



DB Enterprise, LLC  
4771 So. Danube Circle  
Aurora, Colorado 80015

Phone: (720) 231-1947  
E-Mail: [druble.jr@comcast.net](mailto:druble.jr@comcast.net)

---

August 20, 2018

Mr. Todd L. Heiris, NCARB  
ArcWest Architects  
1525 Raleigh Street, Suite 320  
Denver, CO 80204

Re: R&L Carriers Project  
Aurora, Colorado

Dear Mr. Heiris:

I have completed the preparation of the traffic letter for the proposed R&L Carriers project in the City of Aurora, Colorado. The proposed R&L Carriers project site is approximately 15.35 acres in size and is located in the southwest corner of the intersection of Airport Boulevard and Smith Road. Figure 1 depicts the location of the proposed industrial development with respect to the surrounding area.

Figure 2 depicts the preliminary site plan for the proposed industrial development. The preliminary site plan is under review by the City of Aurora and could change as a result of staff comments. The site is bounded by industrial development on the west, Smith Road on the north, vacant land on the south, and Airport Boulevard on the east. The vacant land to the south consists of 64.54 acres of land and is currently zoned M-2 which is the designation for commercial/industrial use. No information is available as to when this site might be developed. There are no cross-site access agreements between the R&L Carriers site and the site to the south, therefore, traffic from this property will not be going through the R&L Carriers site.

The site currently has four access points along Smith Road (Access A, Access B, Access C, and Access D) and an access along Airport Boulevard that is not operational. After the site is fully developed, only Access A will be used for accessing the site on a daily basis. Access B is designated as an emergency entrance and exit only. Access C is identified as an access that will not be used. Access D will be closed completely and the curb cut removed. There are no accesses on the north side of Smith Road since the land on the north side is owned by the

Union Pacific Railroad, and therefore, there will not be any conflicts with the proposed change for the site accesses along Smith Road.

No traffic counts were taken along either Smith Road or Airport Boulevard as a part of preparing this traffic letter, however, the Denver Regional Council of Governments (DRCOG) has one traffic count along Smith Road on the east side of Airport Boulevard and one traffic count along Airport Boulevard south of Smith Road. Figure 3 depicts these existing traffic counts along with the Year 2040 forecast for Smith Road and Airport Boulevard. As can be seen in Figure 3, Smith Road is currently carrying 6,482 vehicles on a typical day while Airport Boulevard is currently carrying 32,605 vehicles on a daily basis. DRCOG is forecasting that Smith Road will experience a modest increase in traffic, growing to approximately 7,000 vehicles per day. Airport Boulevard is expected to increase to 44,000 vehicles per day which represents an annual growth rate of about one percent.

Airport Boulevard is a six-lane arterial roadway that begins on the north at 40th Avenue and ends on the south at East Arapahoe Road. It has a posted speed limit of 40 mph. At East Alameda Avenue, the name of the road changes from Airport Boulevard to Buckley Road. There are no plans to improve this roadway in the vicinity of the proposed R&L Carriers project. The intersection with Smith Road is controlled by a traffic signal. There should not be any problems with the existing roadway being able to handle the Year 2040 forecasted daily traffic volume of 44,000 vehicles per day. Smith Road is a three-lane arterial roadway with one lane in the westbound direction and two lanes in the eastbound direction. This roadway begins on the west at Havana Street and ends on the east at Picadilly Street. It has a posted speed limit of 45 mph. There are no plans to widen this roadway in the vicinity of the proposed R&L Carriers project. There should not be any problems with the existing roadway being able to handle the Year 2040 forecasted daily traffic volume of 8,000 vehicles per day.

The amount of traffic that will be generated by the proposed R&L Carriers project has been estimated based upon trip generation rates published by the Institute of Transportation Engineers (ITE) in the 10<sup>th</sup> Edition, 2017, of *Trip Generation*. The results of the analysis are shown in Table 1 which gives the average number of weekday daily, AM peak-hour and PM peak-hour trips that the proposed industrial development is expected to generate. The existing building consists of 48,060 square feet of warehouse space. At full buildout, the expansion of the existing building will consist of adding 32,995 square feet of new warehousing space.



