APPENDIX G

TRANSPORTATION ASSESSMENT MEMORANDUM

FEHR PEERS

Technical Memorandum

Date: September 12, 2022

To: City of San Dimas

From: Miguel Núñez, Ryan Liu, and Alex Murray

Subject: Transportation Assessment Memorandum for the Allen/Cataract Warehouse Project

LA21-3315

This technical memorandum summarizes the results of the transportation assessment conducted by Fehr & Peers to evaluate the potential transportation impacts of the Allen/Cataract Warehouse Project in the City of San Dimas.

Project Description

The Project consists of the replacement of nine (9) single-family homes with 63,749 square feet of warehousing land use in a single building, which includes 57,749 square feet of warehouse and 6,000 square feet of accessory office space, located on three contiguous parcels at the northwest corner of Allen Avenue & Cataract Avenue. Access to the Project Site will be provided by one driveway on Allen Avenue and one driveway on Cataract Avenue. The project is expected to be completed in 2023. **Figure 1** shows the Project site plan.

CEQA Transportation Assessment

Regulatory Context

On September 27, 2013, Governor Jerry Brown signed SB 743 into law, which eliminates the vehicular level of service (LOS) as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, vehicle miles traveled (VMT). As a result, the State shifted from measuring a project's impact to drivers (LOS) to measuring the impact of driving (VMT) as it relates to achieving State goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through active transportation. To

help lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced a Technical Advisory and the City of San Dimas City Council adopted the City's VMT approach on October 27, 2020.

Project Trip Generation

Table 1 presents the estimated trip generation using trip generation rates for the fully built project. An existing use credit was taken for the entire site using the ITE trip generation rate for the nine existing single-family homes (ITE Code 210). Accounting for the conversion of estimated truck trips into passenger car equivalent (PCE) rates, the Project is expected to generate an estimated net new 54 daily trips, including 10 trips during the AM peak hour and 8 trips during the PM peak hour.

VMT Screening

Consistent with OPR's Technical Advisory, the City of San Dimas adopted guidance that applies three screening criteria to identify if a proposed project is presumed to cause a less-than-significant VMT impact:

1. Project accessibility to transit: the Project does not meet this criterion because there are no fixed-route transit services within ½ mile of the project site that meet the requirements for applying transit screening.

2. Project location in a low VMT area: the Project does not meet this criterion per analysis using the SGVCOG VMT Evaluation Tool. As described in the City's Transportation Study Guidelines, this tool is used to verify the applicability of this screening and the analysis result has shown it is not located in a low employment VMT area. See **Appendix A**.

3. Project Type and projects that generate fewer than 110 net new daily trips: the Project does meet Criteria 3, as it generates 54 net new daily trips as shown in Table 1. Therefore, according to the City of San Dimas Transportation Study Guidelines and OPR guidance, the Project can be considered to have a less-than-significant impact on VMT due to its estimated trip generation, and no further VMT analysis is required.

Active Transportation and Public Transit Analysis

The City of San Dimas Transportation Study Guidelines require that project applicants review for conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreases the performance or safety of such facilities.

General Plan Circulation Element

This document guides the physical development of neighborhoods, providing neighborhood level detail for the transportation network, policies, and implementation strategies. The following is a review of the transportation measures, objectives, and policies:

Circulation Element (CE) Goal 1

To provide a street network to move people and goods safely and efficiently throughout the City of San Dimas.

The Project proposes an industrial land use in the form of a warehouse and will not remove sidewalks along the frontage of the Project Site. The Project will support this goal by reducing the number of driveways from nine (existing) to two. This would reduce the number of conflict points between transportation modes on Project Site frontages. Sidewalks currently do not exist on the west side of Cataract Avenue, and the Project would install new sidewalks along its frontage. The Project also does not preclude the City of San Dimas from implementing a safer and more efficient street network.

CE Goal 2

To promote a public transportation system that is safe, convenient, efficient, and meets the identified needs of the City of San Dimas.

There are no fixed route transit services along Allen Avenue and Cataract Avenue and the Project does not preclude the implementation of this goal or the expansion of transit service in the vicinity of the Project Site.

CE Goal 3

To promote safe alternatives to motorized transportation that meet the needs of all City residents.

The Project will not remove sidewalks along the frontage of the Project Site and will reduce the number of driveways along Allen Avenue and Cataract Avenue, which could improve the safety of pedestrians using the sidewalks on the Project Site frontages by reducing the number of driveways where vehicle/pedestrian conflicts can occur. Sidewalks currently do not exist on the west side of Cataract Avenue, and the Project would install new sidewalks along its frontage. The Project will also provide four short-term bicycle parking spaces.

