## Kimley »Horn

## **TECHNICAL MEMORANDUM**

To:	Amanda Acuna, Community Development Manager, City of Gardena
From:	Sowmya Chandrasekhar, P.E., T.E., P.T.O.E. Victoria Clark
CC:	Rita Garcia, Kimley-Horn James Thomas, Kimley-Horn Brian Sorensen, Insite Property Group
Date:	April 16, 2024
Subject:	1450 Artesia Boulevard – Revised Trip Generation Technical Memorandum

## INTRODUCTION

This Technical Memorandum has been prepared to revise the trip generation estimated in the Local Transportation Assessment (LTA), based on a change in allowable land uses in the 1450 Artesia Boulevard Specific Plan (SP). **Attachment A** shows the revised conceptual site plan for the proposed mixed-used development.

In December 2022, Kimley-Horn prepared the 1450 Artesia Boulevard SP LTA, which was based on 268,000 gross-square-feet (GSF) of uses, comprised of 72,000 GSF of industrial warehouse, 186,000 GSF of self-storage, and 10,000 GSF of office/mezzanine. The LTA analyzed the 72,000 GSF of industrial uses as Light Industrial (Institute for Transportation Engineers (ITE) Code 110); see 2022 LTA Table 3 or **Table 1** included in this technical memorandum.

This TM has been prepared to document the change (increase or decrease) in trip generation based on change in land use to Warehousing (ITE Code 150) in lieu of previously applicable Light Industrial Use (ITE Code 110).

## **PROPOSED PROJECT TRIP GENERATION**

**Table 1** tabulates the Project's net proposed trips totaled 578 ADT with 83 trips in the AM Peak Hour and 68 trips in the PM Peak Hour. Of the peak hour trips, 53 is generated by Light Industrial use during the AM peak period and 47 during the PM peak period.