As illustrated in Table 1, the proposed R&L Carriers project is expected to generate 141 daily vehicle trips with 113 vehicles trips occurring during the AM peak-hour (10 vehicles trips entering and three vehicle trips leaving the site) and 16 vehicles trips occurring during the PM peak-hour (four vehicle trips entering and 12 vehicle trips leaving the site). These trip generation estimates are for the entire site (81,055 square feet of warehouse space) and not just the expansion.

The primary orientation for the new traffic from the proposed R&L Carriers project will be to and from the east. If the assumption is made that 70 percent of the traffic to the proposed R&L Carriers project will come from the east using Smith Road and the remaining 30 percent will access the site from the west using Smith Road, the proposed industrial development will add about one percent to the existing daily traffic volumes on Smith Road.

By going from four accesses to one access, the operation of Smith Road will be improved. The existing striping on Smith Road is for three access points. By going to one access point, Smith Road should be restriped to provide a longer westbound left-turn lane. Figure 4 depicts how the restriping should be accomplished. With this restriping, the eastbound left-turn lane at Airport Boulevard could also be lengthened, if needed. The developer is responsible for signing and striping all public streets. The developer is required to place traffic control, street name, and guide signs on all public streets and private streets approaching an intersection with a public street. This includes the restriping of Smith Road.

The internal circulation of the site will involve all of the traffic entering at Access A. Once on the site, non-truck traffic will use the parking lot in front of the existing office. Truck traffic will go through an automatic gate. Once the traffic passes through the automatic gate, each truck will drive to a designated loading dock, back the truck into the designated dock, either load or unload the freight, and then leave through the same automatic gate. None of the internal circulation will spill out onto Smith Road. Figure 5 depicts the internal circulation pattern for the site at full buildout.

Based on the information provided in this letter report, the traffic impacts from the proposed R&L Carriers project are considered to be minor and can be handled by the existing roadway network.

\* \* \*

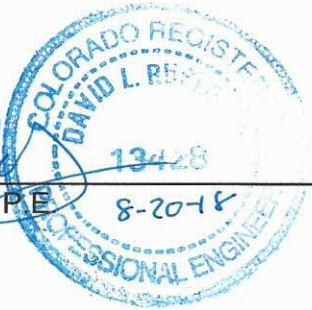
I trust that this information will assist in the planning for the proposed R&L Carriers project.  
Please call me if I can be of further assistance.

Respectfully submitted,

DB Enterprise, LLC

By:

Dave Ruble  
Dave L. Ruble, Jr., P.E.



DLR/bar

Enclosures: Figures 1 through 5  
Table 1

C:/Desktop/Ruble/DB Enterprise/2018/180110/R1-R&L Carriers Project.doc





Approximate Scale  
Scale: 1" = 190'

