

November 9, 2021

Ms. Damaris Abraham  
City of Lake Elsinore  
130 S. Main Street  
Lake Elsinore, CA 92530

**SUBJECT: NORTH ELSINORE BUSINESS PARK TRIP GENERATION ASSESSMENT**

Dear Ms. Damaris Abraham:

Urban Crossroads, Inc. is pleased to submit this trip generation assessment to the City of Lake Elsinore regarding the proposed North Elsinore Business Park development (**Project**), which is located north of Riverside Drive (SR-74), east of Collier Avenue, and west of El Toro Road in the City of Lake Elsinore. The proposed Project is to consist of the development of 94,665 square feet of general light industrial use within 12 buildings. This letter describes the proposed Project trip generation in comparison to that evaluated in the approved North Elsinore Business Park Traffic Analysis (dated June 10, 2021, referred to as **Approved Traffic Study**).

A preliminary site plan for the proposed Project is shown on Exhibit 1. As indicated on Exhibit 1, access to the Project site will be provided to Collier Avenue and El Toro Road, consistent with that evaluated in the Approved Traffic Study. It should be noted that this trip generation assessment has been prepared in accordance with the City of Lake Elsinore Traffic Impact Analysis Preparation Guide (City Guidelines), adopted June 23, 2020.

## **TRIP GENERATION**

The trip generation rates shown on Table 1 are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their latest Trip Generation Manual (11<sup>th</sup> Edition, 2021) for the proposed use. The following summarizes the proposed land use and vehicle mix:

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for up to 94,665 square feet of the proposed Project. A light industrial facility is a free-standing facility devoted to a single use that has an emphasis on activities other than manufacturing. Typically, there is minimum office space. The vehicle mix has also been obtained from the ITE Trip Generation Manual (2021). The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

**TABLE 1: ITE TRIP GENERATION RATES**

Land Use <sup>1</sup>	ITE LU		AM Peak Hour			PM Peak Hour			Daily
	Units <sup>2</sup>	Code	In	Out	Total	In	Out	Total	
<b>Actual Vehicles:</b>									
General Light Industrial <sup>3</sup>	TSF	110	0.651	0.089	0.740	0.091	0.559	0.650	4.870
Passenger Cars:			0.642	0.088	0.730	0.090	0.550	0.640	4.620
2-Axle Trucks:			0.001	0.001	0.002	0.001	0.001	0.002	0.042
3-Axle Trucks:			0.001	0.001	0.002	0.001	0.001	0.002	0.052
4+-Axle Trucks:			0.004	0.002	0.006	0.003	0.003	0.006	0.157
<b>Passenger Car Equivalent (PCE):<sup>4</sup></b>									
General Light Industrial <sup>3</sup>	TSF	110	0.651	0.089	0.740	0.091	0.559	0.650	4.870
Passenger Cars:			0.642	0.088	0.730	0.090	0.550	0.640	4.620
2-Axle Trucks:			0.002	0.001	0.003	0.002	0.001	0.003	0.063
3-Axle Trucks:			0.002	0.002	0.004	0.002	0.002	0.004	0.104
4+-Axle Trucks:			0.012	0.007	0.019	0.009	0.010	0.019	0.470

<sup>1</sup> Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

<sup>2</sup> TSF = thousand square feet

<sup>3</sup> Truck Mix: South Coast Air Quality Management District’s (SCAQMD) recommended truck mix, by axle type.  
 Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

<sup>4</sup> PCE factors: 2-axle = 1.5; 3-axle = 2.0; 4+-axle = 3.0.

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project in actual vehicles are shown on Table 2. As shown in Table 2, the proposed Project is anticipated to generate a total of 464 two-way trips per day with 69 AM peak hour trips and 61 PM peak hour trips. The City Guidelines require that truck intensive uses translate heavy truck trips to passenger car equivalents (PCE) for the purposes of any operations analyses. As shown on Table 2, the Project is anticipated to generate 498 PCE two-way trips per day, with 71 PCE AM peak hour trips and 63 PCE PM peak hour trips. This results in a net reduction of 24 PCE two-way trips per day with a net increase of 3 PCE AM peak hour trips and 4 PCE PM peak hour trips.

**TABLE 2: PROJECT TRIP GENERATION SUMMARY**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Project Trip Generation Summary (Actual Vehicles):</b>								
General Light Industrial	94.665 TSF							
Passenger Cars:		61	8	69	9	52	61	438
2-axle Trucks:		0	0	0	0	0	0	4
3-axle Trucks:		0	0	0	0	0	0	6
4+-axle Trucks:		0	0	0	0	0	0	16
Total Truck Trips:		0	0	0	0	0	0	26
<b>Total Trips (Actual Vehicles)<sup>2</sup></b>		<b>61</b>	<b>8</b>	<b>69</b>	<b>9</b>	<b>52</b>	<b>61</b>	<b>464</b>
Approved Traffic Study	93.255 TSF	57	8	65	7	51	58	464
<b>Variance (Actual Vehicles)</b>		<b>4</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>
<b>Project Trip Generation Summary (PCE):</b>								
General Light Industrial	94.665 TSF							
Passenger Cars:		61	8	69	9	52	61	438
2-axle Trucks:		0	0	0	0	0	0	6
3-axle Trucks:		0	0	0	0	0	0	10
4+-axle Trucks:		1	1	2	1	1	2	44
Total Truck Trips:		1	1	2	1	1	2	60
<b>Total Trips (PCE)<sup>2</sup></b>		<b>62</b>	<b>9</b>	<b>71</b>	<b>10</b>	<b>53</b>	<b>63</b>	<b>498</b>
Approved Traffic Study	93.255 TSF	60	8	68	7	52	59	522
<b>Variance (PCE)</b>		<b>2</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>-24</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

## CONCLUSION

The traffic impact study area is to be defined in conformance with the requirements of the City Guidelines, which state that the requirement to prepare a traffic study will be based upon, but not limited to, one or more of the following criteria:

- Design review and conditional use permit cases for projects of one acre or less.
- Preschools, Elementary Schools, and Middle Schools.
- Churches, Lodges, Community Centers, Neighborhood Parks and Community Parks.

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- Any use with can demonstrate, based on the most recent edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 vehicle trips during the AM or PM peak hour.

Based on this criterion, the Project is anticipated to generate fewer than 100 peak hour trips during any peak hour and would contribute fewer than 50 peak hour trips to any off-site study area intersection. The increase in square footage from the Project evaluated in the Approved Traffic Study, in conjunction with the ITE 11<sup>th</sup> Edition trip generation rates, is not anticipated to contribute a measurable number of trips that would likely change the operations findings identified in the Approved Traffic Study. As such, additional traffic analysis beyond this trip generation assessment or Approved Traffic Study does not appear to be necessary.

If you have any questions, please contact me directly at (949) 861-0177.

Respectfully submitted,  
URBAN CROSSROADS, INC.



Charlene So, PE  
Associate Principal

Attachments

# EXHIBIT 1: PRELIMINARY SITE PLAN

