands of these facilities.

APPENDIX

TABLE 1

SUMMARY OF TRIP GENERATION
PUBLIC STORAGE FACILITIES

Public Storage Facility	Units Available/Occupied	Square Feet Available/Occupied	Day of Week	AM Peak Hour (Occurring in 7-10 AM Period)			PM Peak Hour (Occurring in 3-6 PM Period)			Peak Hour Generation of Facility				24-Hour		
				I/B	O/B	Total	I/B	O/B	Total	I/B	O/B	Total	(Time Period)	I/B	O/B	Total
Glendale/ San Fernando	929/894 (96.2%)	88,710/85,130 (96.0%)	Tuesday	7	7	14	11	13	24	11	28	39	(2:00-3:00 PM)	108	108	216
			Thursday	8	8	16	10	14	24	13	14	27	(4:45-5:45 PM)	117	117	234
			Saturday	9	4	13	11	12	23	17	19	36	(11:30-12:30 PM)	107	107	214
La Cienega	1,224/1,099 (89.8%)	98,230/88,515 (90.1%)	Tuesday	11	11	22	9	15	24	13	14	27	(12:45-1:45 PM)	111	111	222
			Thursday	12	8	20	9	9	18	20	16	36	(12:30-1:30 PM)	124	124	248
			Saturday	15	10	25	26	26	52	29	36	65	(12:30-1:30 PM)	214	214	428
Long Beach/ Cherry	706/703 (99.6%)	70,500/70,000 (99.3%)	Tuesday	5	3	8	9	9	18	9	9	18	(4:00-5:00 PM)	63	63	126
			Thursday	15	13	28	10	15	25	16	14	30	(2:30-3:30 PM)	100	100	200
			Saturday	8	5	13	11	11	22	14	15	29	(12:00-1:00 PM)	102	102	204
Los Angeles/ Beverly	1,171/1,163 (99.3%)	81,426/80,904 (99.4%)	Tuesday	3	4	7	13	11	24	13	11	24	(3:00-4:00 PM)	71	71	142
			Thursday	2	3	5	11	9	20	11	9	20	(4:00-5:00 PM)	65	65	130
			Saturday	7	4	11	10	12	22	11	14	25	(11:15-12:15 PM)	85	85	170
Wilmington	1,119/1,036 (92.6%)	133,859/120,488 (90.0%)	Tuesday	12	9	21	12	10	22	16	20	36	(1:30-2:30 PM)	113	113	226
			Thursday	8	5	13	9	13	22	16	19	35	(1:45-2:45 PM)	111	111	222
			Saturday	15	13	28	14	22	36	30	22	52	(11:15-12:15 PM)	178	178	356

TABLE 2

SUMMARY OF CALCULATED TRIP GENERATION RATES
PUBLIC STORAGE FACILITIES

Trip Generation Rate: Per Available Unit
(Per Occupied Unit)

Public Storage Facility	Day Of Week	AM Peak Hour I/B	AM Peak Hour O/B	AM Peak Hour Total	PM Peak Hour I/B	PM Peak Hour O/B	PM Peak Hour Total	Peak Hour Generation of Facility I/B	Peak Hour Generation of Facility O/B	Peak Hour Generation of Facility Total	24-Hour Total
Glendale/ San Fernando	Tuesday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.01 (0.01)	0.03 (0.03)	0.04 (0.04)	0.23 (0.24)
	Thursday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.25 (0.26)
	Saturday	0.01 (0.01)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	0.02 (0.03)	0.02 (0.02)	0.02 (0.02)	0.04 (0.04)	0.23 (0.24)
La Cienega	Tuesday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.18 (0.20)
	Thursday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.00 (0.01)	0.01 (0.01)	0.01 (0.02)	0.02 (0.02)	0.01 (0.01)	0.03 (0.03)	0.20 (0.23)
	Saturday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.02 (0.02)	0.02 (0.03)	0.04 (0.05)	0.02 (0.03)	0.03 (0.03)	0.05 (0.06)	0.35 (0.39)
Long Beach/ Cherry	Tuesday	0.01 (0.01)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.18 (0.18)
	Thursday	0.02 (0.02)	0.02 (0.02)	0.04 (0.04)	0.02 (0.02)	0.02 (0.02)	0.04 (0.04)	0.02 (0.02)	0.02 (0.02)	0.04 (0.04)	0.28 (0.28)
	Saturday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.02 (0.02)	0.02 (0.02)	0.04 (0.04)	0.29 (0.29)

TABLE 2 (Continued)

SUMMARY OF CALCULATED TRIP GENERATION RATES
PUBLIC STORAGE FACILITIES

Public Storage Facility	Day Of Week	Trip Generation Rate: Per Available Unit (Per Occupied Unit) AM Peak Hour I/B	AM Peak Hour O/B	AM Peak Hour Total	PM Peak Hour I/B	PM Peak Hour O/B	PM Peak Hour Total	Peak Hour Generation of Facility I/B	Peak Hour Generation of Facility O/B	Peak Hour Generation of Facility Total	24-Hour Total
Los Angeles/ Beverly	Tuesday	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.12 (0.12)
	Thursday	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.11 (0.11)
	Saturday	0.01 (0.01)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.15 (0.15)
Wilmington	Tuesday	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.20 (0.22)
	Thursday	0.01 (0.01)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.20 (0.21)
	Saturday	0.02 (0.02)	0.01 (0.01)	0.03 (0.03)	0.01 (0.01)	0.02 (0.02)	0.03 (0.03)	0.03 (0.03)	0.02 (0.02)	0.05 (0.05)	0.32 (0.34)

TABLE 3

SUMMARY OF CALCULATED TRIP GENERATION RATES
PUBLIC STORAGE FACILITIES

Public Storage Facility	Day Of Week	Trip Generation Rate: Per Available 1,000 Square Feet (Per Occupied 1,000 Square Feet)									
		AM Peak Hour			PM Peak Hour			Peak Hour Generation of Facility			24-Hour
		I/B	O/B	Total	I/B	O/B	Total	I/B	O/B	Total	Total
Glendale/ San Fernando	Tuesday	0.08 (0.08)	0.08 (0.08)	0.16 (0.16)	0.12 (0.12)	0.15 (0.15)	0.27 (0.28)	0.12 (0.13)	0.32 (0.33)	0.44 (0.46)	2.43 (2.54)
	Thursday	0.09 (0.10)	0.09 (0.09)	0.18 (0.19)	0.11 (0.12)	0.16 (0.16)	0.27 (0.28)	0.14 (0.15)	0.16 (0.17)	0.30 (0.32)	2.64 (2.75)
	Saturday	0.10 (0.10)	0.05 (0.05)	0.15 (0.15)	0.12 (0.13)	0.14 (0.14)	0.26 (0.27)	0.19 (0.20)	0.22 (0.22)	0.41 (0.42)	2.41 (2.51)
La Cienega	Tuesday	0.11 (0.13)	0.11 (0.12)	0.22 (0.25)	0.09 (0.10)	0.15 (0.17)	0.24 (0.27)	0.13 (0.14)	0.14 (0.16)	0.27 (0.30)	2.26 (2.51)
	Thursday	0.12 (0.14)	0.08 (0.09)	0.20 (0.23)	0.09 (0.10)	0.09 (0.10)	0.18 (0.20)	0.21 (0.23)	0.16 (0.18)	0.37 (0.41)	2.52 (2.80)
	Saturday	0.15 (0.17)	0.10 (0.11	0.25 (0.28)	0.26 (0.29)	0.27 (0.30)	0.53 (0.59)	0.29 (0.33)	0.37 (0.40)	0.66 (0.73)	4.36 (4.84)
Long Beach/ Cherry	Tuesday	0.07 (0.07)	0.04 (0.04	0.11 (0.11)	0.13 (0.13)	0.13 (0.13)	0.26 (0.26)	0.13 (0.13)	0.13 (0.13)	0.26 (0.26)	1.79 (1.80)
	Thursday	0.21 (0.21)	0.19 (0.19	0.40 (0.40)	0.14 (0.14)	0.21 (0.22)	0.35 (0.36)	0.23 (0.23)	0.20 (0.20)	0.43 (0.43)	2.84 (2.86)
	Saturday	0.11 (0.12)	0.07 (0.07	0.18 (0.19)	0.15 (0.15)	0.16 (0.16)	0.31 (0.31)	0.19 (0.19)	0.21 (0.21)	0.41 (0.41)	2.89 (2.91)

TABLE 3 (Continued)

SUMMARY OF CALCULATED TRIP GENERATION RATES
PUBLIC STORAGE FACILITIES

Public Storage Facility	Day Of Week	Trip Generation Rate: Per Available 1,000 Square Feet (Per Occupied 1,000 Square Feet) AM Peak Hour I/B	AM Peak Hour O/B	AM Peak Hour Total	PM Peak Hour I/B	PM Peak Hour O/B	PM Peak Hour Total	Peak Hour Generation of Facility I/B	Peak Hour Generation of Facility O/B	Peak Hour Generation of Facility Total	24-Hour Total
Los Angeles/ Beverly	Tuesday	0.04 (0.04)	0.05 (0.05)	0.09 (0.09)	0.16 (0.16)	0.13 (0.14)	0.29 (0.30)	0.16 (0.16)	0.13 (0.13)	0.29 (0.29)	1.74 (1.75)
	Thursday	0.02 (0.02)	0.04 (0.04)	0.06 (0.06)	0.14 (0.14	0.11 (0.11)	0.25 (0.25)	0.14 (0.14)	0.11 (0.11)	0.25 (0.25)	1.60 (1.61)
	Saturday	0.09 (0.09)	0.05 (0.05)	0.14 (0.14)	0.12 (0.12)	0.15 (0.15)	0.27 (0.27)	0.14 (0.14)	0.17 (0.17)	0.31 (0.31)	2.09 (2.10)
Wilmington	Tuesday	0.09 (0.10)	0.07 (0.07)	0.16 (0.17)	0.09 (0.10)	0.07 (0.08)	0.16 (0.18)	0.12 (0.13)	0.15 (0.17)	0.27 (0.30)	1.69 (1.88)
	Thursday	0.06 (0.07)	0.04 (0.04)	0.10 (0.11)	0.07 (0.07)	0.09 (0.11)	0.16 (0.18)	0.12 (0.13)	0.14 (0.16)	0.26 (0.29)	1.66 (1.84)
	Saturday	0.11 (0.12)	0.10 (0.11)	0.21 (0.23)	0.11 (0.12)	0.16 (0.18)	0.27 (0.30)	0.22 (0.25)	0.17 (0.18)	0.39 (0.43)	2.66 (2.96)

TABLE 4

AVERAGE TRIP GENERATION RATES
PUBLIC STORAGE FACILITIES

		Per Available Unit	Per Occupied Unit	Per Available 1,000 Square Feet	Per Occupied 1,000 Square Feet
Weekday					
AM Peak Hour (7-10 AM)					
	Inbound	0.01	0.01	0.09	0.10
	Outbound	0.01	0.01	0.08	0.08
	Total	0.02	0.02	0.17	0.18
PM Peak Hour (3-6- PM)					
	Inbound	0.01	0.01	0.11	0.12
	Outbound	0.01	0.01	0.13	0.14
	Total	0.02	0.02	0.24	0.26
Peak Hour Generation					
	Inbound	0.01	0.01	0.15	0.16
	Outbound	0.02	0.02	0.16	0.17
	Total	0.03	0.03	0.31	0.33
24-Hour	Total	0.20	0.20	2.12	2.23
Saturday					
AM Peak Hour (7-10 AM)					
	Inbound	0.01	0.01	0.11	0.12
	Outbound	0.01	0.01	0.08	0.08
	Total	0.02	0.02	0.19	0.20
PM Peak Hour (3-6- PM)					
	Inbound	0.01	0.01	0.15	0.16
	Outbound	0.02	0.02	0.18	0.19
	Total	0.03	0.03	0.33	0.35
Peak Hour Generation					
	Inbound	0.02	0.02	0.21	0.22
	Outbound	0.02	0.02	0.23	0.24
	Total	0.04	0.04	0.44	0.46
24-Hour	Total	0.27	0.28	2.88	3.06

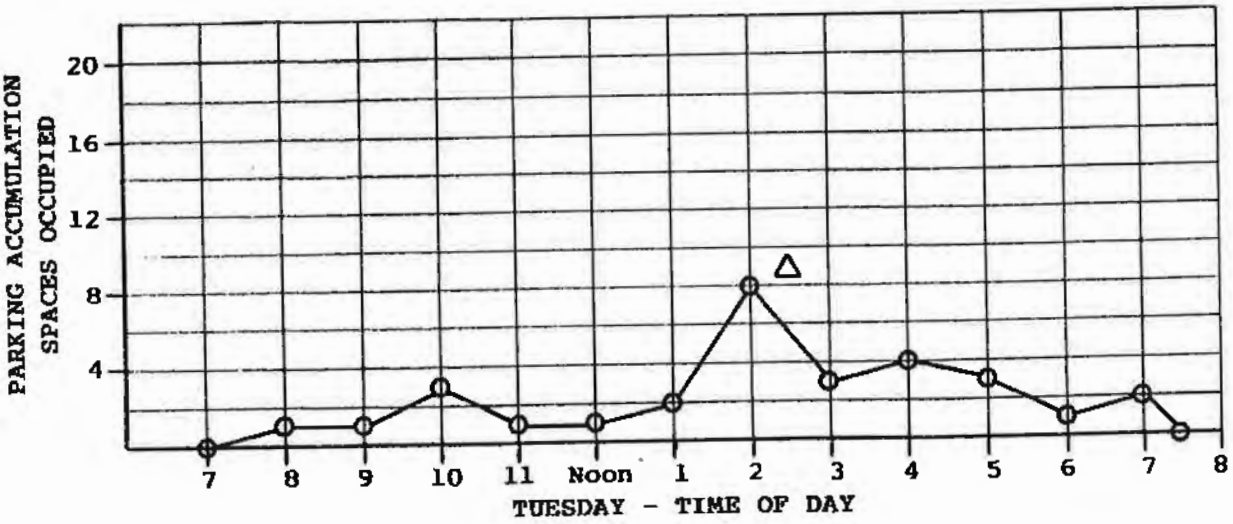
TABLE 5

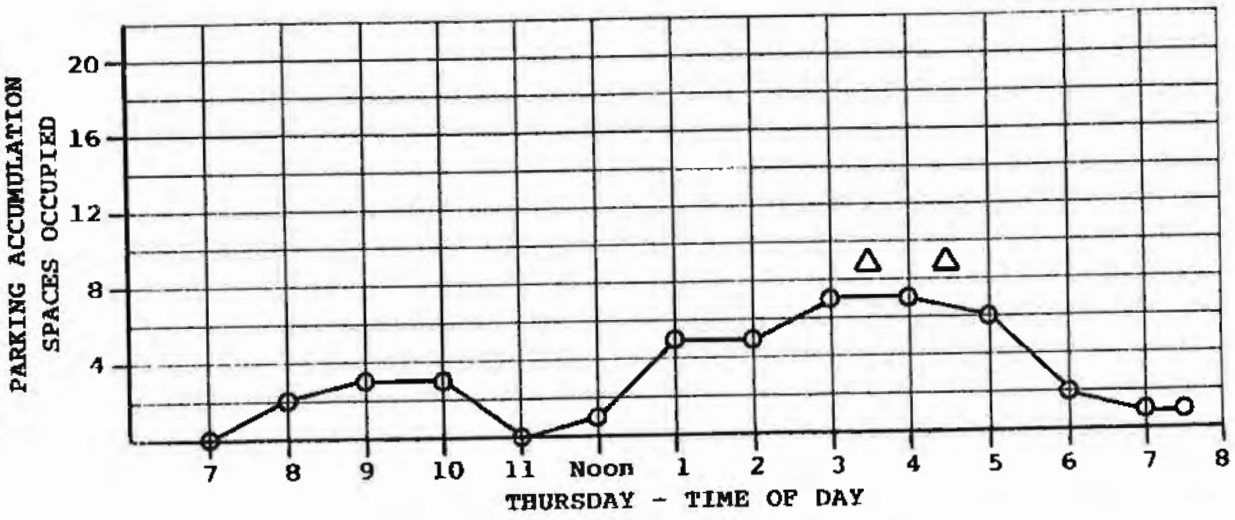
COMPARISON OF TRIP GENERATION RATES

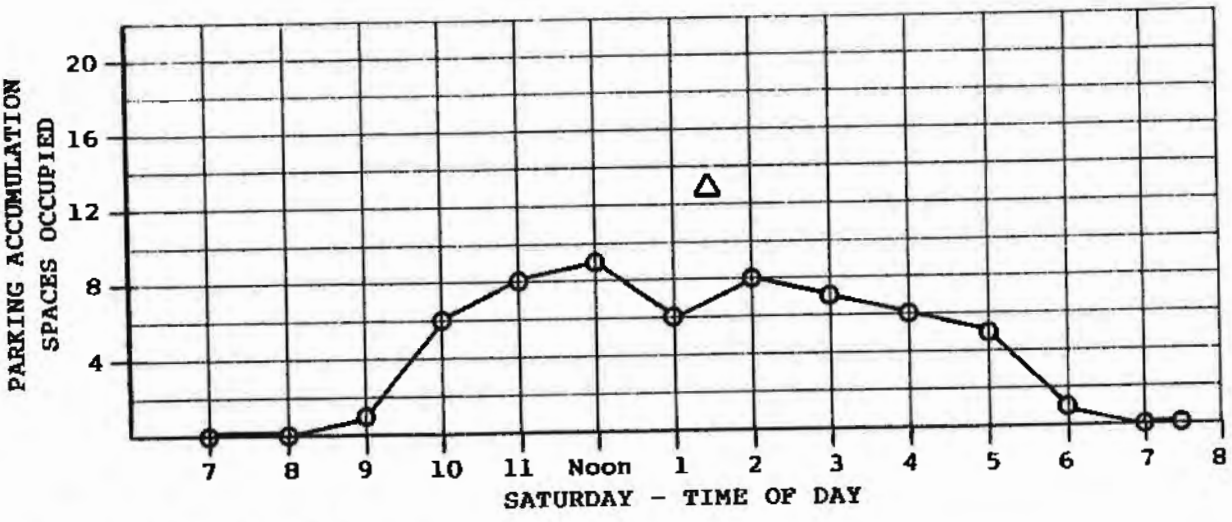
	Average Trip Generation Rate				
	ITE Manual, "Mini-Warehouse," Land Use Code 151		Public Storage Facilities		
	Per Unit	Per 1,000 Gross Square Feet	Per Unit	Per Available 1,000 Square Feet	Per 1,000 Gross Square Feet*
Weekday					
AM Peak Hour (Total)	0.02	0.17	0.02	0.17	0.18
PM Peak Hour (Total)	0.03	0.29	0.02	0.24	0.25
Peak Hour Generation (Total)	0.03	0.32	0.03	0.31	0.33
24- Hour (Total)	0.28	2.80	0.20	2.10	2.20
Saturday					
Peak Hour Generation (Total)	0.04	0.40	0.04	0.44	0.46
24- Hour (Total)	0.25	2.50	0.27	2.90	3.10

* The "Per 1,000 Gross Square Feet" rates for Public Storage facilities are adjusted rates, assuming that the available square footages are approximately 95 percent of the gross square footages.

Note: The Institute of Transportation Engineers (ITE) Trip Generation Manual does not provide information regarding inbound and outbound peak-hour rates for the mini-warehouse use.







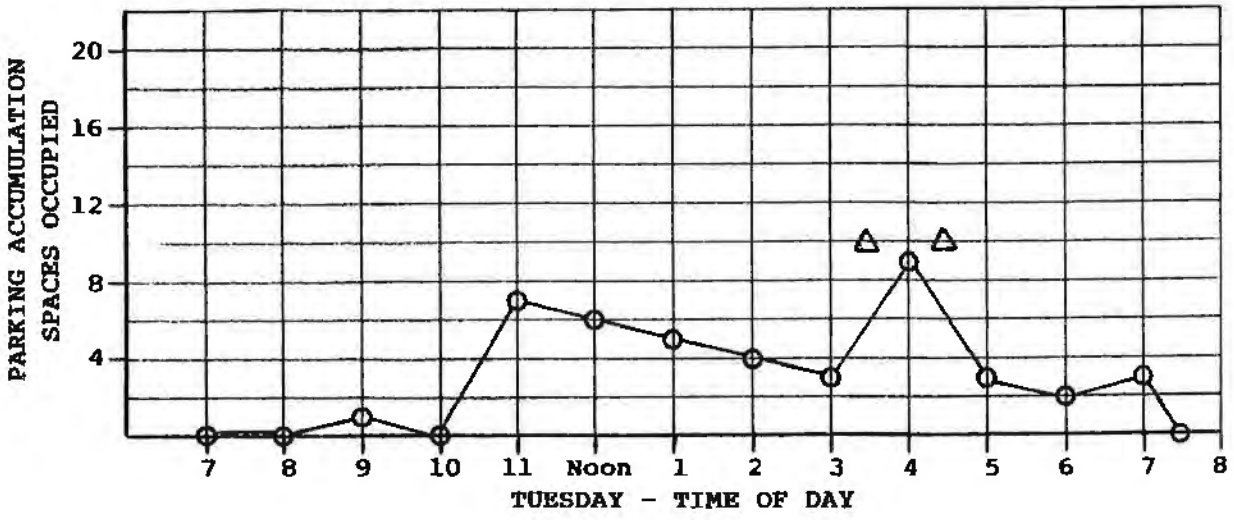
△ DENOTES PEAK ACCUMULATION

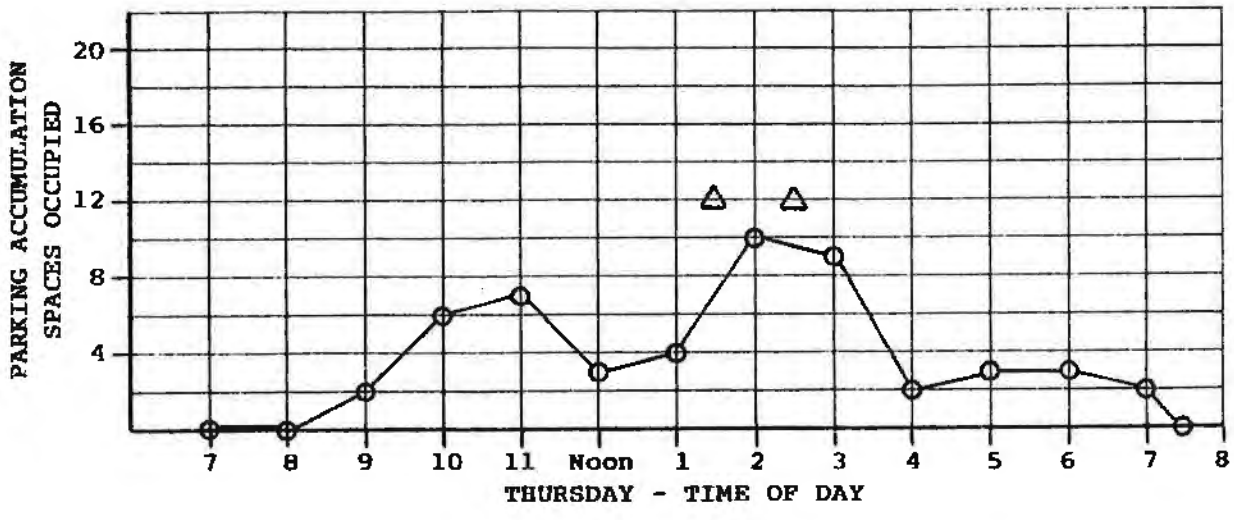
FIGURE 1

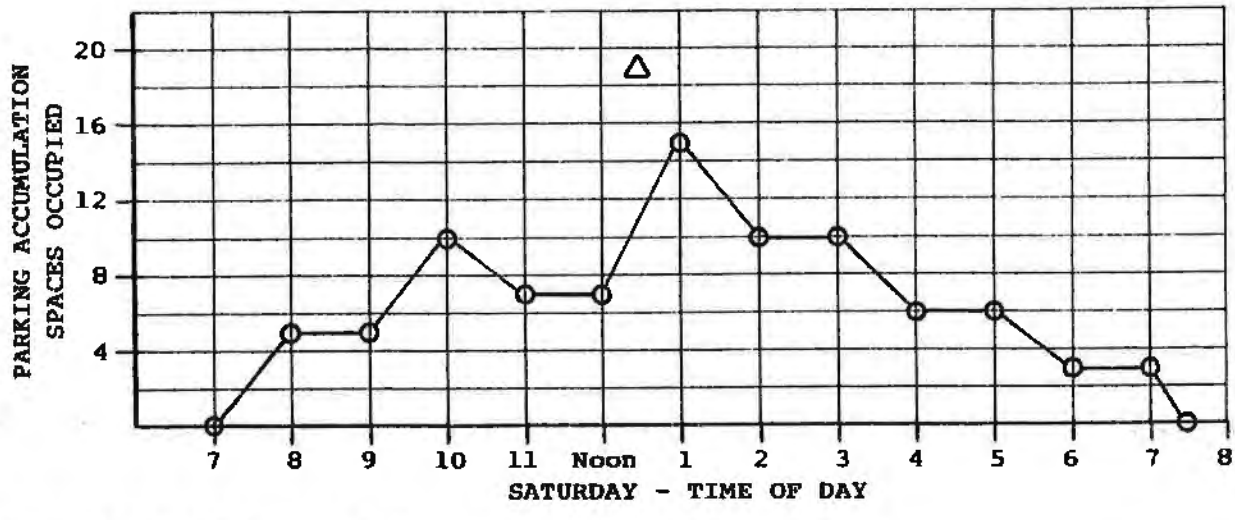
HOURLY PARKING ACCUMULATION

GLENDALE/SAN FERNADO FACILITY

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(213) 478-6508
Transportation Planning · Traffic Engineering