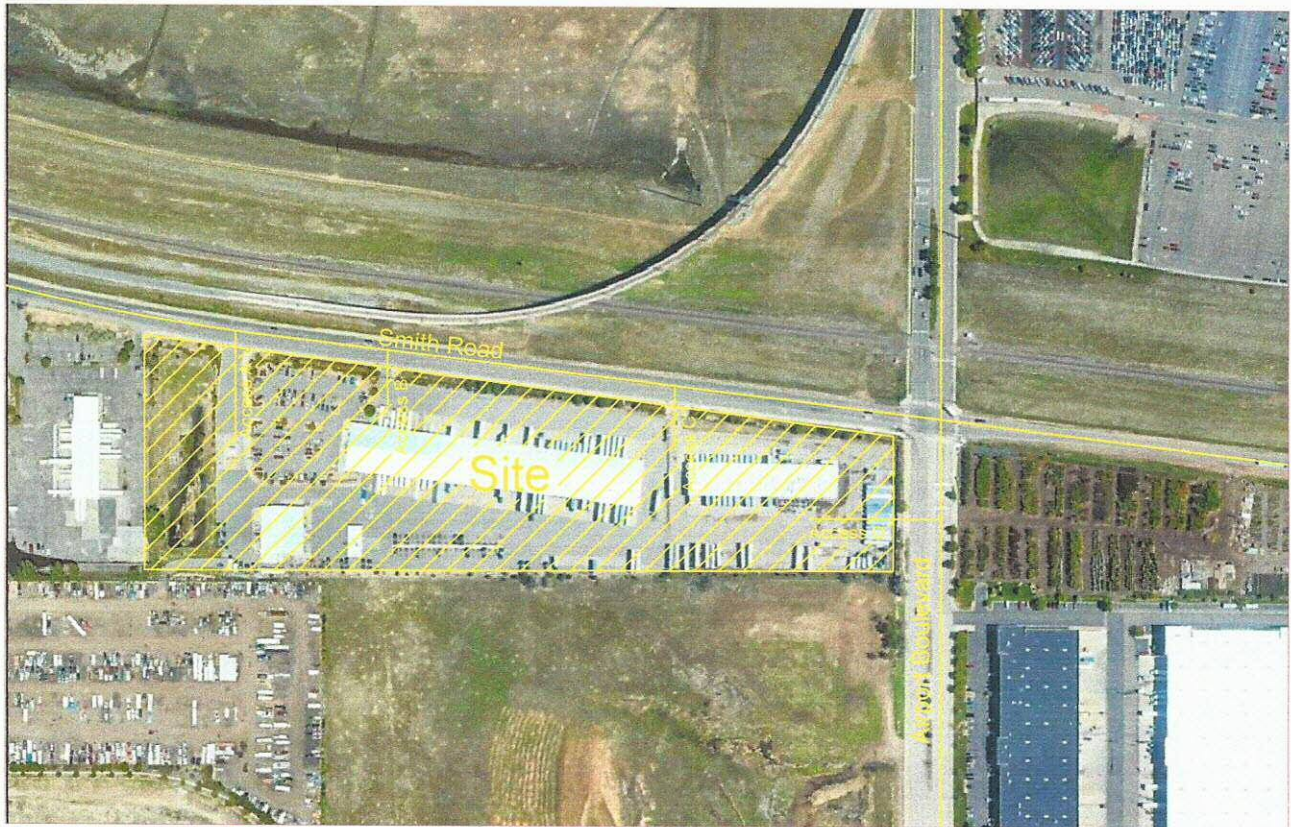
