

Updated. 

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To: Colorado Asphalt Pavement Association
From: Max Rusch, PE
Date: February 6, 2022
Re: **Laredo Street Development – Aurora, CO
Traffic Memorandum**



INTRODUCTION

This traffic letter was conducted in support of a site plan to develop the proposed Laredo Street Development in Aurora, CO. As requested by the City, the future development north of the site is analyzed in this study as well. This memorandum forecasts the number of trips generated by both developments and distributes them through the existing network to determine whether any improvements will be needed to accommodate the increase in volumes. The site location is shown on Figure 1 with a full-sized site plan included in Attachment I.



Figure 1 – Site Location



SITE L

Letter/Analysis updated
for current plan

not consistent with site
plans included in submittal

The project is located on Arapahoe County Parcel Number's 033281888, while the development to the north is located on parcel number 033281870. Both parcels are zoned as Industrial 1 (I-1). The applicant seeks to develop the southern property with a 36,400 building that will consist of 30,940 SF of industrial use and 5,460 SF of office use. The size of the development to the north has not yet been finalized, so it was assumed that the percent difference in parcel sizes between the proposed site and the development to the north would be the same as the percent difference in building sizes. As such, the development to the north is assumed to be a 23,180 SF industrial building, upon completion. Access to the site will be provided via two full movement accesses along Laredo St. The development to the north will use the northern one of the two access points. Upon completion of the site, 2nd Ave will be extended to the west to connect to Laredo St and will be able to be used to access the site.

TRIP GENERATION

The Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition was used to calculate the number of trips generated by both the proposed development and the development to the north. This study forecasts the number of trips generated by the sites during the AM and PM peak hours, as well as the number of daily weekday trips. The following land use code (LUC) was used in both trip generation calculations:

- LUC 110 – General Light Industrial
- LUC 712 – Small Office Building

As shown in Table 1, the site will generate 34 AM peak hour, 32 PM peak hour, and 246 daily weekday trips. The development that will be located north of the site will generate 20 AM peak hour, 15 PM peak hour, and 138 daily weekday trips. Combined, the developments will generate 54 AM peak hour, 47 PM peak hour, and 384 daily weekday trips.

TRIP DISTRIBUTION

The distribution of the site generated trips was based on the site's location relative to the nearby population centers and major roads. All of the site trips will arrive/depart along Laredo Street or Lockheed Drive. The following distribution was used in this study:

- To/from the north on Laredo Street: 70%
- To/from the west on Lockheed Dr: 10%
- To/from to the east on 2nd Ave: 20%

The site trip distribution is shown in Figure 2.

and trip

language updated



Table 1

Laredo Street Development - Aurora, CO
Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour			PM Peak Hour			Average Daily Trips
				In	Out	Total	In	Out	Total	
<i>Proposed</i> ⁽¹⁾										
General Light Industrial	110	30,940	SF	22	3	25	3	17	20	167
Small Office Building	712	5,460	SF	7	2	9	4	8	12	79
<i>Development to the north</i> ⁽¹⁾										
General Light Industrial	110	23,180	SF	18	2	20	2	13	15	138
Net New Trips				47	7	54	9	38	47	384

why not use peak hour of generator to be more conservative

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

Due to the mix of uses represented in the trip generation, light industrial and small office, it is appropriate to utilize the adjacent street as this would represent the same hour for all uses. It also represents the traffic during the design hour of the surrounding network which is appropriate for determining impacts.