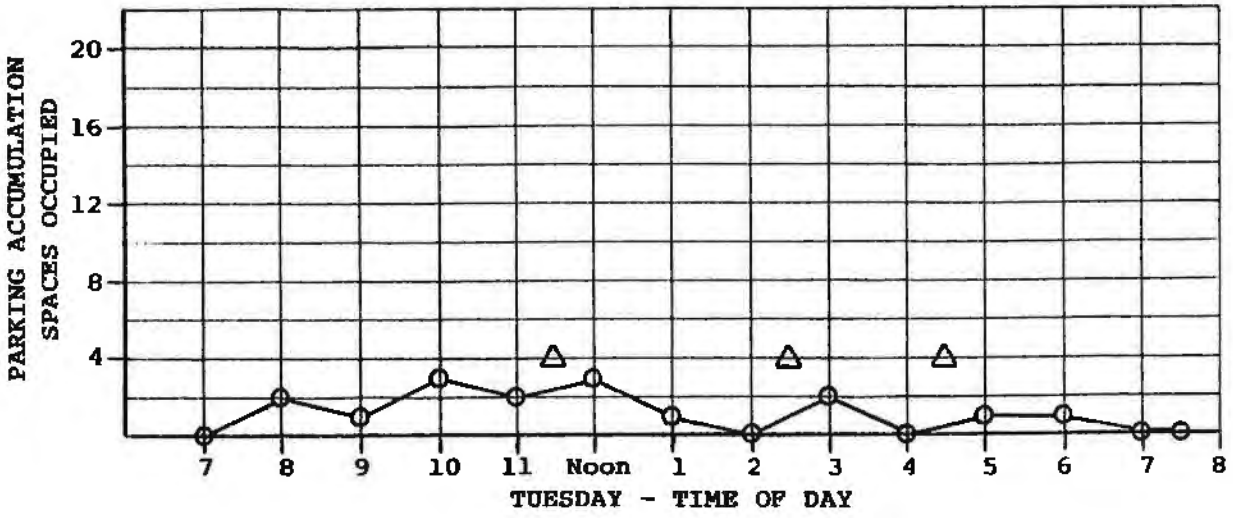


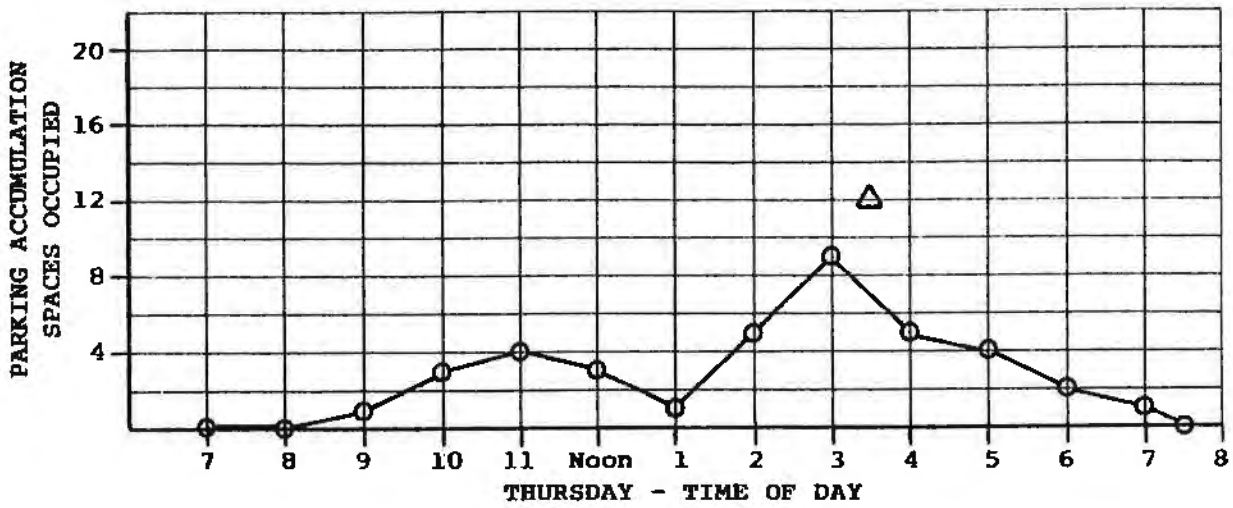


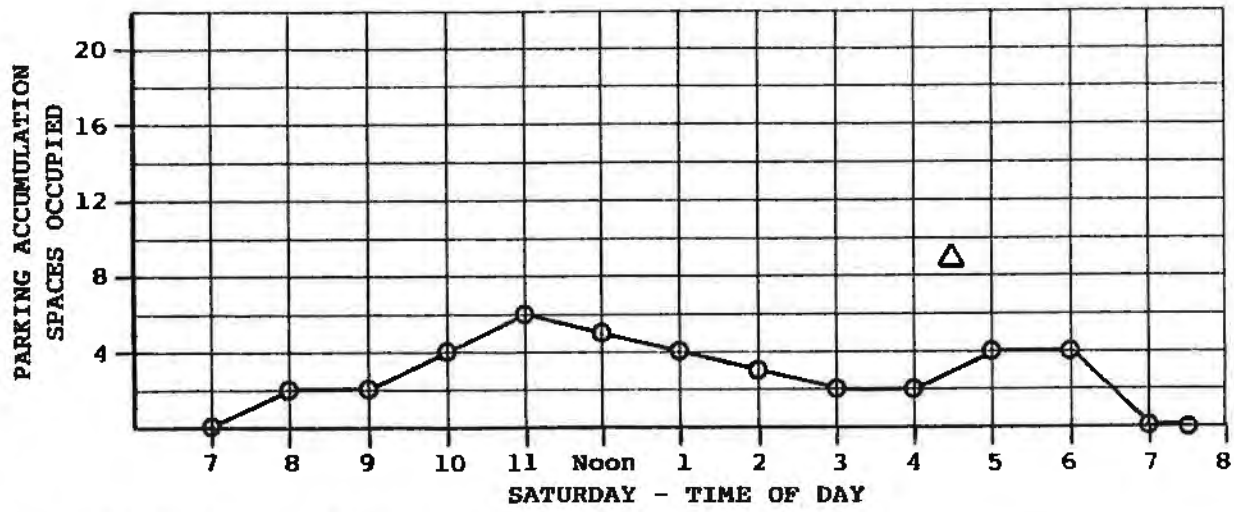
△ DENOTES PEAK ACCUMULATION

FIGURE 2
HOURLY PARKING ACCUMULATION
LA CIENEGA FACILITY

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(213) 473-6508
Transportation Planning · Traffic Engineering



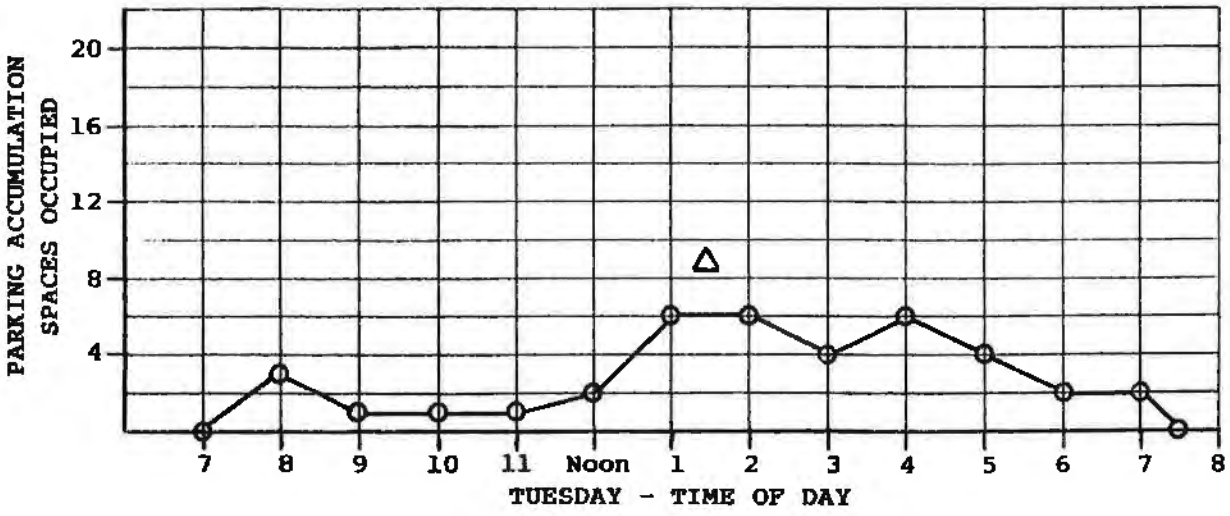


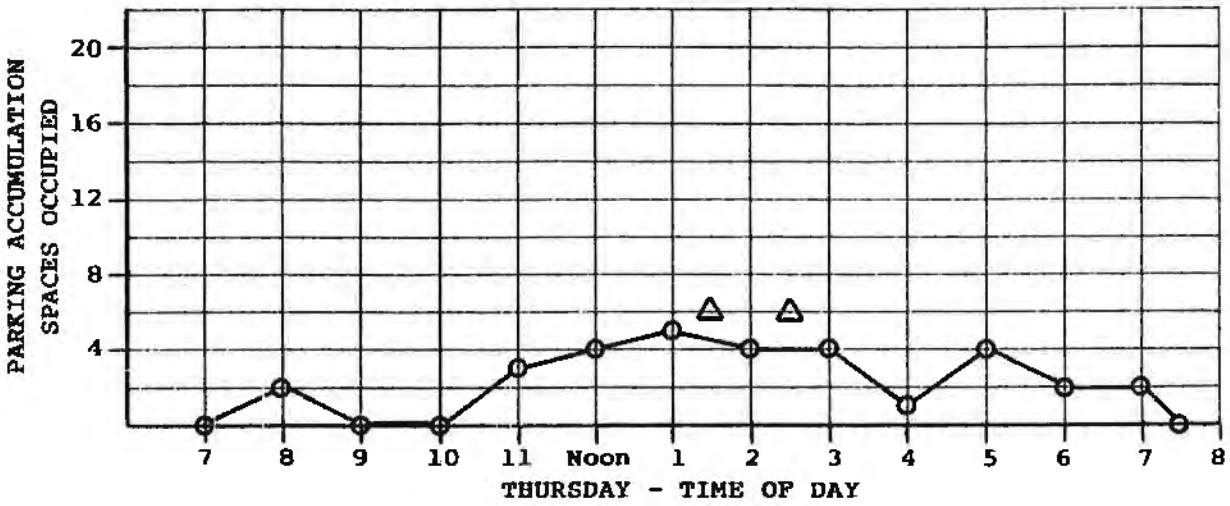


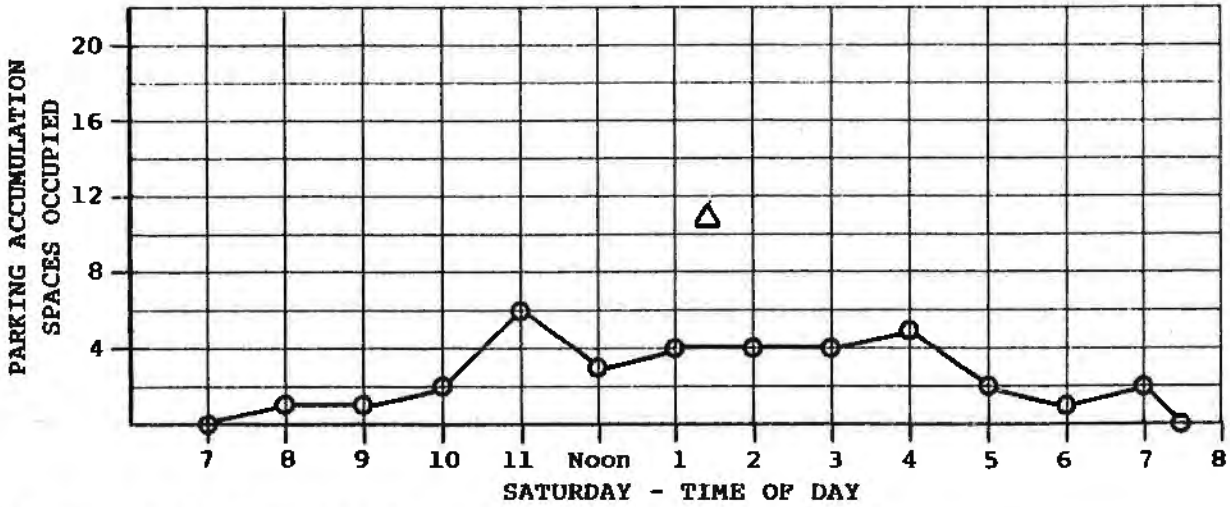
△ DENOTES PEAK ACCUMULATION

FIGURE 3
HOURLY PARKING ACCUMULATION
LONG BEACH FACILITY

CRAIN & ASSOCIATES
8007 Sawtelle Boulevard
Los Angeles, California 90025
(213) 473-6508
Transportation Planning · Traffic Engineering







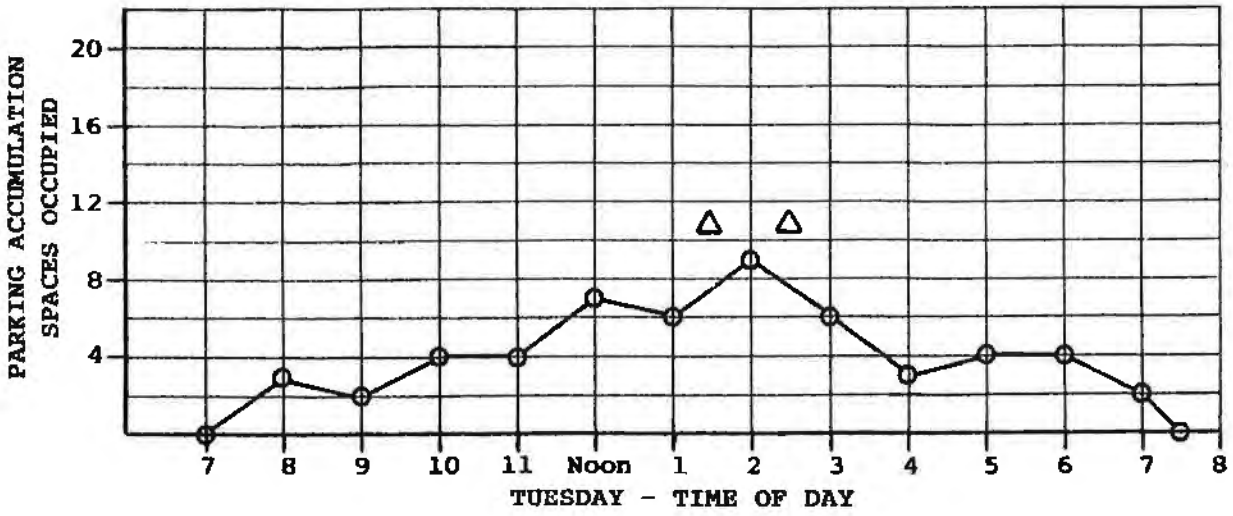
△ DENOTES PEAK ACCUMULATION

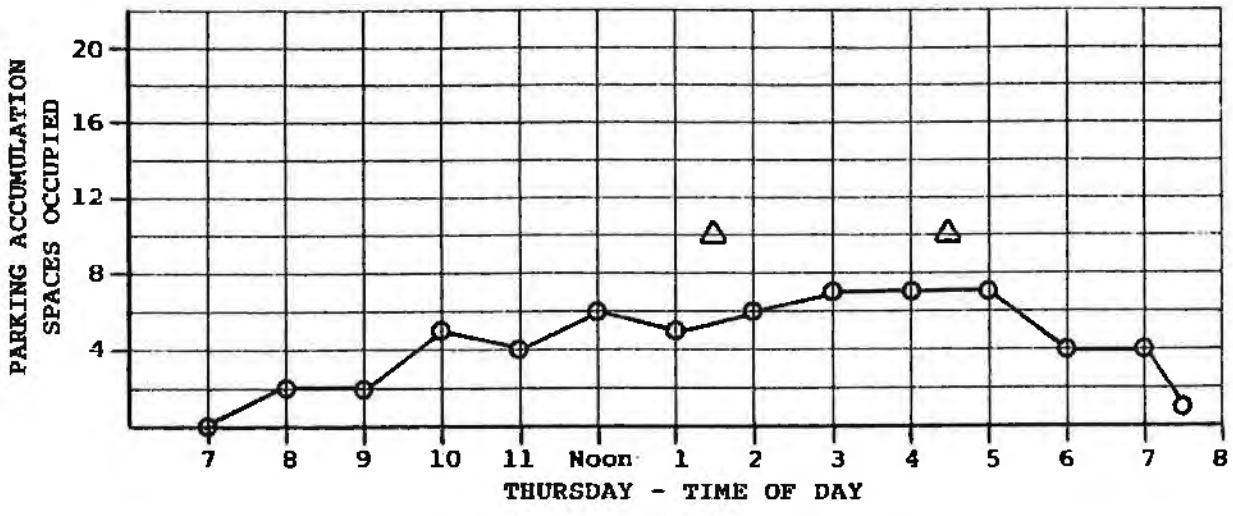
FIGURE 4

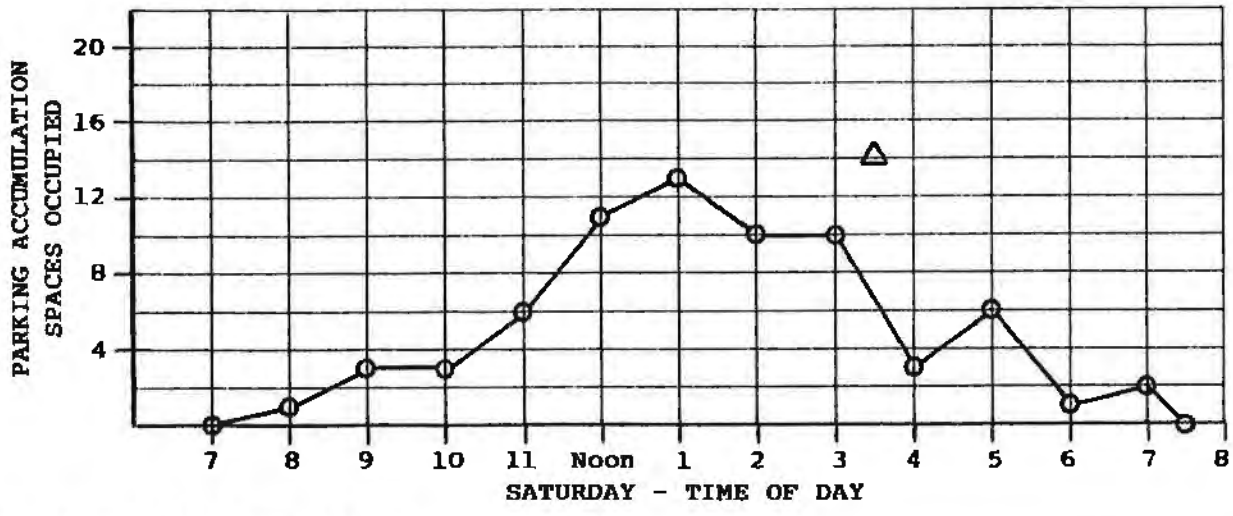
HOURLY PARKING ACCUMULATION

LOS ANGELES/BEVERLY FACILITY

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(213) 473-6508
Transportation Planning · Traffic Engineering







△ DENOTES PEAK ACCUMULATION

FIGURE 5

HOURLY PARKING ACCUMULATION

WILMINGTON FACILITY

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(213) 473-6508
Transportation Planning · Traffic Engineering

TABLE 6

SUMMARY OF CALCULATED PARKING RATES

PUBLIC STORAGE FACILITIES

Public Storage Facility	Units Available/Occupied	Square Feet Available/Occupied	Saturday Peak Parking Accumulation (Spaces)	Parking Rate Per Unit Available	Parking Rate Per Unit Occupied	Parking Rate Per 1,000 Square Feet Available	Parking Rate Per 1,000 Square Feet Occupied
Glendale/San Fernando	929/894 (96.2%)	88,710/85,130 (96.0%)	13	0.01	0.01	0.15	0.15
La Cienega	1,224/1,099 (89.8%)	98,230/88,515 (90.1%)	19	0.02	0.02	0.21	0.21
Long Beach/ Cherry	706/703 (99.6%)	70,500/70,000 (99.3%)	9	0.01	0.01	0.13	0.13
Los Angeles/ Beverly	1,171/1,163 (99.3%)	81,426/80,904 (99.4%)	11	0.01	0.01	0.14	0.14
Wilmington	1,119/1,036 (92.6%)	133,859/120,488 (90.0%)	20	0.02	0.02	0.15	0.17

Average Parking Rate:

Per Available Unit = 0.01

Per Occupied Unit = 0.01

Per Available 1,000 Square Feet = 0.20 (rounded)

Per Occupied 1,000 Square Feet = 0.20 (rounded)

TABLE 7

CURRENT PARKING REQUIREMENTS OF LOCAL AGENCIES IN LOS ANGELES AREA FOR SELF-STORAGE/MINI-WAREHOUSE USES

Jurisdiction	Parking Requirement
City of El Monte	0-3,000 GSF: 1 space/250 GSF 3,001-5,000 GSF: 1 space/500 GSF 5,001-10,000 GSF: 1 space/750 GSF 10,001-50,000 GSF: 1 space/1,000 GSF 50,001 + GSF: 1 space/1,250 GSF (Typically, El Monte has been granting variances of at least 50% from these requirements for mini-warehouse uses. The City is in the process of developing specific parking requirements for such uses.)
City of Glendale	1 space/1,000 GSF
City of Long Beach	3 spaces + 1 space/100 units (For manager's quarters, 2 spaces for residence + 4 spaces/1,000 GSF for office.)
City of Los Angeles	1 space/500 GSF for first 10,000 GSF; then 1 space for each 5,000 GSF thereafter
County of Los Angeles	1 space/1,000 GSF (Typically, the County has been granting "parking permit" variances from these requirements for mini-warehouse uses. The County is in the process of developing specific parking requirements for such uses.
City of Pasadena	4 spaces/10,000 GSF (For manager's quarters, 2 spaces for residence + 3 spaces/1,000 GSF for office.)
City of Santa Monica	Unclear. The City is studying proposal requiring 1 space/4,000 GSF, and for manager's quarters, 2 spaces for residence + 4 spaces/1,000 GSF for office.)
City of Torrance	1 space/1,500 GSF (For manager's quarters, 1 space for residence + 4 spaces/1,000 GSF for office.)
City of Whittier	1 space/1,500 GSF (For manager's quarters, 2 spaces for residence + 1 space/225 GSF for office.) (Typically, Whittier has been granting variances from these requirements for mini-warehouse uses.)

TABLE 8

COMPARISON OF PARKING RATES

Public Storage Facility	Peak Parking Accumulation (Spaces)	Current		Recommended	
		Code Parking Space Requirement	Parking Surplus(+)/ Deficiency(-)	Parking Space Requirement (0.20/1,000 GSF)	Parking Surplus(+)/ Deficiency (-)
Glendale/San Fernando (88,710 SF; 929 units)	13	94	+ 81	19	+ 6
La Cienega (98,230 SF; 1,224 units)	19	39	+ 20	21	+ 2
Long Beach/Cherry (70,500 SF; 706 units)	12	11	-1	15	+ 3
Los Angeles/Beverly (81,426; 1,171 units)	11	36	+ 25	18	+ 7
Wilmington (133,859 SF; 1,119 units)	20	47	+ 27	29	+ 9

Notes:

1. Parking requirements vary from jurisdiction to jurisdiction but normally are stated "per 1,000 gross square feet." The square footages above are available square footages, which are assumed to be approximately 95 percent of the gross square footages.
2. Parking requirements for the managers' quarters are not included in the above calculations.
3. The number of spaces has been rounded up to the next whole number.

ATTACHMENT C

TRANSPORTATION ANALYSIS MEMORANDUM

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: June 27, 2023

TO: Clint Kleppe, Extra Space Development

FROM: Ken Wilhelm, LSA

SUBJECT: Transportation Analysis for Extra Space Storage Facility at 17575 South Western Avenue, Torrance, California (LSA Project No. 20231465)

This memorandum evaluates the potential transportation impacts based on an increase of self-storage use at an existing Extra Space Storage facility located at 17575 South Western Avenue, Torrance, California. The purpose of this analysis is to evaluate the need for a Traffic Circulation Analysis (TCA) and a Traffic Impact Assessment (TIA) based on the City of Torrance (City) guidelines. Based on the City's guidelines, the potential for transportation impacts is based on both a level of service (LOS) analysis and a vehicle miles traveled (VMT) assessment.

PROJECT DESCRIPTION

The proposed project is the addition of a two-story and basement self-storage building within an existing Extra Space facility, located at 17575 South Western Avenue. The project would demolish two existing one-story self-storage buildings totaling 16,068 square feet (sf) and replace them with a new two-story building (plus basement) self-storage facility totaling 58,734 sf. The net new self-storage use is 42,666 sf. The new facility will provide 10 parking spaces and two additional loading spaces adjacent to the building. The site's access will be maintained via a full-access driveway along South Western Avenue. The project site plan is provided as Attachment A.

TRIP GENERATION

LSA examined the trip generation potential of the proposed project by referencing trip generation rates found in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021). ITE Land Use 151 (Mini-Warehouse) identifies trip generation rates for the existing and proposed uses. Table A illustrates the expected trip generation for the existing use to be demolished, the newly constructed building, and the resulting net difference for the project.

Table A: Project Trip Generation

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Mini-Warehouse (Self-Storage)[1]		TSF	1.45	0.06	0.04	0.10	0.08	0.09	0.17
Existing Trip Generation (To be Demo)									
Mini-Warehouse (Self-Storage)[1]	16.068	TSF	23	1	1	2	1	1	3
Project Trip Generation (New Construction)									
Mini-Warehouse (Self-Storage)[1]	58.734	TSF	85	4	2	6	5	6	10
Net Trip Generation (Project - Existing)									
Mini-Warehouse (Self-Storage)[1]	**42.666**	**TSF**	**62**	**3**	**1**	**4**	**4**	**5**	**7**

[1] Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition (2021).

Land Use 151 (Mini-Warehouse)

ADT = average daily traffic

TSF = thousand square feet

As shown in Table A, the anticipated net trip generation for the proposed project is estimated to be approximately 62 daily trips, with 4 trips in the morning peak hour and 7 trips in the evening peak hour.

JURISDICTIONAL REQUIREMENTS

Level of Service Based Analysis

Per the City of Torrance Traffic Circulation Analysis (TCA) Guidelines (July 1, 2020), a LOS-Based Traffic Circulation Analysis would be required for a proposed land use project if it is expected to generate 500 or more net new daily trips. Projects that do not exceed that criteria are considered exempt from these requirements.

Based on Table A, the proposed project is anticipated to generate 62 total net daily trips. Being that the project generates less than 500 daily trips, it is considered exempt from the need for a TCA.

Vehicle Miles Traveled Analysis

The City's Traffic Impact Assessment Guidelines for Land Use Projects (dated January 2021) provide details on appropriate screening criteria for VMT-Based TIA Exemption that can be used to identify when a proposed land use project is anticipated to result in a less than significant transportation impact without conducting a more detailed VMT analysis. City of Torrance TIA guidelines are provided in Attachment B.

According to the TIA Guidelines Section 3.2.1 Applicability, projects that pass at least one screening criteria from Sections 3.2.2 through 3.2.7 are generally expected to cause a less than significant impact without conducting a detailed VMT analysis.

3.2.2 Small Projects

Projects that generate less than a net increase of 110 daily trips are considered to be small projects and are deemed to have a less than significant impact. The proposed Extra Space project will generate approximately 62 daily trips and meet the criteria for a small project, having less than a significant impact.

Evaluation: Small Project Criteria is met.

3.2.4 Proximity to Transit

According to the TIA Guidelines Section 3.2.4, if the project is located within one-half mile of either an existing major transit stop or an existing stop along an existing high-quality transit corridor then the project meets the screening criteria. A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The proposed project is located one-half mile from a high-quality transit corridor at the intersection of South Western and 166th Street. This connection is serviced by the City of Gardena's GTrans Line 2. During peak commute hours, this bus service operates at high frequency, with intervals of no more than 15 minutes, meeting the criteria for a high-quality transit corridor.

However, per the City's guidelines, transit-based screening cannot occur if the project has a Floor Area Ratio (FAR) of less than 0.75. Based on the City's FAR requirements for this project site, the FAR will be less than 0.75. As a result, the screening criteria is not met.

Impacts to Transit, Bicycle, and Pedestrian Networks

The project represents an expansion of the existing self-storage use at South Western Avenue and Artesia Boulevard. There are no bicycle lanes existing on these arterial streets (Figure 5 of the City's guidelines). Nearby transit services for the site are offered through both the Gardena and Torrance transit lines. Transit services along South Western Avenue are provided by the City of Gardena's GTrans Line 2. This line conveniently intersects with the Torrance Line 13 that operates along Artesia Boulevard. The Torrance Transit Line 13 further shares its route along Artesia Boulevard with the LA Metro Route 344. Sidewalks are currently provided along the arterial streets for access into and out of the project site.

Based on the proposed self-storage use and operation, the project will not impact the transit system, bicycle network, or pedestrian network.

