

Memorandum

To: Colorado Asphalt Pavement Association

From: Brian Horan, PE, PTOE

Date: February 6, 2022
Revised: December 20, 2023

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 LOCATION

The proposed development 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 37,800 square foot (SF) building that will consist of 32,340 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.

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 35 AM peak hour, 33 PM peak hour, and 251 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 55 AM peak hour, 48 PM peak hour, and 389 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 percentages and trips are shown in Figure 2.



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	
<u>Proposed</u> ⁽¹⁾										
General Light Industrial	110	32,340	SF	23	3	26	3	18	21	172
Small Office Building	712	5,460	SF	7	2	9	4	8	12	79
<u>Development to the north</u> ⁽¹⁾										
General Light Industrial	110	23,180	SF	18	2	20	2	13	15	138
Net New Trips				48	7	55	9	39	48	389

Note(s):

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

EFFECTS ON TRAFFIC OPERATIONS

The proposed developments are expected to increase the number of vehicles entering the intersection of Laredo St & Lockheed Dr by 45 vph in the AM and 38 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 35 trips in the AM peak hour, 33 trips in the PM peak hour, and 251 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 Brian Horan at BrianHoran@gallowayus.com or 303-770-8884.



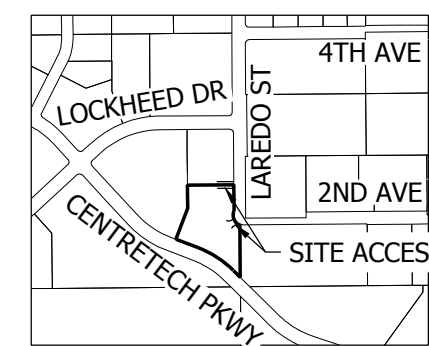
Attachment I

Site Plan



SITE PLAN WEST CENTERTECH

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



VICINITY MAP
SCALE: 1" = 1000'

LEGEND

LINETYPE/SYMBOL	DESCRIPTION
---	EX. PROPERTY LINE
- - -	EX. EASEMENT
- - -	EX. CURB AND GUTTER
- - -	EX. CONCRETE SIDEWALK
- - -	EX. FIRE HYDRANT
- - -	EX. WATER VALVE
- - -	EX. WATER METER
- - -	EX. STORM SEWER MANHOLE
- - -	EX. STORM SEWER INLET
- - -	EX. UTILITY POLE
- - -	EX. STREET LIGHT
- - -	PROP. PROPERTY LINE
- - -	PROP. EASEMENT
- - -	PROP. CURB AND GUTTER
- - -	PROP. CONCRETE SIDEWALK
- - -	PROP. SITE LIGHTING
- - -	PROP. SIGN
- - -	PARKING COUNT
- - -	ACCESSIBLE ROUTE
- - -	PROP. CHECK VALVE
- - -	PROP. WATER VALVE
- - -	PROP. WATER METER
- - -	PROP. KNOX BOX W/ APPROVED CAPS
- - -	PROP. FDC
- - -	PROP. STORM INLET
- - -	PROP. ACCESSIBLE PARKING
- - -	PROP. TREE GRATE
- - -	PROP. FENCE

