Appendix L. VMT Screening Analysis

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To:	Azzam Jabsheh, Traffic Engineer, Public Works Department, City of San Bernardino
From:	Abby Pal, Transportation Planner
Date:	8/2/2021
Re:	5770 Industrial Parkway TIA and VMT Screening

This technical memorandum evaluates the trip generation and need to prepare a traffic impact analysis (TIA) or vehicle miles traveled (VMT) analysis for the 5770 Industrial Parkway in the City of San Bernardino. The project is located at the intersection of Palm Avenue and N. Industrial Avenue and extends over two parcels which approximately total to 10.1 gross acres, and proposes to construct a 52,000 square foot truck terminal building including 6,000 square feet of office space. Regional access to the project site is provided by Interstate Route (I-215) and local access is provided to the site from N. Industrial Parkway. The existing project site is comprised of two parcels; one parcel is currently vacant, and the other is developed with an approximately 34,000 square-foot industrial building currently occupied by New Generation Pallets.

Trip Generation and TIA Screening

The project trip generation was prepared using trip rates for general light industrial land use from the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition (2017) for both the proposed truck terminal and existing pallet manufacturing unit. Although ITE provides trip rates for intermodal truck terminal land use, it does not provide trip rates for daily trips, therefore ITE daily trip rates for general light industrial were utilized for the proposed truck terminal land use. Table 1 presents the trip generation estimate for the proposed project. The trip generation for the proposed project is shown in Table 1.

Existing Site Trip Generation

The existing project site is currently occupied by 34,000 square feet of pallet manufacturing. The pallet manufacturing building is estimated to generate 169 daily trips, 24 AM peak hour trips, and 21 PM peak hour trips. With the application of Passenger Car Equivalent (PCE) factor, the pallet manufacturing is estimated to generate 227 PCE daily trips, 33 PCE AM peak hour trips, and 28 PCE PM peak hour trips.

Proposed Project Trip Generation

The proposed 56,000 square feet truck terminal is estimated to generate 258 daily trips, 36 AM peak hour trips, and 33 PM peak hour trips. With the application of Passenger Car Equivalent (PCE) factor, the truck terminal is estimated to generate 504 PCE daily trips, 72 PCE AM peak hour trips, and 65 PCE PM peak hour trips.

As shown in Table 1, the proposed project is estimated to generate 89 net new daily trips, 12 net new AM peak hour trips, and 12 net new PM peak hour trips, and 277 PCE net new daily trips, 38 PCE net new AM peak hour trips, and 37 net new PM peak hour trips

Vehicle mix for light industrial classification from City of Fontana, Truck Trip Generation Study (August 2003) was used for the existing pallet manufacturing building. Vehicle mix for truck terminals classification

was used for the proposed truck terminal building. As per the City of San Bernardino Traffic Impact Analysis Guidelines, a TIA which includes LOS analysis would be required as the proposed project would generate more than 40 percent of its total traffic in the form of truck traffic using PCE.

VMT Screening Analysis

The City of San Bernardino TIA guidelines provide several screening thresholds for determining if a proposed development would screen from requiring a VMT (vehicle-miles traveled) analysis.

As per the City guidelines, a project VMT analysis would not be required if a project is:

1. located in a Transit Priority Area (TPA),
2. located in a low VMT area, or
3. if the project is a local serving retail project or other neighborhood use.
4. If the project generates less than 110 daily trips.

Each of the above screening thresholds were analyzed individually to assess if the proposed development would screen from requiring a VMT analysis:

1. The project is located at a walking distance of approximately one mile from SBX Green line which is located south of Kendall Drive, west of Palm Avenue. The project is also located in a TPA as per the SBCTA VMT Screening Tool. Although the project is located in a TPA, the floor area ratio of the project is less than 0.75 and therefore the project would not screen based on the TPA threshold.
2. As per the SBCTA VMT Screening Tool, the jurisdictional PA VMT per employee of the project is 17.2 whereas the traffic analysis zone (TAZ) VMT is 23.9. As the TAZ VMT is higher than the jurisdictional VMT, the project would not screen using the low VMT area threshold.
3. The proposed project is an industrial land use and therefore would not screen based on the locally serving land use screening threshold.
4. As per the trip generation analysis, the proposed truck terminal would generate 89 net new daily trips, which is fewer than the screening threshold of 110 daily trips. Hence the project would screen from requiring a VMT analysis.