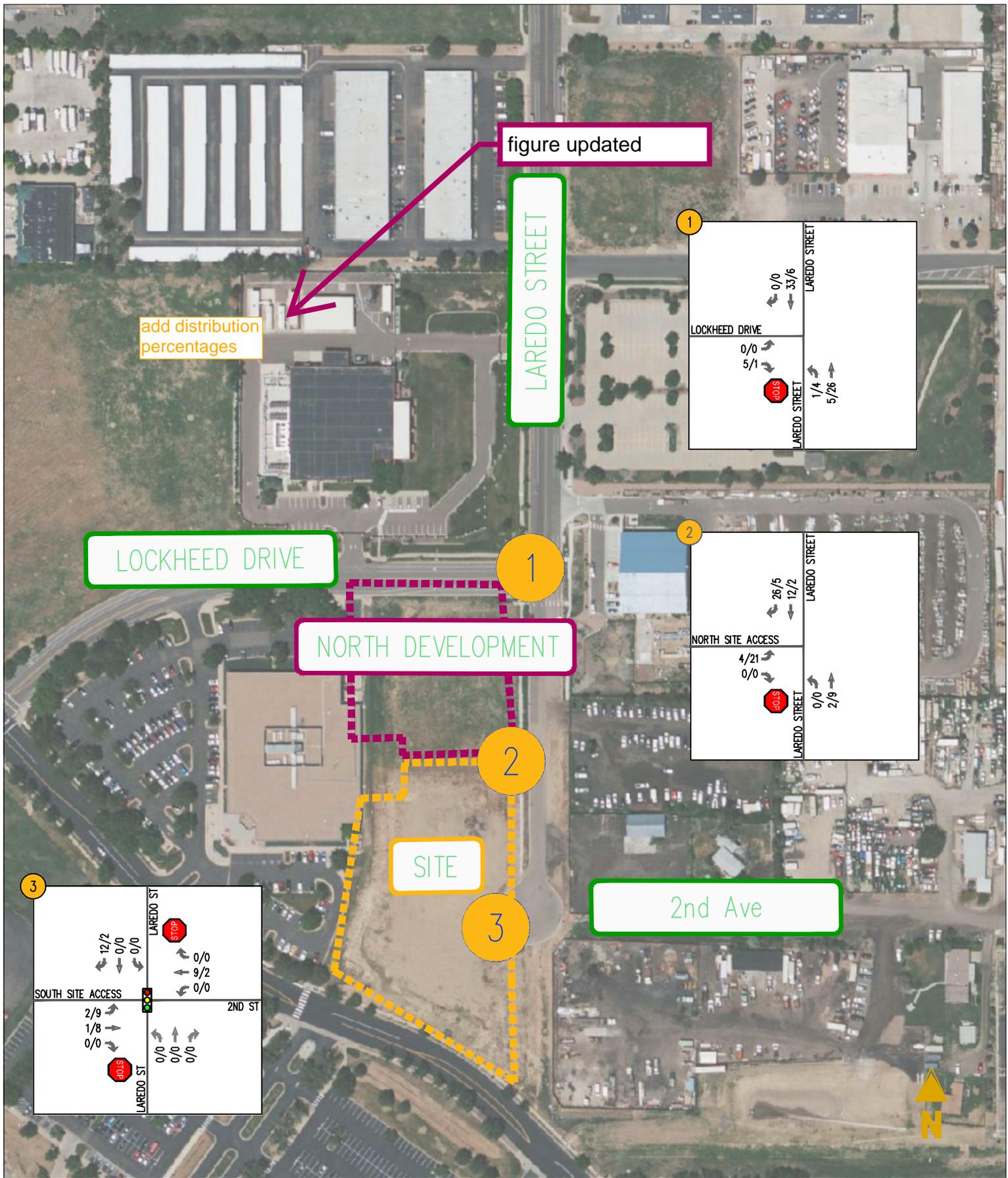


Figure 2
Site Trips

Laredo Street Development
Aurora, CO

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

-  MOVEMENT
-  SIGNALIZED INTERSECTION
-  STOP SIGN
-  YIELD SIGN



EFFECTS ON TRAFFIC OPERATIONS

The proposed developments are expected to increase the number of vehicles entering the intersection of Laredo St & Lockheed Dr by 44 vph in the AM and 37 vph in the PM. As both Laredo St and Lockheed Dr are low volume roads that likely are far under capacity, it is expected that they will be able to accommodate the additional site trips without a noticeable impact to traffic operations. No improvements to the existing roadway network will be necessary.

CONCLUSIONS

The conclusions of this comparative analysis are as follows:

1. The proposed development will generate 34 trips in the AM peak hour, 32 trips in the PM peak hour, and 246 daily trips.
2. The future development to the north of the site will generate 20 trips in the AM peak hour, 15 trips in the PM peak hour, and 138 daily trips.
3. The forecasted site trips are not expected to have a noticeable impact on traffic operations. As such, no improvements to the existing roadway network.

We trust that the information contained herein satisfy the request of the City of Aurora. If you have any questions or need further information, please contact Max Rusch at MaxRusch@gallowayus.com or 303-770-8884.



