



10 February 2023

Alan Heathcoat, PE  
City Traffic Engineer  
City of Glendale  
6210 West Myrtle Avenue, Suite 112  
Glendale, AZ 85301



Alan Heathcoat, P.E.  
Principal Engineer  
Glendale Transportation

01/05/2023 3:14:39 PM

**APPROVED**

**SUBJECT: LAPOUR 303  
LOOP 303, NORTH OF BETHANY HOME ROAD  
REVISED TRAFFIC IMPACT STATEMENT**

Dear Mr. Heathcoat,

Please find enclosed a revised traffic impact statement (TIS) regarding the LaPour 303 project located on the west side of Loop 303, north of Bethany Home Road in Glendale, Arizona. The project will include the construction of a 20,000 square foot Construction Equipment Rental Store. The vicinity of the project is shown in **Figure 1**.

The purpose of this traffic impact statement is to estimate the traffic generation associated with LaPour 303 based on the current development plan and outline the possible impacts of the site on the immediate area.

### **Existing Conditions**

The LaPour 303 project will be located on undeveloped land on the west side of Loop 303, approximately 925 feet north of Bethany Home Road in Glendale, Arizona.

Bob Stump Memorial Parkway (Loop 303) is a six-lane divided freeway that provides three lanes in each direction. The posted speed limit is 65 miles per hour (mph) near the project site. Loop 303 serves the northwestern portion of the greater Phoenix area and runs from Interstate 10 in Goodyear to Interstate 17, south of the Carefree Highway.

Bethany Home Road is an east/west aligned roadway that offers one through lane for each direction of travel adjacent to the project site. No curb, gutter, sidewalk, or roadway lighting are present on the roadway. The posted speed limit on Bethany Home Road is 45 miles per hour (mph). Improvements to Bethany Home Road have been made as part Loop 303 Bethany Business Park project approved by the City of Glendale (COG). These improvements include the addition of two westbound through lanes and a two-way center left turn lane. Once adjacent development east and west of the site widen the adjacent

sections of Bethany Home Road, westbound vehicles on the roadway will be provided with three through lanes. At this time the area adjacent to Loop 303 Bethany Business Park is 'hatched out' to provide only one lane in each direction.

Business Park Loop is located approximately 1,120 feet west of the Loop 303 Southbound Ramps on the north side of Bethany Home Road. This two lane drive aisle has been constructed as a part of the Loop 303 Bethany Business Park, extends north of Bethany Home Road, turns west approximately 900 feet north of Bethany Home Road, and circles north than west around an adjacent light industrial development to intersect Cotton Lane approximately 1,800 feet north of Bethany Home Road.

The intersection of Loop 303 Northbound Ramps/Bethany Home Road forms a four-legged signalized intersection. The eastbound approach provides an exclusive left turn lane and one through lane. Westbound traffic makes use of two through lanes and an exclusive right turn lane. The northbound approach offers an exclusive left turn lane, one through lane and an exclusive right turn lane. The north and south legs of the intersection are one-way (northbound). The eastbound left turn movement at the intersection operates with protected/permitted traffic signal phasing.

To the west, Loop 303 Southbound Ramps and Bethany Home Road form another four-legged signalized intersection. Eastbound traffic makes use of two through lanes and an exclusive right turn lane. The westbound approach offers an exclusive left turn lane and one through lane. The southbound approach offers an exclusive left turn lane, one through lane, and an exclusive right turn lane. The north and south legs of the intersection are one-way only (southbound). The westbound left turn movement is provided with protected/permitted traffic signal phasing.

The intersection of Business Park Loop/Bethany Home Road is a three leg unsignalized intersection. Eastbound vehicles approaching the intersection make use of a two way center left turn lane and a single through lane, while westbound vehicles are offered an exclusive right turn lane and one through lane. Southbound vehicles are STOP controlled and provided an exclusive left turn and right turn lane.

Business Park Loop/Cotton Lane is currently under construction and will soon open as a unsignalized T intersection. Eastbound vehicles approaching the intersection will be STOP controlled and offered an exclusive left turn and right turn lane. Northbound vehicles approaching the intersection will provide an exclusive right turn lane and two through lanes, while southbound vehicles will offer an exclusive left turn lane and one through lane.