CONCLUSION

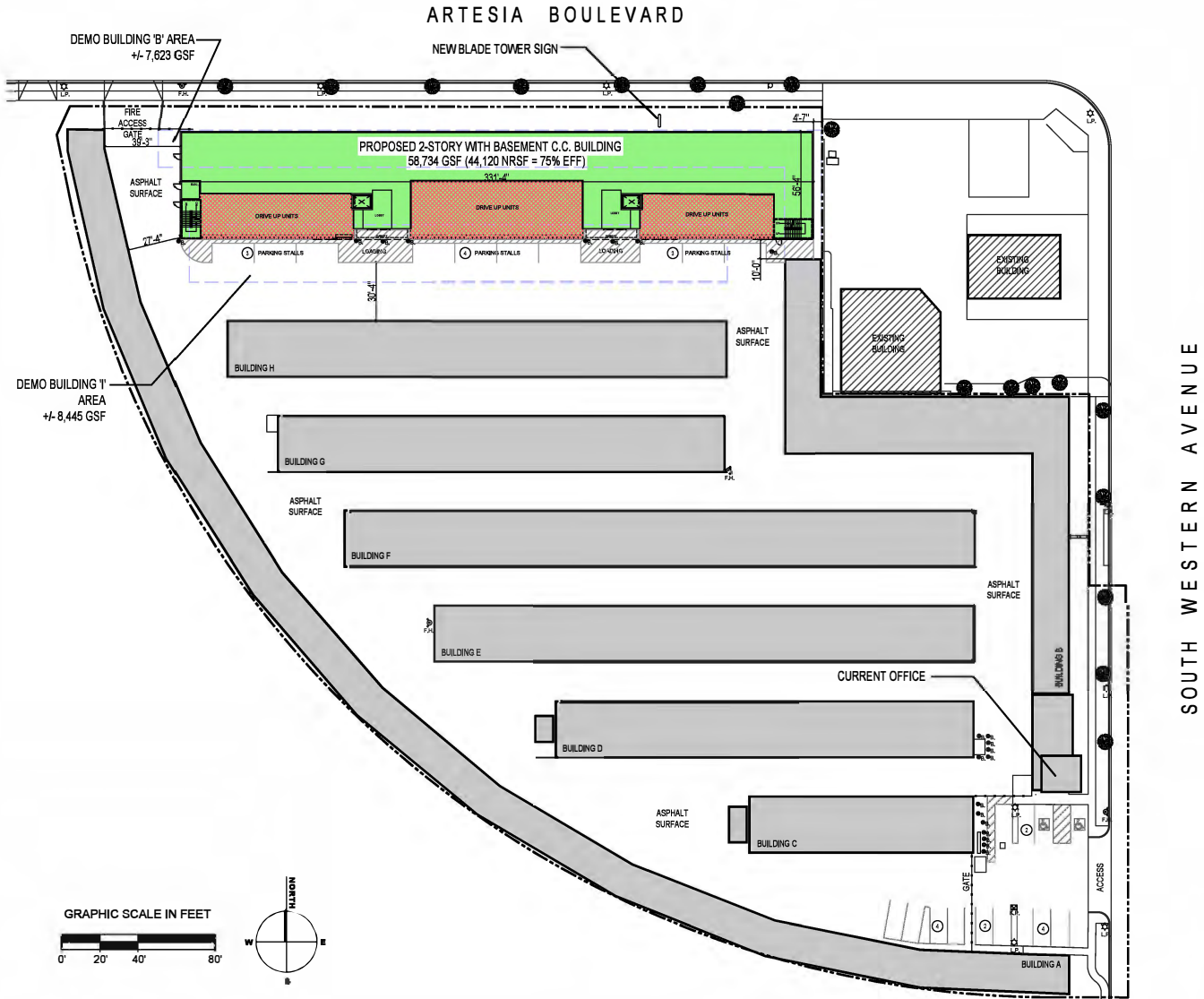
In accordance with the City of Torrance TIA Guidelines, LSA has evaluated whether the proposed project warrants an LOS or VMT analysis. The proposed Extra Space Storage project is not expected to exceed 500 average daily trips meeting the criteria for a LOS-Based TCA exemption. In addition, the project meets the criteria to be screened out from a detailed VMT analysis due to it being classified as a small project. As a result, the project would have a less than significant California Environmental Quality Act impact on transportation.

Should you have any questions, please do not hesitate to contact me at (949) 553-0666 or email me at ken.wilhelm@lsa.net.

Attachments: A – Site Plan
B – City of Torrance TIA Guidelines

ATTACHMENT A

SITE PLAN



1 PROPOSED SITE PLAN
N.T.S.

THESE DRAWINGS ARE FOR REFERENCE USE ONLY AND ARE NOT FOR CONSTRUCTION. ARCHITECT TO USE THESE DRAWINGS FOR REFERENCE ONLY. ARCHITECT/ENGINEER IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CODE REQUIREMENTS AS REQUIRED BY LOCAL JURISDICTIONS.

SHEET TITLE:
PROPOSED SITE PLAN B

PROJECT LOCATION:
EXTRA SPACE STORAGE #1009
17575 S WESTERN AVE,
GARDENA, CA 90248

Extra Space Storage
EXTRA SPACE STORAGE, Inc..
CORPORATE OFFICE
2795 East Cottonwood Parkway, Suite 400
Salt Lake City, Utah 84121

DATE
06/02/23

SHEET NUMBER
A-02

ATTACHMENT B

CITY OF TORRANCE TIA GUIDELINES

City of Torrance

Traffic Impact Assessment Guidelines for Land Use Projects

January 2021

TABLE OF CONTENTS

List of Figures

List of Tables

APPENDIX

1.0 Introduction

1.1 Purpose

This Guideline provides Vehicle Miles Traveled (VMT) screening criteria, analysis methodology, significance thresholds, and potential mitigation strategies for Land Use Projects (i.e. development projects) within the City of Torrance that require environmental review in compliance with the California Environmental Quality Act (CEQA).

1.2 Background

Senate Bill 743 (Steinberg, 2013) was codified in Public Resources Code Section 21099 and required changes to the guidelines implementing CEQA regarding the analysis of transportation impacts.

Section 21099 states that the criteria for determining the significance of transportation impacts must promote:

- reduction of greenhouse gas (GHG) emissions;
- development of multimodal transportation networks; and
- a diversity of land uses.

Section 21099 also directed the Governor's Office of Planning and Research (OPR) to prepare and develop criteria for determining significance. The OPR concluded that the use of VMT, with thresholds linked to GHG reduction targets, would adequately analyze a project's transportation impacts while supporting all three statutory goals.

In December 2018, the OPR published an advisory [1] that provides recommendations on how to assess VMT as part of a Transportation Impact Analysis (TIA) under CEQA. This Guideline is consistent with the said advisory.

1.3 Technical Resources

The following resources referenced in this Guideline provide supplemental information for VMT-Based TIA preparation:

- OPR Technical Advisory [1]
- Los Angeles County TIA Guidelines [2]
- California Air Pollution Control Officers Association (CAPCOA) Report [3]

A complete list of references is provided in Section 8.0.

2.0 Transportation Setting

2.1 Local Vicinity and Major Roads

The City of Torrance covers roughly 21 square miles (12,312 acres) and is situated in the South Bay area of south western Los Angeles County.

Figure 1 presents a map of the South Bay Cities Council of Governments (SBCOG), depicting Torrance and adjacent cities.

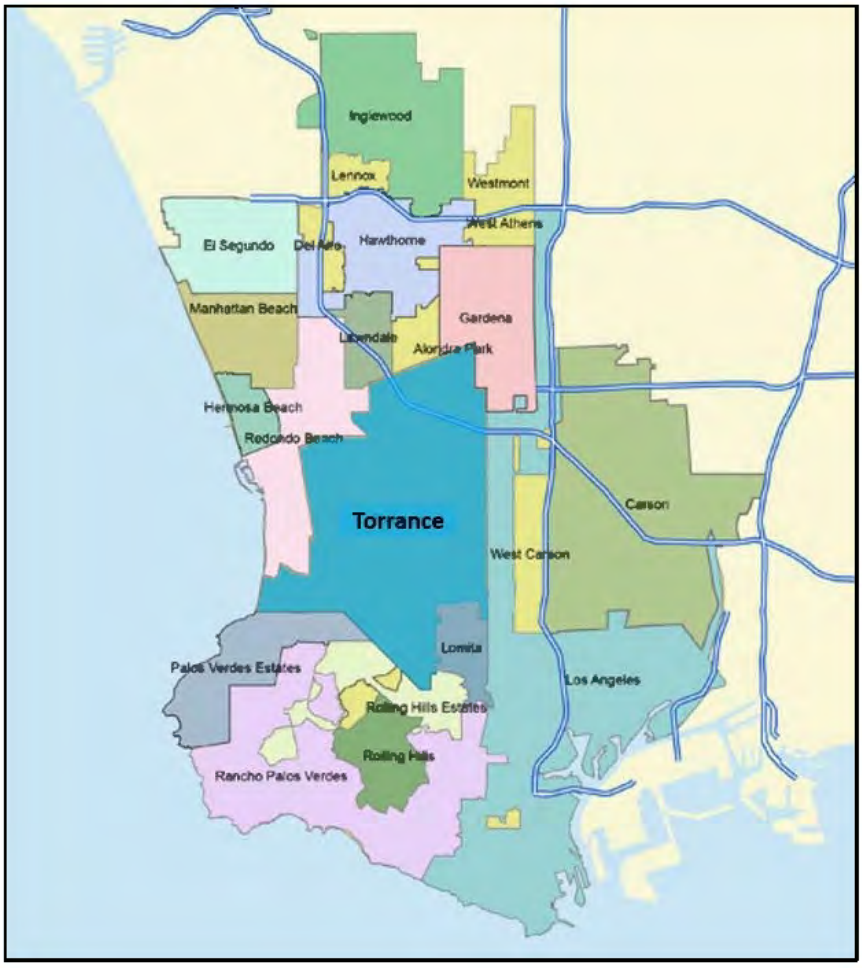


Figure 1 - Torrance and Vicinity
Source: SBCCOG

I-405 passes through the northern portion of Torrance and has five access points within the City at Artesia Boulevard, Crenshaw Boulevard, 182nd Street, and 190th Street.

Three State Routes pass through Torrance: Hawthorne Boulevard (SR 107) goes through the center of the City from north to south, Western Avenue (SR 213) borders the City to the east, and Pacific Coast Highway (SR 1) runs from northwest to southeast just north of the south City limits.

2.2 Regional Area

2.2.1 Southern California Association of Governments (SCAG)

Torrance is a member of SCAG, an association of local governments and agencies in six counties (shown in *Figure 2*) that voluntarily convene as a forum to address regional issues.

Figure 2 - SCAG Member Counties
Source: SCAG

SCAG is designated as a Metropolitan Planning Organization (MPO) under federal law and as a Regional Transportation Planning Agency and a Council of Governments under state law.

2.2.2 SCAG RTP/SCS

As an MPO, SCAG is mandated by federal law to research and develop a Regional Transportation Plan (RTP), which incorporates a Sustainable Communities Strategy (SCS) per California state law.

Every four years, SCAG prepares an RTP/SCS that outlines how the region can better integrate land use and transportation planning. In September 2020, SCAG formally adopted the 2020–2045 RTP/SCS [4] - a long-range visioning plan that

balances future mobility and housing needs with economic, environmental and public health goals.

2.2.3 SCAG RTDM

SCAG develops and maintains transportation models to support its planning program. The SCAG Regional Travel Demand Model (RTDM) is a trip-based model that provides travel forecasting capabilities for the analysis of SCAG's plans and programs.

The 2012 SCAG RTDM contains 2012 base year travel data and has been validated for use in preparing travel forecasts for the SCAG 2016-2040 RTP/SCS [5] [6, p. 2]. Thus, it has a "base year" of 2012 and forecast year of 2040 [6, p. 1_5].

2.3 Transportation Analysis Zones (TAZs)

A TAZ is the unit of geography most commonly used in transportation planning models. TAZs are typically bounded by arterial roadways and streets.

The SCAG RTDM uses a dataset of Tier-2 TAZs that highly resembles the U.S. Census Bureau's Block Groups.

Torrance is comprised of 97 Tier-2 TAZs under the SCAG RTDM. *Figure 3* illustrates the TAZs within and adjacent to the City of Torrance.

2.4 Transit and Active Transportation System

Torrance Transit operates eleven bus lines within the City. *Figure 4* shows the public transit bus service provided by Torrance Transit within the City. Metro, City of Los Angeles Department of Transportation, and Gardena Transit also operate bus service in portions of the City.

Torrance has various bikeways and 550 miles of sidewalks throughout the City. *Figure 5* presents the Class II bike lanes[1] and Class III bike routes[2] within the City.

[1] On-street facilities exclusively designated for bicyclists using stripes and stencils.
[2] Streets designated for bicycle travel and shared with motor vehicles.

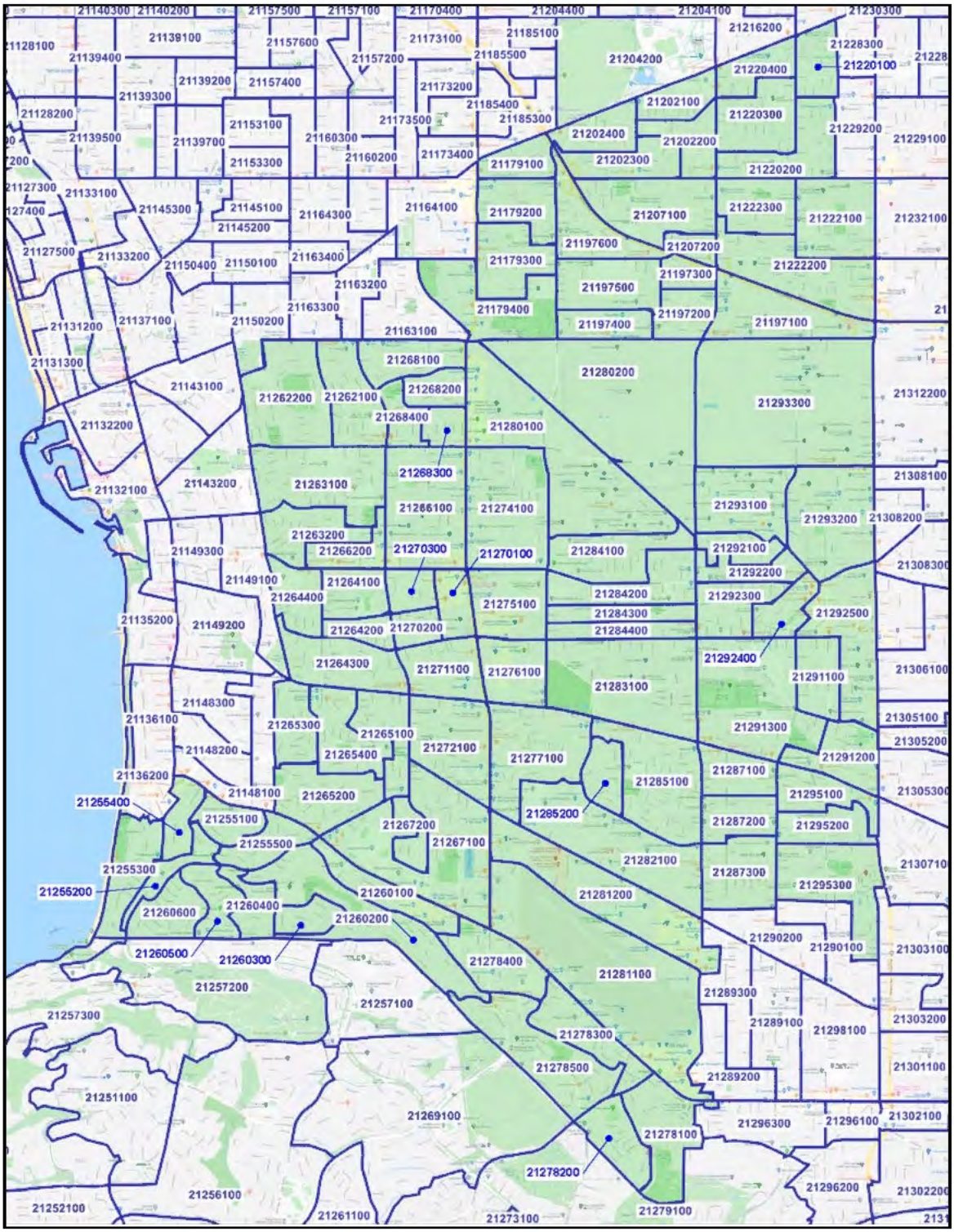


Figure 3 - SCAG RTDM Tier-2 TAZs
Source: SCAG RTDM

Figure 4 - Existing Transit
Source: Torrance Transit

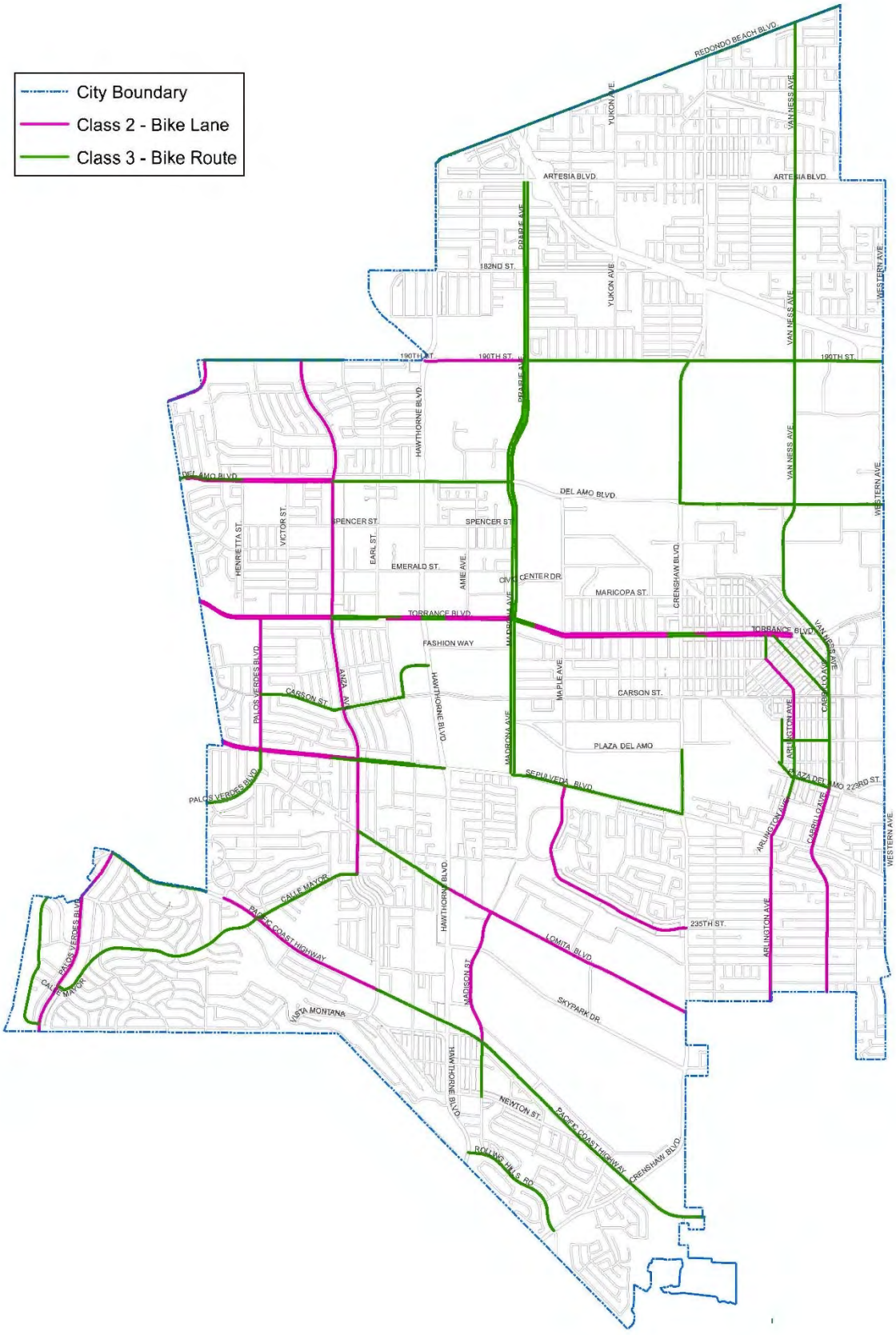


Figure 5 - Existing Bicycle Facilities

3.0 Transportation Analysis Requirements

3.1 Required Transportation Reports

All proposed development projects within the City of Torrance, except when screened per Sections 3.2 and/or 3.3, must provide the following reports:

3.1.1 VMT-Based TIA

This report will be the basis for answering the following question under *XVII. Transportation* of the amended CEQA Guidelines, Appendix G (Environmental Checklist Form) [7, p. 320]:

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

A TIA will not be required for projects that are exempt from CEQA review.

The recommended methodology for this report is discussed in Section 4.0.

3.1.2 Level-of-Service (LOS)-Based Traffic Circulation Analysis (TCA)

The guideline for this report is posted at www.TorranceCA.Gov/tca-guidelines .

3.1.3 Exemption Screening Flowcharts

A flowchart for screening for exemption from TIA or TCA preparation is presented in *Figure 6*. Sections 3.2 and 3.3 provide further discussion on TIA and TCA screening criteria.

Figure 7 is the sub-process that will determine whether a project has the potential to be TIA exempt, i.e., whether it satisfies at least one TIA Exemption Screening criteria (A) or not (B). If a project has the potential for TIA exemption, further steps outlined in *Figure 6* have to be completed in order to confirm exemption from TIA preparation.

The City Traffic Engineer has the final discretion to require a TIA or TCA for a proposed development, and exemption from report submittal for any project that passes screening has to be confirmed by the City Traffic Engineer.

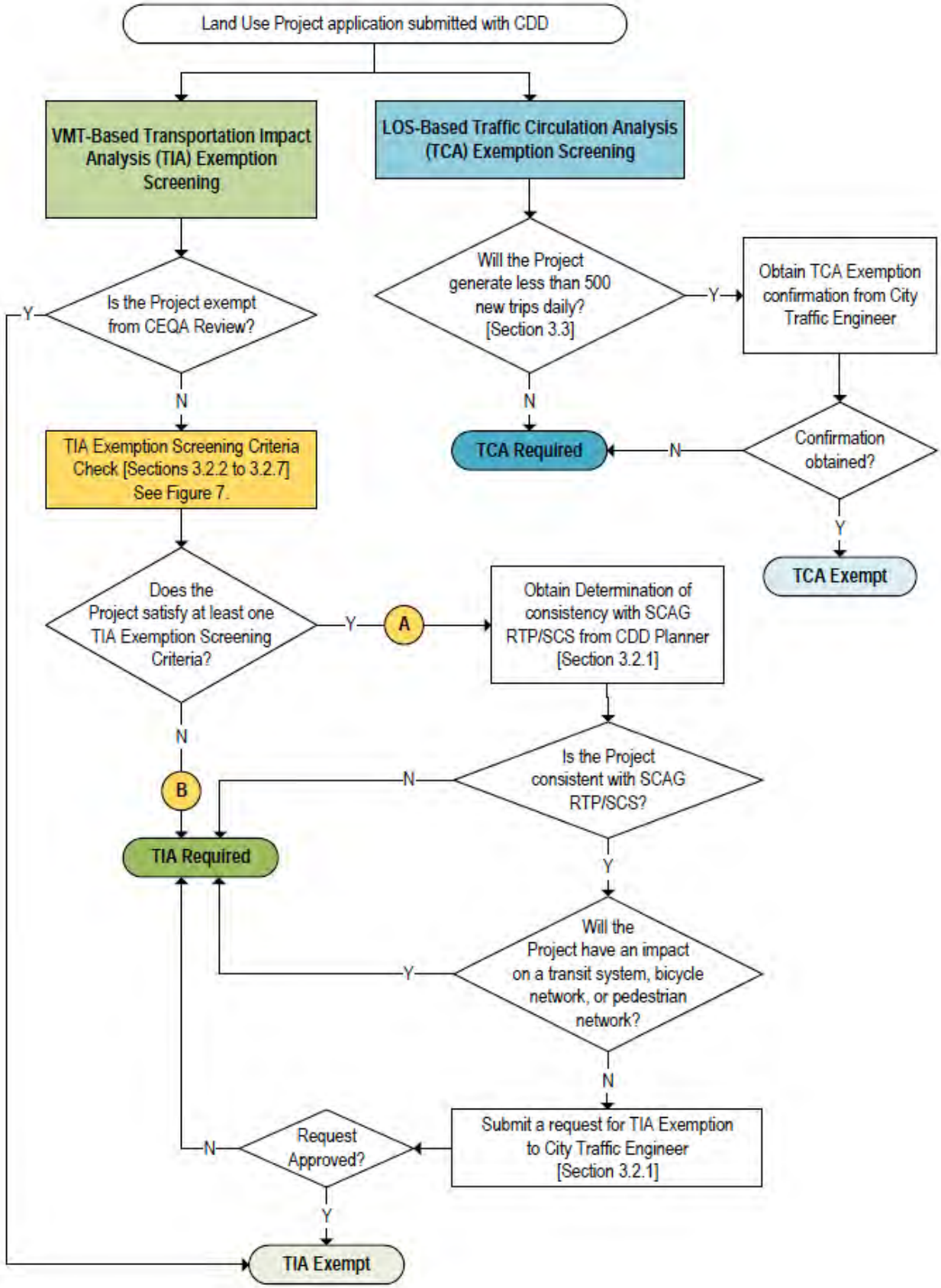


Figure 6 - Exemption Screening Flowchart for Transportation Analysis Reports

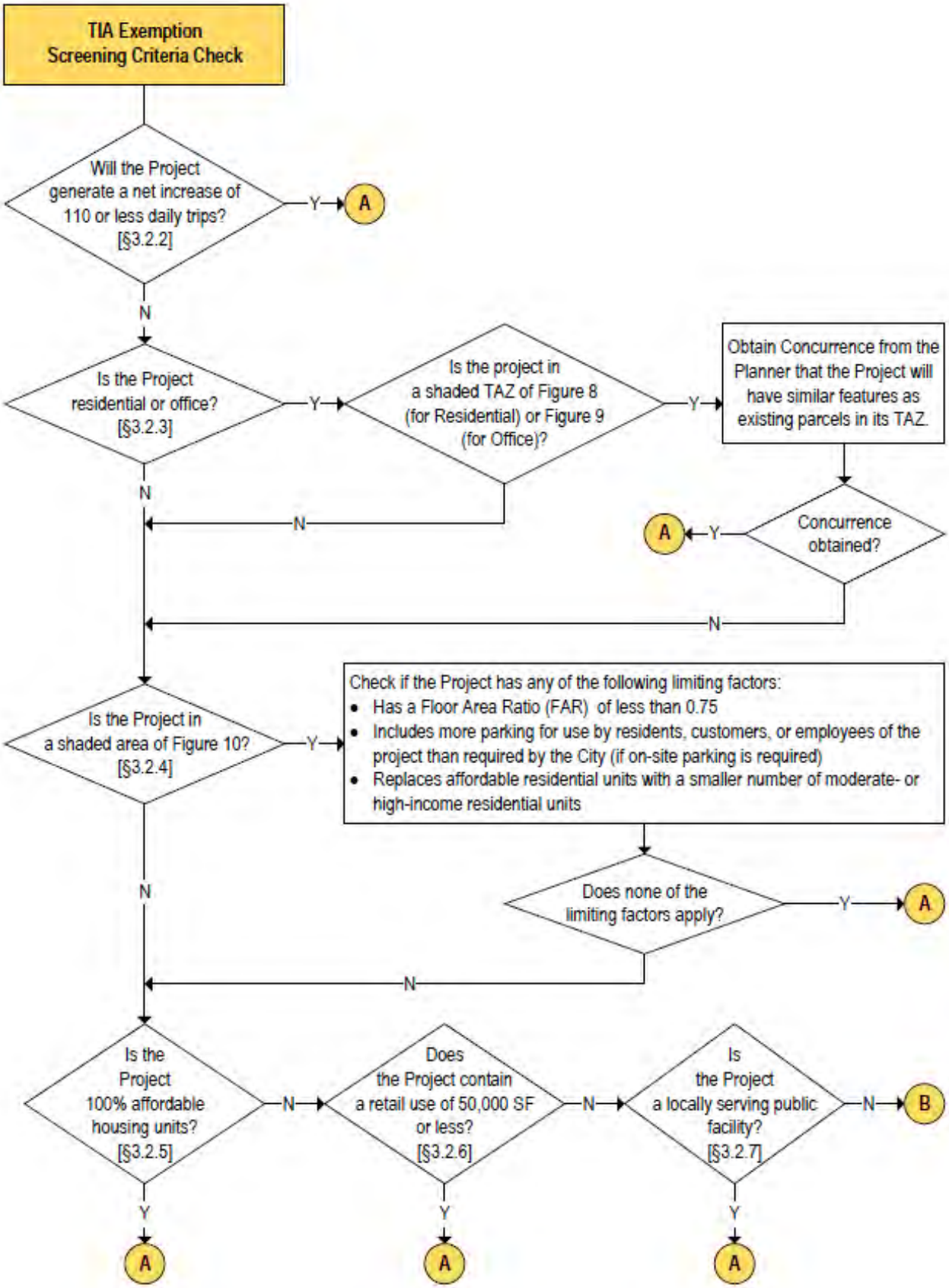


Figure 7 - Flowchart for TIA Exemption Screening Potential

3.2 Screening Criteria for VMT-Based TIA Exemption

3.2.1 Applicability

A TIA is only required for projects that are subject to CEQA review.

Projects that pass at least one Screening Criteria from Sections 3.2.2 through 3.2.7 are generally expected to cause a less-than-significant impact without conducting a detailed VMT analysis [1].

