translutions
the transportation solutions company...

memorandum

DATE: April 22, 2022

TO: David Ornelas, T&B Planning

FROM: Sandipan Bhattacharjee, P.E., T.E., AICP, ENV-SP

SUBJECT: Moreno Valley Trade Center Trip Generation Comparison (E-Commerce & Warehouse Scenarios)

Translutions, Inc. (Translutions) is pleased to provide this memorandum discussing the trip generation included in the Moreno Valley Trade Center Traffic Impact Analyses (TIA) and the proposed trip generation that includes High-Cube Cold Storage warehouse facilities.

Background. In November 2020, Translutions submitted a TIA for the Moreno Valley Trade Center project in the City of Moreno Valley. The project included the construction of approximately 1,332,380 square feet of E-Commerce warehouse uses. Subsequently, the project site plan was changed to 1,263,270 square feet with change in project access, eliminating all traffic from Encilia Avenue. A revised analysis was conducted in April 2022, and the levels of service under the revised project were not worse than those in the previous analysis.

The project's EIR also evaluates options where 50,000 square feet of each alternative would include High-Cube Cold Storage facilities.

Trip Generation from Original TIA. As stated earlier, the TIA for the original project was submitted to the City in November 2020. The trip generation used for the analysis was based on surveyed rated from similar E-Commerce facilities in the Inland Empire. Tables A and B show the project trip generation from the approved TIA. As shown in Table A, the original project is forecast to generate 554 PCE trips in the a.m. peak hour, 1,118 PCE trips in the p.m. peak hour, and 7,903 PCE daily trips for the e-commerce scenario. As shown in Table B, the original project is forecast to generate 363 PCE trips in the a.m. peak hour, 404 PCE trips in the p.m. peak hour, and 3,665 PCE daily trips for the warehouse scenario.

Trip Generation from Revised TIA. As stated earlier, the revised TIA was revised in April 2022. Tables C and D show the project trip generation from the revised TIA. As shown in Table C, the revised project is forecast to generate 524 PCE trips in the a.m. peak hour, 1,061 PCE trips in the p.m. peak hour, and 7,494 PCE daily trips for the e-commerce scenario. As shown in Table E, the revised project is forecast to generate 342 PCE trips in the a.m. peak hour, 383 PCE trips in the p.m. peak hour, and 3,474 PCE daily trips for the warehouse scenario. Therefore, under both scenarios, the revised project generates fewer trips.

Trip Generation for Cold Storage. The air quality analysis evaluates a scenario where up to 50,000 square feet of each scenario is developed for cold storage. The trip generation for the cold storage portion of the warehouse is based on trip generation rates for Land Use 157 "High-Cube Cold Storage Warehouse" from Institute of Transportation Engineers' (ITE) Trip Generation (10th Edition). Table E shows the trip generation for the proposed High-Cube Cold Storage portion. Table F summarizes the proposed project trip generation for the remaining portion for the E-Commerce scenario. Table G summarizes the proposed project trip generation for the E-Commerce scenario with cold storage. Table H summarizes the proposed project trip generation for the remaining portion for the warehouse scenario. Table I summarizes the proposed project trip generation for the warehouse scenario with cold storage. As shown in Table H, the revised project is forecast to generate 518 PCE trips in the a.m. peak hour, 1,033 PCE trips in the p.m. peak hour, and 7,377 PCE daily trips for the e-commerce with cold storage scenario. As shown in Table I, the revised project is forecast to generate 343 PCE trips in the a.m. peak hour, 382 PCE trips in the p.m. peak hour, and 3,518 PCE daily trips for the e-commerce with cold storage scenario.

Trip Generation Comparison. Table J summarizes the trip generations for the various alternatives. As seen on Table J, the trip generation for the revised project under all scenarios are less than those for the previous project.

VMT Evaluation. The revised building footprint is approximately 69,000 square feet less than the previous building footprint, or approximately 5% less. This is a minor reduction, and the employee numbers are anticipated to remain the same as before or reduce slightly. Since VMT impacts are based on VMT per employee, if the number of employees remain the same or decrease slightly, the per employee home-based work VMT will remain the same or decrease slightly. Therefore, the VMT impacts are unlikely to change from the previous project.

