Sinclair Street Warehouse

June 2023

Prepared for
First Industrial Reality, Inc.
&
City of Perris

Prepared by
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Focused Traffic Study

ALBERT A. WEBB ASSOCIATES

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June 12, 2023

Nathan Perez
City of Perris

RE: Focused traffic study for proposed First Industrial Sinclair warehouse (DPR 22-00027)

Dear Nathan,

We are pleased to submit this focused traffic study for the proposed First Industrial Sinclair warehouse project, which we have prepared at your request. The analysis and report have been prepared in accordance with the City of Perris General Plan and Traffic Impact Analysis Guidelines as well as the project's approved scoping form.

If you have any questions regarding this report, please call the undersigned for clarification.

Sincerely,

ALBERT A. WEBB ASSOCIATES

Nicholas Lowe, PE
Deputy Director, Traffic & Transportation

Kawai Mang, EIT
Project Engineer

Sara Sadeghi, PTP
Transportation Planner

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I. EXECUTIVE SUMMARY

Study Background

The City of Perris has requested this traffic study to evaluate traffic operations at the intersection of Perris Boulevard and Sinclair Street. Prior to conducting this study, a traffic scoping form was submitted to and approved by the City (**Appendix A**).

Project Description

Located in the City of Perris, the proposed project site currently includes a 46,910 square-foot (sf) Recycle Wise industrial recycling facility and a 159,190 sf Building Material Distributors (BMD) warehouse, with one access point serving both facilities at the adjacent intersection of Perris Boulevard and Sinclair Street. The project is proposing to replace the existing site with a 427,224 sf high-cube warehouse, which includes a 423,224 sf ground-floor building footprint and 4,000 sf mezzanine. The project is proposing to use the existing site access at the adjacent intersection. This study assumes that the project would be developed in a single phase, to be completed and operational in 2025.

Project Trip Generation

Based on the existing site, proposed site plan, and the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, the project is expected to generate a total of approximately 386 net new daily vehicle trips, with 45 and 44 net new trips in the AM and PM peak hours, respectively. Using relevant regional studies and data, the expected project traffic in passenger-car equivalent (PCE) rates is **approximately 615 net new daily PCE trips, with 57 net new PCE trips in the both AM and PM peak hours**.

Analysis and Findings

Level of Service Findings

The City's traffic operations standards are to maintain the following levels of service:

- LOS D along all City-maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 freeway ramps.
- LOS E may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

Per the City of Perris General Plan and LOS standards, the minimum acceptable LOS for this study is **LOS D**.

The study intersection is expected to operate at or above the minimum acceptable LOS standard in all study scenarios, including the addition of cumulative project traffic and the proposed project.