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	Sizo	Unito	Daily Trips	AM Peak			PM Peak		
Lanu Ose	3126	Onits		In	Out	Total	In	Out	Total
Trip Generation Rates*									
General Light Industrial	-	KSF	4.870	0.651	0.089	0.74	0.091	0.559	0.65
Mini-Warehouse	-	Storage Units (100s)	17.960	0.617	0.593	1.21	0.840	0.840	1.68
General Office Building	-	KSF	10.840	1.338	0.182	1.52	0.245	1.195	1.44
Trip Generation Estimates									
General Light Industrial	72.00	KSF	351	47	6	53	7	40	47
Mini-Warehouse	14.80	Storage Units (100s)	266	9	9	18	12	12	24
General Office Building	10.00	KSF	108	13	2	15	2	12	14
Total Proposed Project Trips			725	69	17	86	21	64	85
Existing Land Use Trips**			147	3	0	3	9	8	17
Net Proposed Project Trips				66	17	83	12	56	68
	Land Use General Light Industrial Mini-Warehouse General Office Building General Light Industrial Mini-Warehouse General Office Building Total Proposed Existing Land	Land UseSizeGeneral Light Industrial-Mini-Warehouse-General Office Building-General Light Industrial72.00Mini-Warehouse14.80General Office Building10.00Mini-Warehouse14.00Ceneral Office Building10.00Total Proposed ProjectExisting Land Use Trip	Land UseSizeUnitsTrip GenerationGeneral Light Industrial-KSFMini-Warehouse-Storage Units (100s)General Office Building-KSFConstrained-KSFMini-Warehouse14.80Storage Units (100s)General Light Industrial72.00KSFMini-Warehouse14.80Storage Units (100s)General Office Building10.00KSFTotal Proposed Project TripsExisting Land Use Trips**	Land UseSizeUnitsDaily TripsGeneral Light Industrial-KSF4.870Mini-Warehouse-Storage Units (100s)17.960General Office Building-KSF10.840Ceneral Light Industrial72.00KSF351Mini-Warehouse14.80Storage Units (100s)266General Light Industrial10.00KSF108General Office Building10.00KSF108Total Proposed Project Trips725147	Land UseSizeUnitsDaily TripsInDaily TripsInIndustrialIndustrial-KSF4.8700.651Mini-Warehouse-Storage Units (100s)17.9600.617General Office Building-KSF10.8401.338Trip Generation EstimatesGeneral Light Industrial72.00KSF35147Mini-Warehouse14.80Storage Units (100s)2669General Light Industrial10.00KSF10813General Office Building10.00KSF10813General Office Building10.00KSF108351General Office Building10.00KSF10835Total Proposed Project Trips72569Existing Land Use Trips**14734	Land UseSizeUnitsDaily Trips $In$ $Out$ Daily TripsIn $Out$ Trip Generation Rates*General Light Industrial-KSF $4.870$ $0.651$ $0.089$ Mini-Warehouse-Storage Units (100s) $17.960$ $0.617$ $0.593$ General Office Building-KSF $10.840$ $1.338$ $0.182$ Trip Generation EstimatesGeneral Light Industrial $72.00$ KSF $351$ $47$ $6$ Mini-Warehouse $14.80$ Storage Units (100s) $266$ $9$ $9$ General Office Building $10.00$ KSF $108$ $13$ $2$ Total Proposed Project Trips $725$ $69$ $17$ Existing Land Use Trips** $147$ $3$ $0$	Land UseSizeUnitsDaily Trips $In$ $Out$ TotalInOutTotalFrip Generation Rates*General Light Industrial-KSF4.8700.6510.0890.74Mini-Warehouse-Storage Units (100s)17.9600.6170.5931.21General Office Building-KSF10.8401.3380.1821.52Trip Generation EstimatesGeneral Light Industrial72.00KSF35147653Mini-Warehouse14.80Storage Units (100s)2669918General Office Building10.00KSF10813215Total Proposed Project Trips725691786Existing Land Use Trips**147303	$ \begin{array}{c c c c c } \mbox{Land Use} & \begin{tabular}{ c c c } \hline Size & Units & \begin{tabular}{ c c c } \hline Daily Trips & \begin{tabular}{ c c c } \hline AM Peak & \ In & \ Out & Total & In \\ \hline In & Out & Total & In \\ \hline In & Out & Total & In \\ \hline Storage Units & 4.870 & 0.651 & 0.089 & 0.74 & 0.091 \\ \hline Mini-Warehouse & - & \ Storage Units & 17.960 & 0.617 & 0.593 & 1.21 & 0.840 \\ \hline General Office & - & KSF & 10.840 & 1.338 & 0.182 & 1.52 & 0.245 \\ \hline General Light & 172.00 & KSF & 10.840 & 1.338 & 0.182 & 1.52 & 0.245 \\ \hline General Light & 72.00 & KSF & 351 & 47 & 6 & 53 & 7 \\ \hline Mini-Warehouse & 14.80 & \ Storage Units & 266 & 9 & 9 & 18 & 12 \\ \hline General Office & 10.00 & KSF & 108 & 13 & 2 & 155 & 2 \\ \hline General Office & 10.00 & KSF & 108 & 13 & 2 & 155 & 2 \\ \hline Storage Units & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 100 & KSF & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 100 & KSF & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 100 & KSF & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 114.80 & \ Storage Units & 118 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 114.80 & \ Storage Units & 118 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 100 & KSF & 108 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 100 & \ Storage Units & 118 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 118 & 12 & \ Storage Units & 118 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 118 & 13 & 2 & 15 & 2 \\ \hline Storage Units & 118 & 147 & 3 & 0 & 3 & 9 \\ \hline Storage Units & 147 & 3 & 0 & 3 & 9 \\ \hline Storage Units & 147 & 147 & 3 & 0 & 3 & 9 \\ \hline Storage Units & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 147 & 1$	Land Use         Size         Units         Dany Trips         In         Out         Total         In         Out           General Light Industrial         -         KSF         4.870         0.651         0.089         0.74         0.091         0.559           Mini-Warehouse         -         Storage Units (100s)         17.960         0.617         0.593         1.21         0.840         0.840           General Office Building         -         KSF         10.840         1.338         0.182         1.52         0.245         1.195           General Light Industrial         72.00         KSF         10.840         1.338         0.182         1.52         0.245         1.195           General Light Industrial         72.00         KSF         351         47         6         53         7         40           Mini-Warehouse         14.80         Storage Units (100s)         266         9         9         18         12         12           General Office Building         10.00         KSF         108         13         2         15         2         12           KSF         108         13         2         15         2

### Table 1: Project Trip Generation: With Light Industrial Use (per December 2022 LTA)

\*Source: Institute of Transportation Engineers Trip Generation Manual, 11<sup>th</sup> Edition. \*\*Source: Based on existing counts (see Table 3 and Table 4 in 2022 LTA)

Table 2 tabulates trip generation for the Project using the Warehousing land use (ITE Code 150) totals 350 ADT, 42 in the AM Peak Hour, and 34 in the PM Peak Hour. Of the total peak hour trips, 12 is generated by the Warehousing use during the AM peak period and 13 during the PM peak period.