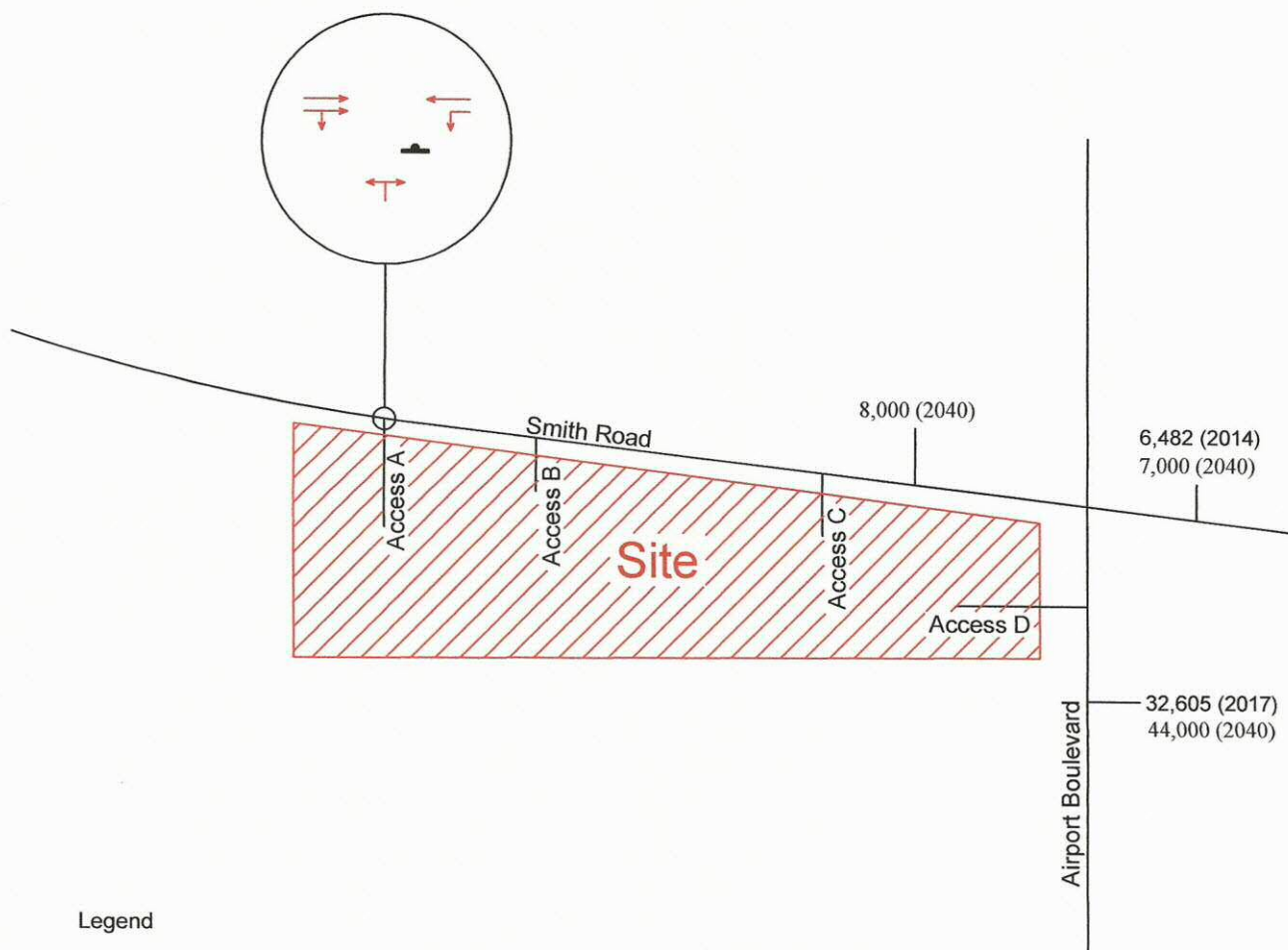