Conclusion. Since the trip generation of the proposed project during the a.m. peak hour, p.m. peak hour, and daily are lower than those disclosed in the TIA submitted in November 2020, the impacts from the proposed project are anticipated to be less than those disclosed in the November 2020 TIA and addressed in the prior CEQA analyses.

translutions
the transportation solutions company...

Table A - Project Trip Generation (e-Commerce, November 2020)

Land Use		Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Total Vehicle Rates									
Total Vehicle Rates									
Trip Generation Rates[1]	1,332.38	TSF	0.2910	0.0717	0.3673	0.4087	0.3883	0.7970	4.9591
Trip Generation			388	96	489	545	517	1062	6,607
Passenger Car Equivalent Rates Calculations									
Passenger Cars									
Trip Generation Rates[1]	1,332.38	TSF	0.2800	0.0592	0.3392	0.3998	0.3733	0.7731	4.3155
Trip Generation			373	79	452	533	497	1030	5,750
PCE Factor[2]			1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCEs			373	79	452	533	497	1030	5,750
2-Axle Trucks									
Trip Generation Rates[1]			0.0009	0.0009	0.0019	0.0002	0.0010	0.0011	0.1329
Trip Generation			1	1	3	0	1	2	177
PCE Factor[2]			1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCEs			2	2	5	0	2	3	266
3-Axle Trucks									
Trip Generation Rates[1]			0.0027	0.0030	0.0057	0.0013	0.0025	0.0038	0.1149
Trip Generation			4	4	8	2	3	5	153
PCE Factor[2]			2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCEs			8	8	16	4	6	10	306
4-Axle Trucks									
Trip Generation Rates[1]			0.0074	0.0085	0.0205	0.0074	0.0116	0.0190	0.3957
Trip Generation			10	11	27	10	15	25	527
PCE Factor[2]			3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCEs			30	33	81	30	45	75	1,581
Total Project Trip Generation (Trips, By Vehicle Type)									
Warehouse	1,332.38	TSF							
Passenger Cars			373	79	452	533	497	1,030	5,750
2-Axle Trucks			1	1	3	0	1	2	177
3-Axle Trucks			4	4	8	2	3	5	153
4+ Axle Trucks			10	11	27	10	15	25	527
All Trucks			15	16	38	12	19	32	857
Total Vehicles			403	95	490	545	516	1,062	6,607
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)									
Passenger Cars			373	79	452	533	497	1,030	5,750
Truck PCE									
2-Axle Trucks			2	2	5	0	2	3	266
3-Axle Trucks			8	8	16	4	6	10	306
4+ Axle Trucks			30	33	81	30	45	75	1,581
Total Truck PCE			40	43	102	34	53	88	2,153
Total PCE			413	122	554	567	550	1,118	7,903

[1] Trips based on Surveys and application to Proposed Project.

[2] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table B - Project Trip Generation (Warehouse, November 2020)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates[1]	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%)[2]		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor[3]		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.477	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%)[2]		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor[3]		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%)[2]		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor[3]		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%)[2]		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor[3]		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.602	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,332.38 TSF							
Passenger Cars		109	32	141	43	114	157	1,436
2-Axle Trucks		12	3	15	5	12	17	150
3-Axle Trucks		15	5	20	6	16	22	201
4+ Axle Trucks		41	12	53	17	42	59	534
All Trucks		68	20	88	28	70	98	885
Total Vehicles		245	52	229	71	184	255	2,321
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)								
Passenger Cars		109	32	141	43	114	157	1,436
Truck PCE								
2-Axle Trucks		18	5	23	8	18	26	225
3-Axle Trucks		30	10	40	12	32	44	402
4+ Axle Trucks		123	36	159	51	126	177	1,602
Total Truck PCE		171	51	222	71	176	247	2,229
Total PCE		280	83	363	114	290	404	3,665

[1] Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

[2] Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

[3] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table C - Project Trip Generation (e-Commerce, April 2022 TIA)