II. INTRODUCTION

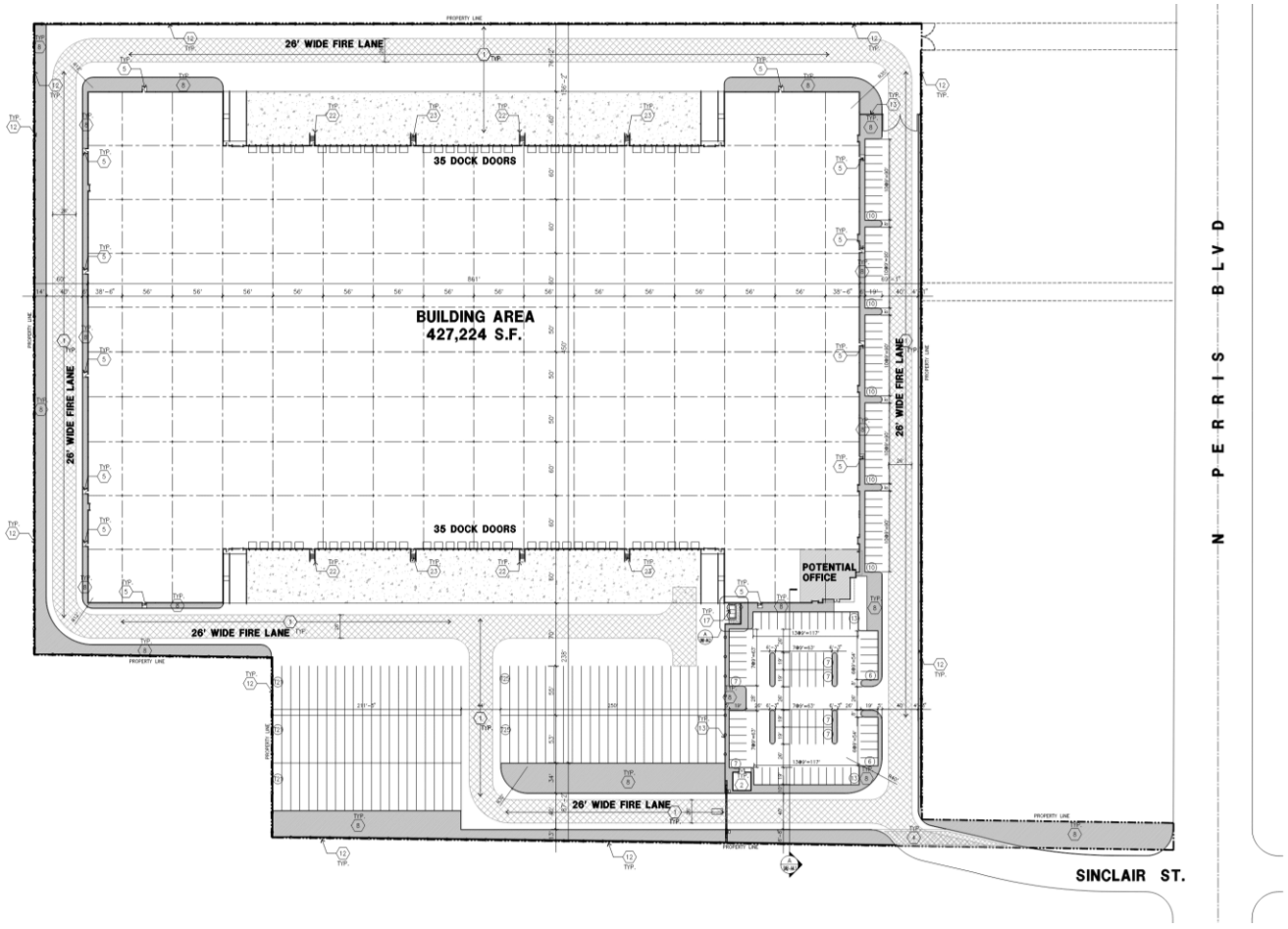
Study Background

The City of Perris has requested this traffic study to evaluate traffic operations at the intersection of Perris Boulevard and Sinclair Street. Prior to conducting this study, a traffic scoping form was submitted to and approved by the City (**Appendix A**).

Project Location and Description

Located in the City of Perris, the proposed project site currently includes a Recycle Wise facility and a BMD warehouse, with one access point at the adjacent intersection of Perris Boulevard and Sinclair Street. The project is proposing to replace the existing site with a 427,224 square-foot (sf) high-cube warehouse, which is to include 4,000 sf of mezzanine space (**Figure 1,** details in **Appendix A**). The project is proposing to use the existing site access at the adjacent intersection. This study assumes that the project would be developed in a single phase, to be completed and operational in 2025.

Figure 1: Proposed Project Site Plan



Project Site Access

The project is proposing to maintain the existing site access point at the intersection of Perris Boulevard and Sinclair Street for all project vehicle access, including both passenger cars and trucks. As shown on the proposed project site plan, the passenger car parking is proposed to be located on the east and southeast areas of the project site, closest to the site access point. The passenger cars will therefore be distinctly separated from the truck loading docks.

Study Location

Per City request, this study focuses on the intersection of Perris Boulevard and Sinclair Street.

Analysis Methodology

This study uses methodology from the Transportation Research Board *Highway Capacity Manual* (HCM 6th Edition, 2016) to analyze traffic operations via Level of Service (LOS) rankings for the following scenarios:

- Existing conditions (2023)
- Existing conditions plus project (2023)
- Opening Day conditions (existing traffic + ambient growth + cumulative project traffic, 2025)
- Opening Day conditions plus project
  (existing traffic + ambient growth + cumulative project traffic + project, 2025)

Per the HCM, LOS rankings at intersections use a letter-grade scale ranging from LOS A (optimal conditions) to LOS F (congested or overcrowded conditions) based on average control delay in seconds per vehicle, or how long a vehicle typically waits before proceeding through the intersection, compared with free-flow conditions. This study uses Vistro traffic modeling software to evaluate intersection LOS. For signalized intersections, LOS rankings are based on the average control delay of all vehicles passing through the intersection (**Table 1**).