However, any project that is inconsistent with the 2020-2045 SCAG RTP/SCS has to be evaluated to determine whether that inconsistency indicates a significant impact on transportation [1].

In addition, any project that impacts transit systems and bicycle and pedestrian networks will require further evaluation [1].

If a project has the potential for TIA exemption because it passes at least one Screening Criteria, the applicant has to contact the Planner assigned to the project to obtain a Determination on whether the project is consistent with the 2020-2045 SCAG RTP/SCS. If the project is deemed inconsistent, a TIA will be required.

If the project is deemed consistent with the 2020-2045 SCAG RTP/SCS, the applicant shall submit a request for TIA exemption to the City Traffic Engineer for approval. The request has to include the following:

- Screening Criteria applicable to the project
- supporting documentation on how the Screening Criteria will be satisfied (e.g., for Screening Criteria 3.2.2, a Trip Generation Memo prepared by a California-registered Civil or Traffic Engineer showing a net increase of 110 or less daily trips)
- site plan, with access points clearly indicated
- conceptual plan for any anticipated modification to the public right-of-way (whether required or voluntary)
- copy of the Determination (per this Section), and if applicable, Concurrence (per Section 3.2.3) from the Planner

3.2.2 Small Projects

CRITERIA: Will the Project generate a net increase of 110 or less daily trips?

“Daily trips” shall be the unadjusted driveway, i.e., gross weekday trips calculated for the proposed project, based on the most current ITE Trip Generation Manual.

3.2.3 Map-Based Screening for Residential and Office Projects

CRITERIA: Is the Project a residential project in a low VMT per capita area or an office project in a low VMT per employee area?

Residential and office projects that are located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT [1].

Using VMT data obtained from the 2012 SCAG RTDM, *Figure 8* and *Figure 9* were created to show TAZs with VMTs below the significance thresholds discussed in Section 5.0 (i.e., 85% or less than the average VMTs for Los Angeles County for 2021).

The following projects have the potential to pass this screening criteria:

- Residential projects within a yellow TAZ in *Figure 8*, and
- Office projects within a yellow TAZ in *Figure 9*

The TAZ associated with a project can be confirmed or clarified by contacting the Planner assigned to the project. *Appendix 1* also presents a list of TAZs with low VMTs that are highlighted in yellow in *Figure 8* and *Figure 9*.

To satisfy this screening criteria, the applicant has to get Concurrence from the Planner that the Project will have similar features as existing parcels within the TAZ.

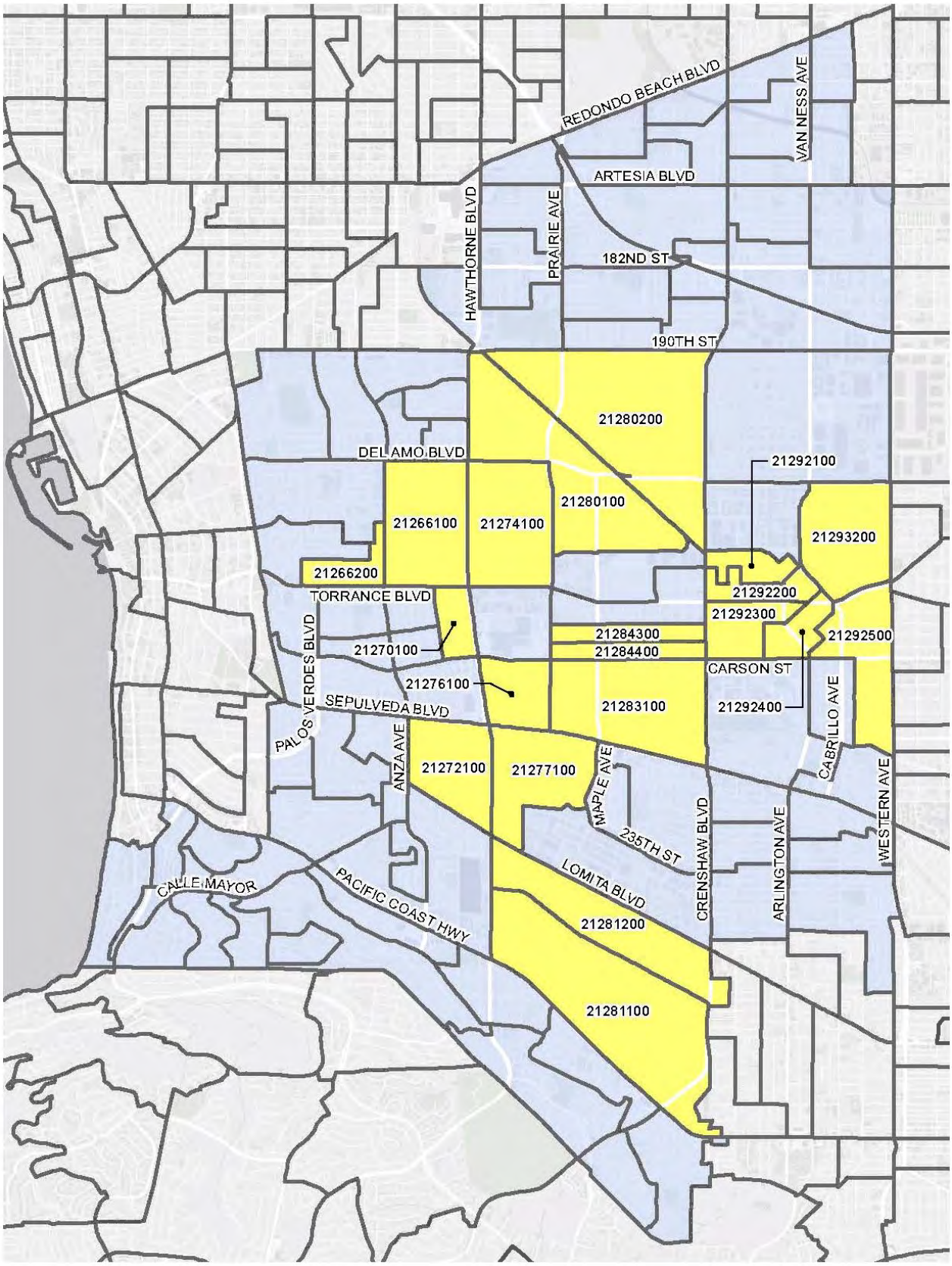


Figure 8 - TAZs with Low (85% or less than 2021 LA County Average) VMT per Capita

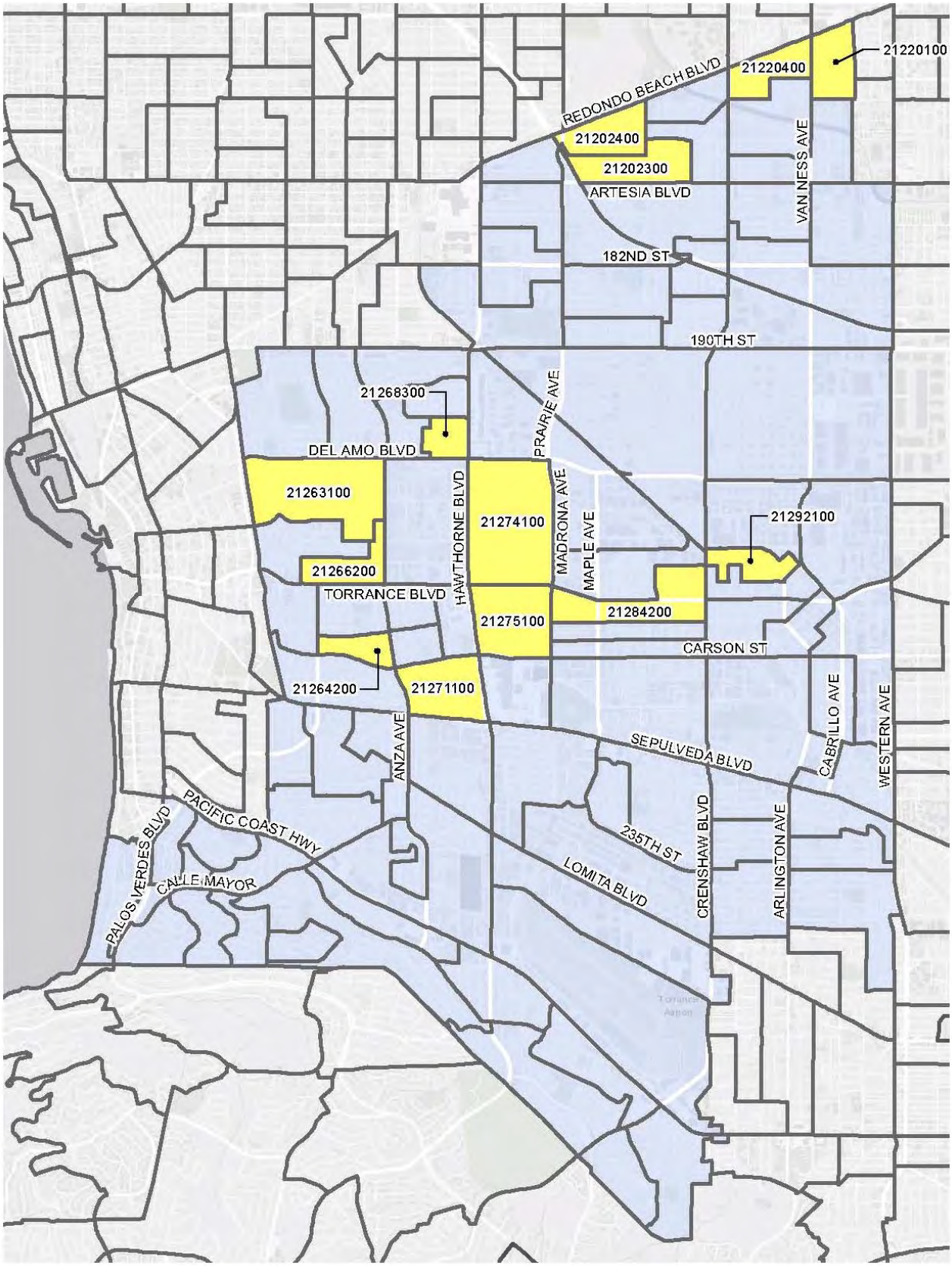


Figure 9 - TAZs with Low VMT (85% or less than 2021 LA County Average) per Employee

3.2.4 Proximity to Transit

CRITERIA: Is the Project located within one-half mile of either an existing major transit stop or an existing stop along an existing high quality transit corridor?

'Major transit stop' means a site containing an existing rail or bus rapid transit station; a ferry terminal served by either a bus or rail transit service; or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods [8] .

A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours [9] .

Figure 10 presents a Transit Priority Area (TPA) map illustrating a one-half mile radius from existing major transit stops and stops along high quality transit corridors.

Major transit stops that are included in the applicable regional transportation plan are also considered in the identification of a transit priority project under Section 21155 of the Public Resources Code [9]. The Green Line Extension to Torrance is identified as a Transit Capital Project in the 2020-2045 SCAG RTP/SCS. Accordingly, the Torrance Transit Park and Ride Regional Terminal, which will be the final stop of the Green Line extension, will be identified as a major traffic stop in *Figure 10* upon its completion.

Any development project located within the shaded areas of *Figure 10* has the potential to pass screening.

A project shall be considered to be within one-half mile of a major transit stop or a stop along a high-quality transit corridor if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop [9].

This transit-based screening criteria cannot be utilized if a project has at least one of the following limiting factors [1]:

- Has a Floor Area Ratio (FAR)[3] of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the City (if on-site parking is required)
- Is inconsistent with the 2020-2045 SCAG RTP/SCS
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units, i.e., the total number of existing lower income housing units is greater than the total number of lower income and market-rate residential units proposed by the project

[3] As defined in the City of Torrance Municipal Code Section 91.2.82, and confirmed by the Planning Department.

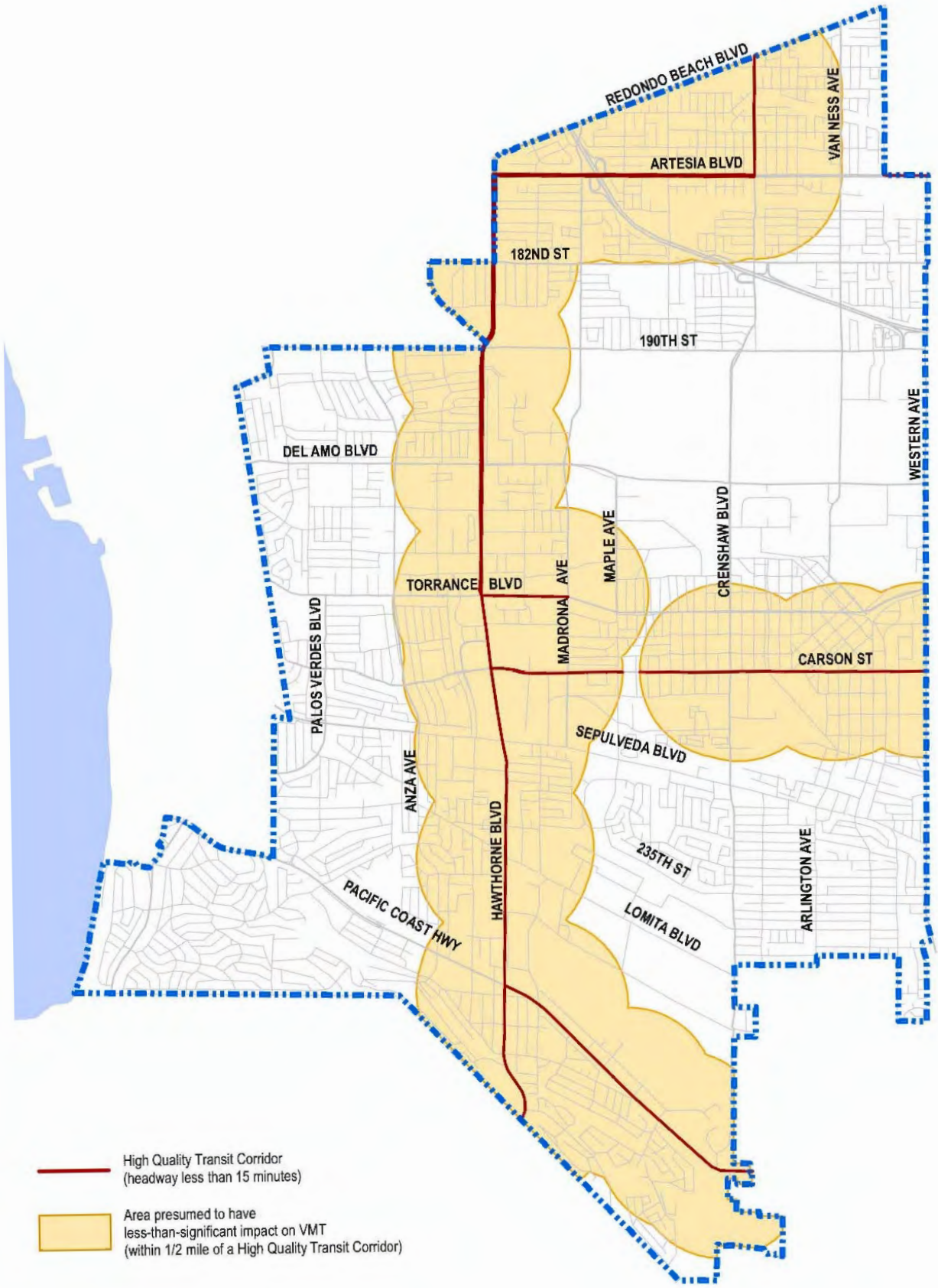


Figure 10 - Transit Priority Area Map

3.2.5 Affordable Residential Development

CRITERIA: Is the Project 100%[4] affordable housing units[5]?

If the residential component of a mixed-use project is 100% affordable housing, a less than significant determination can be made for the residential component, and the remaining portion of the project shall be subject to further VMT analysis.

3.2.6 Local-Serving Retail

CRITERIA: Does the Project contain a retail use of 50,000 SF or less?

For the purpose of this screening criteria, retail land uses refer to those listed under categories 800's (Retail) or 900's (Services) within the most current ITE Trip Generation Manual [10].

For mixed-use projects containing retail:

- If the retail component of a mixed-use project is 50,000 SF or less, a less than significant determination can be made for the portion of the project that contains retail use, and the remaining portion of the project may be subject to further VMT analysis
- If the retail component of a mixed-use project is greater than 50,000 SF, the entirety of the project shall be subject to VMT analysis.

3.2.7 Local-Serving Public Facility

CRITERIA: Is the project a locally serving public facility?

Local-serving public facilities such as transit centers, public schools, libraries, parks, post offices, park-and-ride lots, police and fire facilities, and government offices are presumed to have less than significant impact on VMT [10]. Private schools are not considered locally serving public facilities.

3.3 Screening Criteria for LOS-Based TCA Exemption

A TCA is generally not required for projects that will generate less than 500 new trips per weekday, based on the most current ITE Trip Generation Manual.

Exemption from TCA preparation has to be confirmed by the City Traffic Engineer. The applicant may be required to submit a Trip Generation Memo for to facilitate exemption review.

[4] Excluding Manager's units

[5] As confirmed by the Planning Department

4.0 VMT Analysis Methodology

4.1 Overview

A project that does not meet any of the screening criteria under Section 3.2 must complete a full VMT[6] analysis.

The VMT metric for a project shall be estimated per this section and evaluated against the significance thresholds presented in Section 5.0.

A project shall initially be analyzed for Project-Level VMT impact significance. Cumulative VMT impact evaluation, if required, shall be performed per Section 4.6.

If a project will incorporate a transportation demand management (TDM) strategy per Section 6.0, VMT analysis shall be presented for both "without TDM" and "with TDM" scenarios.

4.2 Estimating Tool

The 2012 SCAG RTDM shall be utilized to estimate the VMT values to be analyzed.

4.3 VMT Metric

4.3.1 VMT Metrics

The SCAG RTDM reports the following VMT metrics:

- Residential VMT per capita
  Total length of daily home-based trip[7] production within the area being analyzed divided by the population within that area.
- Employment VMT per employee
  Total length of daily home-based work trip[8] attraction within the area being analyzed divided by the number of employees within that area.
- Total VMT per Service Population
  Total length of all daily trips to and from the area being analyzed divided by the service population[9] within that area.
- Total VMT
  Total daily VMT for all TAZs within the study area.

[6] Under the CEQA Guidelines, VMT is specified as the amount and distance of automobile travel attributable to a project. The term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.
[7] Home-based trips are those that either start or end at the residence of the trip maker.
[8] Home-based work trips are those that start from home and end at work, and vice versa.
[9] Service population is the sum of the number of residents and number of employees.

4.3.2 Typical Land Uses

The VMT metric to be analyzed will depend on the type of project, per *Table 1*.

Land Use Category	VMT Metric
Residential *(e.g., single-family and multi-family housing)*	VMT per capita
Office *(e.g., general office, medical office)*	VMT per employee
Industrial *(e.g., light industrial, manufacturing, warehousing, self-storage)*	VMT per employee
Regional-Serving Retail *(e.g., general retail, furniture store, pharmacy/ drugstore, supermarket bank, health club, restaurant, auto repair, home improvement superstore, discount store, movie theater)*	Total City VMT
Private School/ University *(K-12, college, university)*	Total City VMT
Lodging *(e.g., hotel, motel, inn)*	Total City VMT

Table 1 - VMT Metrics by Land Use Category

The appropriate land use and VMT metric for a proposed project shall be confirmed with the City Traffic Engineer prior to running the SCAG RTDM.

4.3.3 Unique Land Uses

For projects that do not fit into any of the categories in Section 4.3.2 *(e.g. fulfillment centers, conference centers, sports venues)*, the VMT metric shall be determined on a project-by-project basis and approved by the City Traffic Engineer.

4.3.4 Mixed-Use Projects

Each component of a mixed-use project has to be analyzed individually per Section 4.3.2 or Section 4.3.3.

4.4 Analysis Year

4.4.1 Project-Level VMT Analysis Year

The VMT values to be analyzed shall correspond to the opening year of the Project.

The Baseline[10] VMT values for the Project's opening year shall be estimated by linear interpolation between the values obtained from the 2012 SCAG RTDM for base year 2012 and forecast year 2040.

4.4.2 Cumulative Impact VMT Analysis Year

Cumulative impact VMT evaluation per Section 4.6 shall correspond to Buildout Year 2040[11].

4.5 Methodology

4.5.1 Using Efficiency-Based Metric

Projects that use an efficiency-based VMT metric such as VMT per capita, VMT per employee, or VMT per service population shall be analyzed by comparing the VMT metric for the proposed project to the County Average of the same VMT metric.

4.5.2 Using Absolute Metric

Projects that use an absolute VMT metric such as Total City VMT shall be analyzed by comparing the "with project" Total VMT to the "without project" Total VMT.

The steps outlined in the LA County TIA Guidelines for regional-serving retail projects [2, pp. 12-13] may be used as a guide.

4.6 Cumulative Impact

For projects that are analyzed using efficiency-based metrics, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa [1, p. 6].

Thus, evaluation of a project's cumulative impacts is not required for projects that are analyzed using VMT per capita, VMT per employee, or VMT per service population, unless the project is inconsistent with the 2020-2045 SCAG RTP/SCS.

Projects that are inconsistent with the 2020-2045 SCAG RTP/SCS or that are analyzed using Total VMT have to be evaluated for cumulative impacts per Sections 4.5.2 and 5.2.

The steps outlined in the LA County TIA Guidelines for cumulative analysis of regional-serving retail projects [2, pp. 14-15] may be used as a guide.

[10] Business-as-usual/ "Do Nothing" Scenario

[11] Full plan buildout Scenario based on the SCAG 2016-2040 RTP/SCS, which corresponds to the 2012 RTDM.

5.0 VMT Significance Thresholds

5.1 Project-Level VMT Significance Thresholds

A project that triggers the applicable threshold in *Table 2* will have a significant Project-Level VMT impact.

Land Use Category	Threshold
Residential	Project VMT per capita exceeds 85% of County Average VMT per capita
Office	Project VMT per employee exceeds 85% of County Average VMT per employee
Industrial	Project VMT per employee exceeds 85% of County Average VMT per employee
Regional-Serving Retail	Generates a net increase[12] in Total City VMT[13]
Private School/ University	Generates a net increase in Total City VMT
Lodging	Generates a net increase in Total City VMT

Table 2 - Project VMT Thresholds for Typical Land Use Categories

A project that does not fit into any of the categories in *Table 2* will have a significant Project-Level VMT impact if it triggers the applicable threshold in *Table 3*.

Type of VMT Metric	Threshold
Efficiency-based	Project VMT exceeds 85% of County Average VMT
Absolute	Generates a net increase in Total VMT[14]

Table 3 - Project VMT Thresholds for Unique Land Uses

Each component of a mixed-use project has to be individually analyzed for significance per *Table 2* or *Table 3*. Credit for internal capture may be applied, with the approval of the City Traffic Engineer.

5.2 Cumulative (Buildout) VMT Significance Threshold

Projects that will generate a net increase in Total VMT for Buildout Year 2040 will have a significant Cumulative VMT impact.

[12] "With Project" Total VMT is greater than "Without Project" Total VMT
[13] Total VMT for all TAZs within the City
[14] Total VMT for all TAZs within the study area, as determined or approved by the City Traffic Engineer

6.0 VMT Mitigation Strategies

6.1 Overview

If a project is found to introduce a significant VMT impact, mitigation can be achieved by changing the proposed land uses, modifying project design features, or by implementing Transportation Demand Management (TDM) strategies.

Modifications to project land use will be reflected in the VMT analysis methodology in Section 4.0. This section will cover further VMT reductions that will be introduced by additional project design features and TDM implementation.

6.2 Resource

The reduction in VMT associated with transportation-related mitigation measures shall be estimated based on the CAPCOA Report [3].

6.3 Estimation of VMT Reduction Using the CAPCOA Report

6.3.1 Applicability

To prevent “double counting” of VMT reduction strategies, the following shall not apply towards Project VMT mitigation:

- Any project design feature originally required by the Planning Department for Plan or Code compliance
- All existing infrastructure already accounted for in the 2012 SCAG RTDM (e.g., proximity to existing transit)

6.3.2 Transportation Strategies

Transportation-related strategies for reducing greenhouse gas (GHG) are categorized into transportation measures, road pricing/ management, and strategies to improve the fuel efficiency of vehicles.

Transportation measures are sub-categorized into:

(1) Land Use / Location
(2) Neighborhood / Site Enhancement
(3) Parking Policy / Pricing
(4) Transit System Improvements
(5) Commute Trip Reduction

A chart showing the organization of transportation strategies is presented in *Appendix 2.*

6.3.3 Maximum Reductions

Appendix 2 indicates the maximum reduction allowed to be attributed to each transportation strategy.

All GHG reductions from transportation measures and road pricing strategies are quantified through VMT reductions, while traffic flow and vehicle efficiency improvements directly correlate to GHG emissions, and do not correspond to VMT reductions.

For the purpose of VMT-Based TIA preparation, only VMT reductions will be applied to mitigations for land use project.

Rules for combining the VMT reduction effects of multiple mitigation strategies are laid out in Chapter 6 of the CAPCOA Report [3, pp. 57-63].

Maximum VMT reduction values for suburban areas shall apply to proposed land use projects within the City:

- 5% Land Use/ Location Maximum Reduction
- 10% Transportation Measures[15] Cross-Category Maximum Reduction
- 15% Transportation Measures[16] Global Maximum Reduction

6.3.4 Strategies for Land Use Projects

Table 4 presents transportation mitigation strategies that are applicable to land use projects within the City. The first column indicates the CAPCOA Report section that discusses the methodology for quantifying the VMT reduction associated with the corresponding measure.

All TDM strategies recommended to reduce a project's VMT impact shall get approval/concurrence from City staff.

Mitigation measures shall be applied to the appropriate user group (e.g., residents, employees, or guests/patrons). If a certain measure applies to multiple user groups, the weighted average must be considered, as the effect of the mitigation measure will vary based on the user group [10].

[15] Four Categories: (1) to (4) under Section 6.3.2
[16] Five Subcategories: (1) to (5) under Section 6.3.2

Ref.[17]	Transportation Measure	Meas. #	Range of Effectiveness
3.2	**Neighborhood/Site Enhancements**		
3.2.1	Provide Pedestrian Network Improvements	SDT-1	0% - 2%
3.2.2	Provide Traffic Calming Measures	SDT-2	0.25% - 1%
3.2.3	Implement a Neighborhood Electric Vehicle (NEV) Network	SDT-3	0.5% - 12.7%
3.2.4	Create Urban Non-Motorized Zones	SDT-4	N/A[18]
3.2.5	Incorporate Bike Lane Street Design (on-site)	SDT-5	N/A
3.2.6	Provide Bike Parking in Non-Residential Projects	SDT-6	N/A
3.2.7	Provide Bike Parking with Multi-Unit Residential Projects	SDT-7	N/A
3.2.8	Provide Electric Vehicle Parking	SDT-8	N/A
3.2.9	Dedicate Land for Bike Trails	SDT-9	N/A
3.3	**Parking Policy/Pricing**		
3.3.2	Unbundle Parking Costs from Property Cost	PDT-2	2.6% - 13%
3.4	**Commute Trip Reduction Programs**		
3.4.1	Implement Commute Trip Reduction Program - Voluntary	TRT-1	1% - 6.2%
3.4.2	Implement Commute Trip Reduction Program - Required	TRT-2	4.2% - 21%
3.4.3	Provide Ride-Sharing Programs	TRT-3	1% - 15%
3.4.4	Implement Subsidized or Discounted Transit Program	TRT-4	0.3% - 20%
3.4.5	Provide End of Trip Facilities	TRT-5	N/A
3.4.6	Encourage Telecommuting and Alternative Work Schedules	TRT-6	0.07% - 5.5%
3.4.7	Implement Commute Trip Reduction Marketing	TRT-7	0.8% - 4%
3.4.8	Implement Preferential Parking Permit Program	TRT-8	N/A
3.4.9	Implement Car-Sharing Program	TRT-9	0.4% - 0.7%
3.4.10	Implement a School Pool Program	TRT-10	7.2% - 15.8%
3.4.11	Provide Employer-Sponsored Vanpool/Shuttle	TRT-11	0.3% - 13.4%
3.4.12	Implement Bike-Sharing Programs	TRT-12	N/A
3.4.13	Implement School Bus Program	TRT-13	38% - 63%
3.4.14	Price Workplace Parking	TRT-14	0.1% - 19.7%
3.4.15	Implement Employee Parking “Cash -Out”	TRT-15	0.6% - 7.7%
3.5	**Transit System Improvements**		
3.5.1	Provide a Bus Rapid Transit System	TST-1	0.02% - 3.2%
3.5.2	Implement Transit Access Improvements	TST-2	N/A
3.5.3	Expand Transit Network	TST-3	0.1% - 8.2%
3.5.4	Increase Transit Service Frequency/Speed	TST-4	0.02% - 2.5%
3.5.5	Provide Bike Parking Near Transit	TST-5	N/A
3.5.6	Provide Local Shuttles	TST-6	N/A
3.6	**Road Pricing/Management**		
3.6.4	Install Park-and-Ride Lots	RPT-4	N/A

Table 4 - Applicable CAPCOA Mitigation Measures

[17] CAPCOA Report [3] Section Number

[18] See discussion under Section 6.3.5. of this Guideline

6.3.5 Quantification of VMT Reduction

A measure's range of effectiveness in VMT reduction is indicated in the last column of *Table 4*. Measures that show a numerical range are primary strategies that can be implemented as a stand-alone strategy, while measures that indicate "N/A" are grouped or support strategies that must be paired with other strategies within the category.