Non-CEQA Transportation Assessment

The analyses below are required based on conversations with the City of San Dimas. An intersection level-of-service (LOS) analysis is not required because the Project is not expected to generate at least 50 net new vehicle trips in either the AM or PM peak hour.

On-Site Parking Analysis

The Project would provide vehicular parking on site. The Project's construction would not remove any parking meters, as there are no parking meters along the Project Site frontages. The Project does not propose any valet parking operations.

Parking Minimum Calculations

The following table shows the minimum number of off-street automobile parking spaces that shall be provided.

Table 2: Parking Minimum Calculations

Proposed Land Use Type	Proposed Size	Required Number of Vehicle Spaces[1]	Total Vehicle Spaces Required	Total Vehicle Spaces Proposed	Required Number of Spaces[1]	Total Bicycle Spaces Required	Total Bicycle Spaced Proposed
Warehouse	57,749 s.f.	1 space / 500 s.f up to 15,000 s.f., plus 1 space / 2,000 s.f. from 15,001 s.f. to 30,000 s.f., plus 1 space / 4,000 s.f. for 30,0001 s.f. and greater	46	48	Short-Term: 5% of required vehicle parking, with a minimum of (1) two-bike rack		
Office (accessory)	6,000 s.f.	1 space / 250 s.f., when office use exceeds 10% of total floor area of industrial use or 5,000 s.f. in total floor area, whichever is less. No additional parking spaces are needed if the office area does not exceed this criteria	4	8	Long-Term: For buildings with over ten tenant-occupants, 5% of required vehicle parking capacity, with a minimum of (1) two-bike space	3	6

Total	63,749 s.f.		50	56		3	6

[1]Source: City of San Dimas Municipal Code 18.156.050.

In addition to these required automobile parking spaces, City of San Dimas Municipal Code 18.156.060 states that nonresidential projects over 50,000 square feet shall provide a minimum of four motorcycle parking spaces. Additionally, Municipal Code 18.156.070 requires a minimum of three loading spaces for industrial uses over 50,000 square feet. The Project would provide four motorcycle parking spaces and six truck loading spaces.

Access and Circulation Analysis

The Project proposes two driveway access points, one from Allen Avenue and one from Cataract Avenue, a reduction from nine existing driveways. The driveway on Allen Avenue is approximately 285 feet from Cataract Avenue, while the driveway on Cataract Avenue is located approximately 365 feet from Allen Avenue. Driveways lead to site parking, service, and loading areas.

Parking is allowed on both Allen Avenue and Cataract Avenue on both sides of the street. The Project would prohibit on-street parking near driveways to improve sight distance. **Figure 2** shows the necessary sight distance along Allen Avenue at the Project driveway. It is recommended that street parking on the north side of Allen Avenue be prohibited for 20 feet west of the Project driveway.

Figures 3 and 4 show WB-67 and WB-62 trucks accessing the Project Site from the east, which provides the closest access to SR-210 ramps at San Dimas Avenue, less than a ½ mile away. These are the largest trucks expected to service future Project tenants. It is recommended that either truck approaching the Project from the east turn right onto Cataract Avenue and then turn left into the site. Large trucks exiting the site should turn left onto Allen Avenue. Making a right-turn would require trucks to make turns that may encroach in the travel lane for vehicles traveling in the opposite direction. Exiting to the east along Allen Avenue provides the most direct access to San Dimas Avenue and the SR-210 ramps.

Summary

This study was undertaken to analyze the potential transportation impacts of the proposed warehouse development at Allen Avenue & Cataract Avenue in San Dimas. The following summarizes the results of this analysis:

- The Project would involve the replacement of nine single-family homes with 63,749 square feet of warehousing land use in a single building.
- Access to the Project Site will be provided by one driveway on Allen Avenue and one driveway on Cataract Avenue.
- The VMT analysis for the Project determined that the Project meets Screening Criteria 3 as it generates less than 110 net new daily trips. Therefore, the Project is presumed to have a less-than-significant impact on VMT, and no further VMT analysis is required.
- The Project features, location, and design would be consistent with the City's plans, programs, ordinances, and policies that support active transportation and public transit. Therefore, the Project would have a less than significant impact on the City's active transportation and public transit-related plans, programs, ordinances, and policies.
- Because the Project is expected to generate less than 50 net new peak hour trips, an LOS analysis is not required.
- The Project is required to provide a minimum of 50 vehicular parking spaces, 3 bicycle parking spaces, and 4 motorcycle parking spaces. The Project proposes to provide adequate parking per City code.
- The Project's driveways will provide adequate maneuvering space for the largest design vehicle expected to service the site. The turning templates and analysis indicate that large trucks can enter the Project Site from the east using Cataract Avenue. In addition, on-street parking on the north side of Allen Avenue should be prohibited for 20 feet west of the Project driveway to allow for sufficient sight distance.