Figure 1  
Vicinity Map




DBEnterprise





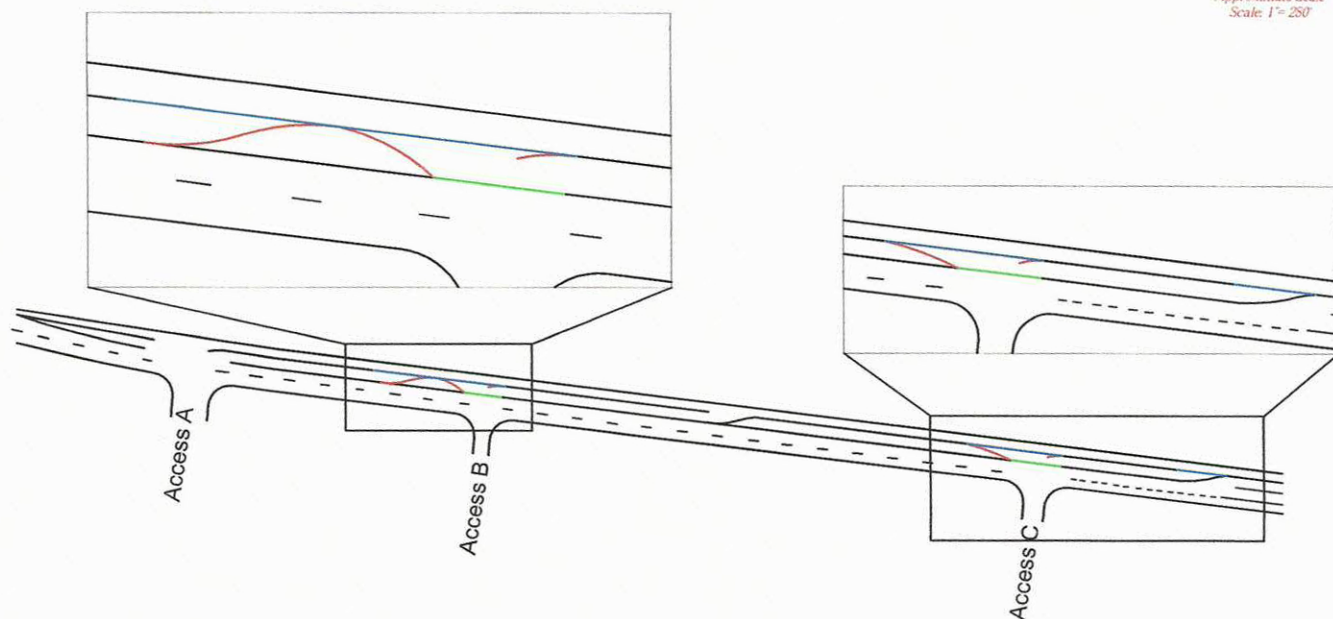
#### Legend

 = Stop Sign

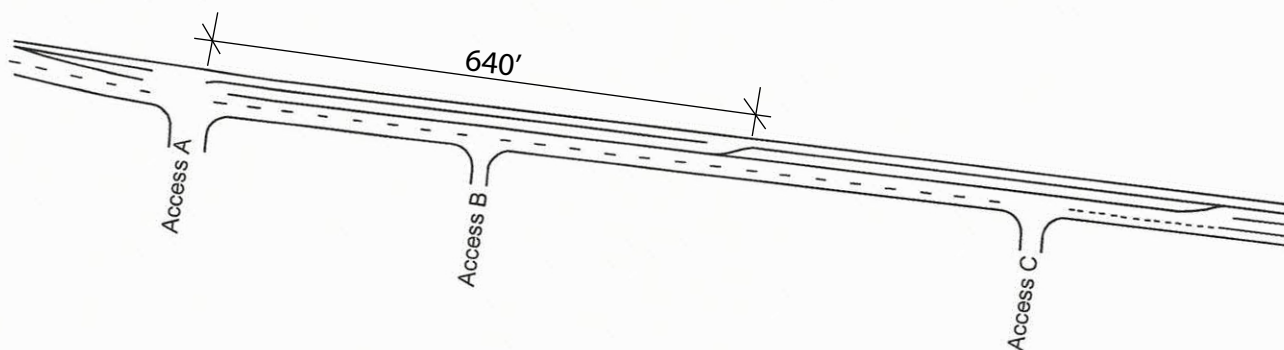
1,255 (2016) = Daily Traffic Volumes (Year count was taken)

3,550 (2040) = Forecasted Daily Traffic Volumes (Year of forecast)