When grouped strategies are implemented together, the combination will result in either an enhancement to the primary strategy by improving its effectiveness, or a non-negligible reduction in effectiveness that would not occur without the combination [3, p. 56].

6.4 Implementation and Monitoring

The City will not consider in lieu fees for project VMT mitigation.

In the future, a program for implementation and monitoring the effectiveness of approved mitigation measures will be established.

7.0 Submittal and Review Process

7.1 VMT-Based TIA

7.1.1 Scope of Work

If a Project requires a TIA per *Figure 6*, the applicant shall initiate the review process by sending a TIA Scope of Work to the City Traffic Engineer for approval.

The TIA Scope of Work must include the following information:

- Short description of the project
- Site Plan showing proposed uses and corresponding square footage, number of floors, total building square footage, and site access points
- Typical land use category (or categories) per Section 4.3.2 applicable to the project, and corresponding square footage
- Unique land use category (or categories) per Section 4.3.3 (if any), corresponding square footage, and VMT metric proposed

The VMT modeling shall not be initiated until the TIA Scope of Work has been approved by the City Traffic Engineer in writing.

7.1.2 VMT Modeling Peer Review

VMT Modeling review shall be undertaken by an independent third-party Reviewer to be proposed by the applicant and approved by the City.

The VMT Modeling Reviewer must:

- be a California-licensed Professional Engineer or Traffic Engineer
- be different from and independent of the consultant preparing the TIA and/or TCA for the Project, or any sub-consultant hired by the Project's TIA Consultant to undertake VMT modeling for the Project
- have the capability to run the 2012 SCAG RTDM

The applicant shall provide the City with the contact information and qualifications of their proposed VMT Modeling Reviewer for approval.

Upon the City's approval of the TIA Scope of Work and the VMT Modeling Reviewer, the Project Consultant shall coordinate with the VMT Modeling Reviewer to facilitate the review of the VMT modeling results, and address any comments to the satisfaction of the VMT Modeling Reviewer.

Upon completion of the VMT Modeling Peer Review, the VMT Modeling Reviewer will endorse the VMT modeling results to City staff, and the applicant shall submit the complete TIA report (hard copy and PDF) to the City for further review.

7.2 LOS-Based TCA

7.2.1 Scope of Work

If a Projects requires a TCA per *Figure 6*, the applicant shall initiate the review process by sending a TCA Scope of Work to the City Traffic Engineer for approval.

The TCA Scope of Work must include the following information:

- Get the Short description of the project
- Project opening year
- Site Plan showing proposed uses and corresponding square footage, number of floors, total building square footage, and site access points
- Trip Generation Table per ITE Trip Generation Manual
- Pass-by trip calculation, if any
- Internal capture calculation, if any
- Proposed study intersections
- Proposed Trip Distribution
- Proposed Traffic Counts (driveways and intersections, day/s of the week, and time)

TCA Report preparation, including traffic counts, shall not be initiated until the TCA Scope of Work has been approved by the City Traffic Engineer in writing.

7.2.2 Guideline

The guideline for TCA preparation is posted online at www.TorranceCA.Gov/tca-guidelines .

7.2.3 Submittal

The TCA shall be submitted to the City for review in both PDF (with Appendix) and hard copy (without Appendix).

8.0 References

[1] Governor's Office of Planning and Research (OPR), "Technical Advisory on Evaluating Transportation Impacts in CEQA," December 2018. [Online]. Available: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf .

[2] Los Angeles County Public Works, "Transportation Impact Analysis Guidelines," 23 July 2020. [Online]. Available: https://pw.lacounty.gov/traffic/docs/Transportation-Impact-Analysis-Guidelines-July-2020-v1.1.pdf .

[3] California Air Pollution Control Officers Association (CAPCOA), "Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emmission Reductions from Greenhouse Gas Mitigation Measures," August 2010. [Online]. Available: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf .

[4] Southern California Association of Governments (SCAG), "2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy of the SCAG," 3 September 2020. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

[5] Southern California Association of Governments (SCAG), "The 2016-2040 Rregional Transportation Plan/ Sustainable Communities Strategy," April 2016. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf?1606005557.

[6] Southern California Association of Governments (SCAG), "SCAG Regional Travel Demand Model and 2012 Model Validation," March 2016. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/scag_rtdm_2012modelvalidation.pdf?1605571641 .

[7] Association of Environmental Professionals, "California Environmental Quality Act (CEQA) Statute & Guidelines," 2020. [Online]. Available: https://www.califaep.org/docs/2020_ceqa_book.pdf .

[8] *Public Resources Code Section 21064.3.*

[9] *Public Resources Code Section 21155.*

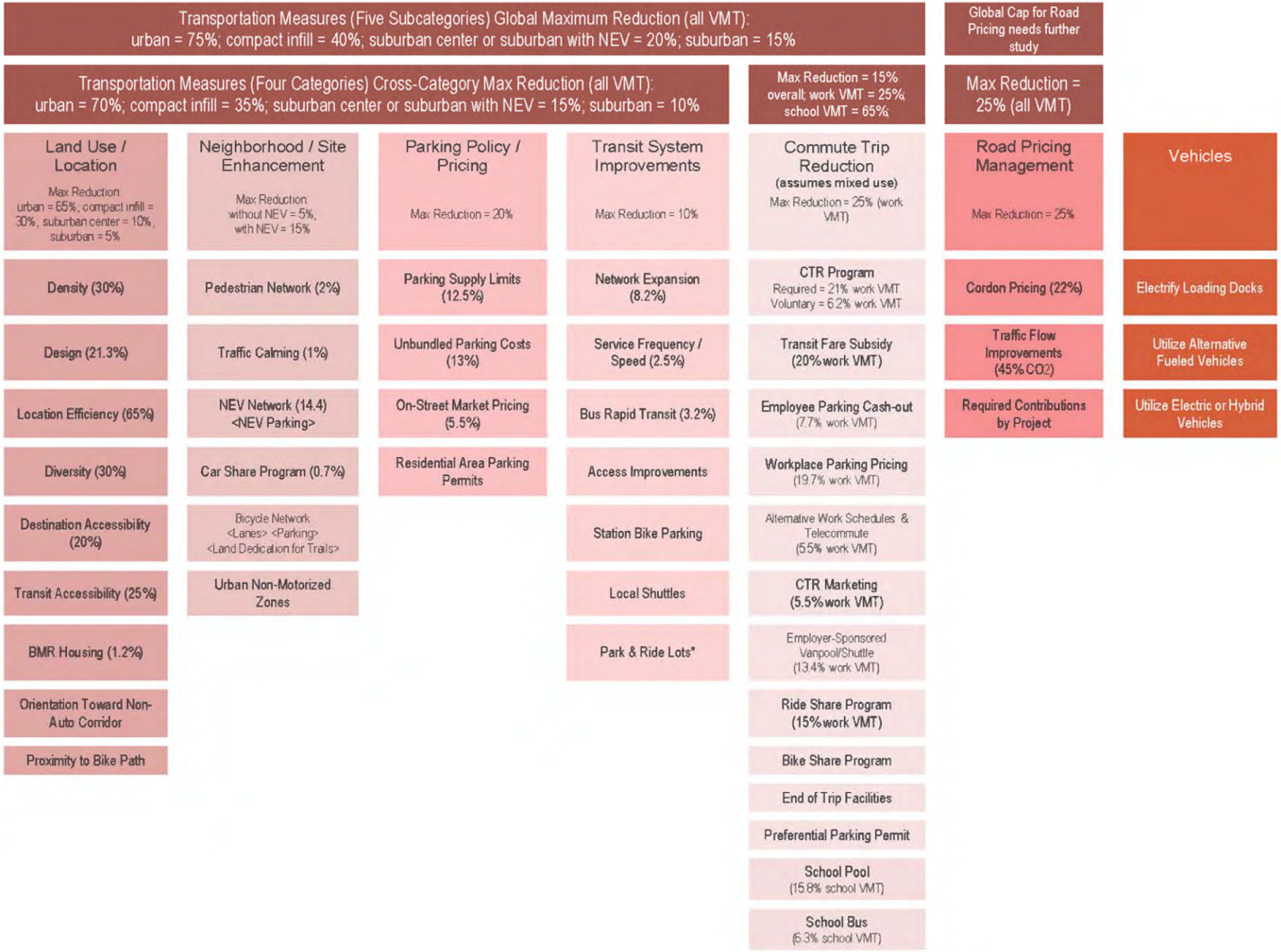
[10] Linscott, Law & Greenspan, Engineers, "City of Torrance Vehicle Miles Traveled (VMT) Guidelines and Thresholds Technical Memorandum," 2021.

APPENDIX

TAZs with Low VMT per Capita (85% or less than LA County Average* of 13.11) *TAZs Highlighted in Figure 8*
21266100
21266200
21270100
21272100
21274100
21276100
21277100
21280100
21280200
21281100
21281200
21283100
21284300
21284400
21292100
21292200
21292300
21292400
21292500
21293200

TAZs with Low VMT per Employee (85% or less than LA County Average* of 17.09) *TAZs Highlighted in Figure 9*
21202300
21202400
21220100
21220400
21263100
21264200
21266200
21268300
21271100
21274100
21275100
21284200
21292100

* VMT values for 2021


Transportation Measures (Five Subcategories) Global Maximum Reduction (all VMT):
urban = 75%; compact infill = 40%; suburban center or suburban with NEV = 20%; suburban = 15%
Global Cap for Road Pricing needs further study
Transportation Measures (Four Categories) Cross-Category Max Reduction (all VMT):
urban = 70%; compact infill = 35%; suburban center or suburban with NEV = 15%; suburban = 10%
Max Reduction = 15% overall; work VMT = 25%; school VMT = 65%
Max Reduction = 25% (all VMT)
Land Use / Location
Max Reduction urban = 65%; compact infill = 30%; suburban center = 10%; suburban = 5%
Density (30%)
Design (21.3%)
Location Efficiency (65%)
Diversity (30%)
Destination Accessibility (20%)
Transit Accessibility (25%)
BMR Housing (1.2%)
Orientation Toward Non-Auto Corridor
Proximity to Bike Path
Neighborhood / Site Enhancement
Max Reduction without NEV = 5%, with NEV = 15%
Pedestrian Network (2%)
Traffic Calming (1%)
NEV Network (14.4) <NEV Parking>
Car Share Program (0.7%)
Bicycle Network <Lanes> <Parking> <Land Dedication for Trails>
Urban Non-Motorized Zones
Parking Policy / Pricing
Max Reduction = 20%
Parking Supply Limits (12.5%)
Unbundled Parking Costs (13%)
On-Street Market Pricing (5.5%)
Residential Area Parking Permits
Transit System Improvements
Max Reduction = 10%
Network Expansion (8.2%)
Service Frequency / Speed (2.5%)
Bus Rapid Transit (3.2%)
Access Improvements
Station Bike Parking
Local Shuttles
Park & Ride Lots*
Commute Trip Reduction
(assumes mixed use)
Max Reduction = 25% (work VMT)
CTR Program
Required = 21% work VMT
Voluntary = 6.2% work VMT
Transit Fare Subsidy (20% work VMT)
Employee Parking Cash-out (7.7% work VMT)
Workplace Parking Pricing (19.7% work VMT)
Alternative Work Schedules & Telecommute (5.5% work VMT)
CTR Marketing (5.5% work VMT)
Employer-Sponsored Vanpool/Shuttle (13.4% work VMT)
Ride Share Program (15% work VMT)
Bike Share Program
End of Trip Facilities
Preferential Parking Permit
School Pool (15.8% school VMT)
School Bus (6.3% school VMT)
Road Pricing Management
Max Reduction = 25%
Cordon Pricing (22%)
Traffic Flow Improvements (45% CO2)
Required Contributions by Project
Vehicles
Electrify Loading Docks
Utilize Alternative Fueled Vehicles
Utilize Electric or Hybrid Vehicles

ATTACHMENT D

NOISE AND VIBRATION IMPACT ANALYSIS MEMORANDUM

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: December 15, 2023

TO: Clint Kleppe, Development Manager

FROM: J.T. Stephens, Principal
Kevin Nguyendo, Environmental Planner

SUBJECT: Noise and Vibration Impact Analysis: Proposed Gardena #1009 Self-Storage Building Project in the City of Torrance, California

INTRODUCTION AND PROJECT DESCRIPTION

This noise and vibration impact analysis has been prepared to evaluate the potential impacts associated with the proposed Gardena #1009 Extra Space Storage Project (project) in Torrance, California. This report is intended to satisfy the City of Torrance's (City) requirement for a project-specific noise and vibration impact analysis and examines the impacts of the proposed project to the existing noise-sensitive uses adjacent to the project site. To properly account for the impacts associated with the proposed project, existing noise levels are assessed based on noise measurement data gathered in the vicinity of the project site (from September 13 to September 14, 2023) and project-related noise and vibration levels generated are based on estimated construction equipment. Traffic volumes from the Transportation Analysis for the Extra Space Storage Facility Project[1] and additional stationary sources on the project site were also evaluated.

Location and Description

The project site is located at 17575 South Western Avenue, Gardena, California. Although the street address is Gardena, the project site is within the jurisdiction of the City of Torrance. The project site is currently developed with several existing storage buildings on-site. The on-site storage buildings are currently operational. The project site immediately bounded to the north by Artesia Boulevard, to the east by South Western Avenue and commercial uses, and to the southwest by the Dominguez Channel. Regional access to the project site is provided by Interstate 405 (I-405), located approximately 0.85 miles south of the project site and Interstate 110 (I-110), located approximately 1.4 miles east of the project site. Local access to the project site is provided by South Western Avenue and Artesia Boulevard. Figure 1 shows the project location, and Figure 2 provides an overview of the proposed site plan (all figures are provided in Attachment A).

The proposed project would demolish the northwest portion (7,623 sq ft) of the self-storage building that borders Artesia Boulevard and the adjacent 8,445 sf self-storage building . All other existing uses on site including the other self-storage buildings, office building, and surface parking

[1] LSA. 2023. *Transportation Analysis for Extra Space Storage Facility at 17575 South Western Avenue, Torrance, CA*. June 27.

lot would remain. The proposed project would construct a 58,734 sf self-storage building that includes two stories above ground plus a below ground basement, 457 storage units, and 10 new parking stalls attached to the building. Office hours of operation would remain the same: Monday through Friday 9:30 a.m. to 6:00 p.m., Saturday 9:00 a.m. to 5:30 p.m., and closed on Sunday. Storage gate hours would also remain the same: Monday through Sunday 6:00 a.m. to 10:00 p.m.

METHODOLOGY

The evaluation of noise impacts associated with the proposed project includes the following:

- A determination of the short-term construction noise and vibration levels at off-site noise-sensitive uses and comparison to the City's General Plan and Municipal Code Ordinance requirements;
- A determination of the long-term noise levels at off-site noise-sensitive uses and comparison of those levels to the City's pertinent noise standards; and
- If necessary, a determination of required mitigation measures, such as noise barriers, to reduce long-term noise impacts from all sources.

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units (e.g., inches or pounds), decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about

10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single-point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dB for each doubling of distance in a hard site environment. Similarly, line sources with intervening absorptive vegetation or line sources that are located at a great distance to the receptor would decrease 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. L_{max} is often used together with another noise scale or noise standards in terms of percentile noise levels in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level (i.e., half the time the noise level exceeds this level, and half the time it is less than this level). The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category is audible impacts, which refers to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise levels of less than 1 dB, which are

inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160–165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

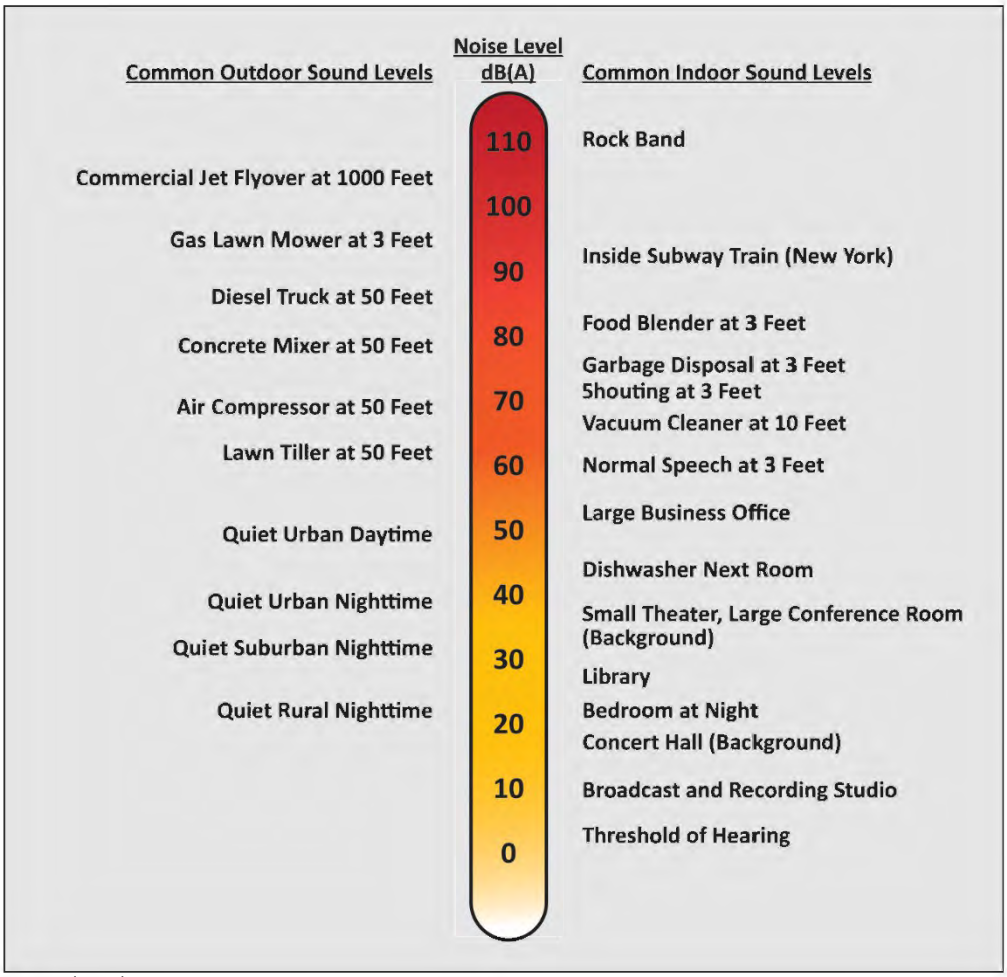
Table A lists full definitions of acoustical terms, and Table B shows common sound levels and their sources.

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this assessment are A-weighted, unless reported otherwise.
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris, Cyril M., 1991).

Table B: Common Sound Levels and Noise Sources



Source: LSA (2016).

CHARACTERISTICS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may not be discernible. Typically, there is more adverse reaction to effects associated with the shaking of a building. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough

roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) of the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA 2018).[2] When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, the construction of the project could result in ground-borne vibration that may be perceptible.

Ground-borne vibration has the potential to damage buildings. Although it is very rare for typical construction activities to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018).[2] Ground-borne vibration that may resulting in damage is usually measured in terms of peak particle velocity (PPV).

APPLICABLE NOISE STANDARDS

The applicable noise standards governing the project site include the criteria in the City's Noise Element of the General Plan (Noise Element) and the City of Torrance Municipal Code (TMC).

City of Torrance

Noise Element of the General Plan

The City has established the noise/land use compatibility criteria for determining whether a new use is appropriate within a given noise environment. Table C shows land use noise compatibility from Table N-3 of the City's General Plan Noise Element. As shown in Table C, a noise level of 70 dBA CNEL is the maximum exterior noise level allowed for commercial uses. These compatibility criteria serve as guidelines. For example, an acoustical analysis must be prepared when noise-sensitive land uses are proposed within noise impact areas. The analysis must show that the project is designed to attenuate noise to meet the City's noise standards in order to receive approval. If the project design does not meet the noise standards, mitigation can be recommended in the analysis. If the analysis demonstrates that the noise standards can be met by implementing the mitigation measures, the project can be approved conditioned upon implementation of the mitigation measures.

[2] Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual – FTA Report No. .0123*. September.

Table C: Noise/Land Use Compatibility Guidelines

Property Receiving Noise		Maximum Noise Level L_{dn} or CNEL (dBA)	
Type of Use	**Land Use Designations**	**Interior**	**Exterior**
Residential[3]	Low Density Residential Low Medium Density Residential Medium Density Residential	45	60/65[1]
	Medium High Density Residential	45	65/70[2]
	High Density Residential	45	70[1]
Commercial and Office	General Commercial Commercial Center	—	70
	Residential Office	50	70
Industrial	Business Park	55	75
	Light Industrial		
	Heavy Industrial		
Public and Medical Uses	Public/Quasi-Public/Open Space	50	65
	Hospital/Medical	50	70
Airport	Airport	—	70

Source: Table N-3, City of Torrance General Plan, Noise Element (City of Torrance 2010).

[1] The normally acceptable standard is 60 dBA. The higher standard is acceptable subject to inclusion of noise-reduction features in project design and construction.

[2] Maximum exterior noise levels up to 70 dBA CNEL are allowed for Multiple-Family Housing.

[3] Regarding aircraft-related noise, the maximum acceptable exposure for new residential development is 60 dBA CNEL.

City of Torrance Municipal Code

Section 46.2.6 of the City's Municipal Code limits noise levels at the property line of any residential land to exceed the ambient noise level by more than 5 dBA from machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device.

Sections 46.7.2(a) and 46.7.2(b) of the City's Municipal Code limits stationary noise based on four regions. The four regions within the City are defined below.

- **Region 1** includes the predominantly industrial areas in and around the refineries and industrial uses on the western edge of the City.
- **Region 2** includes the area in and around the airport and includes the commercial and industrial uses south of Lomita Boulevard and north of Pacific Coast Highway.
- **Region 3** encompasses the residential neighborhoods south of Pacific Coast Highway and west of Hawthorne Boulevard.
- **Region 4** includes the remainder of the City.

Section 46.7.2(a) of the City Municipal Code limits stationary noise received residential land, which is shown in Table D. The noise limits shown in Table D are adjusted using the corrections provided in Table E for noise that are steady with an audible tone (such as a whine, screech or hum), repetitive impulsive noise (such as hammering or riveting), or noise that is not continuous.

Table D: City of Torrance Noise Limits

Land Use Category	Region	Noise Level (dBA L_{eq})[1]	
		Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Residential	3	50	45
Residential	4	55	50

Source: Municipal Code (City of Torrance 2021).

[1] The noise descriptor was assumed to be L_{eq} because noise levels are continuous. In addition, these noise limits are adjusted using the corrections provided in Table G for noise that are steady with an audible tone (such as a whine, screech or hum), repetitive impulsive noise (such as hammering or riveting), or noise that is not continuous.

dBA = A-weighted decibels

L_{eq} = equivalent continuous sound level

Table E: Corrections to the Noise Limits

Noise Conditions	Correction to the Limits (dB)
1. Noise contains a steady, audible tone, such as a whine, screech or hum	-5
2. Noise is a repetitive impulsive noise, such as hammering or riveting	-5
3. If the noise is not continuous, one of the following corrections to the limits shall be applied:	
a. Noise occurs less than 5 hours per day or less than 1 hour per night	+5
b. Noise occurs less than 90 minutes per day or less than 20 minutes per night	+10
c. Noise occurs less than 30 minutes per day or less than 6 minutes per night	+15
4. Noise occurs on Sunday morning (between 12:01 a.m. and 12:01 p.m.)	-5

Source: Municipal Code (City of Torrance 2021).

dB = decibels

Federal Transit Administration

Although the City does not have daytime construction noise level limits for activities that occur within the specified hours of Section 18-63(b)(7), to determine potential CEQA noise impacts, construction noise was assessed using criteria from the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) (FTA Manual).[3] Table F shows the FTA's Detailed Assessment Construction Noise Criteria based on the composite noise levels per construction phase.

[3] Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual – FTA Report No. .0123.* September.

Table F: Detailed Assessment Daytime Construction Noise Criteria

Land Use	Daytime 1-hour L_{eq} (dBA)
Residential	80
Commercial	85
Industrial	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level

APPLICABLE VIBRATION STANDARDS

The following information provides standards to which potential vibration impacts will be compared.

Federal Transit Administration

Vibration standards included in the FTA Manual (2018) are used in this analysis for ground-borne vibration impacts on surrounding buildings.

The criteria for environmental impacts resulting from ground-borne vibration are based on the maximum levels for a single event. The City's Municipal Code does not include specific criteria for assessing vibration impacts associated with damage. Therefore, for the purpose of determining the significance of vibration impacts experienced at sensitive uses surrounding the project site, the guidelines within the FTA Manual have been used to determine vibration impacts (refer to Table G, below).

Table G: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Non-engineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
in/sec = inches per second PPV = peak particle velocity

The FTA Manual guidelines show that a vibration level of up to 0.2 inches per second (in/sec) in PPV is considered safe for non-engineered timber and masonry buildings, which are the types of buildings located on properties adjacent to the project site. Accordingly, the 0.2 in/sec PPV threshold was used to evaluate vibration impacts at the nearest structures to the site.

THRESHOLDS OF SIGNIFICANCE

Based on *Guidelines for the Implementation of the California Environmental Quality Act* (CEQA), Appendix G, Public Resources Code, Sections 15000–15387, a project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels

for adjoining areas or conflict with adopted environmental plans and the goals of the community in which it is located.

The *State CEQA Guidelines* indicate that a project would have a significant impact on noise if it 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 ground-borne vibration or ground-borne noise levels; or
- 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 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The primary existing noise sources in the project area are transportation facilities, including Artesia Boulevard and South Western Avenue. In addition, periodic storage operations such as loading and unloading are audible at the project site.

In order to assess the existing noise conditions in the area, long-term noise measurements were conducted at the project site. Two long-term, 24-hour measurements were taken from September 13, 2023, September 14, 2023. The locations of the noise measurements are shown on Figure 3, and the results are summarized in Table H. Noise measurement data are provided in Attachment B of this analysis.

Table H: Existing Noise Level Measurements

Location Number	Location Description	Daytime Noise Levels[1] (dBA L_{eq})	Evening Noise Levels[2] (dBA L_{eq})	Nighttime Noise Levels[3] (dBA L_{eq})	Average Daily Noise Levels (dBA CNEL)	Primary Noise Sources
LT-1	On a utility pole along the northwestern corner of the Extra Space Storage facility, approximately 35 feet south from the outer most edge of eastbound Artesia Boulevard.	65.6-68.0	65.7-66.6	57.7-66.7	70.5	Traffic noise from Artesia Boulevard.
LT-2	On a utility pole in front of a hotel on 17414 S Western Ave, Gardena, CA 90248.	72.0-77.0	70.9-71.7	64.4-72.1	76.0	Traffic noise from South Western Avenue.

Source: Compiled by LSA (September 2023).

[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.

[2] Evening Noise Levels = noise levels during the hours of 7:00 p.m. to 10:00 p.m.