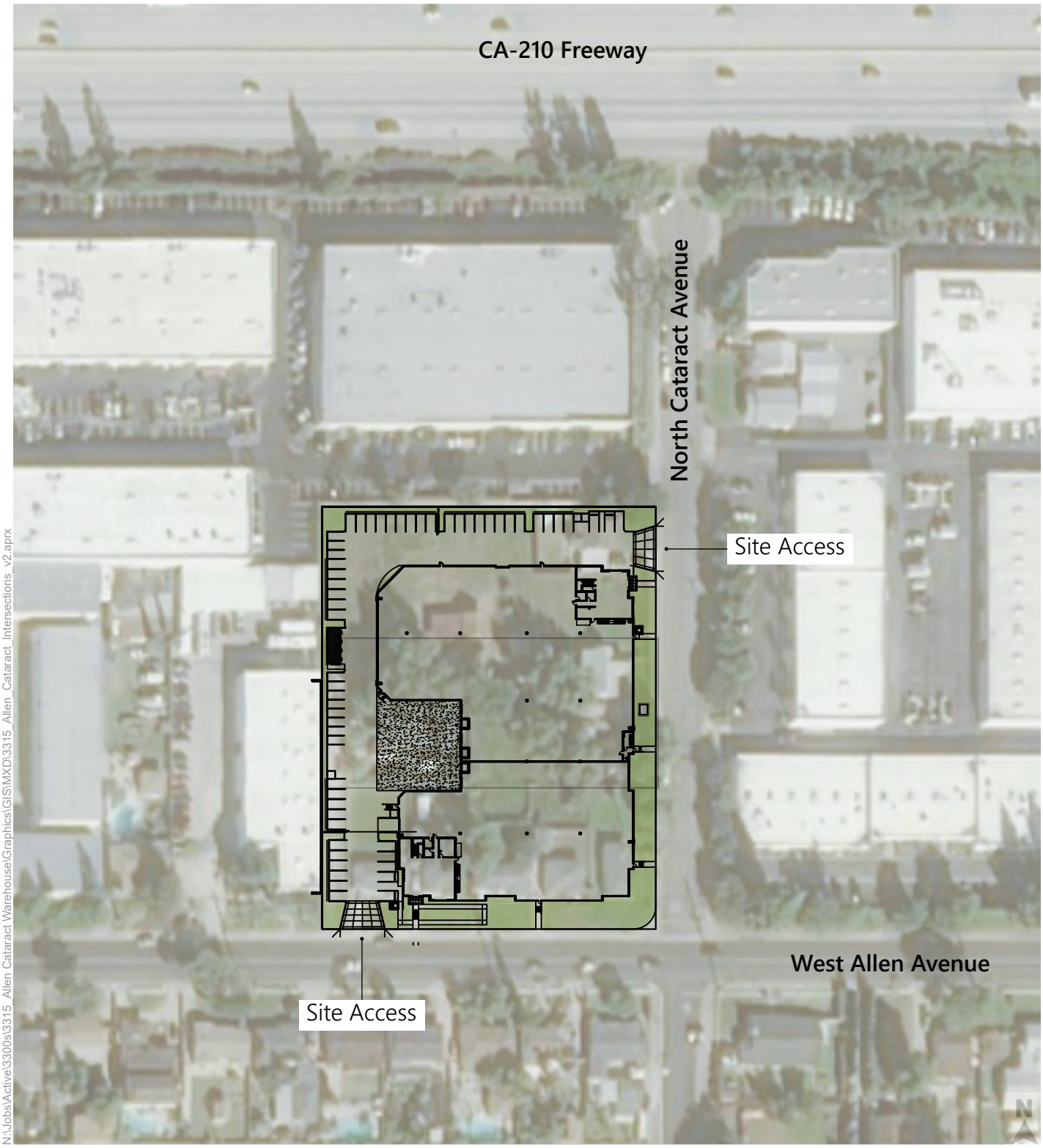


Figure 1

Site Plan
Allen & Cataract Warehouse Project

TABLE 1
ALLEN & CATARACT WAREHOUSE PROJECT
DAILY & PEAK HOUR VEHICLE TRIP GENERATION ESTIMATES

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	In%	Out%	Rate	In%	Out%		In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Warehousing (General Urban/Suburban)	150	63.75 ksf	1.71	0.17	77%	23%	0.18	28%	72%	109	8	3	11	3	8	11
Percent Cars	[b]			63%			64%			80%						
Percent Trucks	[b]			37%			36%			20%						
Total Project External Trips										109	8	3	11	3	8	11
Car Trips										87	5	2	7	2	5	7
Truck Trips										22	3	1	4	1	3	4