Land Use		Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Total Vehicle Rates									
Total Vehicle Rates									
Trip Generation Rates[1]	1,263.27	TSF	0.2910	0.0717	0.3673	0.4087	0.3883	0.7970	4.9591
Trip Generation			368	91	464	516	491	1007	6,265
Passenger Car Equivalent Rates Calculations									
Passenger Cars									
Trip Generation Rates[1]	1,263.27	TSF	0.2800	0.0592	0.3392	0.3998	0.3733	0.7731	4.3155
Trip Generation			354	75	429	505	472	977	5,452
PCE Factor[2]			1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCEs			354	75	429	505	472	977	5,452
2-Axle Trucks									
Trip Generation Rates[1]			0.0009	0.0009	0.0019	0.0002	0.0010	0.0011	0.1329
Trip Generation			1	1	2	0	1	1	168
PCE Factor[2]			1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCEs			2	2	3	0	2	2	252
3-Axle Trucks									
Trip Generation Rates[1]			0.0027	0.0030	0.0057	0.0013	0.0025	0.0038	0.1149
Trip Generation			3	4	7	2	3	5	145
PCE Factor[2]			2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCEs			6	8	14	4	6	10	290
4-Axle Trucks									
Trip Generation Rates[1]			0.0074	0.0085	0.0205	0.0074	0.0116	0.0190	0.3957
Trip Generation			9	11	26	9	15	24	500
PCE Factor[2]			3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCEs			27	33	78	27	45	72	1,500
Total Project Trip Generation (Trips, By Vehicle Type)									
Warehouse	1,263.27	TSF							
Passenger Cars			354	75	429	505	472	977	5,452
2-Axle Trucks			1	1	2	0	1	1	168
3-Axle Trucks			3	4	7	2	3	5	145
4+ Axle Trucks			9	11	26	9	15	24	500
All Trucks			13	16	35	11	19	30	813
Total Vehicles			380	91	464	516	491	1,007	6,265
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)									
Passenger Cars			354	75	429	505	472	977	5,452
Truck PCE									
2-Axle Trucks			2	2	3	0	2	2	252
3-Axle Trucks			6	8	14	4	6	10	290
4+ Axle Trucks			27	33	78	27	45	72	1,500
Total Truck PCE			35	43	95	31	53	84	2,042
Total PCE			389	118	524	536	525	1,061	7,494

[1] Trips based on Surveys and application to Proposed Project.

[2] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table D - Project Trip Generation (Warehouse, April 2022 TIA)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates[1]	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%)[2]		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor[3]		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.477	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%)[2]		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor[3]		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%)[2]		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor[3]		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%)[2]		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor[3]		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.602	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,263.27 TSF							
Passenger Cars		102	31	133	41	108	149	1,361
2-Axle Trucks		11	3	14	5	11	16	142
3-Axle Trucks		15	4	19	6	15	21	191
4+ Axle Trucks		39	11	50	16	40	56	506
All Trucks		65	18	83	27	66	93	839
Total Vehicles		232	49	216	68	174	242	2,200
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)								
Passenger Cars		102	31	133	41	108	149	1,361
Truck PCE								
2-Axle Trucks		16	5	21	7	17	24	213
3-Axle Trucks		30	8	38	12	30	42	382
4+ Axle Trucks		117	33	150	48	120	168	1,518
Total Truck PCE		163	46	209	67	167	234	2,113
Total PCE		265	77	342	108	275	383	3,474