Table 1: Level of Service at Signalized Intersections

Control Delay (sec/vehicle)	Level of Service	Description
0 - 10	**A**	Minimal delay and primarily free-flow operation. Most vehicles do not stop or only stop for a brief amount of time.
10 - 20	**B**	Short delay and reasonably unimpeded operation. Many vehicles do not stop or only stop for a short time. More vehicles stop than with LOS A.
20 - 35	**C**	Moderate delay and stable operation. Individual cycle failures may begin to appear. The number of vehicles stopping is significant.
35 - 55	**D**	Less stable operation; small increases in vehicles may cause substantial increases in delay. Many vehicles stop, individual cycle failures noticeable.
55 - 80	**E**	Significant delay and unstable operation. Most vehicles stop and individual cycle failures are frequent.
80 +	**F**	Considerable delay and extensive queuing. Almost all vehicles stop and most cycles fail to clear the queue.

Source: Transportation Research Board, Highway Capacity Manual 6 (2016)

Level of Service Standards

The City's traffic operations standards are to maintain the following levels of service:

- LOS D along all City-maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 freeway ramps.
- LOS E may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

Per the City of Perris General Plan and LOS standards, the minimum acceptable LOS for this study is **LOS D**.

Traffic Impact Thresholds

To determine whether the addition of project-generated trips (or alternative-generated trips) results in a project traffic impact, and thus requires improvement, the analysis evaluates project impacts based on the following criteria:

- A **project-related impact** is considered direct when a study intersection operates at an acceptable Level of Service for existing conditions (without the project) and the addition of 50 or more a.m. or p.m. peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable Level of Service for existing plus project conditions.
- A **project-related impact** is considered direct when a study intersection operates at an unacceptable Level of Service for existing conditions (without the project) and the addition of 50 or more a.m. or p.m. peak hour project trips causes the intersection delay to increase by 2 seconds or more.
- A **cumulative impact** is considered direct when a study intersection is forecast to operate at an acceptable Level of Service without the project and with the addition of 50 or more a.m. or p.m. peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable Level of Service.
- A **cumulative impact** is considered indirect when a study intersection is forecast to operate at an unacceptable Level of Service with the addition of cumulative/background traffic and the project contributes 50 or more a.m. or p.m. peak hour project trips and causes the intersection delay to increase by 2 seconds or more.

III. PROPOSED PROJECT TRAFFIC

To estimate project traffic volumes, project trip generation first estimates the total project traffic during a typical weekday and its peak hours. Then, trip distribution identifies their origins and destinations in typical travel patterns, while traffic assignment allocates the project traffic to specific roadways and intersections.

Project Trip Generation

Trip Generation Rates

Trip generation represents the amount of traffic accessing a site, both inbound and outbound vehicle trips. Based on nationwide study data, the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) provides common trip generation characteristics by land use. Per County standards and regional studies, passenger-car equivalent (PCE) factors are also applied to the trip generation to account for the increased effect of large vehicles as used in industrial operations. This study uses trip generation rates for Land Use 154 for the proposed project trip generation (**Table 2**).

Table 2: Trip Generation Rates – High-Cube Warehousing

Vehicle Type	PCE Factor[1]	Estimated Mix[2]	Units[3]	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Generation Rates (classification, non-PCE) [4]										
Passenger Cars[5]	-	-	KSF	1.18	0.052	0.008	**0.06**	0.023	0.067	**0.09**
2-axle Trucks	-	16.7%		0.037	0.0016	0.0017	**0.003**	0.0008	0.0009	**0.002**
3-axle Trucks	-	20.7%		0.046	0.0020	0.0021	**0.004**	0.0010	0.0011	**0.002**
4-axle Trucks	-	62.5%		0.138	0.0061	0.0064	**0.013**	0.0029	0.0033	**0.006**
Total		**100%**		**1.40**	**0.062**	**0.018**	**0.08**	**0.028**	**0.072**	**0.10**
Calculated Trip Generation Rates (PCE)										
Passenger Cars[5]	1	-	KSF	1.18	0.052	0.008	**0.06**	0.023	0.067	**0.09**
2-axle Trucks	1.5	16.7%		0.055	0.0025	0.0026	**0.005**	0.0012	0.0013	**0.003**
3-axle Trucks	2	20.7%		0.091	0.0041	0.0042	**0.008**	0.0019	0.0022	**0.004**
4-axle Trucks	3	62.5%		0.41	0.0184	0.0191	**0.038**	0.0088	0.0099	**0.019**
Total		**100%**		**1.74**	**0.077**	**0.034**	**0.11**	**0.035**	**0.080**	**0.12**

[1] PCE factors per Riverside County guidelines

[2] Truck mix per High-Cube Warehouse Vehicle Trip Generation Analysis, ITE (2017); Warehouse Truck Trip Study, SCAQMD (2014)

[3] KSF = 1,000 square feet gross floor area

[4] ITE Trip Generation Manual 11th Ed, 2021 - Land Use 154, High-Cube Transload and Short-Term Storage Warehouse

[5] Passenger car rates per ITE vehicle trip generation rates less ITE truck trip generation rates.