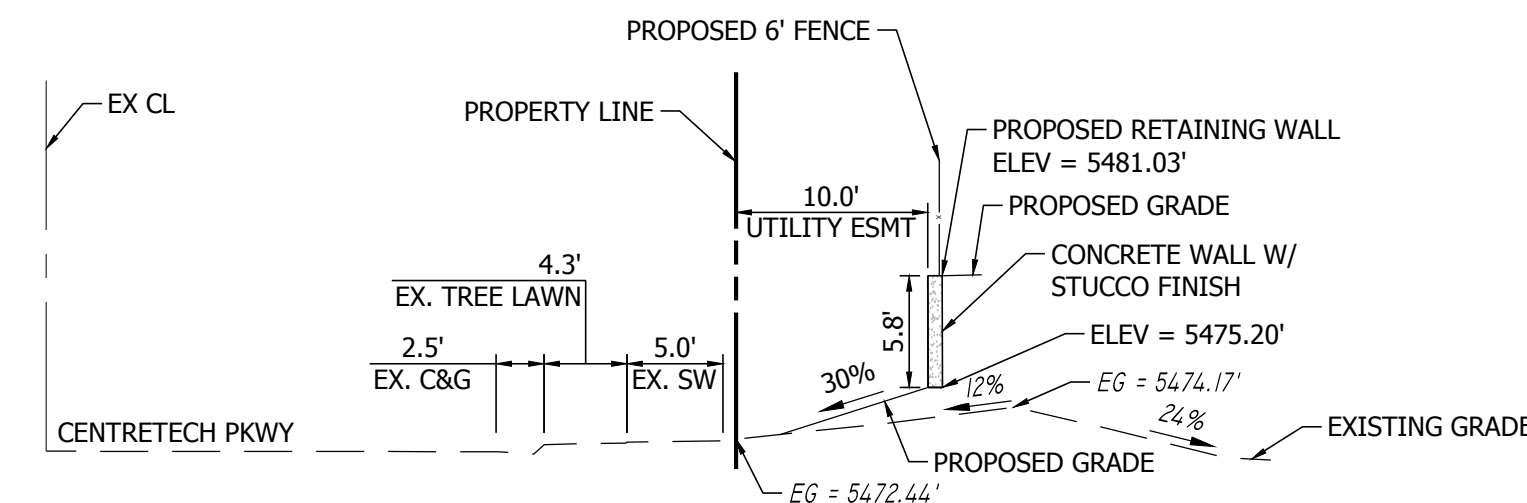
- NOTES:
- DETAILED LAYOUT AND DESIGN FOR PROPOSED CURB RAMPS WITHIN RIGHT OF WAY OR ALONG AN ACCESSIBLE ROUTE WILL BE COMPLETED WITH THE CIVIL PLANS.
 - ALL PROPOSED HARDSCAPE SHALL BE CONCRETE.

LANDSCAPE: SECTION G

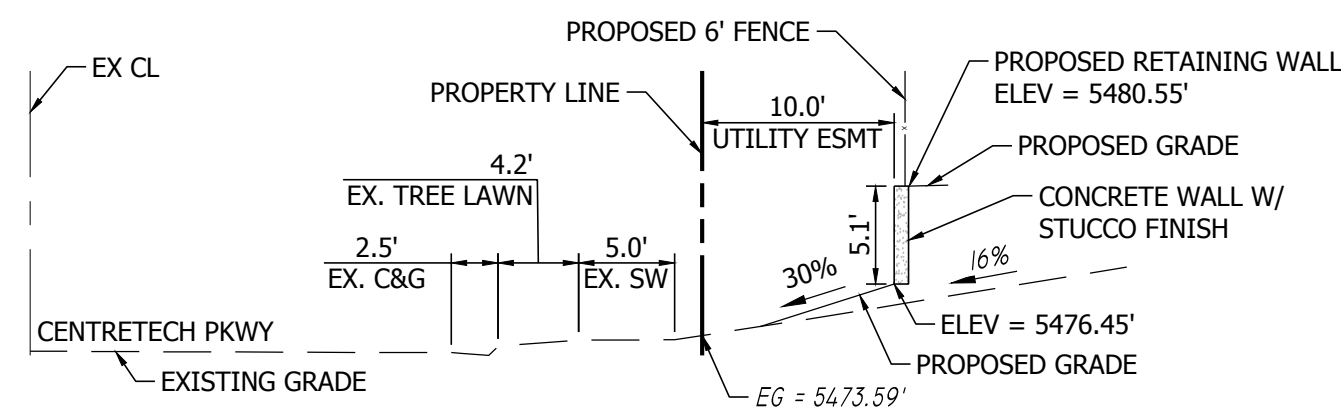
N.T.S.