[1] Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

[2] Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

[3] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table E: Project Trip Generation (High-Cube Cold Storage Warehouse)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates[1]	TSF	0.085	0.025	0.110	0.034	0.086	0.120	2.120
PCE Inbound/Outbound Splits		77%	23%	100%	28%	72%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%)[2]		55.82%	55.82%	55.82%	55.82%	55.82%	55.82%	55.82%
PCE Factor[3]		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.047	0.014	0.061	0.019	0.048	0.067	1.183
2-Axle Trucks								
Recommended Mix (%)[2]		7.48%	7.48%	7.48%	7.48%	7.48%	7.48%	7.48%
PCE Factor[3]		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.010	0.003	0.012	0.004	0.010	0.013	0.238
3-Axle Trucks								
Recommended Mix (%)[2]		10.03%	10.03%	10.03%	10.03%	10.03%	10.03%	10.03%
PCE Factor[3]		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.017	0.005	0.022	0.007	0.017	0.024	0.425
4-Axle Trucks								
Recommended Mix (%)[2]		26.66%	26.66%	26.66%	26.66%	26.66%	26.66%	26.66%
PCE Factor[3]		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.068	0.020	0.088	0.027	0.069	0.096	1.696
Warehouse Net PCE Rate		0.142	0.042	0.184	0.056	0.144	0.200	3.542
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	50.00 TSF							
Passenger Cars		3	1	4	2	2	4	60
2-Axle Trucks		1	0	1	1	0	1	8
3-Axle Trucks		1	0	1	1	0	1	11
4+ Axle Trucks		2	0	2	1	1	2	29
All Trucks		4	0	4	3	1	4	48
Total Vehicles		7	1	8	5	3	8	108
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)								
Passenger Cars		3	1	4	2	2	4	60
Truck PCE								
2-Axle Trucks		2	0	2	2	0	2	12
3-Axle Trucks		2	0	2	2	0	2	22
4+ Axle Trucks		6	0	6	3	3	6	87
Total Truck PCE		10	0	10	7	3	10	121
Total PCE		13	1	14	9	5	14	181

[1] Rates based on Land Use 157 "High-Cube Cold Storage Warehouse" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

[2] Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study for Cold Storage.

[3] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table F - Project Trip Generation (E-Commerce Warehouse Portion, Cold Storage Scenario)

Land Use		Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Total Vehicle Rates									
Total Vehicle Rates									
Trip Generation Rates[1]	1,213.27	TSF	0.2910	0.0717	0.3673	0.4087	0.3883	0.7970	4.9591
Trip Generation			353	87	446	496	471	967	6,017
Passenger Car Equivalent Rates Calculations									
Passenger Cars									
Trip Generation Rates[1]	1,213.27	TSF	0.2800	0.0592	0.3392	0.3998	0.3733	0.7731	4.3155
Trip Generation			340	72	412	485	453	938	5,236
PCE Factor[2]			1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCEs			340	72	412	485	453	938	5,236
2-Axle Trucks									
Trip Generation Rates[1]			0.0009	0.0009	0.0019	0.0002	0.0010	0.0011	0.1329
Trip Generation			1	1	2	0	1	1	161
PCE Factor[2]			1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCEs			2	2	3	0	2	2	242
3-Axle Trucks									
Trip Generation Rates[1]			0.0027	0.0030	0.0057	0.0013	0.0025	0.0038	0.1149
Trip Generation			3	4	7	2	3	5	139
PCE Factor[2]			2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCEs			6	8	14	4	6	10	278
4-Axle Trucks									
Trip Generation Rates[1]			0.0074	0.0085	0.0205	0.0074	0.0116	0.0190	0.3957
Trip Generation			9	10	25	9	14	23	480
PCE Factor[2]			3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCEs			27	30	75	27	42	69	1,440
Total Project Trip Generation (Trips, By Vehicle Type)									
Warehouse	1,213.27	TSF							
Passenger Cars			340	72	412	485	453	938	5,236
2-Axle Trucks			1	1	2	0	1	1	161
3-Axle Trucks			3	4	7	2	3	5	139
4+ Axle Trucks			9	10	25	9	14	23	480
All Trucks			13	15	34	11	18	29	780
Total Vehicles			353	87	446	496	471	967	6,016
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)									
Passenger Cars			340	72	412	485	453	938	5,236
Truck PCE									
2-Axle Trucks			2	2	3	0	2	2	242
3-Axle Trucks			6	8	14	4	6	10	278
4+ Axle Trucks			27	30	75	27	42	69	1,440
Total Truck PCE			35	40	92	31	50	81	1,960
Total PCE			375	112	504	516	503	1,019	7,196

[1] Trips based on Surveys and application to Proposed Project.