Table 2: Project Trip Generation: With Warehousing Use (Revised Land Use)										
ITE	Land Lico	Land Use Size Units	Unite	Daily	AM Peak			PM Peak		
Code	Lanu Use		Trips	In	Out	Total	In	Out	Total	
Trip Generation Rates*										
150	Warehousing	-	KSF	1.710	0.131	0.039	0.17	0.050	0.130	0.18
151	Mini-Warehouse	-	Storage Units (100s)	17.960	0.617	0.593	1.21	0.840	0.840	1.68
710	General Office Building	-	KSF	10.840	1.338	0.182	1.52	0.245	1.195	1.44
			Trip Generation	Estimates						
150	Warehousing	72.00	KSF	123	9	3	12	4	9	13
151	Mini-Warehouse	14.80	Storage Units (100s)	266	9	9	18	12	12	24
710	General Office Building	10.00	KSF	108	13	2	15	2	12	14
Total Proposed Project Trips			497	31	14	45	18	33	51	
Existing Land Use Trips**			147	3	0	3	9	8	17	
	Net Proposed Project Trips			350	28	14	42	9	25	34

\*Source: Institute of Transportation Engineers Trip Generation Manual, 11th Edition. \*\*Source: Based on existing counts (see Table 3 and Table 4 in 2022 LTA)

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**Table 3** compares Project trip generation using Light Industrial (December 2022 LTA) and Warehousing Use (Revised).

Trip Generation by Land Use Type	Daily		AM Peak		PM Peak				
The Generation by Land Use Type	Trips	In	In Out Total I		In	Out	Total		
Net Project Trips – with Light Industrial Use (December 2022 LTA)	578	66	17	83	12	56	68		
Net Project Trips – with Warehousing Use (Revised – Currently Proposed)	350	28	14	42	9	25	34		
Difference	-228	-38	-3	-41	-3	-31	-34		

### Table 3: Trip Generation Comparison

As shown in **Table 3**, applying a Warehousing use would result in substantially fewer trips per day.

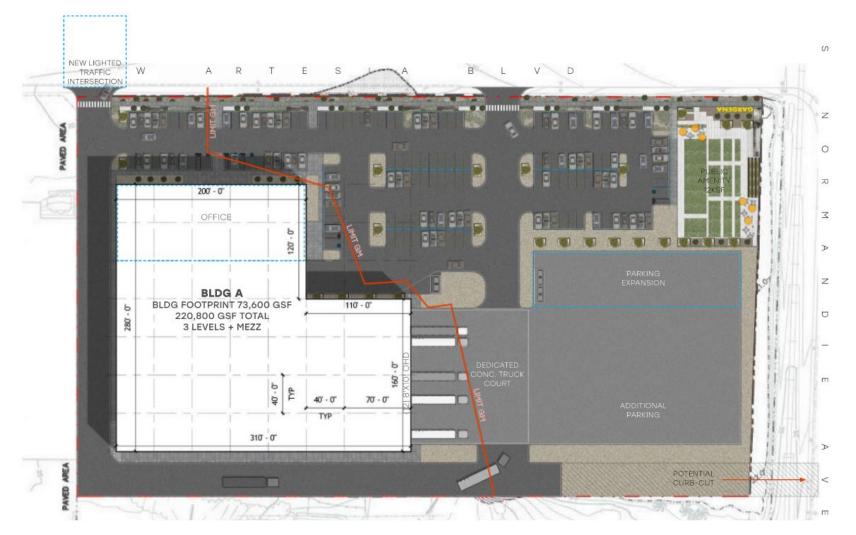
### CONCLUSION

The following are the key conclusions of the analysis:

• The Project is anticipated to generate fewer trips for the proposed land use (ITE Code 150), producing a total of 350 net daily trips including 42 AM peak hour trips and 34 PM peak hour trips. Hence, an update to the Local Transportation Assessment is not required.

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## Attachment A - Conceptual Site Plan



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