Because the project would generate 89 net new daily trips, fewer than the City's small project screening criteria in the City guidelines, the project would have a less than significant impact on VMT and therefore no VMT analysis would be required for the proposed development.

If you have any questions about this information, please contact me at abby@epdsolutions.com or at (949) 794-1193.

Figure 1: Project Site Plan

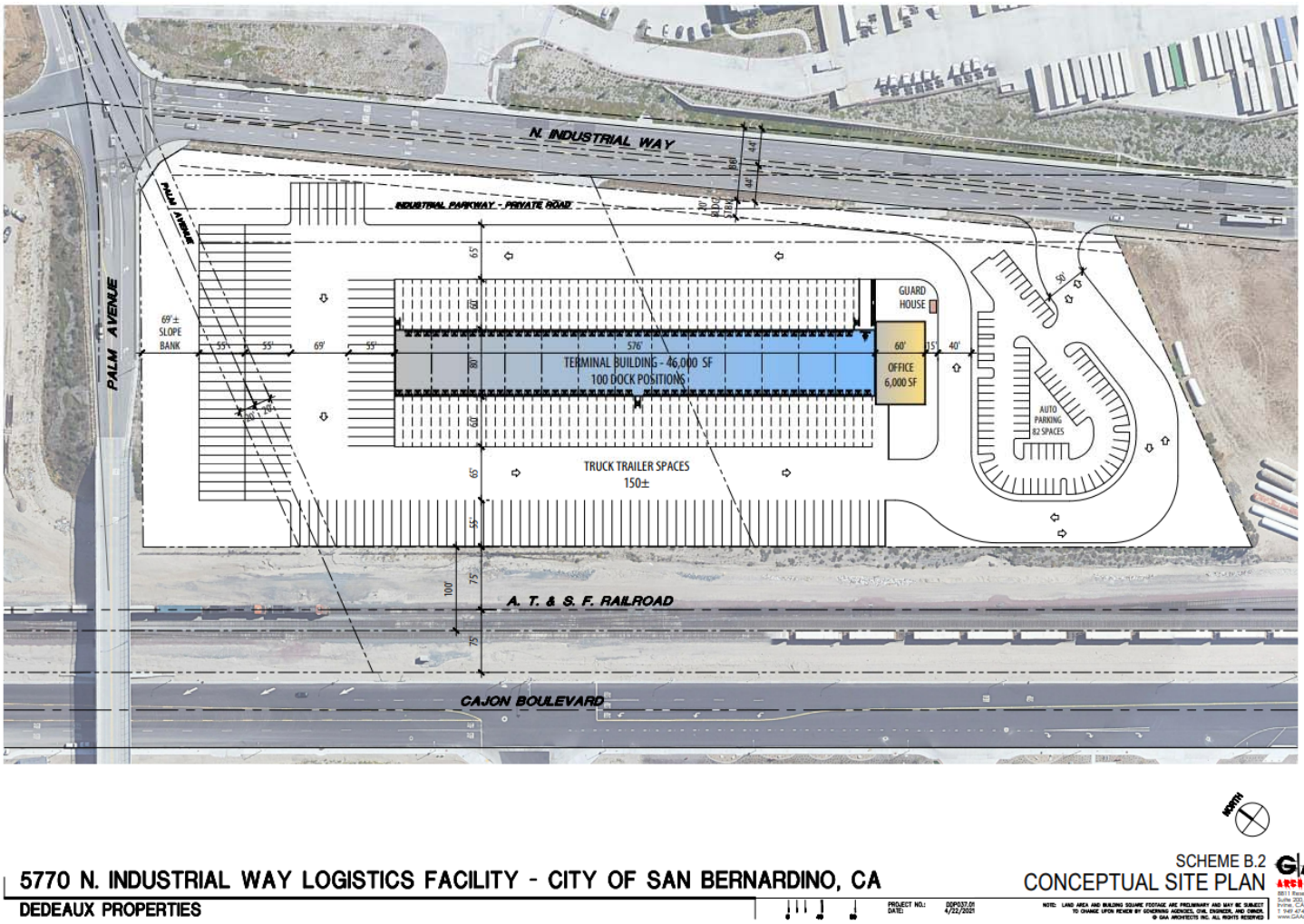

Table 1: Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
General Light Industrial (GLI)[1]		TSF	4.96	0.62	0.08	0.70	0.08	0.55	0.63
Existing Site Trip Generation									
Pallet Manufacturer (GLI)	34.00	TSF	169	21	3	24	2	19	21
Vehicle Mix[2]		***Percent***							
Passenger Vehicles		78.60%	133	16	2	18	2	15	17
2-Axle Trucks		8.00%	13	2	0	2	0	1	1
3-Axle Trucks		3.90%	7	1	0	1	0	1	1
4+-Axle Trucks		9.50%	16	2	1	3	0	2	2
			169	21	3	24	2	19	21
Proposed PCE Trip Generation[4]		***PCE Factor***							
Passenger Vehicles		1.0	133	16	2	18	2	15	17
2-Axle truck		2.0	26	4	0	4	0	2	2
3-Axle truck		2.5	18	2	0	2	0	3	3
4+-Axle Trucks		3.0	48	6	3	9	0	6	6
			227	28	5	33	2	26	28
Proposed Project Trip Generation									
Truck Terminal (GLI)	52.00	TSF	259	32	4	36	4	29	33
Vehicle Mix[3]		***Percent***[2]							
Passenger Vehicles		46.00%	119	15	2	17	2	13	15
2-Axle truck		6.10%	16	2	0	2	0	2	2
3-Axle truck		13.90%	36	4	1	5	1	4	5
4+-Axle Trucks		34.00%	88	11	1	12	1	10	11
		100%	259	32	4	36	4	29	33
Proposed PCE Trip Generation[4]		***PCE Factor***							
Passenger Vehicles		1.0	119	15	2	17	2	13	15
2-Axle truck		2.0	32	4	1	5	0	4	4
3-Axle truck		2.5	90	11	2	13	3	10	13
4+-Axle Trucks		3.0	264	33	4	37	3	30	33
			505	63	9	72	8	57	65
Net Trip Generation			**90**	**11**	**1**	**12**	**2**	**10**	**12**
Net PCE Trip Generation			**278**	**34**	**4**	**38**	**6**	**31**	**37**