[2] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table G - Total Project Trip Generation Summary (e-Commerce + Cold Storage)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
TOTAL VEHICLES								
Passenger Cars		343	73	416	487	455	942	5,296
Trucks								
2-Axle Trucks		2	1	3	1	1	2	169
3-Axle Trucks		4	4	8	3	3	6	150
4+ Axle Trucks		11	10	27	10	15	25	509
Total Trucks		17	15	38	14	19	33	828
TOTAL PCE								
Passenger Cars		343	73	416	487	455	940	5,296
Truck PCE								
2-Axle Trucks		4	2	5	2	2	4	254
3-Axle Trucks		8	8	16	6	6	12	300
4+ Axle Trucks		33	30	81	30	45	75	1,527
Total Truck PCE		45	40	102	38	53	91	2,081
Total PCE		388	113	518	525	508	1,033	7,377

translutions
the transportation solutions company...

Table H: Project Trip Generation (Warehouse Portion, Cold Storage Scenario)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates[1]	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%)[2]		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor[3]		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.081	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%)[2]		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor[3]		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%)[2]		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor[3]		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%)[2]		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor[3]		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.207	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,213.27 TSF							
Passenger Cars		99	29	128	39	104	143	1,307
2-Axle Trucks		11	3	14	4	11	15	137
3-Axle Trucks		14	4	18	5	15	20	183
4+ Axle Trucks		37	11	48	15	39	54	486
All Trucks		62	18	80	24	65	89	806
Total Vehicles		161	47	208	63	169	232	2,113
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)								
Passenger Cars		99	29	128	39	104	143	1,307
Truck PCE								
2-Axle Trucks		16	5	21	6	17	23	206
3-Axle Trucks		28	8	36	10	30	40	366
4+ Axle Trucks		111	33	144	45	117	162	1,458
Total Truck PCE		155	46	201	61	164	225	2,030
Total PCE		254	75	329	100	268	368	3,337

[1] Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

[2] Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

[3] Recommended PCE Factor per SBCTA Guidelines

translutions
the transportation solutions company...

Table I: Total Project Trip Generation Summary (Warehouse + Cold Storage)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
TOTAL VEHICLES								
Passenger Cars		102	30	132	41	106	147	1,367
Trucks								
2-Axle Trucks		12	3	15	5	11	16	145
3-Axle Trucks		15	4	19	6	15	21	194
4+ Axle Trucks		39	11	50	16	40	56	515
Total Trucks		66	18	84	27	66	93	854
TOTAL PCE								
Passenger Cars		102	30	132	41	106	147	1,367
Truck PCE								
2-Axle Trucks		18	5	23	8	17	25	218
3-Axle Trucks		30	8	38	12	30	42	388
4+ Axle Trucks		117	33	150	48	120	168	1,545
Total Truck PCE		165	46	211	68	167	235	2,151
Total PCE		267	76	343	109	273	382	3,518

translutions
the transportation solutions company

Table H: Project Trip Generation (Warehouse Portion, Cold Storage Scenario)

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates[1]	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%)[2]		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor[3]		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.081	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%)[2]		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor[3]		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%)[2]		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor[3]		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%)[2]		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor[3]		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		**0.207**	**0.062**	**0.268**	**0.081**	**0.219**	**0.300**	**2.747**
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,213.27 TSF							
Passenger Cars		**99**	**29**	**128**	**39**	**104**	**143**	**1,307**
2-Axle Trucks		11	3	14	4	11	15	137
3-Axle Trucks		14	4	18	5	15	20	183
4+ Axle Trucks		37	11	48	15	39	54	486
All Trucks		**62**	**18**	**80**	**24**	**65**	**89**	**806**
Total Vehicles		**161**	**47**	**208**	**63**	**169**	**232**	**2,113**
Total Project Trip Generation (Passenger Car Eqivalent Trips, By Vehicle Type)								
Passenger Cars		**99**	**29**	**128**	**39**	**104**	**143**	**1,307**
Truck PCE								
2-Axle Trucks		16	5	21	6	17	23	206
3-Axle Trucks		28	8	36	10	30	40	366
4+ Axle Trucks		111	33	144	45	117	162	1,458
Total Truck PCE		**155**	**46**	**201**	**61**	**164**	**225**	**2,030**
Total PCE		**254**	**75**	**329**	**100**	**268**	**368**	**3,337**

[1] Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

[2] Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

[3] Recommended PCE Factor per SBCTA Guidelines