Attachment I

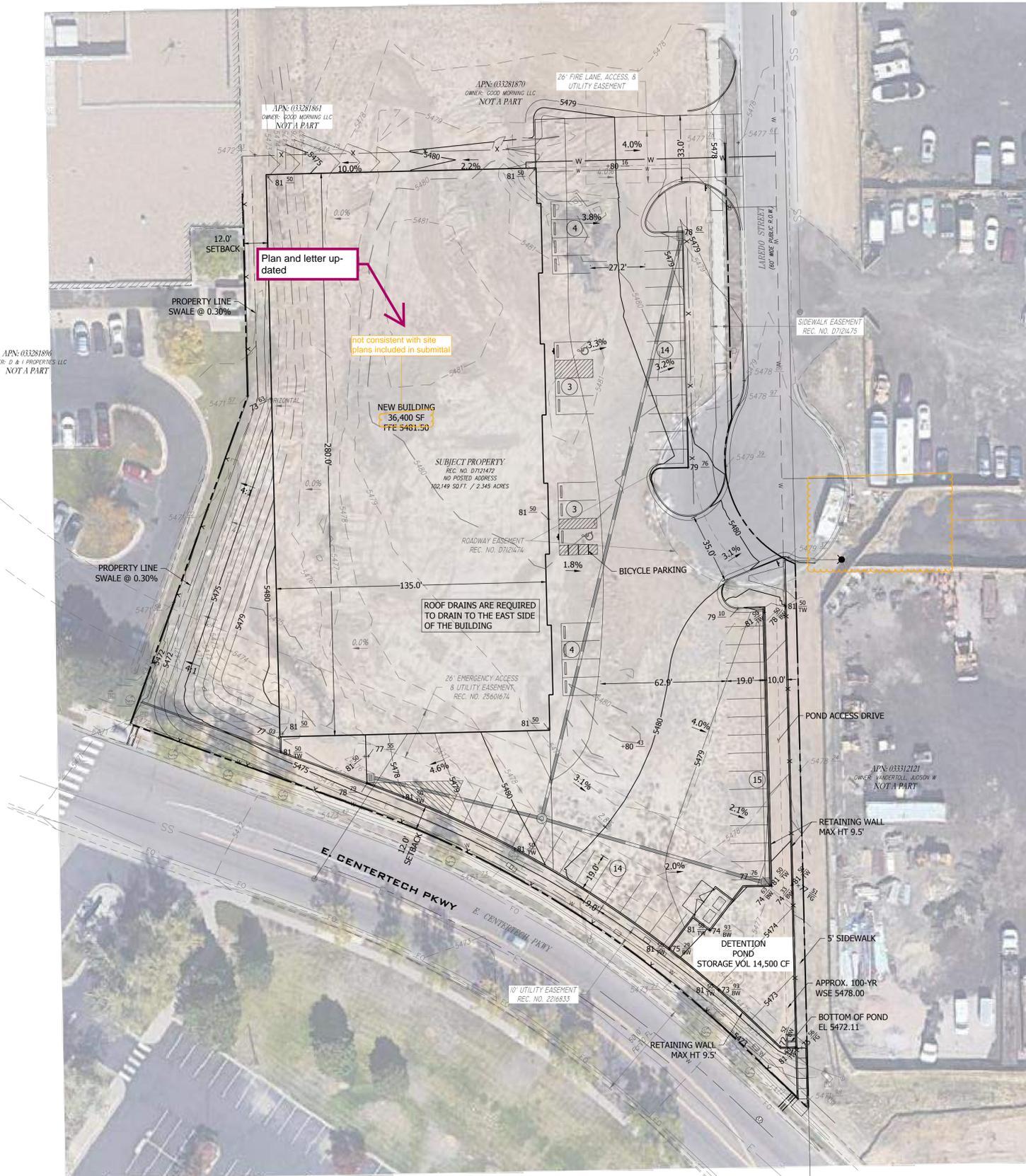
Site Plan



SITE PLAN

16001 E. LOCKHEED DRIVE

PORTION OF LOT 3, BLOCK 1, AURORA CENTRETECH PARK
(FILING NO. 8), CITY OF AURORA, COUNTY OF ARAPAHOE,
STATE OF COLORADO (APPROX. 2.34 ACRES)



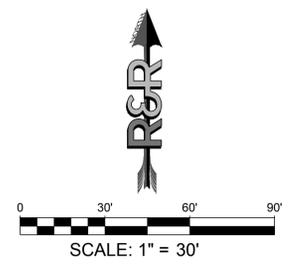
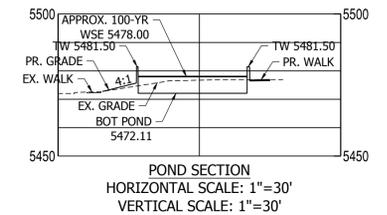
IMPERVIOUS BREAKDOWN	
TOTAL LOT AREA	102,149 SF
ROOF AREA	36,400 SF
PAVEMENT AREA	41,094 SF
LANDSCAPE AREA	24,655 SF

PARKING CALCULATION	
TOTAL BUILDING AREA	36,400 SF
OFFICE SPACE (15%)	5,460 SF
WAREHOUSE SPACE (85%)	30,940 SF

OFFICE 2.5 SPACE/1,000 SF	14 SPACES
WAREHOUSE 1.0 SPACE/1,000 SF	31 SPACES
TOTAL PARKING REQUIRED	45 SPACES
TOTAL PARKING PROVIDED	57 SPACES

show completed connection

updated site plan provided



NO.	REVISION	BY	DATE



**ENGINEERS
SURVEYORS**

R&R ENGINEERS-SURVEYORS, INC.
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DENVER, COLORADO 80204
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WWW.RRENGINEERS.COM

16001 E. LOCKHEED DRIVE
SITE ADDRESS: 16001 E. LOCKHEED DRIVE
AURORA, CO 80011

PREPARED FOR: ASPHALT COATINGS COMPANY, INC.
PO BOX 472918
AURORA, CO 80047

SITE PLAN			
JOB NO.	WC22011		
ORG. SUBM. DATE			
DWN:	ISL	CHKD:	RSD
NAME			

GRADING PLAN

NO.
4 OF XX

PATH:\WC22011\16001 E. LOCKHEED DRIVE\ENGINEERING\4 DRAWINGS\SITE PLAN\WC22011 - GRADING PLAN.DWG, PLOT DATE: 1/6/2023 10:26:40 AM, BY: JEFF PESLEY