TFS = Thousand Square Feet

PCE = Passenger Car Equivalent

[1] Trip rates from the Institute of Transporation Engineers, Trip Generation,10th Edition, 2017. Land Use Code 110 - General Light Industrial

[2] Vehicle Mix from the City of Fontana, Truck Trip Generation Study, August 2003. Classification: Light Industrial (Attachment A)

[3] Vehicle Mix from the City of Fontana, Truck Trip Generation Study, August 2003. Classification: Truck Terminals (Attachment B)

[4] Passenger Car Equivalent (PCE) factors from the San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

Attachmnet A

VEHICLE MIX AND ENTER/EXIT SPLITS BY LAND USE CATEGORY (Cont'd)

Classification: Light Industrial

	Recommended Large Truck Mix (%)							
	Lge 2 Ax	3 Axle	4+ Axle	Total				
	32.7	17.9	49.4	100.0				
	Pass Veh	Lge 2 Ax	3 Axle	4+ Axle	Total			
	78.6	8.0	3.9	9.5	100.0			
	Site Entering & Exiting							
	a.m.				p.m.			
	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit
Split	64.96	35.04	41.03	58.97	43.01	56.99	42.86	57.14
	Street Entering & Exiting							
	a.m.				p.m.			
	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit
Split	60.49	39.51	37.50	62.50	29.17	70.83	66.67	33.33

Attachment B

VEHICLE MIX AND ENTER/EXIT SPLITS BY LAND USE CATEGORY (Cont'd)

Classification: Truck Terminals

	Recommended Large Truck Mix (%)							
	Lge 2 Ax	3 Axle	4+ Axle	Total				
	11.9	24.4	63.7	100.0				
	Pass Veh	Lge 2 Ax	3 Axle	4+ Axle	Total			
	46.0	6.1	13.9	34.0	100.0			
	Site Entering & Exiting							
	a.m.				p.m.			
	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit
Split	51.27	48.73	49.23	50.77	46.36	53.64	66.39	33.61
	Street Entering & Exiting							
	a.m.				p.m.			
	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit	Total Enter	Total Exit	Large Truck Enter	Large Truck Exit
Split	52.86	47.14	43.75	56.25	60.80	39.20	66.30	33.70