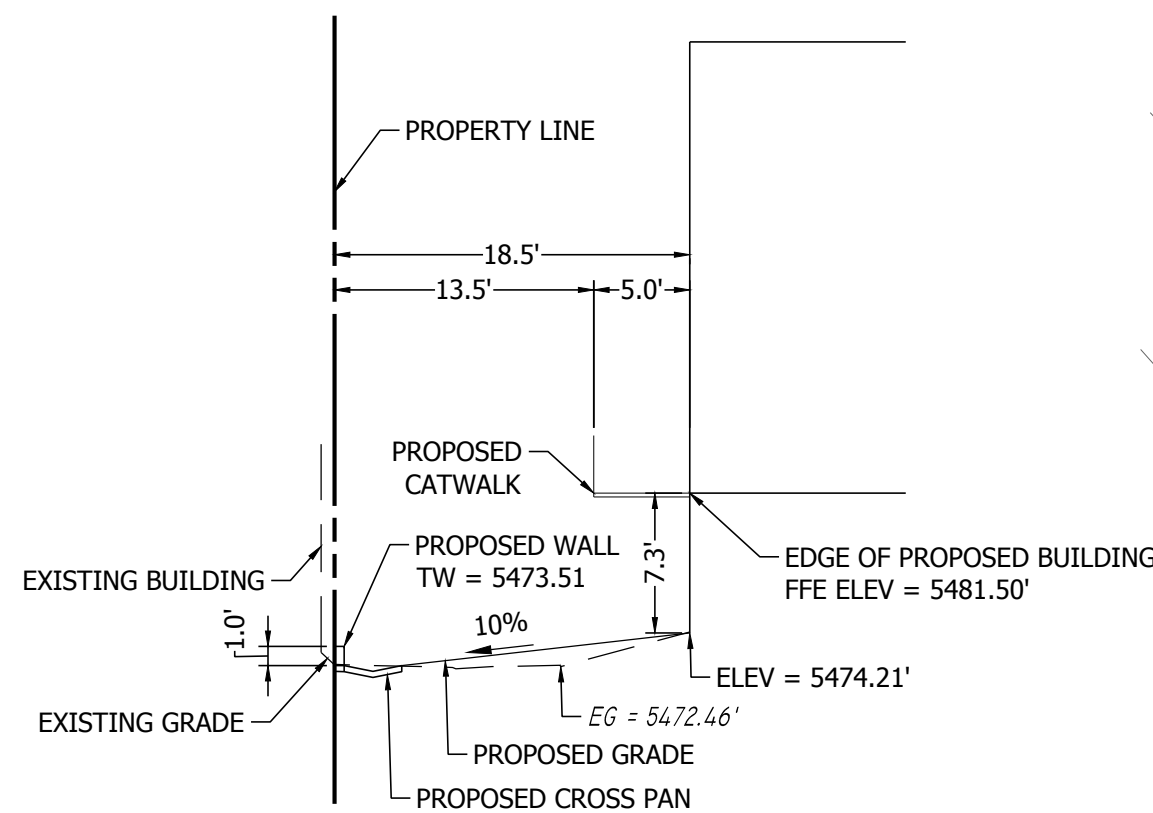
0 30' 60' 90'
SCALE: 1" = 30'