[3] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibel(s)

ft = foot/feet

L_{eq} = equivalent continuous sound level

AIRCRAFT NOISE

The project site is approximately 3.6 miles south of the Hawthorne Municipal Airport. Because the project site is not located within the 65 dBA CNEL and 70 dBA CNEL noise contours, no further analysis associated with aircraft noise impacts is necessary. Additionally, there are no helipads or private airstrips within 2 miles from the project area.

Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others are. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. Land uses adjacent to the project site include the following:

- **North:** Existing commercial and industrial uses.
- **East:** Existing hotel residential uses and commercial uses.
- **South:** Existing mobile home residential uses.
- **West:** Existing mobile home residential uses.

The nearest sensitive receptors are:

- **East:** Existing hotel residential building approximately 300 ft east of the project site property line.
- **West**: Existing mobile home park approximately 200 ft from the project site property line.

PROJECT IMPACT ANALYSIS

The proposed project would result in short-term construction noise and vibration impacts and long-term mobile-source noise and vibration impacts as described below.

Short-Term Construction-Related Impact Analysis

Project construction would result in short-term noise and vibration. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of various types of construction noise and vibration would vary from 1 day to several weeks, depending on the phase of construction. The levels and types of impacts that may occur during construction are described below.

Construction Noise Analysis

Two types of short-term noise would occur during project construction, including: (1) equipment delivery and construction worker commutes; and (2) project construction operations.

The first type of short-term construction noise would result from the transport of construction equipment and materials to the project site and construction worker commutes. These transportation activities would incrementally raise noise levels on access roads leading to the site. It is expected that larger trucks used in equipment delivery would generate higher noise impacts than

trucks associated with worker commutes. The single-event noise from equipment trucks passing at a distance of 50 ft from a sensitive noise receptor would reach a maximum level of 84 dBA L_{max}. However, the pieces of heavy equipment for construction activities would be moved on site just once and would remain on site for the duration of each construction phase. In addition to the equipment deliveries, the greatest construction traffic volume would occur during the grading phase when approximately 249 daily trips between hauling and worker trips would occur. These trips would not add any significant volume to the daily traffic noise in the project vicinity as 2005 ADTs on Artesia Boulevard and Western Avenue are 36,000 and 32,000, respectively. Because the total number of daily vehicle trips would be minimal when compared to existing traffic volumes on the affected streets, the noise level changes associated with these trips would be much less than 1 dBA and would not be perceptible. Therefore, equipment transport noise and construction-related worker commute impacts would be short term and would not result in a significant off-site noise impact. No mitigation is required.

The second type of short-term noise impact is related to noise generated during demolition, site preparation, grading, building construction, architectural coating, and paving on the project site. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels would vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table I lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 ft between the construction equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1–2 minutes of full-power operation followed by 3–4 minutes at lower power settings.

Table I: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 ft
Compressor	100	81
Concrete Mixer	40	85
Concrete Pump	40	85
Crane	16	83
Dozer	40	80
Forklift	20	75
Front [End] Loader	40	79
Generator	100	78
Grader	8	85
Scraper	40	88
Welder	40	74

Sources: *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* (USEPA 1971); Roadway Construction Noise Model (FHWA 2006).
ft = foot/feet
L_{max} = maximum instantaneous sound level

In addition to the reference maximum noise level, the usage factor provided in Table I is utilized to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period

E.L. = Noise emission level of the particular piece of equipment at a reference distance of 50 ft

U.F. = Usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

D = Distance from the receiver to the piece of equipment

Each piece of construction equipment operates as an individual point source. Utilizing the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

Table J shows the composite noise levels of one piece of equipment type for each construction phase at a distance of 50 ft from the construction area. Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq\ (at\ distance\ X) = Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA, while halving the distance would increase noise levels by 6 dBA.

Table J: Construction Noise Levels by Phase

Phase	Duration (days)	Equipment	Composite Noise Level at 50 ft (dBA L_{eq})	Distance to Sensitive Receptor (ft)[1]	Noise Level at Receptor (dBA L_{eq})
Demolition	20	1 concrete/industrial saw, 1 dozer, and 3 tractors	88	355	70
Site Preparation	2	1 grader, 1 dozer, and 1 tractor	85	355	68
Grading	4	1 grader, 1 dozer, and 2 tractors	86	355	69
Building Construction	200	1 crane, 1 forklift, 1 generator set, 1 tractor, and 3 welders	83	355	66
Paving	10	1 cement and mortar mixer, 1 paver,1 paving equipment, 1 roller, and 1 tractor	85	355	68

Architectural Coating	100	1 air compressor	74	355	57

Source: Compiled by LSA (2023).

[1] Distances are from the average location of construction activity for each phase, assumed to be the center of the project site. Residential uses to the west are 190 feet from the edge of construction activity.

dBA L_{eq} = average A-weighted hourly noise level

ft = foot/feet

As presented above, Table H shows the construction phases, the expected duration of each phase, the equipment expected to be used during each phase, the composite noise levels of the equipment at 50 ft, the distance of the nearest sensitive receptor from the average location of construction activities (a distance of 355 ft from the center of the project site), and noise levels expected during each phase of construction. These noise level projections do not take into account intervening topography or barriers. While it is likely that architectural coating activities could overlap with building construction or paving, those combined activities would be less than construction noise levels generated during demolition. Attachment C provides construction noise calculations.

It is expected that average noise levels during construction at the nearest sensitive receptor, the mobile home park to the west, would approach 70 dBA L_{eq} during the demolition phase, which would occur for a duration of approximately 20 days. Average noise levels during other construction phases would range from 57 dBA L_{eq} to 69 dBA L_{eq}. These predicted noise levels would only occur when all construction equipment is operating simultaneously; therefore, these noise levels are assumed to be conservative in nature.

Although the project construction-related short-term noise levels have the potential to be higher than the ambient noise in the project vicinity, construction noise would cease to occur once the project construction is completed. Furthermore, the construction-related noise levels would be below the 80 dBA L_{eq} criteria established by FTA for residential uses. The project would be constructed in compliance with the requirements of the City's Noise Ordinance, which states that construction activities shall only occur between the hours of 7:30 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturdays. With incorporation of best business practices for noise reduction, the overall noise levels generated will be minimized, and construction noise impacts would be less than significant. No mitigation is required.

Construction Vibration Building Damage Potential

Ground-borne noise and vibration from construction activity would be low. Table K provides reference PPV values and vibration levels (in terms of VdB) from typical construction vibration sources at 25 ft. While there is currently limited information regarding vibration source levels specific to the equipment that would be used for the project, to provide a comparison of vibration levels expected for a project of this size, a large bulldozer would generate 0.089 PPV (in/sec) of ground-borne vibration when measured at 25 ft, based on the FTA Manual. As shown previously in Table G, it would take a minimum of 0.2 PPV (in/sec) to cause any potential building damage to non-engineered timber and masonry buildings.

Table K: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

[1] RMS VdB re 1 µin/sec.

µin/sec = micro-inches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
L_v = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity in decibels

The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would only be used at or near the project setback line). The formula for vibration transmission is provided below:

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

The closest structure to the external construction activities is the convenience store associated with commercial uses to the southeast, which is within approximately 22 ft from the project's southeastern construction boundary. Using the reference data from Table H and the equation above, it is expected that vibration levels generated by large bulldozer and other large equipment within 22 ft of the project boundary would generate ground-borne vibration levels of 0.108 PPV (in/sec) or higher at the closest structures to the project site. This vibration level would not exceed the 0.2 in/sec PPV threshold considered safe for non-engineered timber and masonry buildings, which would not result in a potentially significant impact.

Long-Term Off-Site Traffic Noise Impact Analysis

In order to assess the potential traffic impacts related to the proposed project, LSA estimates that the proposed project would result in a net increase of 62 ADT based on the proposed increase in square footage. Based on the ADTs provided by the City of Torrance (*Daily Traffic Counts*[2]), the ADT along Artesia Boulevard and Western Avenue in the project vicinity is approximately 36,000 and 32,000, respectively based on projections for the year 2005. While the existing ADT is likely higher, using 36,000 and 32,000 ADT as the existing count would be a conservative approach. The following equation was used to determine the potential impacts of the project:

$$\text{Change in CNEL} = 10 \log_{10} [V_{e+p}/V_{existing}]$$

[2] City of Torrance. 2005. *Citywide Traffic Counts* – Existing (2005) Weekday Roadway Segment ADT.

Where: $V_{existing}$ = the existing daily volume

V_{e+p} = existing daily volumes plus project

Change in CNEL = the increase in noise level due to the project

The results of the calculations show that an increase of less than 0.01 dBA CNEL is expected along Artesia Boulevard and Western Avenue. A noise level increase of less than 3 dBA would not be perceptible to the human ear; therefore, the traffic noise increase along Artesia Boulevard and Western Avenue resulting from the proposed project would be less than significant. No mitigation is required.

Long-Term Operational Noise Impact Analysis

Adjacent off-site land uses would be potentially exposed to stationary-source noise impacts from rooftop heating, ventilation, and air conditioning (HVAC) equipment and proposed truck loading and unloading activities. The potential noise impacts to off-site sensitive land uses from the proposed operations are discussed below. To provide a conservative analysis, it is assumed that within any given peak hour, seven heavy trucks would maneuver to park near the loading zone south of the proposed building. During non-peak hours, it is assumed two trucks would operate per hour.

Truck Deliveries and Truck Loading and Unloading Activities

Noise levels generated by delivery trucks would be similar to noise readings from truck loading and unloading activities, which generate a noise level of 75 dBA L_{eq} at 20 ft based on measurements taken by LSA.[3] During this process, noise levels are associated with the truck engine noise, air brakes, and backup alarms. These noise levels would occur for a period of approximately 5 minutes for each truck.

Heating, Ventilation, and Air Conditioning Equipment

The proposed project would include rooftop HVAC units each at the proposed building. The HVAC equipment could operate 24 hours per day and would generate sound power levels (SPL) of up to 87 dBA SPL or 72 dBA L_{eq} at 5 ft, based on manufacturer data (Trane[4]).

Tables L and M below show the results of the peak-hour daytime and off-peak hour nighttime operational noise assessment. The results indicated that operational noise levels would be below the daytime and nighttime hourly noise level standards or 55 dBA L_{eq} and 50 dBA L_{eq}, respectively. Additionally, ambient noise levels would not increase by 5 dBA or more. Operations of the proposed project would be less than significant. No mitigation is required. Attachment D presents the operational noise source calculations.

[3] LSA. 2016. *Operational Noise Impact Analysis for Richmond Wholesale Meat Distribution Center.*

[4] Trane. n.d. Fan Performance - *Product Specifications RT-PRC023AU-EN*.

Table L: Peak Hour Daytime Exterior Noise Level Impacts

Receptor	Direction	Existing Quietest Daytime Noise Level (dBA L_{eq})	Project-Generated Noise Levels (dBA L_{eq})	Potential Operational Noise Impact?[1]
Mobile home residentials	West	65.6	52.0	No
Hotel	East	72.0	49.9	No

Source: Compiled by LSA (2023).

[1] A potential operational noise impact would occur if (1) the quietest daytime ambient hour is less than 55 dBA L_{eq} and project noise impacts are greater than 55 dBA L_{eq}, OR (2) the quietest daytime ambient hour is greater than 55 dBA L_{eq} and project noise impacts are 5 dBA greater than the quietest daytime ambient hour.

dBA = A-weighted decibels L_{eq} = equivalent noise level

Table M: Off-Peak Hour Nighttime Exterior Noise Level Impacts

Receptor	Direction	Existing Quietest Nighttime Noise Level (dBA L_{eq})	Project-Generated Noise Levels (dBA L_{eq})	Potential Operational Noise Impact?[1]
Mobile home residentials	West	57.7	46.7	No
Hotel	East	64.4	44.6	No

Source: Compiled by LSA (2023).

[1] A potential operational noise impact would occur if (1) the quietest daytime ambient hour is less than 50 dBA L_{eq} and project noise impacts are greater than 50 dBA L_{eq}, OR (2) the quietest daytime ambient hour is greater than 50 dBA L_{eq} and project noise impacts are 5 dBA greater than the quietest daytime ambient hour.

dBA = A-weighted decibels L_{eq} = equivalent noise level

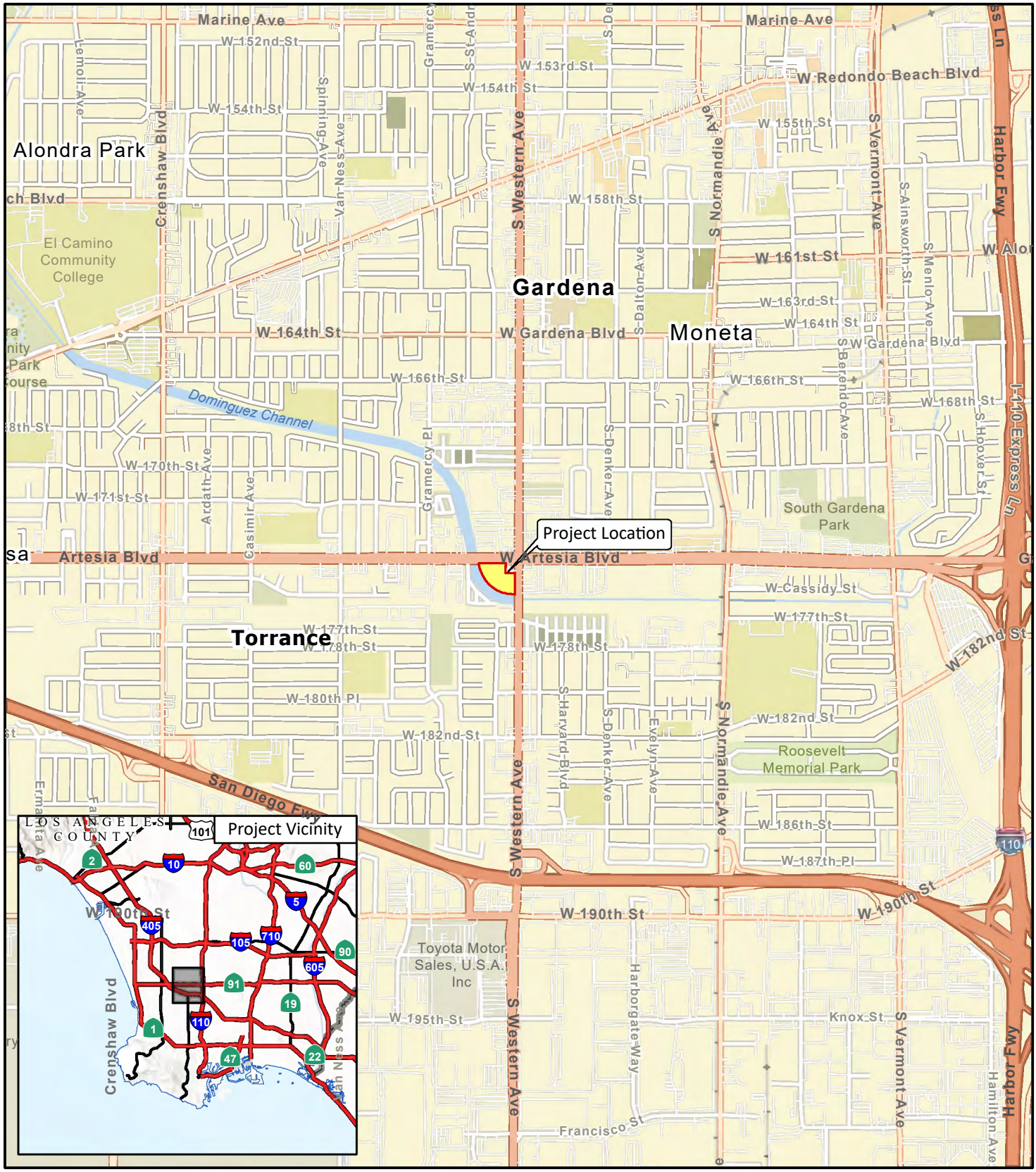
Long-Term Ground-Borne Noise and Vibration from Vehicular Traffic

The proposed project would not generate vibration levels related to on-site operations. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Based on a reference vibration level of 0.076 in/sec PPV, structures more than 20 ft from the roadways that contain project trips would experience vibration levels below the most conservative standard of 0.12 in/sec PPV; therefore, vibration levels generated from project-related traffic on the adjacent roadways would be less than significant, and no mitigation measures are required.

Attachments:
- A: Figures
- B: Noise Measurement Data
- C: Construction Noise Calculations
- D: Operational Noise Calculations

ATTACHMENT A

FIGURES



LSA

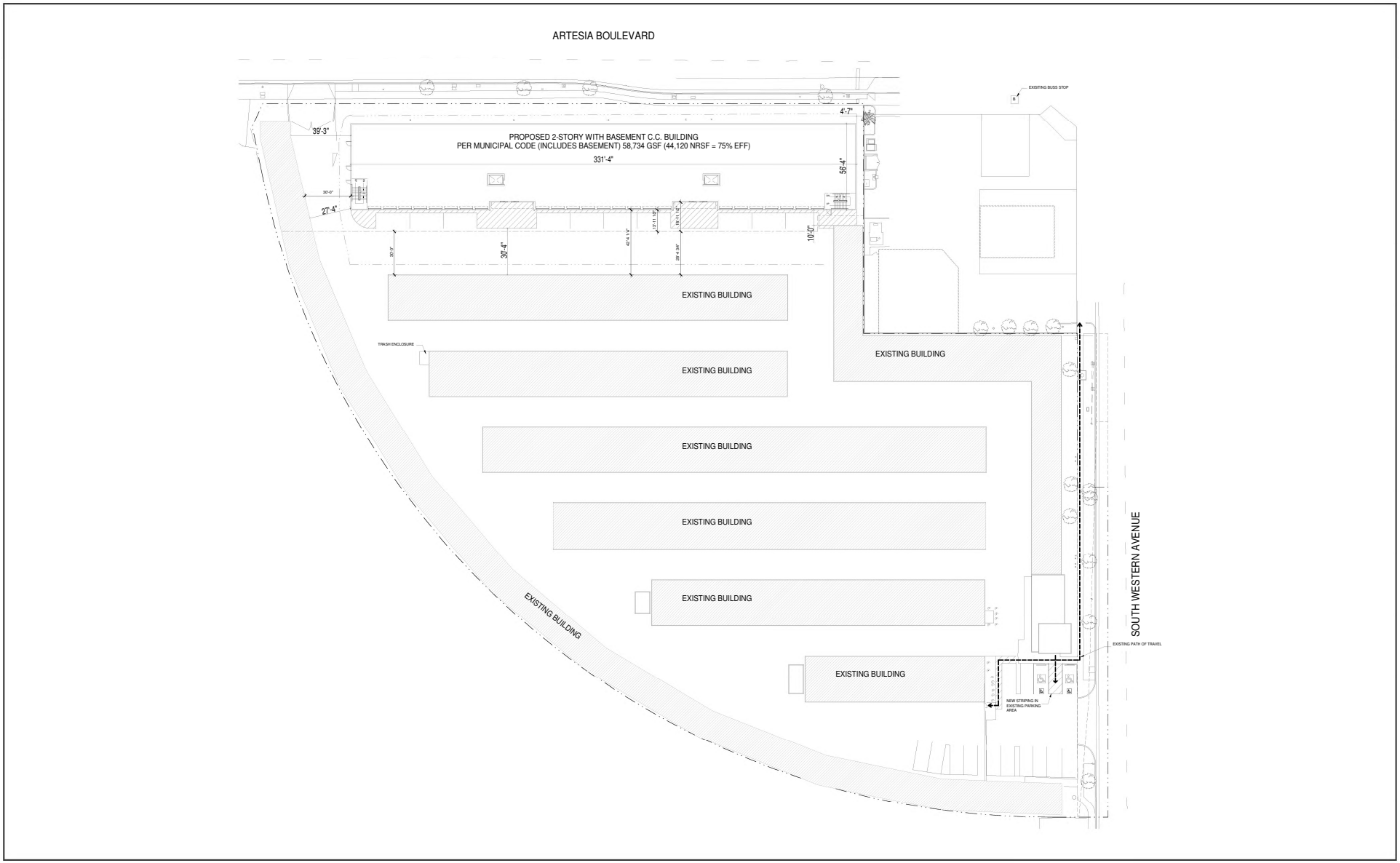
FIGURE 1

SOURCE: Esri (2023)

Gardena #1009 Self-Storage Building Project

Regional Location

J:\20231465\GIS\Pro\Gardena #1009 Self-Storage Building Project\Gardena #1009 Self-Storage Building Project.aprx (10/31/2023)



LSA

FIGURE 2

N

0 50 100

FEET

SOURCE: Extra Space Storage, Inc.

I:\20231465\G\Conceptual_Site_Plan.ai (10/31/2023)

Gardena #1009 Self-Storage Building Project

Conceptual Site Plan

ATTACHMENT B

NOISE MEASUREMENT DATA

Noise Measurement Survey – 24 HR

Project Number: 20231465
Project Name: Gardena Extra Storage

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:905)

Site Number: LT-1 Date: 9/13/23

Time: From 11:00 a.m. To 11:00 a.m.

Site Location: On a utility pole along the northwestern corner of the Extra Space Storage facility, approximately 35 feet south from the outer most edge of eastbound Artesia Boulevard.

Primary Noise Sources: Traffic noise from Artesia Boulevard.

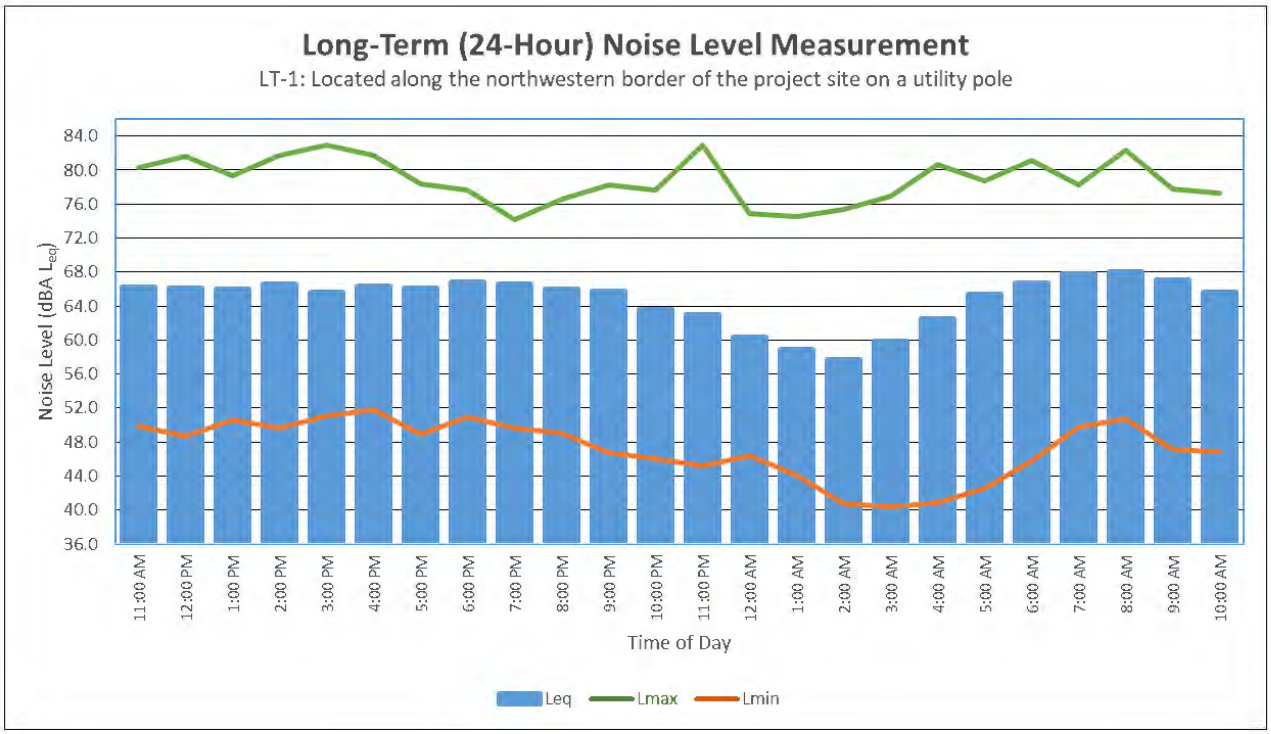
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
11:00 AM	9/13/23	66.3	80.3	49.9
12:00 PM	9/13/23	66.1	81.6	48.7
1:00 PM	9/13/23	66.0	79.3	50.6
2:00 PM	9/13/23	66.6	81.7	49.6
3:00 PM	9/13/23	65.6	82.9	51.1
4:00 PM	9/13/23	66.3	81.7	51.8
5:00 PM	9/13/23	66.1	78.4	48.9
6:00 PM	9/13/23	66.8	77.6	51.0
7:00 PM	9/13/23	66.6	74.2	49.7
8:00 PM	9/13/23	66.0	76.6	49.0
9:00 PM	9/13/23	65.7	78.2	46.8
10:00 PM	9/13/23	63.6	77.7	46.0
11:00 PM	9/13/23	63.0	82.9	45.2
12:00 AM	9/14/23	60.3	74.9	46.4
1:00 AM	9/14/23	58.9	74.5	44.1
2:00 AM	9/14/23	57.7	75.4	40.7
3:00 AM	9/14/23	59.8	76.9	40.4
4:00 AM	9/14/23	62.6	80.6	40.9
5:00 AM	9/14/23	65.3	78.7	42.6
6:00 AM	9/14/23	66.7	81.1	45.8
7:00 AM	9/14/23	67.8	78.2	49.8
8:00 AM	9/14/23	68.0	82.4	50.7
9:00 AM	9/14/23	67.1	77.8	47.1
10:00 AM	9/14/23	65.7	77.3	46.9

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20231465
Project Name: Gardena Extra Storage

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:814)

Site Number: LT-2 Date: 9/13/23

Time: From 11:00 a.m. To 11:00 a.m.

Site Location: On a utility pole in front of a hotel on 17414 S Western Avenue, Gardena, CA 90248.

Primary Noise Sources: Traffic noise from South Western Avenue.