Project Passenger Car Equivalent (PCE) Trip Conversion	*PCE Equivalent*	*Truck Percentage*														
Trucks	*[c]*	*Split [b]*														
2 Axle Trucks	1.5	33%								11	2	1	2	1	2	2
3 Axle Trucks	2.0	18%								8	1	0	1	0	1	1
4+ Axle Trucks	3.0	49%								33	4	2	6	2	4	6
TOTAL PROJECT PCE ADJUSTED EXTERNAL TRIPS										139	12	4	16	4	12	16

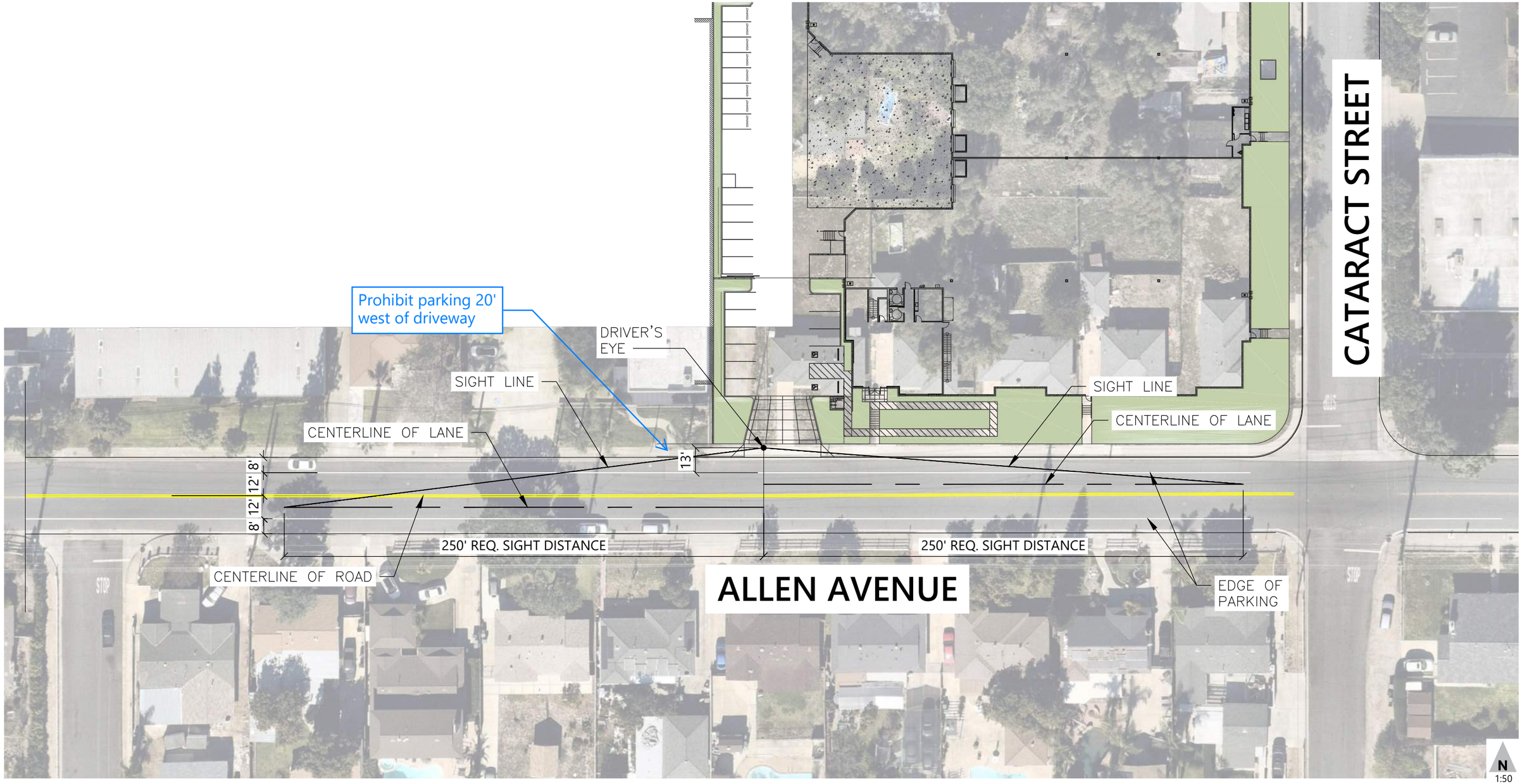
Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	In%	Out%	Rate	In%	Out%		In	Out	Total	In	Out	Total
EXISTING USE ADJUSTMENT																
Single-Family Detached Housing (General Urban/Suburban)	210	9 DU	9.43	0.7	26%	74%	0.94	63%	37%	85	1	5	6	5	3	8
NET INCREMENTAL EXTERNAL TRIPS										54	11	-1	10	-1	9	8