Trip Credits

Project trip calculations for this project include trip credits for existing site traffic. This study uses trip generation rates for ITE Land Use 150 (Warehousing) for the BMD warehouse (**Table 3**) and ITE Land Use 110 (General Light Industrial) for the Recycle Wise facility (**Table 4**).

Table 3: Trip Generation Rates – Warehousing

Vehicle Type	PCE Factor[1]	Estimated Mix[2]	Units[3]	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Generation Rates (classification, non-PCE)[4]										
Passenger Cars[5]	-	-	KSF	1.11	0.121	0.030	**0.15**	0.035	0.115	**0.15**
2-axle Trucks	-	16.7%		0.100	0.0017	0.0016	**0.003**	0.0026	0.0024	**0.005**
3-axle Trucks	-	20.7%		0.124	0.0022	0.0020	**0.004**	0.0032	0.0030	**0.006**
4-axle Trucks	-	62.5%		0.375	0.0065	0.0060	**0.013**	0.0098	0.0090	**0.019**
Total		**100%**		**1.71**	**0.131**	**0.039**	**0.17**	**0.050**	**0.130**	**0.18**
Calculated Trip Generation Rates (PCE)										
Passenger Cars[5]	1	-	KSF	1.11	0.121	0.030	**0.15**	0.035	0.115	**0.15**
2-axle Trucks	1.5	16.7%		0.151	0.0026	0.0024	**0.005**	0.0039	0.0036	**0.008**
3-axle Trucks	2	20.7%		0.249	0.0043	0.0040	**0.008**	0.0065	0.0060	**0.012**
4-axle Trucks	3	62.5%		1.13	0.0195	0.0180	**0.038**	0.0293	0.0270	**0.056**
Total		**100%**		**2.64**	**0.147**	**0.054**	**0.20**	**0.074**	**0.152**	**0.23**

[1] PCE factors per Riverside County guidelines

[2] Truck mix per High-Cube Warehouse Vehicle Trip Generation Analysis, ITE (2017); Warehouse Truck Trip Study, SCAQMD (2014)

[3] KSF = 1,000 square feet gross floor area

[4] ITE Trip Generation Manual 11th Ed, 2021 - Land Use 150, Warehousing

[5] Passenger car rates per ITE vehicle trip generation rates less ITE truck trip generation rates.

Table 4: Trip Generation Rates – General Light Industrial

Vehicle Type	PCE Factor[1]	Estimated Mix[2]	Units[3]	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Generation Rates (classification, non-PCE)[4]										
Passenger Cars[5]	-	-	KSF	4.62	0.645	0.085	**0.73**	0.086	0.554	**0.64**
2-axle Trucks	-	16.7%		0.042	0.0010	0.0007	**0.002**	0.0008	0.0008	**0.002**
3-axle Trucks	-	20.7%		0.052	0.0012	0.0008	**0.002**	0.0010	0.0010	**0.002**
4-axle Trucks	-	62.5%		0.156	0.0038	0.0025	**0.006**	0.0031	0.0031	**0.006**
Total		**100%**		**4.87**	**0.651**	**0.089**	**0.74**	**0.091**	**0.559**	**0.65**
Calculated Trip Generation Rates (PCE)										
Passenger Cars[5]	1	-	KSF	4.62	0.645	0.085	**0.73**	0.086	0.554	**0.64**
2-axle Trucks	1.5	16.7%		0.063	0.0015	0.0010	**0.003**	0.0013	0.0013	**0.003**
3-axle Trucks	2	20.7%		0.104	0.0025	0.0017	**0.004**	0.0021	0.0021	**0.004**
4-axle Trucks	3	62.5%		0.47	0.0113	0.0075	**0.019**	0.0094	0.0094	**0.019**
Total		**100%**		**5.26**	**0.660**	**0.095**	**0.76**	**0.099**	**0.567**	**0.67**

[1] PCE factors per Riverside County guidelines

[2] Truck mix per High-Cube Warehouse Vehicle Trip Generation Analysis, ITE (2017); Warehouse Truck Trip Study, SCAQMD (2014)

[3] KSF = 1,000 square feet gross floor area

[4] ITE Trip Generation Manual 11th Ed, 2021 - Land Use 110, General Light Industrial

[5] Passenger car rates per ITE vehicle trip generation rates less ITE truck trip generation rates.