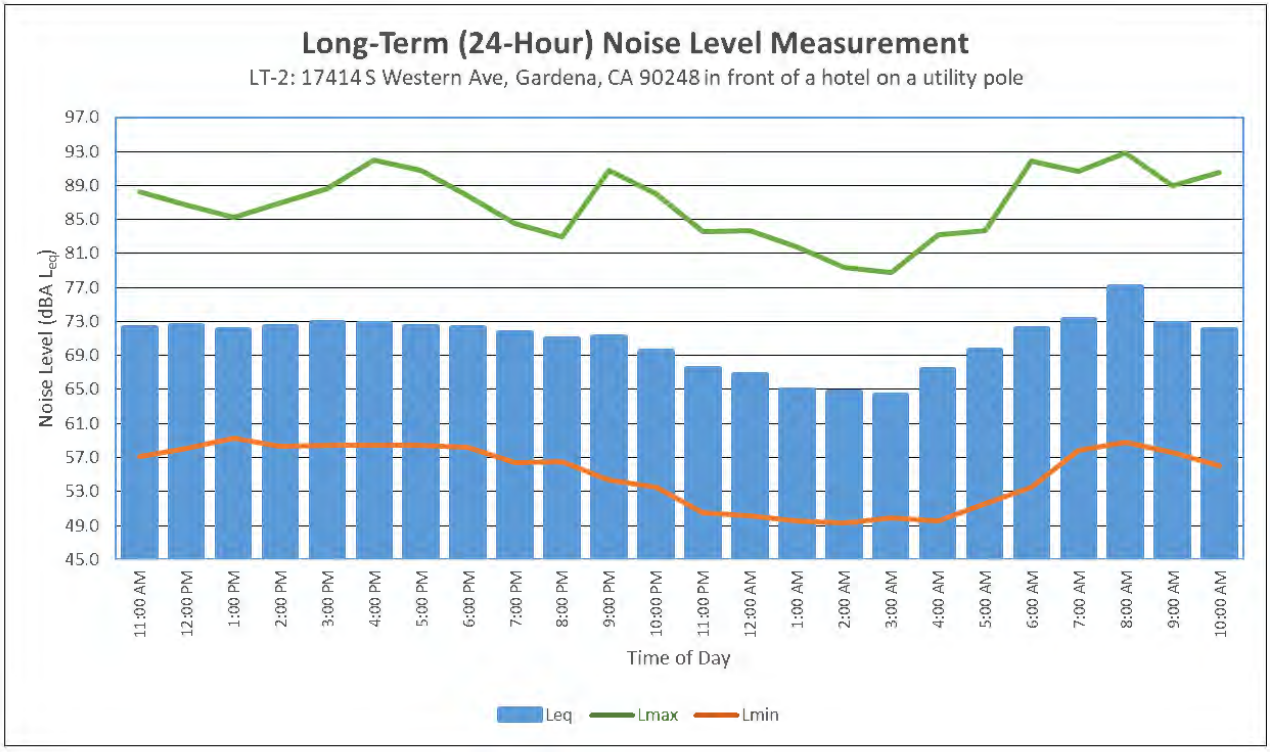
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
11:00 AM	9/13/23	72.2	88.3	57.1
12:00 PM	9/13/23	72.5	86.7	58.1
1:00 PM	9/13/23	72.1	85.3	59.3
2:00 PM	9/13/23	72.3	86.9	58.3
3:00 PM	9/13/23	72.9	88.6	58.5
4:00 PM	9/13/23	72.8	92.0	58.5
5:00 PM	9/13/23	72.4	90.8	58.5
6:00 PM	9/13/23	72.3	87.8	58.2
7:00 PM	9/13/23	71.7	84.5	56.4
8:00 PM	9/13/23	70.9	83.0	56.5
9:00 PM	9/13/23	71.2	90.8	54.4
10:00 PM	9/13/23	69.5	88.0	53.5
11:00 PM	9/13/23	67.5	83.6	50.5
12:00 AM	9/14/23	66.7	83.7	50.2
1:00 AM	9/14/23	65.0	81.8	49.5
2:00 AM	9/14/23	64.7	79.4	49.3
3:00 AM	9/14/23	64.4	78.8	49.9
4:00 AM	9/14/23	67.3	83.2	49.6
5:00 AM	9/14/23	69.6	83.7	51.6
6:00 AM	9/14/23	72.1	91.9	53.5
7:00 AM	9/14/23	73.2	90.6	57.8
8:00 AM	9/14/23	77.0	92.8	58.8
9:00 AM	9/14/23	72.8	89.0	57.6
10:00 AM	9/14/23	72.0	90.5	56.0

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



ATTACHMENT C

CONSTRUCTION NOISE CALCULATIONS

Construction Calculations

Phase: Demolition

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Concrete Saw	1	90	20	50	0.5	90	83
Dozer	1	82	40	50	0.5	82	78
Tractor	3	84	40	50	0.5	84	85
					Combined at 50 feet	**91**	**88**
					Combined at Receptor 355 feet	**74**	**70**

Phase: Site Preparation

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Grader	1	85	40	50	0.5	85	81
Dozer	1	82	40	50	0.5	82	78
Tractor	1	84	40	50	0.5	84	80
					Combined at 50 feet	**89**	**85**
					Combined at Receptor 355 feet	**72**	**68**

Phase: Grading

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Grader	1	85	40	50	0.5	85	81
Dozer	1	82	40	50	0.5	82	78
Tractor	2	84	40	50	0.5	84	83
					Combined at 50 feet	**89**	**86**
					Combined at Receptor 355 feet	**72**	**69**

Phase:Building Construstion

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Crane	1	81	16	50	0.5	81	73
Man Lift	1	75	20	50	0.5	75	68
Generator	1	81	50	50	0.5	81	78
Tractor	1	84	40	50	0.5	84	80
Welder / Torch	3	74	40	50	0.5	74	75
					Combined at 50 feet	**87**	**83**
					Combined at Receptor 355 feet	**70**	**66**

Phase:Paving

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Drum Mixer	1	80	50	50	0.5	80	77
Paver	1	77	50	50	0.5	77	74
All Other Equipment > 5 HP	1	85	50	50	0.5	85	82
Tractor	1	84	40	50	0.5	84	80
Roller	1	80	20	50	0.5	80	73
					Combined at 50 feet	**89**	**85**
					Combined at Receptor 355 feet	**72**	**68**

Phase:Architectural Coating

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Compressor (air)	1	78	40	50	0.5	78	74
					Combined at 50 feet	**78**	**74**
					Combined at Receptor 355 feet	**61**	**57**

Sources: RCNM

[1]- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level

ATTACHMENT D

OPERATIONAL NOISE CALCULATIONS

Stationary Noise

	Land Use	Direction	Noise Source	Peak Hour Daytime Reference Noise Level at 50 ft (dBA Leq)	Off-Peak Nighttime Reference Noise Level at 50 ft (dBA Leq)	Reference Distance (ft)	Distance (ft)	Distance Attenuation (dBA)	Peak Hour Daytime Reference Noise Level at Receptor (dBA Leq)	Off-Peak Nighttime Reference Noise Level at Receptor (dBA Leq)
1	Residential	West	Truck Load/Unload Activity	72.7	67.2	20	220	20.8	51.9	46.4
	Residential	West	HVAC	72.0	72.0	5	375	37.5	34.5	34.5
								Combined	**52.0**	**46.7**
2	Residential	East	Truck Load/Unload Activity PA1 East (Building 1)	72.7	67.2	20	280	22.9	49.8	44.3
	Residential	East	HVAC	72.0	72.0	5	430	38.7	33.3	33.3
								Combined	**49.9**	**44.6**

ATTACHMENT E

AIR QUALITY TECHNICAL MEMORANDUM

MEMORANDUM

DATE: October 23, 2023

TO: Clint Kleppe, Development Manager

FROM: Cara Cunningham, Associate
Bianca Martinez, Air Quality Specialist

SUBJECT: Air Quality Technical Memorandum for the proposed Gardena #1009 Self Storage in Torrance, California

INTRODUCTION

This Air Quality Technical Memorandum evaluates the impacts associated with construction and operation of the proposed Gardena #1009 Self Storage Project (project) in Torrance, California. This analysis was prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the South Coast Air Quality Management District (SCAQMD) in its *CEQA Air Quality Handbook* (1993)[1] and associated updates. This analysis includes an assessment of criteria pollutant emissions, an assessment of carbon monoxide (CO) hot-spot impacts, and an assessment of sensitive receptors.

PROJECT LOCATION AND DESCRIPTION

The project site is at 17575 South Western Avenue, Gardena, California. Although the street address is Gardena, the project site is within the jurisdiction of the City of Torrance. The project site is currently developed with several existing storage buildings on-site. The on-site storage buildings are currently operational. The project site immediately bounded to the north by Artesia Boulevard, to the east by South Western Avenue and commercial uses, and to the southwest by the Dominguez Channel. Regional access to the project site is provided by Interstate 405, 0.85 mile south of the project site and Interstate 110, 1.4 miles east of the project site. Local access to the project site is provided by South Western Avenue and Artesia Boulevard. Figure 1 shows the project location, and Figure 2 provides an overview of the proposed site plan (all figures are provided in Attachment A).

The proposed project would demolish the northwest portion (7,623 sq ft) of the self-storage building that borders Artesia Boulevard and the adjacent 8,445 sf self-storage building. All other existing uses on site including the other self-storage buildings, office building, and surface parking lot would remain. The proposed project would construct a 58,734 sf self-storage building that includes two

[1] South Coast Air Quality Management District. 1993. *CEQA Air Quality Handbook*. Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed October 2023).

stories above ground plus a belowground basement, 457 storage units, and 10 new parking stalls attached to the building. Office hours of operation would remain the same: Monday through Friday 9:30 a.m. to 6:00 p.m., Saturday 9:00 a.m. to 5:30 p.m., and closed on Sundays. Storage gate hours would also remain the same: Monday through Sunday 6:00 a.m. to 10:00 p.m.

Construction would include demolition, site preparation, grading, building construction, paving, and architectural coating activities. Construction of the proposed project is anticipated to commence in 2024 and continue for approximately 12 months. In addition, the proposed project would require the export of 8,040 cubic yards (CY) of soil and the import of 390 CY of soil, for a net total of 7,650 CY of soil export.

Once operational, the proposed project would generate 85 average daily trips (ADT).[1] In addition, the proposed project would be all-electric and would not include any natural gas.

EXISTING LAND USES IN THE PROJECT AREA

For the purposes of this analysis, sensitive receptors are areas of the population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, daycare centers, hospitals, parks, and similar uses that are sensitive to air quality. Impacts on sensitive receptors are of particular concern because those receptors are the population most vulnerable to the effects of air pollution. Land uses adjacent to the project site include the following: existing commercial and industrial uses to the north, existing hotel and commercial uses to the east, existing mobile home residential uses to the west and south. The closest sensitive receptor to the project site is the Torrance Mobile Home Park, approximately 200 ft southwest of the project site.

ENVIRONMENTAL SETTING

Air quality is primarily a function of local climate, local sources of air pollution, and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and, for photochemical pollutants, sunshine.

A region's topographic features have a direct correlation with air pollution flow and are therefore used to determine the boundary of air basins. The proposed project is in Los Angeles County and is within the jurisdiction of SCAQMD, which regulates air quality in the South Coast Air Basin (Basin).

The Basin comprises approximately 10,000 square miles and covers all of Orange County and the urban parts of Los Angeles, Riverside, and San Bernardino counties. The Basin is on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east, forming the inland perimeter.

[1] LSA. 2023. *Project Trip Generation Table* (LSA Project No. 20231465). June 15.

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: CO, ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and lead are considered local pollutants that tend to accumulate in the air locally.

Air quality monitoring stations are located throughout the nation and are maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the United States Environmental Protection Agency (USEPA) to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable National Ambient Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment (e.g., marginal, moderate, serious, severe, and extreme) are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. As shown in Table A, the Basin is designated as nonattainment by federal standards for O_3 and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and nonattainment by State standards for O_3, particulate matter less than 10 microns in diameter (PM_{10}), and $PM_{2.5}$.

Table A: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Unclassified/Attainment (1-hour) Attainment/Maintenance (Annual)
SO_2	Attainment	Unclassified/Attainment
Lead	Nonattainment[1]	Nonttainment[1]
All Others	Attainment/Unclassified	Attainment/Unclassified

Source 1: NAAQS and CAAQS Attainment Status for South Coast Air Basin (SCAQMD 2016).
Source 2: Nonattainment Areas for Criteria Pollutants (Green Book) (USEPA 2019).
[1] Only the Los Angeles County portion of the South Coast Air Basin is in nonattainment for lead.

CAAQS = California Ambient Air Quality Standards
CO = carbon monoxide
N/A = not applicable
NAAQS = National Ambient Air Quality Standards
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
USEPA = United States Environmental Protection Agency

O_3 levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by SCAQMD and other regional, State, and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Basin still exceeds the State standard for 1-hour and 8-hour O_3 levels. The USEPA lowered the 1997 0.80 parts per million (ppm) national 8-hour ozone standard to 0.75 ppm in 2008 and then to 0.70 ppm on October 1, 2015. The Basin is classified nonattainment for the 1-hour and 8-hour ozone standards at the State and federal level. From 2020 to 2022, the Compton Monitoring Station located at 700 N. Bullis Road (the closest monitoring station to the project site) recorded the following exceedances of the State and federal 1-hour and 8-hour O_3 standards[1].

- The federal 8-hour O_3 standard had 4 exceedances in 2020, 1 in 2021, and 1 in 2022.
- The State 8-hour O_3 standard had 4 exceedances in 2020, 1 in 2021, and 1 in 2022.
- The federal 1-hour O_3 standard had 1 exceedance in 2020 and no exceedances in 2021 and 2022.
- The State 1-hour O_3 standard had 3 exceedances in 2020, 0 in 2021, and 1 in 2022.

National and State standards have also been established for $PM_{2.5}$ over 24-hour and yearly averaging periods. $PM_{2.5}$, because of the small size of individual particles, can be especially harmful to human health. $PM_{2.5}$ is emitted by common combustion sources such as cars, trucks, buses, and power plants, in addition to ground-disturbing activities. On December 17, 2006, the USEPA strengthened the 24-hour $PM_{2.5}$ NAAQS from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$, and the Basin was subsequently designated "moderate" nonattainment for 2006 24-hour $PM_{2.5}$ NAAQS on December 14, 2009. The Basin is also considered a nonattainment area for the $PM_{2.5}$ standard at the State level. From 2020 to 2022, the Compton Monitoring Station (the closest station to the project site monitoring $PM_{2.5}$) recorded the following exceedances of the federal 24-hour $PM_{2.5}$.

- The federal 24-hour $PM_{2.5}$ standard had 19 exceedances in 2020, 12 in 2021, and 6 exceedances in 2022.

The Basin is classified as a PM_{10} nonattainment area at the State level and was redesignated from serious nonattainment to attainment of the federal PM_{10} standard on July 26, 2013. Because the Basin was redesignated from nonattainment to attainment, a PM_{10} maintenance plan was adopted in 2013 and is required to be updated every 10 years. From 2020 to 2022, the Long Beach Air Monitoring Station at 1305 East Pacific Coast Highway (the closest monitoring station to the project site monitoring PM_{10}) recorded no exceedances of the federal and State 24-hour PM_{10} standard.

All areas of the Basin have continued to remain below the federal CO standards (35 ppm 1-hour and 9 ppm 8-hour standards) since 2003. The USEPA redesignated the Basin to attainment of the federal

[1] California Air Resources Board. 2023. *iADAM: Air Quality Data Statistics.* Website: https://www.arb.ca.gov/adam/index.html (accessed October 2023)

CO standards effective June 11, 2017. The Basin is also well below the State CO standards (20 ppm 1-hour CO and 9 ppm 8-hour CO).

REGULATORY SETTING

Applicable federal, State, regional, and local air quality regulations are discussed below.

Federal Regulations

The 1970 federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required for areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

State Regulations

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with the authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and areawide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

The California Air Resources Board (CARB) is the State's "clean air agency." CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Regional Regulations

The proposed project would be required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures, so the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 1113 limits the volatile organic compound (VOC) content of architectural coatings. Applicable dust suppression techniques from SCAQMD Rule 403 and low VOC content in paints under SCAQMD Rule 1113 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the particulate matter less than 10 microns in size [PM_{10}] component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

South Coast Air Quality Management District Rule 403 Measures

- Water active sites at least two times daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour or less.

South Coast Air Quality Management District Rule 1113 Measures

SCAQMD Rule 1113 governs the sale, use, and manufacture of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction and operation of the proposed project. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Local Regulations

City of Torrance General Plan

The City of Torrance (City) addresses air quality in the Community Resources Element of its General Plan.[1] The Community Resources Element includes goals and policies that work to improve local and regional ambient air quality to benefit the health of all. The following policies from the Community Resources Element are applicable to the proposed project:

- **Policy CR. 13.3:** Support regional air quality goals through conscientious land use and transportation planning and the implementation of resource conservation measures.
- **Policy CR. 13.4:** Balance the achievement of clean air with other major goals of the City.
- **Policy CR. 13.7:** Encourage the use of alternative fuel vehicles and re-refined oil.
- **Policy CR. 13.8:** Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.

METHODOLOGY

Construction Emissions

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short-term impacts can contribute to exceedances of air quality standards. Construction activities include demolition, site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive

[1] City of Torrance. 2009. *City of Torrance General Plan, Community Resources Element*. Website: https://www.torranceca.gov/home/showpublisheddocument/2722/636302127526600000 (accessed October 2023).

dust from soil disturbance; fuel combustion from mobile heavy-duty, diesel-, and gasoline-powered equipment and portable auxiliary equipment; and worker commute trips.

The California Emissions Estimator Model version 2022.1 (CalEEMod) computer program was used to calculate emissions from on-site construction equipment and from worker and vehicle trips to the site. Construction of the proposed project would begin 2024 and would continue for approximately 12 months. The proposed project would include 16,068 sq ft of demolition and would include the net export of 7,650 CY of soil, which was included in CalEEMod. This analysis assumes the use of Tier 2 construction equipment and that the proposed project would comply with SCAQMD Rule 403 measures, which were also included in CalEEMod. All other construction details are not yet known; therefore, default assumptions (e.g., construction worker and truck trips and fleet activities) from CalEEMod were used.

Operational Emissions

This air quality analysis includes estimating emissions associated with long-term operation of the project. Indirect emissions of criteria pollutants with regional impacts would be emitted by project-generated vehicle trips. In addition, localized air quality impacts (i.e., higher CO concentrations or "hot-spots") near intersections or roadway segments in the project vicinity would also potentially occur due to project-generated vehicle trips.

Consistent with SCAQMD guidance for estimating emissions associated with land use development projects, the CalEEMod computer program was used to calculate the long-term operational emissions associated with the project. As previously discussed in the Project Location and Description section, the proposed project would construct a 58,734 sq ft self-storage building and 10 new parking stalls. Therefore, the proposed project analysis was conducted using land use codes *Unrefrigerated Warehouse No-Rail* and *Parking Lot.* Trip generation rates used in CalEEMod for the project were based on the project's trip generation, which identifies that the proposed project would generate 85 ADT.[1] In addition, the proposed project would be all-electric and would not include any natural gas or wood-burning devices, which was assumed in CalEEMod. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions.

THRESHOLDS OF SIGNIFICANCE

The *State California Environmental Quality Act (CEQA) Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is in nonattainment under applicable NAAQS or CAAQS;

[1] LSA. 2023. *Project Trip Generation Table* (LSA Project No. 20231465). June 15.

- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

Certain air districts (e.g., SCAQMD) have created guidelines and requirements to conduct air quality analysis. The SCAQMD's current guidelines, the *CEQA Air Quality Handbook*[1] with associated updates, were followed in this assessment of air quality impacts for the proposed project.

Regional Emissions Thresholds

SCAQMD has established daily emissions thresholds for construction and operation of proposed projects in the Basin. The emission thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks. Table B lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table B: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD Air Quality Significance Thresholds (April 2019).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compound

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which the SCAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and a cumulative impact.

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a

[1] South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook.* Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed October 2023).

significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

Localized Impacts Analysis

SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[1] This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area (SRA), and the distance to the project. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality.

LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the Southwest Coastal LA County area (SRA 3). SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter source-receptor distances. As identified above, the closest sensitive receptor to the project site is the Torrance Mobile Home Park located approximately 200 ft southwest of the project site. As such, the distance of 200 feet (61 meters) was used. Based on the anticipated construction equipment, it is assumed that the maximum daily disturbed acreage for the proposed project would be 3.5 acres.[2] Table C lists the emissions thresholds that apply during project construction and operation.

Table C: SCAQMD Localized Significance Thresholds

Emissions Source	Pollutant Emissions Threshold (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Construction (3.5-acres, 61-meter distance)	161.0	1,688.0	38.0	10.0
Operations (3.5-acres, 61-meter distance)	161.0	1,688.0	9.7	2.8

Source: Final Localized Significance Threshold Methodology (SCAQMD, July 2008).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District

1 SCAQMD. 2008. *Final Localized Significance Threshold Methodology*. July.

2 SCAQMD. n.d. *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf (accessed October 2023).

IMPACT ANALYSIS

Air pollutant emissions associated with the project would occur over the short term from construction activities and over the long term from project-related vehicular trips and due to energy consumption (e.g., electricity) by the proposed land uses.

Consistency with Applicable Air Quality Plans

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The proposed project would include the demolition of 16,068 sq ft to construct a 58,734 sq ft self-storage building. The proposed project is not considered a project of statewide, regional, or area-wide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries, residential developments of more than 500 dwelling units, and shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space) as defined in the California Code of Regulations (Title 14, Division 6, Chapter 3, Article 13, §15206(b)). Because the proposed project would not be defined as a regionally significant project under CEQA, it does not meet SCAG's Intergovernmental Review criteria.

The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD Air Quality Management Plan (AQMP). Pursuant to the methodology provided in the SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2022 AQMP is affirmed when a project (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated below; therefore, the project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. The proposed project site is currently zoned for Limited Manufacturing (M-L). Per City Municipal Code Section 91.32.1, with approval of a Conditional Use Permit (CUP) operation of self-storage facilities is permitted on parcels zoned M-L.

To determine the proposed project's consistency with the 2022 AQMP, the project must be consistent with the AQMP growth assumptions, which are based, in part, on assumptions made by local planning agencies in the Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) regarding population, housing, and growth trends. According to SCAG's 2020–2045 RTP/SCS, the City's population, households, and employment are forecast to increase by approximately 6,000 residents, 1,700 households, and 7,200 jobs, respectively, between 2016 and 2045 and would total 153,000 residents, 57,300 households, and133,800 jobs by 2045.[1] The proposed project would include a 58,734 sq ft self-storage building, parking, and associated improvements. Based on information provided by the project Applicant, the proposed project would have approximately two employees, similar to existing employment conditions. It is anticipated that the additional two employees would fall within the 7,200 projected jobs for the City. Therefore, it is assumed that it the project's labor demand would not substantially increase population, households, or employment in Torrance. As such, the project would be consistent with SCAG's growth assumptions for new job growth in the region as identified in the RTP/SCS.

Additionally, based on the proposed project size (58,734 sq ft), the proposed project is not considered a project of Statewide, regional, or areawide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries, residential developments of more than 500 dwelling units, and shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space) as defined in the California Code of Regulations (CCR) (Title 14, Division 6, Chapter 3, Article 13, Section 15206(b)). Because the proposed project would not be defined as a regionally significant project under CEQA, it does not meet the SCAG Intergovernmental Review criteria.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP.

Criteria Pollutant Analysis

The Basin is currently designated as nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the PM_{10} standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

[1] Southern California Association of Governments (SCAG). 2020. Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy. Website: https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020 (accessed October 2023).

In developing thresholds of significance for air pollutants, SCAQMD considered the emissions levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by demolition, grading, building construction, paving, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxides (NO_X), VOCs, directly emitted $PM_{2.5}$ or PM_{10}, and toxic air contaminants such as diesel exhaust particulate matter.

Project construction activities would include demolition, grading, site preparation, building construction, architectural coating, and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, whereas fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SCAQMD has established Rule 403: Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. The Rule 403 measures that were incorporated in this analysis include:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, sulfur oxides (SO_X), NO_x, VOCs, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic

congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using CalEEMod and are summarized in Table D. CalEEMod output sheets are provided in Attachment A.

Table D: Short-Term Regional Construction Emissions

Construction Phase	Maximum Daily Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Demolition	0.7	20.5	15.7	<0.1	1.1	0.7	0.2	0.6
Site Preparation	0.5	15.7	12.4	<0.1	2.5	0.4	1.2	0.4
Grading	0.9	40.8	23.0	0.1	7.4	0.8	2.6	0.7
Building Construction	0.6	13.9	12.5	<0.1	0.4	0.6	0.1	0.5
Paving	0.4	8.5	7.4	<0.1	0.2	0.4	<0.1	0.3
Architectural Coating	5.5	1.1	1.3	<0.1	0.1	0.1	<0.1	0.1
Peak Daily Emissions	**6.1**	**40.8**	**23.0**	**0.1**	**8.2**		**3.3**	
SCAQMD Threshold	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**		**55.0**	
Significant?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (October 2023).
Note: Some values may not appear to add correctly due to rounding. Maximum emissions of VOCs occurred during the overlapping building construction and architectural coating phases.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table D, construction emissions associated with the project would not exceed the daily SCAQMD thresholds for VOCs, NO_x, CO, SO_X, $PM_{2.5}$, or PM_{10} emissions. Therefore, construction of the proposed project would not result in emissions that would result in a cumulatively considerable net increase of any criteria pollutant for which the project is in nonattainment under an applicable NAAQS or CAAQS.

Operational Air Quality Impacts

Long-term air pollutant emissions associated with operation of the proposed project include emissions from area, energy, and mobile sources. Area-source emissions include architectural coatings, consumer products, and landscaping. Energy-source emissions result from activities in buildings that use natural gas. As discussed above, the proposed project would be all-electric and would not include any natural gas.

Mobile-source emissions are from vehicle trips associated with operation of the project. Area-source emissions consist of direct sources of air emissions at the project site, including architectural coatings, consumer products, and use of landscape maintenance equipment.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when

vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Long-term operational emissions associated with the proposed project were calculated using CalEEMod. Table E provides the proposed project's estimated operational emissions. CalEEMod output sheets are provided as Attachment B.

Table E: Project Operational Emissions

Emission Type	Pollutant Emissions (lbs/day)					
	VOCs	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	0.3	0.2	2.4	<0.1	0.5	0.1
Area Sources	1.8	<0.1	2.6	<0.1	<0.1	<0.1
Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Emissions	**2.1**	**0.2**	**5.0**	**<0.1**	**0.5**	**0.1**
SCAQMD Threshold	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Some values may not appear to add correctly due to rounding.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

The results shown in Table E indicate the proposed project would not exceed the significance criteria for daily VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable NAAQS or CAAQS.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the vicinity of the proposed project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Compton station at 700 North Bullis Road (the closest station to the project site), showed a highest recorded 1-hour concentration of 4.5 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 3.7 ppm (the State standard is 9 ppm) during the past 3 years[1]. The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The proposed project is expected to generate 85 ADT, with 6 trips occurring in the a.m. peak hour and 10 trips occurring in the p.m. peak hour. As the proposed project would not generate 100 or more a.m. or p.m. peak-hour trips, it did not meet the criteria for an evaluation of study area intersection or roadway segment levels of service. Therefore, given the extremely low level of CO concentrations in the project area and the lack of traffic impacts at any intersections, project-related vehicles are not expected to result in CO concentrations exceeding the State or federal CO standards. No CO hot spots would occur, and the project would not result in any project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors

Sensitive receptors are defined as people who have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling units. As discussed above, the closest sensitive receptor to the project site is the Torrance Mobile Home Park located approximately 200 ft southwest of the project site. An LST analysis was completed to show the construction and operational impacts at 61 meters to the nearest sensitive receptors to the project site in SRA 3 based on a 3.5-acre daily disturbance area. Tables F and G show the results of the LST analysis during project construction and operation, respectively.

Table F: Project Localized Construction Emissions

Source	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	19.6	14.6	3.3	1.8
Localized Significance Threshold	**161.0**	**1,688.0**	**38.0**	**10.0**
Significant?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Source Receptor Area 3, based on a 3.5-acre construction disturbance daily area, at a distance of 200 feet from the project boundary.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

[1] United States Environmental Protection Agency (USEPA). 2023. Outdoor Air Quality Data.

Table G: Project Localized Operational Emissions

Source	Pollutant Emissions (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	<1.0	2.7	<1.0	<1.0
Localized Significance Thresholds	**161.0**	**1,688.0**	**9.7**	**2.8**
Significant?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2023).
Note: Source Receptor Area 3, based on a 3.5-acre operational daily area, at a distance of 200 feet from the project boundary.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

By design, the localized impact analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions detailed in Table G assume all area- and energy-source emissions would occur on site, and 5 percent of the project-related new mobile sources (which is an estimate of the amount of project-related on-site vehicle and truck travel) would occur on site. Considering the total trip length included in CalEEMod, the 5 percent assumption is conservative. Table G indicates the localized operational emissions would not exceed the LSTs at nearby residences. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

As detailed in Tables F and G, the emission levels indicate that the project would not exceed SCAQMD LSTs during project construction or operation. The project's peak operational on-site NO_X emissions are approximately less than 1 pound per day. Due to the small size of the proposed project in relation to the overall Basin, the level of emissions is not sufficiently high to use a regional modeling program to correlate health effects on a Basin-wide level. On a regional scale, the quantity of emissions from the project is incrementally minor. Because the SCAQMD has not identified any other methods to quantify health impacts from small projects, and due to the size of the project, it is speculative to assign any specific health effects to small project-related emissions. However, based on this localized analysis, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would not expose sensitive receptors to substantial levels of pollutant concentrations.

Odors

Heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. However, the construction activity would cease after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project.