Notes:

[a] Source: Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition, 2021, unless otherwise noted.

[b] City of Fontana, Truck Trip Generation Study, August 2003. Heavy warehouse values used for car to truck and truck by axle percentages.

[c] Passenger Car Equivalent (PCE) factors have been obtained from the County of San Bernardino Congestion Management Program.



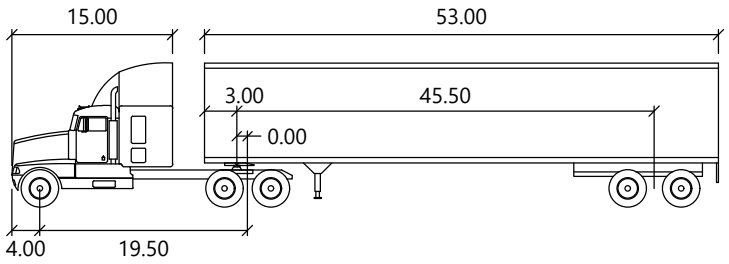
CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 2
Allen Avenue Sight Distance
Allen & Cataract Warehouse Project

CATARACT STREET

WB-67 takes up full width of Cataract for this right turn. May conflict with existing parking.

ALLEN AVENUE



WB-67

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

N

1:50

Figure 3

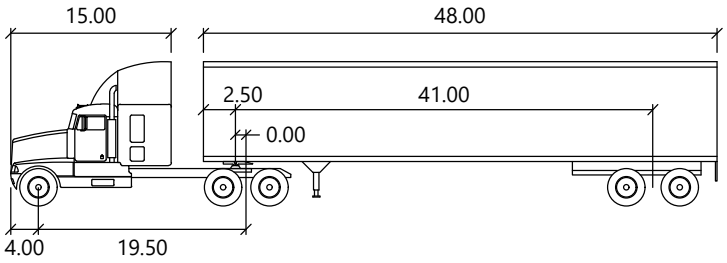
WB-67 Truck Counterclockwise Turns
Allen & Cataract Warehouse Project

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

CATARACT STREET

ALLEN AVENUE

STOP



WB-62

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

N

1:50

Figure 4

WB-62 Truck Counterclockwise Turns
Allen & Cataract Warehouse Project

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

SGVCOG VMT Evaluation Tool Report

Project Details

Timestamp of Analysis: February 24, 2022, 12:32:21 PM

Project Name: Allen/Cataract Warehouse Project

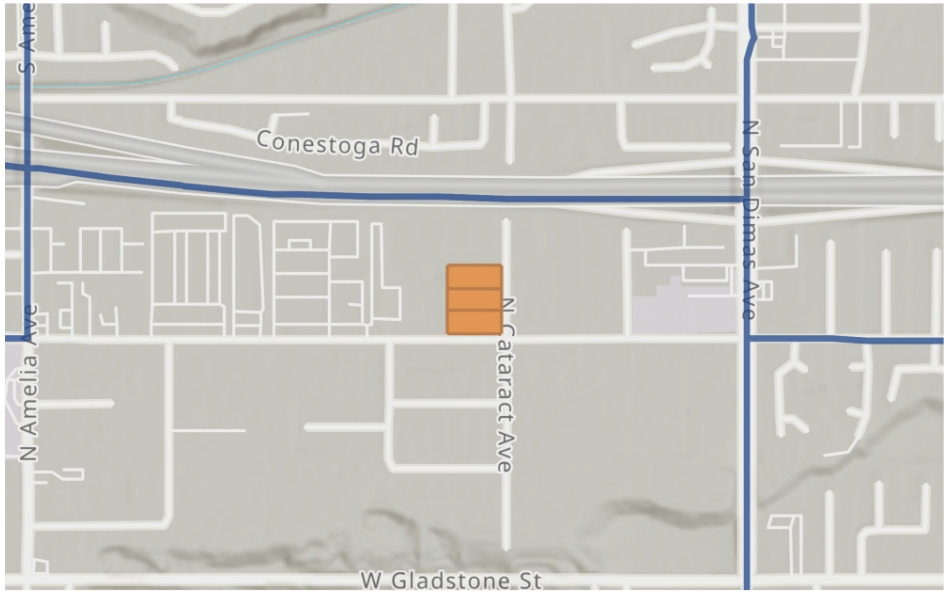
Project Description: Replacing single-family homes with industrial use.