Net New Trip Generation

The project traffic volumes are developed by multiplying the trip generation rates by the size of the project and existing facilities, respectively. Per the ITE Land Use description for warehousing and high-cube warehousing, the trip generation for the proposed project and the existing BMD warehouse use the building footprint size, excluding any second-floor or mezzanine square footage. Accordingly, the project is expected to generate approximately **91 net new trips daily, with 25 net fewer trips in the AM peak hour and 18 net fewer trips in the PM peak hour** (Table 5).

Table 5: Project Trip Generation

Vehicle Type	PCE Factor[1]	Units[2]	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Project Trip Generation (classification, non-PCE) – Sinclair[3]									
Passenger Cars	-	423.22 KSF	**499**	22	3	**25**	10	28	**38**
2-axle Trucks	-		**16**	1	1	**2**	0	0	**0**
3-axle Trucks	-		**19**	1	1	**2**	0	0	**0**
4-axle Trucks	-		**58**	3	3	**6**	1	1	**2**
Subtotal - Proposed Project			***592***	*27*	*8*	***35***	*11*	*29*	***40***
Existing Site Trip Generation (classification, non-PCE) – BMD[4]									
Passenger Cars	-	-159.19 KSF	**-177**	-19	-5	**-24**	-6	-18	**-24**
2-axle Trucks	-		**-16**	0	0	**0**	0	0	**0**
3-axle Trucks	-		**-20**	0	0	**0**	-1	0	**-1**
4-axle Trucks	-		**-60**	-1	-1	**-2**	-2	-1	**-3**
Existing Site Subtotal - BMD			**-273**	-20	-6	**-26**	-9	-19	**-28**
Existing Site Trip Generation (classification, non-PCE) – Recycle Wise[5]									
Passenger Cars	-	-46.91 KSF	**-217**	-30	-4	**-34**	-4	-26	**-30**
2-axle Trucks	-		**-2**	0	0	**0**	0	0	**0**
3-axle Trucks	-		**-2**	0	0	**0**	0	0	**0**
4-axle Trucks	-		**-7**	0	0	**0**	0	0	**0**
Existing Site Subtotal - Recycle Wise			**-228**	-30	-4	**-34**	-4	-26	**-30**
Subtotal - All Existing Site	***-206.10 KSF***		***-501***	*-50*	*-10*	***-60***	*-13*	*-45*	***-58***
Net New Passenger Cars			**105**	**-27**	**-6**	**-33**	**0**	**-16**	**-16**
Net New Trucks			**-14**	**4**	**4**	**8**	**-2**	**0**	**-2**
Total Net New Project Trips			**91**	**-23**	**-2**	**-25**	**-2**	**-16**	**-18**

[1] PCE factors per Riverside County guidelines

[2] KSF = 1,000 square feet gross floor area

[3] Trip generation per ITE Trip Generation Manual 11th Ed, 2021 - Land Use 154, High-Cube Transload and Short-Term Storage Warehouse

[4] Trip generation per ITE Trip Generation Manual 11th Ed, 2021 - Land Use 150, Warehousing

[5] Trip generation per ITE Trip Generation Manual 11th Ed, 2021 - Land Use 110, General Light Industrial

With PCE factors applied to the project trip generation, the project is expected to generate **69 net new PCE trips daily, with 13 net fewer PCE trips in the AM peak hour and 21 net fewer PCE trips in the PM peak hour** (Table 6).

Table 6: Project Trip Generation (PCE)

Vehicle Type	PCE Factor[1]	Units[2]	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Project Trip Generation (classification, non-PCE) – Sinclair[3]									
Passenger Cars	1	423.22 KSF	**499**	22	3	**25**	10	28	**38**
2-axle Trucks	1.5		**24**	2	2	**4**	0	0	**0**
3-axle Trucks	2		**38**	2	2	**4**	0	0	**0**
4-axle Trucks	3		**174**	9	9	**18**	3	3	**6**
Subtotal - Proposed Project			***735***	*35*	*16*	***51***	*13*	*31*	***44***
Existing Site Trip Generation (classification, non-PCE) – BMD[4]									
Passenger Cars	1	-159.19 KSF	**-177**	-19	-5	**-24**	-6	-18	**-24**
2-axle Trucks	1.5		**-24**	0	0	**0**	0	0	**0**
3-axle Trucks	2		**-40**	0	0	**0**	-2	0	**-2**
4-axle Trucks	3		**-180**	-3	-3	**-6**	-6	-3	**-9**
Existing Site Subtotal - BMD			**-421**	-22	-8	**-30**	-14	-21	**-35**
Existing Site Trip Generation (classification, non-PCE) – Recycle Wise[5]									
Passenger Cars	1	-46.91 KSF	**-217**	-30	-4	**-34**	-4	-26	**-30**
2-axle Trucks	1.5		**-3**	0	0	**0**	0	0	**0**
3-axle Trucks	2		**-4**	0	0	**0**	0	0	**0**
4-axle Trucks	3		**-21**	0	0	**0**	0	0	**0**
Existing Site Subtotal - Recycle Wise			**-245**	-30	-4	**-34**	-4	-26	**-30**
Subtotal - All Existing Site	***-206.10 KSF***		***-666***	*-52*	*-12*	***-64***	*-18*	*-47*	***-65***
Net New Passenger Cars			**105**	**-27**	**-6**	**-33**	**0**	**-16**	**-16**
Net New Trucks			**-36**	**10**	**10**	**20**	**-5**	**0**	**-5**
Total Net New Project Trips			**69**	**-17**	**4**	**-13**	**-5**	**-16**	**-21**