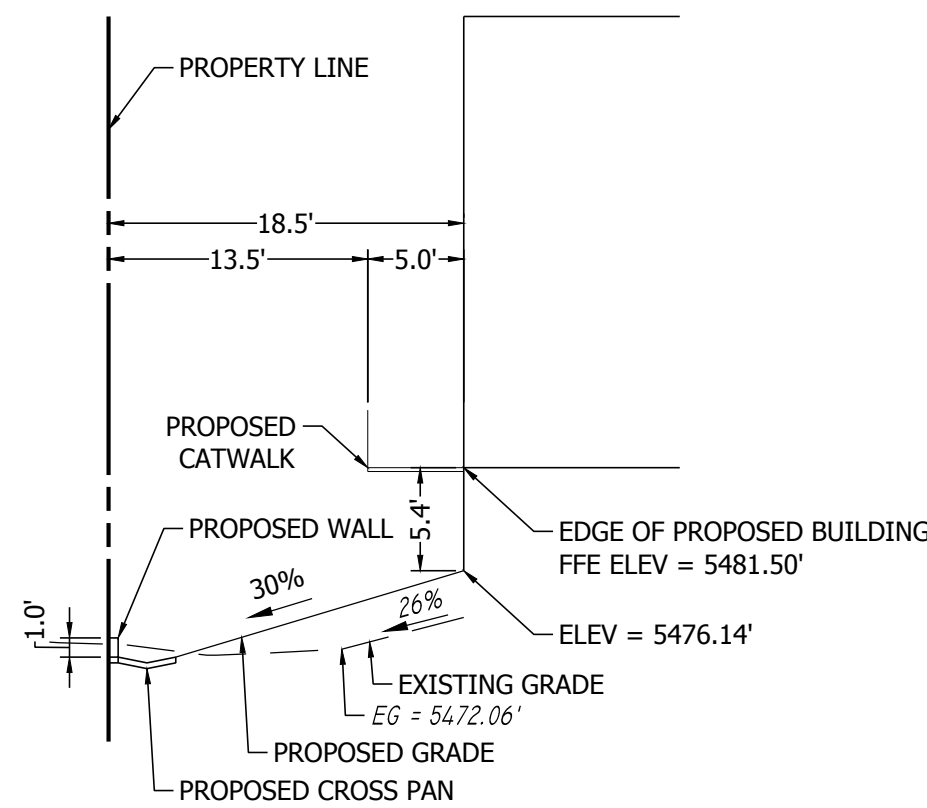
RETAINING WALL: SECTION E
1" = 10'



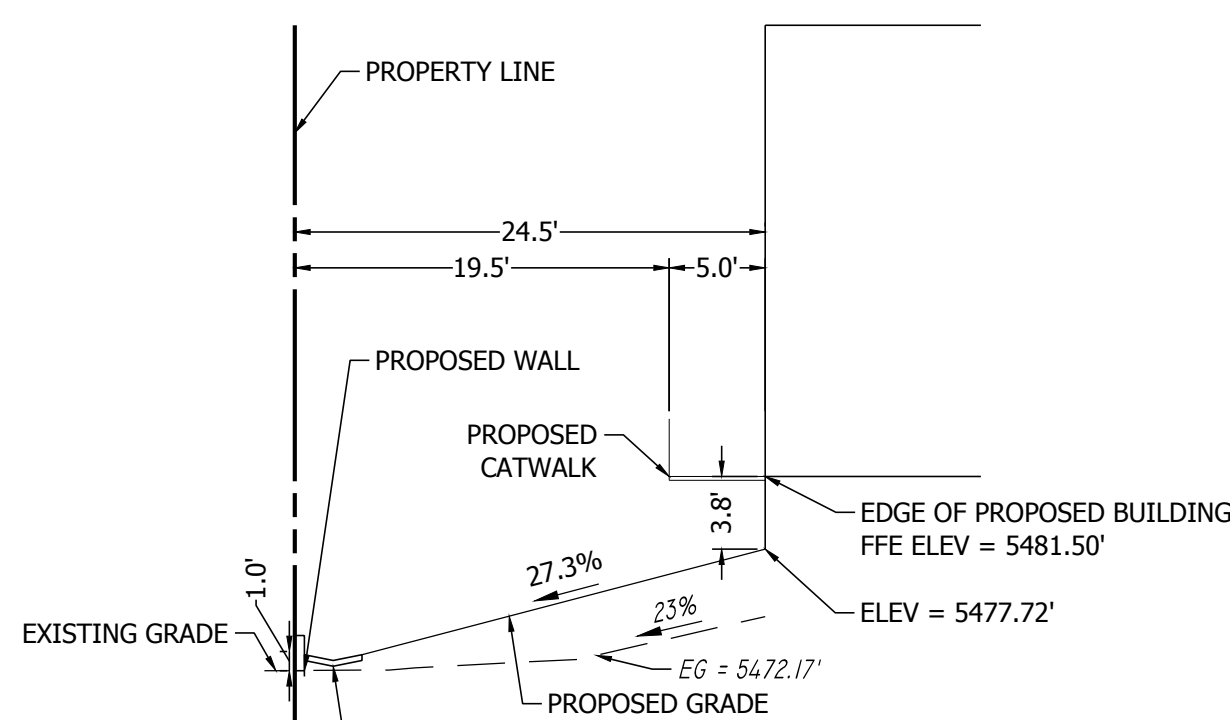
RETAINING WALL: SECTION F
1" = 10'