Project Location

jurisdiction:
San Dimas

apn	TAZ
8392-016-008	22410100
8392-016-047	22410100
8392-016-048	22410100

Inside a TPA?
No (Fail)



Analysis Details

Data Version: SCAG Regional Travel Demand Model
2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2022

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking:

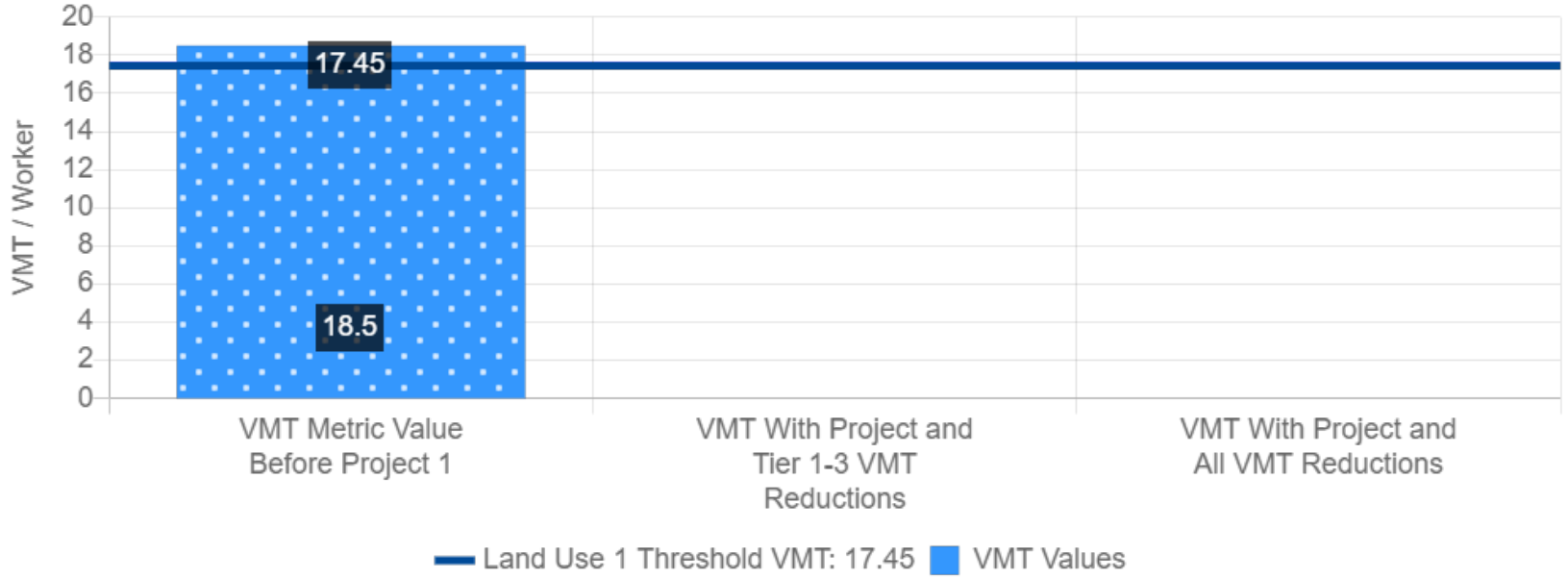
Bicycle Parking:

Appendix A

Industrial Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Industrial
VMT Without Project 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	City Average
VMT Baseline Value 1:	20.53
VMT Threshold Description 1:	-15%
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	18.5	null	null
Low VMT Screening Analysis	No (Fail)	null	null



Appendix A