[1] PCE factors per Riverside County guidelines

[2] KSF = 1,000 square feet gross floor area

[3] Trip generation per ITE Trip Generation Manual 11th Ed, 2021- Land Use 154, High-Cube Transload and Short-Term Storage Warehouse

[4] Trip generation per ITE Trip Generation Manual 11th Ed, 2021- Land Use 150, Warehousing

[5] Trip generation per ITE Trip Generation Manual 11th Ed, 2021- Land Use 110, General Light Industrial

Project Trip Distribution and Assignment

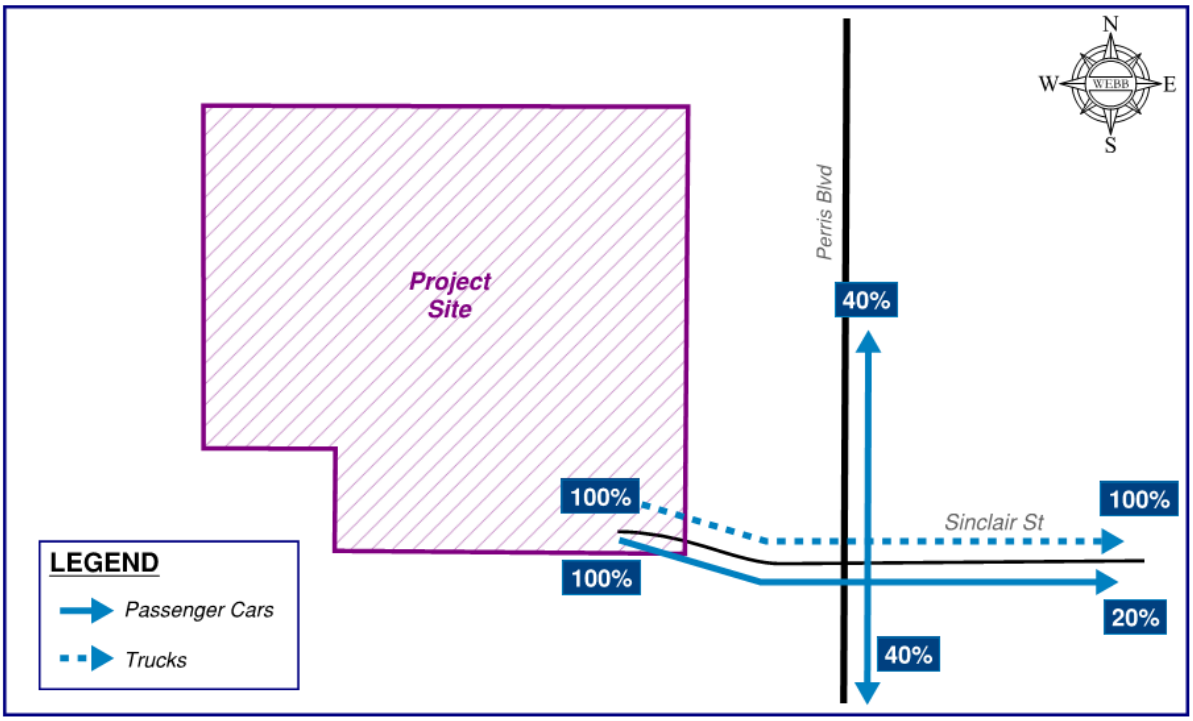
Modal Split

Based on the project land use and its distance from existing transit, no project traffic reductions from public transit or active transportation (bicycling or walking) are considered in this study.

Trip Distribution

Trip distribution, or the directional orientation of traffic to and from the project, is based on the project driveways, project location, nearby land uses, and proximity to the regional roadways. The proposed project trip distribution for passenger vehicles and trucks are shown separately in **Figure 2**.