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

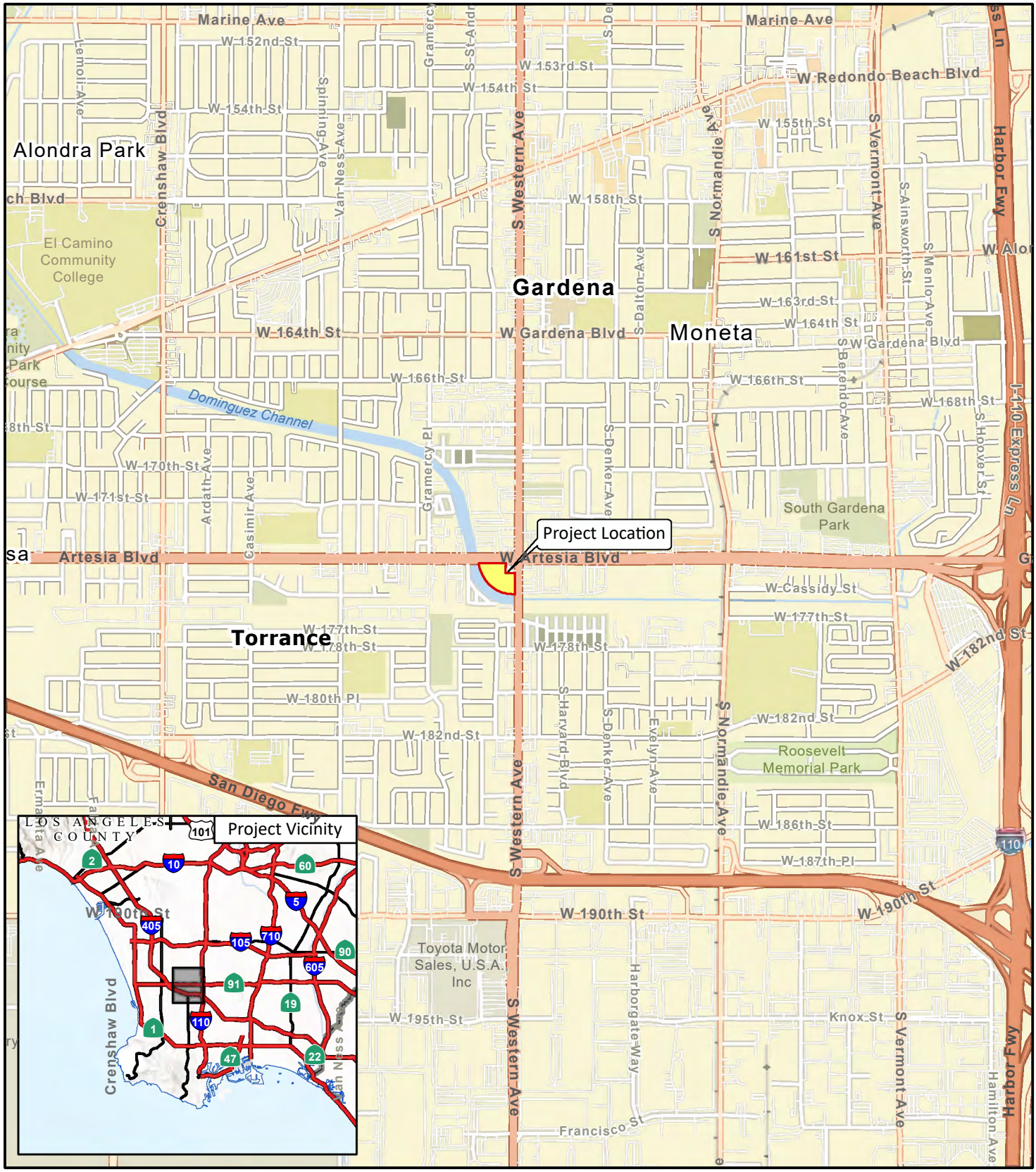
CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SCAQMD thresholds of significance. Compliance with SCAQMD Rule 403: Fugitive Dust would further reduce construction dust impacts. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The project would also be consistent with the 2022 AQMP and would also not result in objectionable odors affecting a substantial number of people.

Attachments: A—Figure 1: Project and Regional Location
Figure 2: Conceptual Site Plan
B—CalEEMod Output Files

ATTACHMENT A

FIGURES



LSA

FIGURE 1

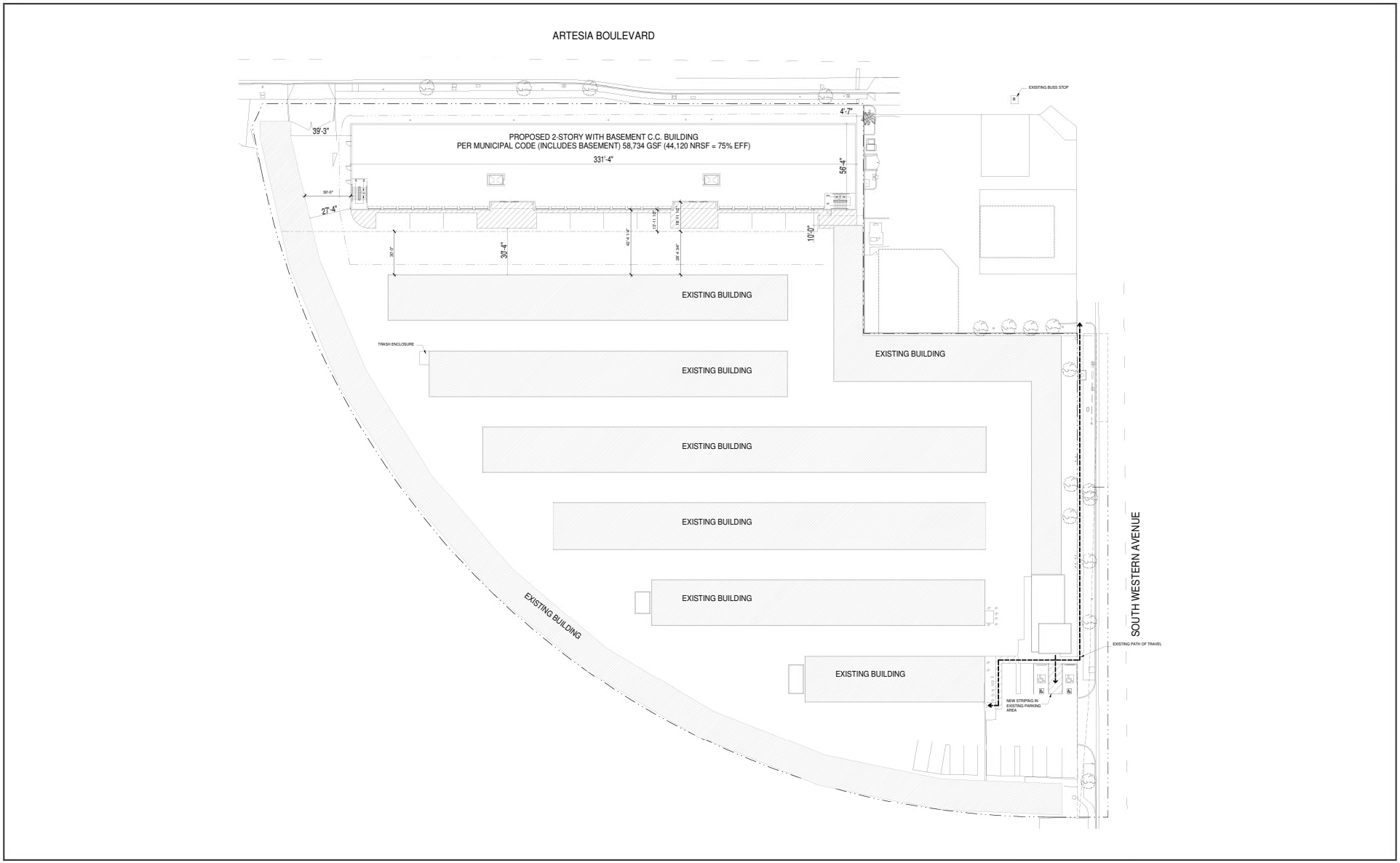
0 1000 2000
FEET

SOURCE: Esri (2023)

Gardena #1009 Self-Storage Building Project

Regional Location

J:\20231465\GIS\Pro\Gardena #1009 Self-Storage Building Project\Gardena #1009 Self-Storage Building Project.aprx (10/31/2023)



LSA

FIGURE 2

N

0 50 100

FEET

SOURCE: Extra Space Storage, Inc.

I:\20231465\G\Conceptual_Site_Plan.ai (10/31/2023)

Gardena #1009 Self-Storage Building Project

Conceptual Site Plan

ATTACHMENT B

CALEEMOD OUTPUT FILES

Gardena Self Storage Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Gardena Self Storage
Construction Start Date	1/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	17.4
Location	17575 S Western Ave, Gardena, CA 90248, USA
County	Los Angeles-South Coast
City	Torrance
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4671
EDFZ	7
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

Unrefrigerated Warehouse-No Rail	58.7	1000sqft	1.35	58,734	0.00	—	—	—
Parking Lot	10.0	Space	0.09	0.00	0.00	—	—	—

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.	0.70	6.13	15.0	13.9	0.02	0.62	0.47	1.09	0.58	0.11	0.69	—	2,663	2,663	0.11	0.07	2.49	2,690
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.87	6.12	40.8	23.0	0.13	0.77	7.36	8.13	0.72	2.59	3.30	—	19,462	19,462	1.01	2.73	1.02	20,302
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	1.85	9.81	8.47	0.02	0.38	0.40	0.78	0.35	0.10	0.46	—	1,832	1,832	0.08	0.08	0.80	1,858
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.34	1.79	1.55	< 0.005	0.07	0.07	0.14	0.06	0.02	0.08	—	303	303	0.01	0.01	0.13	308

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.70	6.13	15.0	13.9	0.02	0.62	0.47	1.09	0.58	0.11	0.69	—	2,663	2,663	0.11	0.07	2.49	2,690
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.87	6.12	40.8	23.0	0.13	0.77	7.36	8.13	0.72	2.59	3.30	—	19,462	19,462	1.01	2.73	1.02	20,302
2025	0.08	5.53	1.11	1.25	< 0.005	0.07	0.06	0.13	0.06	0.02	0.08	—	198	198	0.01	< 0.005	0.01	199
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	1.85	9.81	8.47	0.02	0.38	0.40	0.78	0.35	0.10	0.46	—	1,832	1,832	0.08	0.08	0.80	1,858
2025	< 0.005	0.03	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.08	0.34	1.79	1.55	< 0.005	0.07	0.07	0.14	0.06	0.02	0.08	—	303	303	0.01	0.01	0.13	308
2025	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.19

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.	0.77	2.12	0.24	4.98	0.01	0.01	0.50	0.51	0.01	0.13	0.13	55.8	1,115	1,171	5.70	0.09	2.07	1,342
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.31	1.69	0.24	2.24	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	55.8	1,081	1,137	5.71	0.09	0.05	1,307

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	1.98	0.25	4.05	0.01	0.01	0.49	0.50	0.01	0.12	0.13	55.8	1,095	1,150	5.71	0.09	0.90	1,321
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	0.36	0.05	0.74	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	9.24	181	190	0.94	0.02	0.15	219

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	0.32	0.29	0.22	2.43	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	564	564	0.03	0.02	2.07	574
Area	0.45	1.83	0.02	2.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.5	10.5	< 0.005	< 0.005	—	10.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	406	406	0.03	< 0.005	—	407
Water	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Waste	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Total	0.77	2.12	0.24	4.98	0.01	0.01	0.50	0.51	0.01	0.13	0.13	55.8	1,115	1,171	5.70	0.09	2.07	1,342
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.24	2.24	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	541	541	0.03	0.02	0.05	548
Area	—	1.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	406	406	0.03	< 0.005	—	407
Water	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Waste	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Total	0.31	1.69	0.24	2.24	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	55.8	1,081	1,137	5.71	0.09	0.05	1,307

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.28	0.24	2.30	0.01	< 0.005	0.49	0.50	< 0.005	0.12	0.13	—	547	547	0.03	0.02	0.90	556
Area	0.31	1.69	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.19	7.19	< 0.005	< 0.005	—	7.22
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	406	406	0.03	< 0.005	—	407
Water	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Waste	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Total	0.62	1.98	0.25	4.05	0.01	0.01	0.49	0.50	0.01	0.12	0.13	55.8	1,095	1,150	5.71	0.09	0.90	1,321
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.05	0.04	0.42	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	90.5	90.5	< 0.005	< 0.005	0.15	92.0
Area	0.06	0.31	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.19	1.19	< 0.005	< 0.005	—	1.20
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	67.2	67.2	< 0.005	< 0.005	—	67.4
Water	—	—	—	—	—	—	—	—	—	—	—	4.31	22.3	26.6	0.44	0.01	—	40.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.93	0.00	4.93	0.49	0.00	—	17.2
Total	0.11	0.36	0.05	0.74	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	9.24	181	190	0.94	0.02	0.15	219

3. Construction Emissions Details

3.1. Demolition (2024) - 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	0.61	0.61	19.6	14.6	0.02	0.66	—	0.66	0.61	—	0.61	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.79	0.79	—	0.12	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.07	0.80	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.04	0.04	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.20	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	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	0.06	0.06	0.07	0.80	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	167	167	0.01	0.01	0.02	169
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	0.05	0.01	0.85	0.31	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	652	652	0.04	0.10	0.04	684
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	—	9.30	9.30	< 0.005	< 0.005	0.02	9.43
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	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.7	35.7	< 0.005	0.01	0.04	37.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.21

3.3. Site Preparation (2024) - 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	0.46	0.46	15.6	11.9	0.02	0.45	—	0.45	0.41	—	0.41	—	2,064	2,064	0.08	0.02	—	2,071
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
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	0.09	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	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	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	100	100	< 0.005	< 0.005	0.01	102
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.57
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	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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

3.5. Grading (2024) - 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	0.56	0.56	18.8	14.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movement	—	—	—	—	—	—	2.80	2.80	—	1.34	1.34	—	—	—	—	—	—	—
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	0.21	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	—	—	—	—	—	—	0.03	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	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	—	< 0.005	< 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	0.05	0.04	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	< 0.005	0.01	135
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	1.27	0.35	21.9	8.10	0.11	0.21	4.44	4.65	0.21	1.21	1.43	—	16,874	16,874	0.91	2.71	1.01	17,704
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	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.51
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	0.01	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	0.01	0.03	0.18	194
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
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	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.1

3.7. Building Construction (2024) - 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.47	13.4	10.5	0.02	0.55	—	0.55	0.51	—	0.51	—	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	0.47	0.47	13.4	10.5	0.02	0.55	—	0.55	0.51	—	0.51	—	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	0.26	0.26	7.34	5.74	0.01	0.30	—	0.30	0.28	—	0.28	—	987	987	0.04	0.01	—	990
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	0.05	0.05	1.34	1.05	< 0.005	0.06	—	0.06	0.05	—	0.05	—	163	163	0.01	< 0.005	—	164
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	0.12	0.11	0.12	1.86	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	348	348	0.01	0.01	1.37	354
Vendor	0.02	0.01	0.37	0.18	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	311	311	0.01	0.04	0.84	324
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	0.12	0.11	0.14	1.57	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	330	330	0.01	0.01	0.04	334
Vendor	0.02	0.01	0.38	0.18	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	311	311	0.01	0.04	0.02	324
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	0.07	0.06	0.08	0.91	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	184	184	0.01	0.01	0.32	186
Vendor	0.01	0.01	0.21	0.10	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	170	170	0.01	0.02	0.20	178
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	0.01	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.4	30.4	< 0.005	< 0.005	0.05	30.8
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.2	28.2	< 0.005	< 0.005	0.03	29.4
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 (2024) - 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	0.31	0.31	8.40	6.65	0.01	0.36	—	0.36	0.34	—	0.34	—	992	992	0.04	0.01	—	995
Paving	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.23	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
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	0.06	0.06	0.07	0.80	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	167	167	0.01	0.01	0.02	169
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.65	4.65	< 0.005	< 0.005	0.01	4.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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	—	0.77	0.77	< 0.005	< 0.005	< 0.005	0.78

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 (2024) - 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.29	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	35.3	35.3	< 0.005	< 0.005	—	35.4

Architectural Coatings	—	1.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.84	5.84	< 0.005	< 0.005	—	5.86
Architectural Coatings	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.02	0.37	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	69.7	69.7	< 0.005	< 0.005	0.27	70.7
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	66.0	66.0	< 0.005	< 0.005	0.01	66.8
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.7	17.7	< 0.005	< 0.005	0.03	17.9
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	0.01	2.97
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

3.13. 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	0.05	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.78	0.78	< 0.005	< 0.005	—	0.79
Architectural Coatings	—	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.13	0.13	< 0.005	< 0.005	—	0.13
Architectural Coatings	—	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	0.02	0.02	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	64.7	64.7	< 0.005	< 0.005	0.01	65.5
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
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	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
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

4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.32	0.29	0.22	2.43	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	564	564	0.03	0.02	2.07	574
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.32	0.29	0.22	2.43	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	564	564	0.03	0.02	2.07	574
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.31	0.29	0.24	2.24	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	541	541	0.03	0.02	0.05	548
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.24	2.24	0.01	< 0.005	0.50	0.50	< 0.005	0.13	0.13	—	541	541	0.03	0.02	0.05	548
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.06	0.05	0.04	0.42	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	90.5	90.5	< 0.005	< 0.005	0.15	92.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.06	0.05	0.04	0.42	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	90.5	90.5	< 0.005	< 0.005	0.15	92.0

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	401	401	0.02	< 0.005	—	402
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.01	5.01	< 0.005	< 0.005	—	5.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	406	406	0.03	< 0.005	—	407
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	401	401	0.02	< 0.005	—	402
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.01	5.01	< 0.005	< 0.005	—	5.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	406	406	0.03	< 0.005	—	407
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	66.3	66.3	< 0.005	< 0.005	—	66.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.83	0.83	< 0.005	< 0.005	—	0.83
Total	—	—	—	—	—	—	—	—	—	—	—	—	67.2	67.2	< 0.005	< 0.005	—	67.4

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. 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	—	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.45	0.42	0.02	2.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.5	10.5	< 0.005	< 0.005	—	10.5
Total	0.45	1.83	0.02	2.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.5	10.5	< 0.005	< 0.005	—	10.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.05	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.19	1.19	< 0.005	< 0.005	—	1.20
Total	0.06	0.31	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.19	1.19	< 0.005	< 0.005	—	1.20

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	26.0	135	161	2.68	0.06	—	247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.31	22.3	26.6	0.44	0.01	—	40.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.31	22.3	26.6	0.44	0.01	—	40.9

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.8	0.00	29.8	2.97	0.00	—	104
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.93	0.00	4.93	0.49	0.00	—	17.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.93	0.00	4.93	0.49	0.00	—	17.2

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

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

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2024	1/29/2024	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2024	2/1/2024	5.00	2.00	—
Grading	Grading	2/2/2024	2/7/2024	5.00	4.00	—
Building Construction	Building Construction	2/8/2024	11/14/2024	5.00	200	—
Paving	Paving	11/15/2024	11/29/2024	5.00	10.0	—
Architectural Coating	Architectural Coating	8/19/2024	1/3/2025	5.00	100	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

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

Demolition	Concrete/Industrial Saws	Diesel	Tier 2	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 2	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 2	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 2	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Tier 2	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 2	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 2	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 2	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	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	9.25	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	239	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	24.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	9.63	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.93	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

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	0.00	0.00	88,101	29,367	235

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	16,068	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	7,650	4.00	0.00	—

Paving	0.00	0.00	0.00	0.00	0.09

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	0.09	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	85.2	85.2	85.2	31,085	702	702	702	256,119
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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	88,101	29,367	235

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)
Unrefrigerated Warehouse-No Rail	274,896	532	0.0330	0.0040	0.00
Parking Lot	3,434	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	13,582,238	0.00

Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	55.2	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

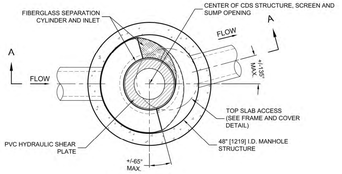
Screen	Justification
Construction: Construction Phases	Construction would last approximately 12 months, this analysis assumes start date to be 2024. Overlap between building construction and architectural coating.
Construction: Off-Road Equipment	Default equipment with Tier 2 engines
Operations: Vehicle Data	Based on 85 average daily trips

Operations: Energy Use	Building would be all electric

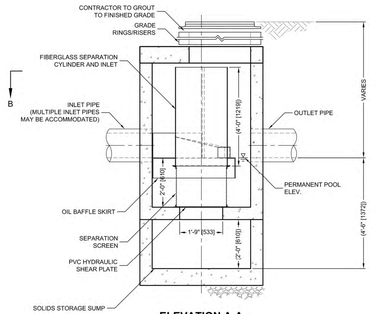
ATTACHMENT F

LOW IMPACT DEVELOPMENT PLAN

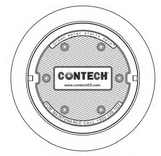
CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

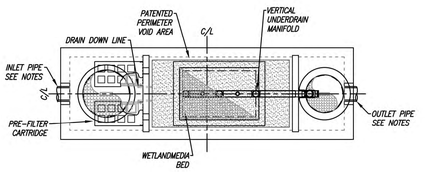
CDS2015-4-C
INLINE CDS
STANDARD DETAIL

SITE SPECIFIC DATA

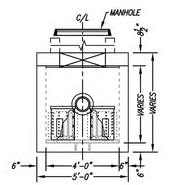
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
FLOW BASED (CFS)			
0.175			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			OFFLINE
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	DIRECT TRAFFIC		

NOTES:

* PRELIMINARY NOT FOR CONSTRUCTION



PLAN VIEW



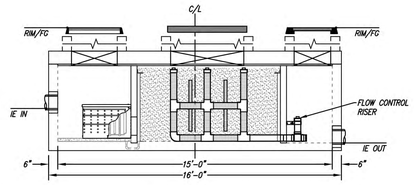
LEFT END VIEW

INSTALLATION NOTES

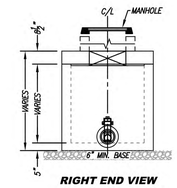
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS' SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A CONTECH REPRESENTATIVE.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT CONTECH.



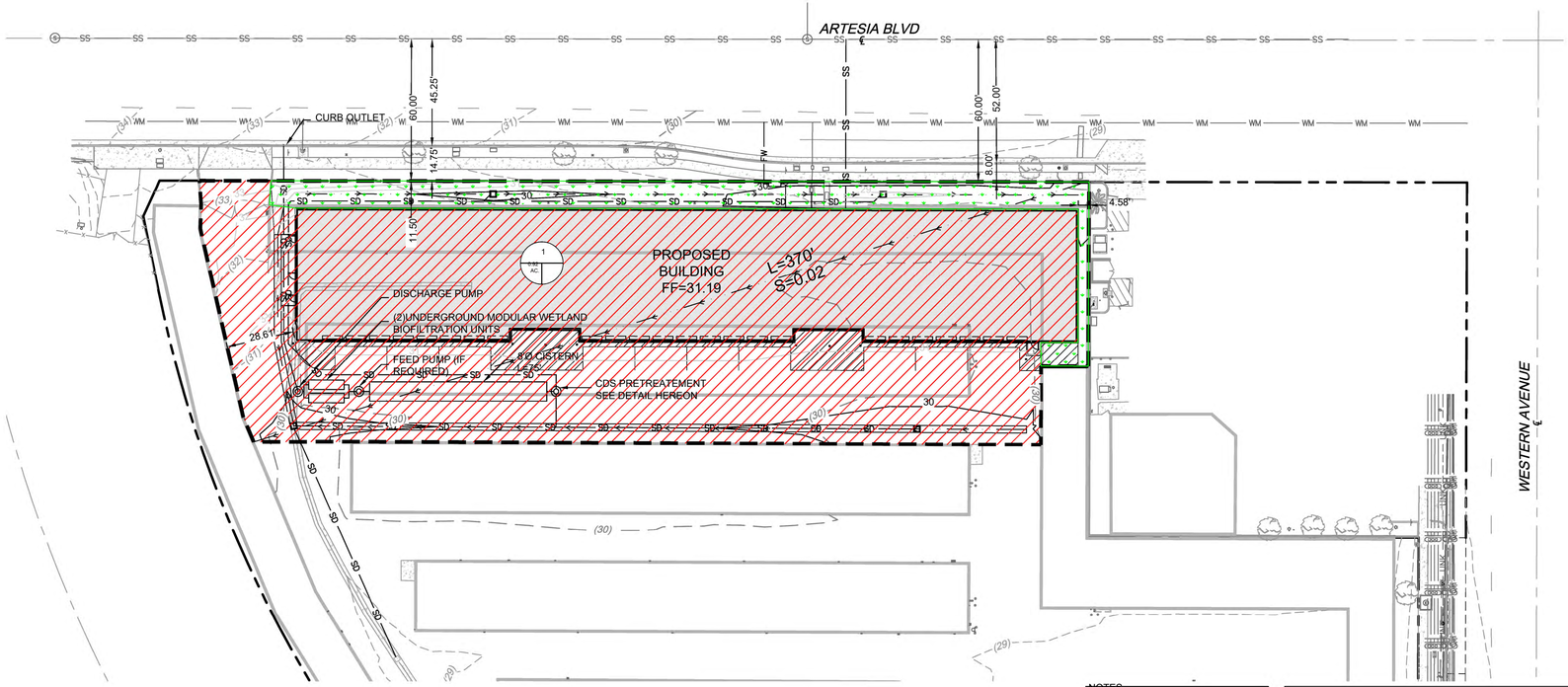
ELEVATION VIEW



RIGHT END VIEW

TREATMENT FLOW (CFS)	0.175
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	1.5
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MWS-L-4-15-V-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL



NOTES:
1. ALL INLETS SHALL BE STENCILED "NO DUMPING - DRAINS TO OCEAN"
2. ANY CHANGES (TYPE, SIZE, LOCATION) TO APPROVED STORMWATER BEST MANAGEMENT PRACTICE(S) (BMPs) MUST OBTAIN WRITTEN APPROVAL FROM LOS ANGELES, DEPARTMENT OF PUBLIC WORKS, BUREAU OF SANITATION PRIOR TO CONSTRUCTION OF BMP(S).

LID CALCULATIONS

	SITE
LID AREA	0.92 AC
LID PERVIOUS AREA	0.11 AC (11.5%)
LID IMPERVIOUS AREA	0.81 AC (88.5%)
FLOW PATH LENGTH	370
SLOPE	2.00%
SOIL TYPE	13
85% RAINFALL DEPTH	0.95"
REQUIRED VOLUME MITIGATED	2,530 CF
REQUIRED VOLUME MITIGATED (1.5x BIOFILTRATION)	3,795 CF

Peak Flow Hydrologic Analysis

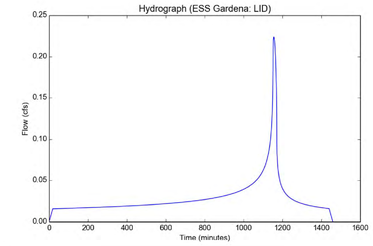
File location: W:\LAX\23\0011\01\Civil\ENG\WQMP\ESS Gardena - LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	ESS Gardena
Subarea ID	LID
Area (ac)	0.92
Flow Path Length (ft)	370.0
Flow Path Slope (vft/hft)	0.02
85th Percentile Rainfall Depth (in)	0.95
Percent Impervious	0.88
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.95
Peak Intensity (in/hr)	0.3026
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.804
Time of Concentration (min)	19.0
Clear Peak Flow Rate (cfs)	0.2239
Burned Peak Flow Rate (cfs)	0.2239
24-Hr Clear Runoff Volume (ac-ft)	0.0581
24-Hr Clear Runoff Volume (cu-ft)	2529.7172



LEGEND

- RIGHT OF WAY/PROPERTY LINE
- STREET CENTERLINE
- LID TRIBUTARY SUBAREA BOUNDARY
- IMPERVIOUS AREA
- PERVIOUS AREA
- FLOW PATH
- STORM DRAIN
- PUMP STATION/MANHOLE/CDS UNIT

WARE MALCOMB
LEADING DESIGN FOR COMMERCIAL REAL ESTATE
915 wilshire blvd.
suite 2150
los angeles, ca 90017
p. 310.903.4000
waremalcomb.com

FOR AND ON BEHALF OF WARE MALCOMB

EXTRA SPACE STORAGE #1009
17575 S. WESTERN AVE
GARDENA, CA 90248

CONCEPT LID PLAN

NO.	DATE	REMARKS

JOB NO.:	LAX23-0011-01
~~PA / PM:~~	K. MALLOY
~~DESIGNED:~~	K.MALLOY
~~DATE:~~	10/25/23
~~PLOT DATE:~~	11/06/23

SHEET
C3.0
Sheet 3 of 3

NOT FOR CONSTRUCTION

W:\LAX\23\0011\01\Civil\CAD\Sheets\Preliminary\LAX23-0011_Concept LID Plan.dwg 11/06/2023 AMA 1:1