### **Access**

The main access to the project site will be provided by the intersection of Business Park Loop/Bethany Homes Road. A new internal T intersection (Rental Way/Business Park Loop) will be formed approximately 900 feet north of Bethany Home Road where Business Loop Road turns west to travel around the development to the north of the Loop 303 Bethany Business Park. This internal intersection will provide direct access to the Lapour 303 site. Westbound vehicles approaching Rental Way/Business Park Loop will be

provided a shared left/right turn lane. Northbound vehicles approaching the intersection will be offered a shared left turn/through lane, while southbound vehicles will be given a shared through/right turn lane.

While a ‘looping’ connection to Cotton Lane is available to/from the Lapour 303 site, due to the limited access, and indirect route to/from the site it provides, it is not expected to be used heavily by the Lapour 303 project.

### **Trip Generation**

Trip generation was developed utilizing nationally agreed upon data contained in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 11<sup>th</sup> Edition*, 2021. The project trip generation was estimated for the construction of a 20,000 square foot Construction Equipment Rental Store land use based on ITE Land Use Code 811, Construction Equipment Rental Store (LUC 811). The result is the expected weekday PM Peak Hour trip generation for the project as shown in **Table 1**. The complete trip generation calculations can be found in the Appendix.

**Table 1 – Project Site Generated Trips**

<b>Time Period</b>	<b>20,000 sqft Construction Equipment Rental Store (LUC 811)</b>
PM Peak Hour, Inbound (vtph)	6
PM Peak Hour, Outbound (vtph)	14
<b>Total PM Peak</b>	<b>20</b>

vtph - vehicle trips per hour

As shown in **Table 1**, the current development plan for LaPour 303 results in an expected increase of 20 trips during the weekday PM peak hour. ITE trip generation data does not include weekday daily or AM peak hour trips associated with this land use. If an assumption is made that the weekday PM peak hour is approximately ten percent of the daily trips for the site, the project could be expected to generate approximately 200 vehicle trips per day.

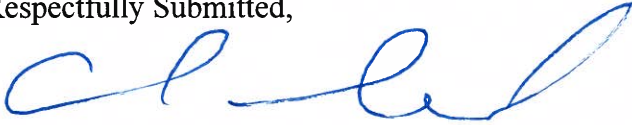
### **Conclusion**

The Lapour 303 project site is expected to generate an additional 20 trips during the weekday PM peak hour. This limited number of trips is not expected to warrant additional right turn lanes or have a significant impact on the surrounding roadway network.

While an internal intersection along a drive aisle, the new eastbound approach to Rental Way/Business Park Loop should be STOP controlled by a STOP (R1-1) sign to assist in assigning right of way at the intersection.

Thank you again for your time and review of this revised TIS. If you have any questions regarding the TIS, please feel free to contact me at 602.266.7983.

Respectfully Submitted,



Andrew Smigielski, PE, PTOE, PTP  
Southwest Traffic Engineering, LLC  
Senior Traffic Engineer