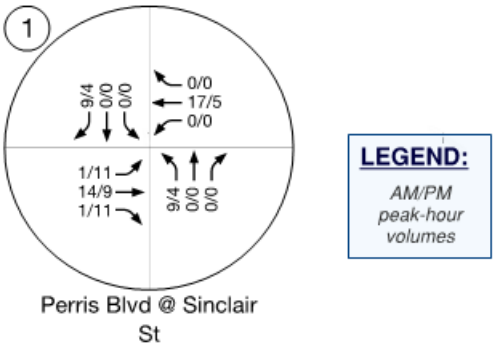
Figure 2: Directional Distribution of Project Traffic



Trip Assignment

Figure 3 shows the peak-hour project trips at the study intersection, according to the expected project trip generation and trip distribution model.

Figure 3: Project Traffic Volumes (PCE)



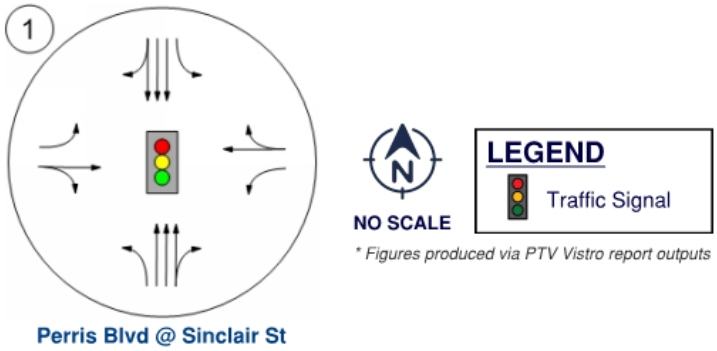
IV. EXISTING CONDITIONS (2023)

Located in the City of Perris, the proposed project site currently includes a Recycle Wise facility and a BMD warehouse, with one access point at the adjacent intersection of Perris Boulevard and Sinclair Street.

Existing Intersection Geometrics and Traffic Control

At the study location, Perris Boulevard is a six-lane primary arterial with one left-turn pocket in each direction, while Sinclair Street is a two-lane roadway providing access to the project site on the west leg. **Figure 4** identifies the existing traffic controls and lane geometrics at the study intersection.

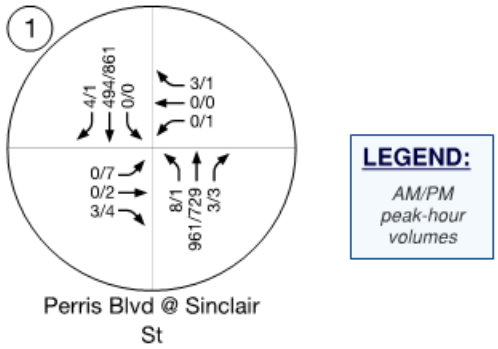
Figure 4: Existing Intersection Geometrics and Traffic Control



Existing Traffic Volumes

The existing conditions analysis is based on intersection turning movement counts collected on Wednesday, November 2, 2022, for the AM and PM peak periods (**Appendix B**). The classification volumes are adjusted to 2023 conditions by applying a 3% annual ambient growth rate and analyzed in passenger-car equivalents (PCE) to normalize the impact of large vehicles, with large 2-axle trucks considered as 1.5 PCE, large 3-axle trucks as 2 PCE, and large 4+ axle trucks as 3 PCE. The existing PCE traffic volumes at the study intersection are shown in **Figure 5**.

Figure 5: Existing Traffic Volumes (PCE)



Levels of Service – Existing Conditions (2023)

Under existing conditions, the study intersection currently operates above the minimum acceptable LOS (**Table 7**, see **Appendix C** for details):

Table 7: Intersection LOS – Existing Conditions (2023)

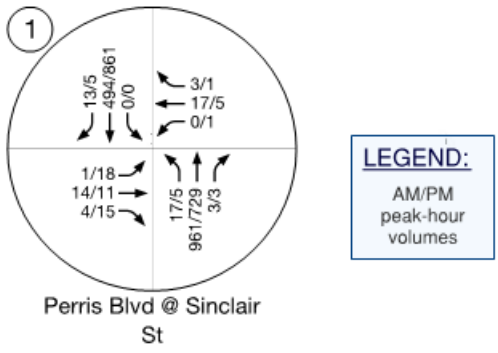
Intersection		Traffic Control[1]	AM Peak Hr		PM Peak Hr	
			Delay	LOS[2]	Delay	LOS[2]
1	Perris Blvd @ Sinclair St	Signal	13.2	**B**	13.0	**B**

[1] Existing intersection traffic control measure as analyzed.
[2] Level of service (LOS) rankings based on average control delay (sec/veh) per Highway Control Manual.