Figure 3  
Existing Traffic Volumes, Traffic  
Control and Lane Geometry



Proposed Changes to Existing Striping Configuration



Final Striping Plan

Legend

- = Striping to be Removed
- = New White Striping
- = New Yellow Striping

Figure 4  
Proposed Striping Plan



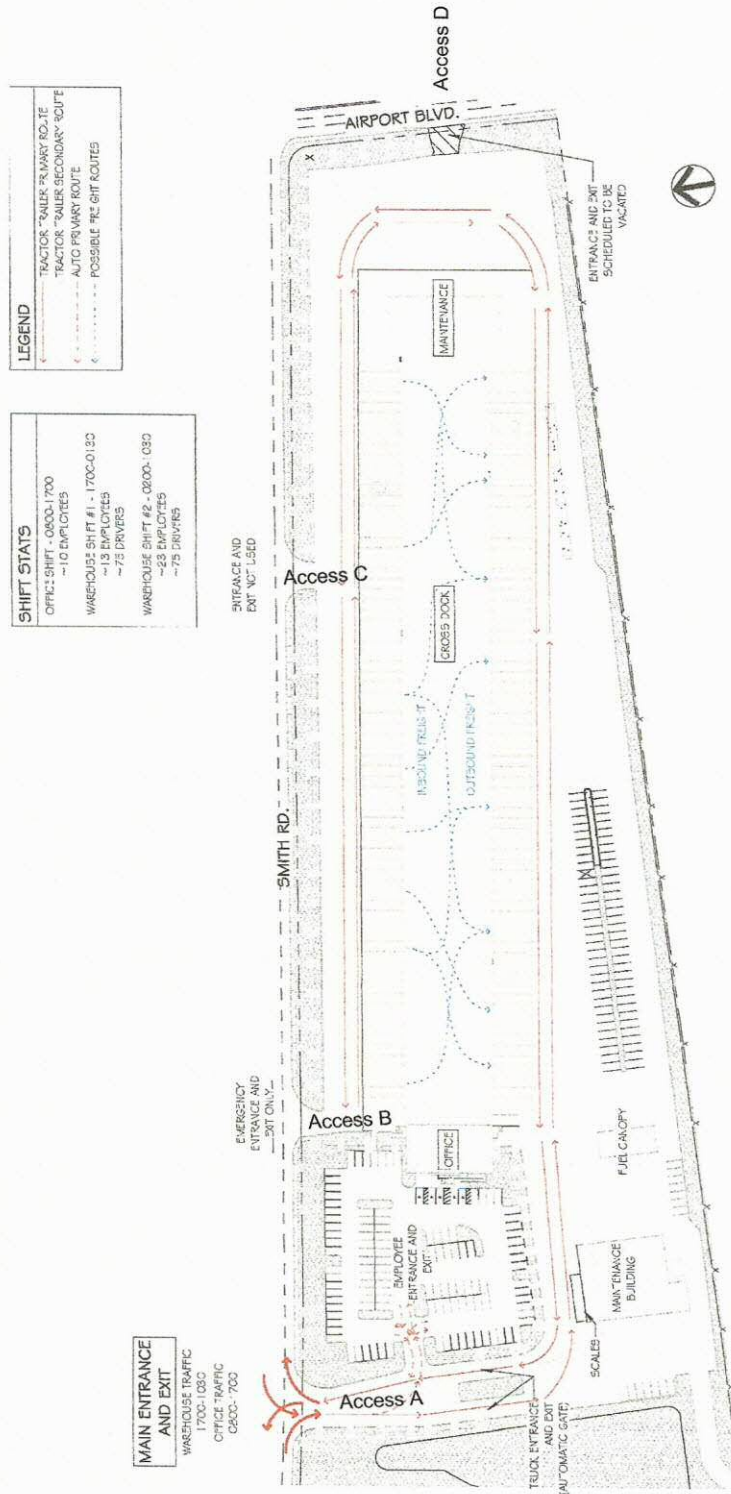


Figure 5  
Proposed Circulation Plan

Table 1  
Estimated Vehicle Trip Generation  
R&L Carriers Commercial Development  
Aurora, Colorado  
(DBE #180110; August, 2018)

ITE Category	Quantity	Trip Generation Rates (1)						Total Vehicle Trips Generated				
		Average <u>Weekday</u>	AM Peak-Hour <u>In</u>	Out	PM Peak-Hour <u>In</u>	Out		Average <u>Weekday</u>	AM Peak-Hour <u>In</u>	Out	PM Peak-Hour <u>In</u>	Out
Existing Building												
150 Warehousing	48.1 KSF (2)	1.74	0.13	0.04	0.05	0.14		84	6	2	2	7
Proposed Expansion												
150 Warehousing	33.0 KSF (2)	1.74	0.13	0.04	0.05	0.14		<u>57</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>5</u>
Total								141	10	3	4	12

Notes:

- (1) Source: "Trip Generation", Institute of Transportation Engineers, 10th Edition, 2017.
- (2) KSF = 1,000 Square Feet