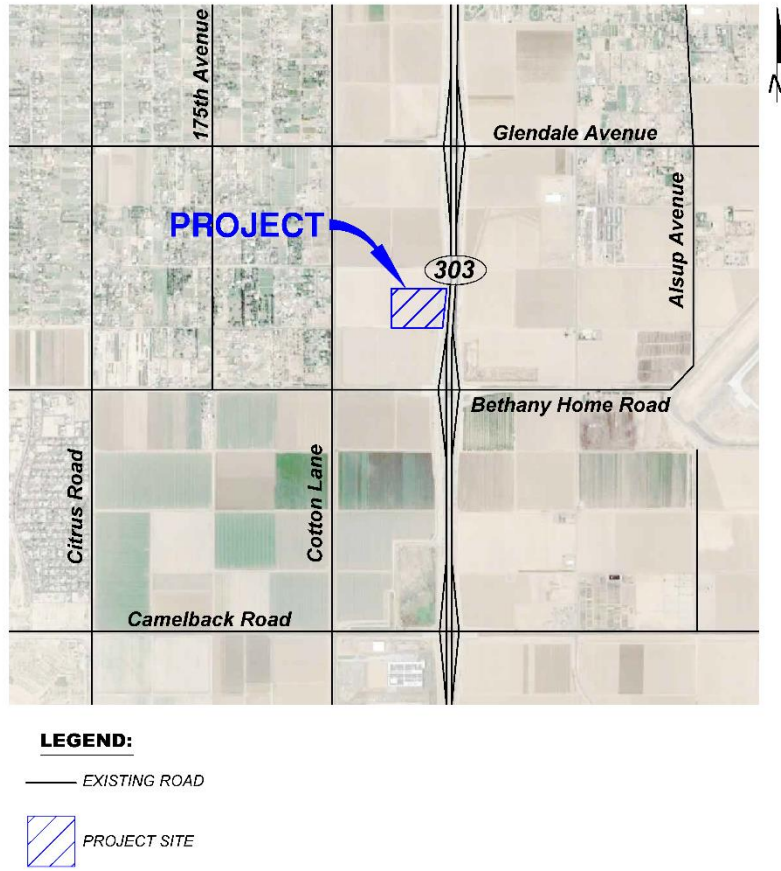


cc: Lax Narwa, Maricopa County Department of Transportation (by email)  
Kari Laurent, Lapour (by email)

Attachments:

Figure 1 – Vicinity Map  
Trip Generation Calculations  
Comment Resolution

Figure 1 – Vicinity Map





# Construction Equipment Rental Store

LAND USE: 20,000 Square Feet Construction Equipment Rental Store

TRIP GENERATION CALCULATIONS ARE BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS' TRIP GENERATION, 11TH EDITION. THE ITE LAND USE CODE IS Construction Equipment Rental Store (811), General Urban/Suburban

## WEEKDAY

Average Rate = 0 Trips per 1000 Square Feet (Sq. Ft.)

$$T = 0 \text{ Trips} \times 20000 \text{ Sq. Ft.} / 1000$$

$$T = \mathbf{0 \text{ VTPD}}$$

$$\text{ENTER: } (0.5) \times (0) = \mathbf{0 \text{ VTPD}}$$

$$\text{EXIT: } (0.5) \times (0) = \mathbf{0 \text{ VTPD}}$$

## AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

Average Rate = 0 Trips per 1000 Square Feet (Sq. Ft.)

$$T = 0 \text{ Trips} \times 20000 \text{ Sq. Ft.} / 1000$$

$$T = \mathbf{0 \text{ VPH}}$$

$$\text{ENTER: } (0.88) \times (0) = \mathbf{0 \text{ VPH}}$$

$$\text{EXIT: } (0.12) \times (0) = \mathbf{0 \text{ VPH}}$$

## PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

Average Rate = 0.99 Trips per 1000 Square Feet (Sq. Ft.)

$$T = 0.99 \text{ Trips} \times 20000 \text{ Sq. Ft.} / 1000$$

$$T = \mathbf{20 \text{ VPH}}$$

$$\text{ENTER: } (0.28) \times (20) = \mathbf{6 \text{ VPH}}$$

$$\text{EXIT: } (0.72) \times (20) = \mathbf{14 \text{ VPH}}$$

\*where, T = trip ends

## TRIP GENERATION SUMMARY

WEEKDAY

**0 VTPD**

AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

**0 VPH**

PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

**20 VPH**



LaPour 303 TIS  
TIS Dated 22 September 2022  
Comment Resolution

2/10/2023

Item No.	Page No.	Reviewer	Code	Comment	Response
				<b>City of Glendale</b>	
1	2	Alan Heathcoat	D	I don't see anything about this access to Cotton Lane.	See revised report. While a 'looping' connection to Cotton Lane is available to/from the Lapour 303 site, due to the limited access, and indirect route to/from the site it provides, it is not expected to be used heavily by the Lapour 303 project.
2	2	Alan Heathcoat	D	North Access? South Access?	See revised report.
3	2	Alan Heathcoat	D	Two-lane roadway extending north from BHR?	The drive aisle serving the site is expected to be a two lane road. See revised report.

A - Will Comply  
B - Consultant to Evaluate  
C - Glendale to Evaluate  
D - See Response