Levels of Service – Existing Conditions plus Project (2023)

The expected project traffic is then added to the existing traffic volumes for the "existing plus project" scenario (**Figure 6**).

Figure 6: Existing plus Project Traffic Volumes (PCE)



With the addition of expected project traffic, the study intersection is expected to continue operating above the minimum acceptable LOS (**Table 18**, see **Appendix C** for details):

Table 8: Intersection LOS – Existing Conditions plus Project (2023)

Intersection		Traffic Control[1]	AM Peak Hr		PM Peak Hr	
			Delay	LOS[2]	Delay	LOS[2]
1	Perris Blvd @ Sinclair St	Signal	14.1	**B**	13.8	**B**

[1] Existing intersection traffic control measure as analyzed.
[2] Level of service (LOS) rankings based on average control delay (sec/veh) per Highway Control Manual.

V. PROJECT OPENING DAY CONDITIONS (2025)

Ambient Area Growth

Per the approved scoping agreement (Appendix A), this study uses a 3 percent annual ambient growth rate to account for regular growth in traffic volumes within the region, for a total of 6% growth from 2023 to 2025.

Cumulative Projects

Cumulative projects are developments near the study area that are expected to be completed by the project's opening year. Cumulative project information as provided by the City of Perris is given in **Appendix D**.

Levels of Service – Opening Day Conditions (2025)

Expected traffic volumes from ambient growth and cumulative projects are added to the existing peak-hour traffic volumes to estimate the opening day traffic conditions (**Figure 7**).

Figure 7: Opening Day Traffic Volumes (PCE)

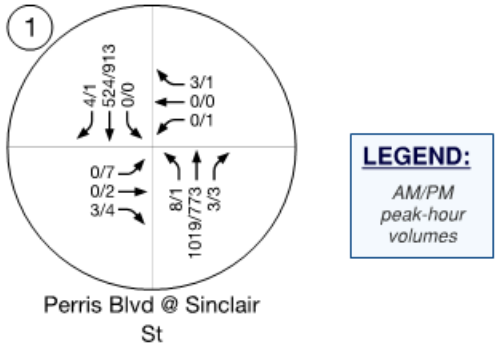


Table 9 gives the LOS analysis for the "opening day" scenario, with details in **Appendix C**. With the addition of ambient area growth and cumulative project traffic, the study intersection is expected to operate above the minimum acceptable LOS.

Table 9: Intersection LOS – Opening Day Conditions (2025)

Intersection		Traffic Control[1]	AM Peak Hr Delay	AM Peak Hr LOS[2]	PM Peak Hr Delay	PM Peak Hr LOS[2]
1	Perris Blvd @ Sinclair St	Signal	13.5	**B**	13.4	**B**

[1] Existing intersection traffic control measure as analyzed.
[2] Level of service (LOS) rankings based on average control delay (sec/veh) per Highway Control Manual.

Levels of Service – Opening Day plus Project (2025)

The expected project traffic is then added to the opening day traffic volumes to estimate the opening day traffic conditions with the completion of the project (**Figure 8**).

Figure 8: Opening Day Conditions plus Project Traffic Volumes (PCE)

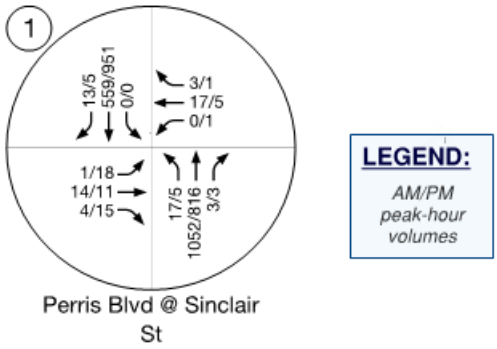


Table 10 summarizes the "opening day plus project" LOS analysis, with details in **Appendix C**. With the addition of traffic from ambient area growth, nearby cumulative projects, and the proposed project, the study intersection is expected to continue operating above the minimum acceptable LOS.

Table 10: Intersection LOS – Opening Day Conditions plus Project (2025)

Intersection		Traffic Control[1]	AM Peak Hr		PM Peak Hr	
			Delay	LOS[2]	Delay	LOS[2]
1	Perris Blvd @ Sinclair St	Signal	14.3	**B**	14.1	**B**

[1] Existing intersection traffic control measure as analyzed.
[2] Level of service (LOS) rankings based on average control delay (sec/veh) per Highway Control Manual.

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