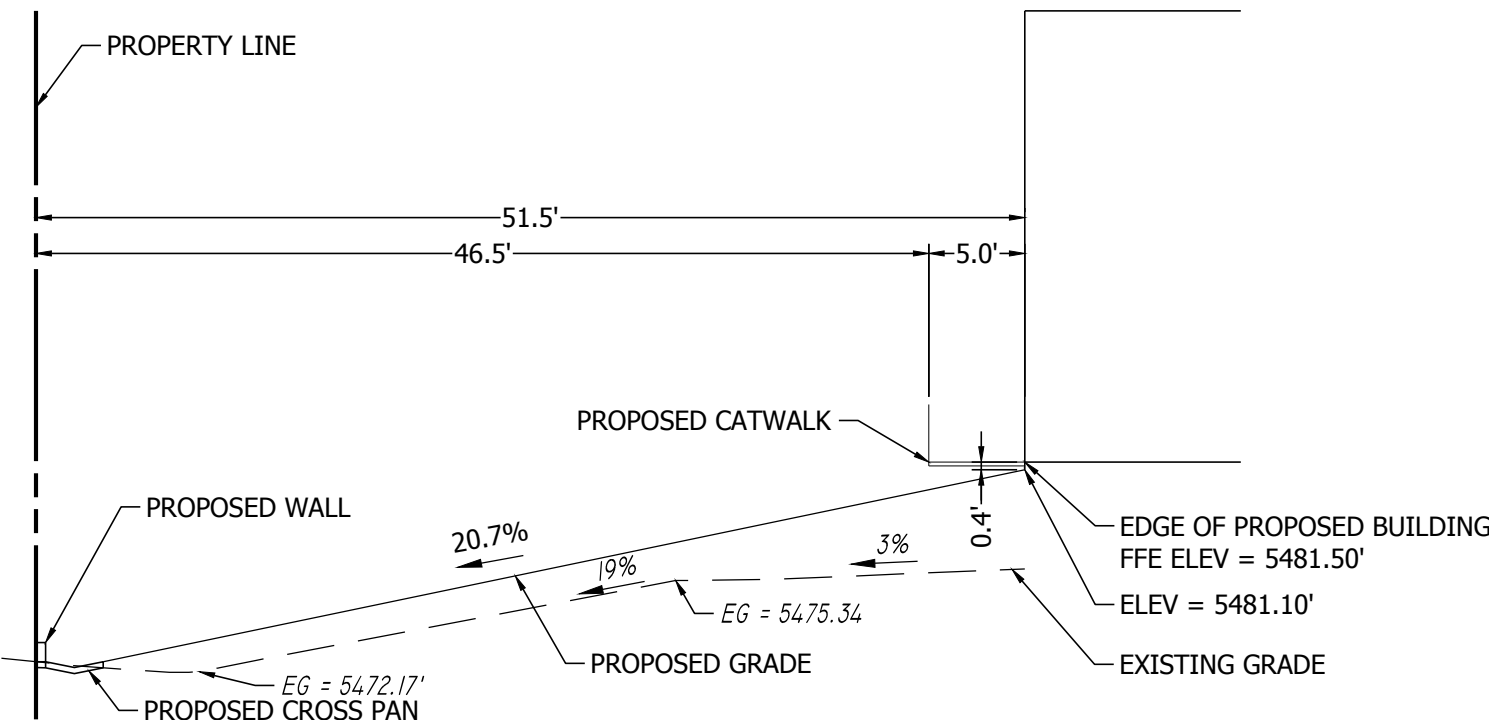
CATWALK: SECTION A
1" = 10'



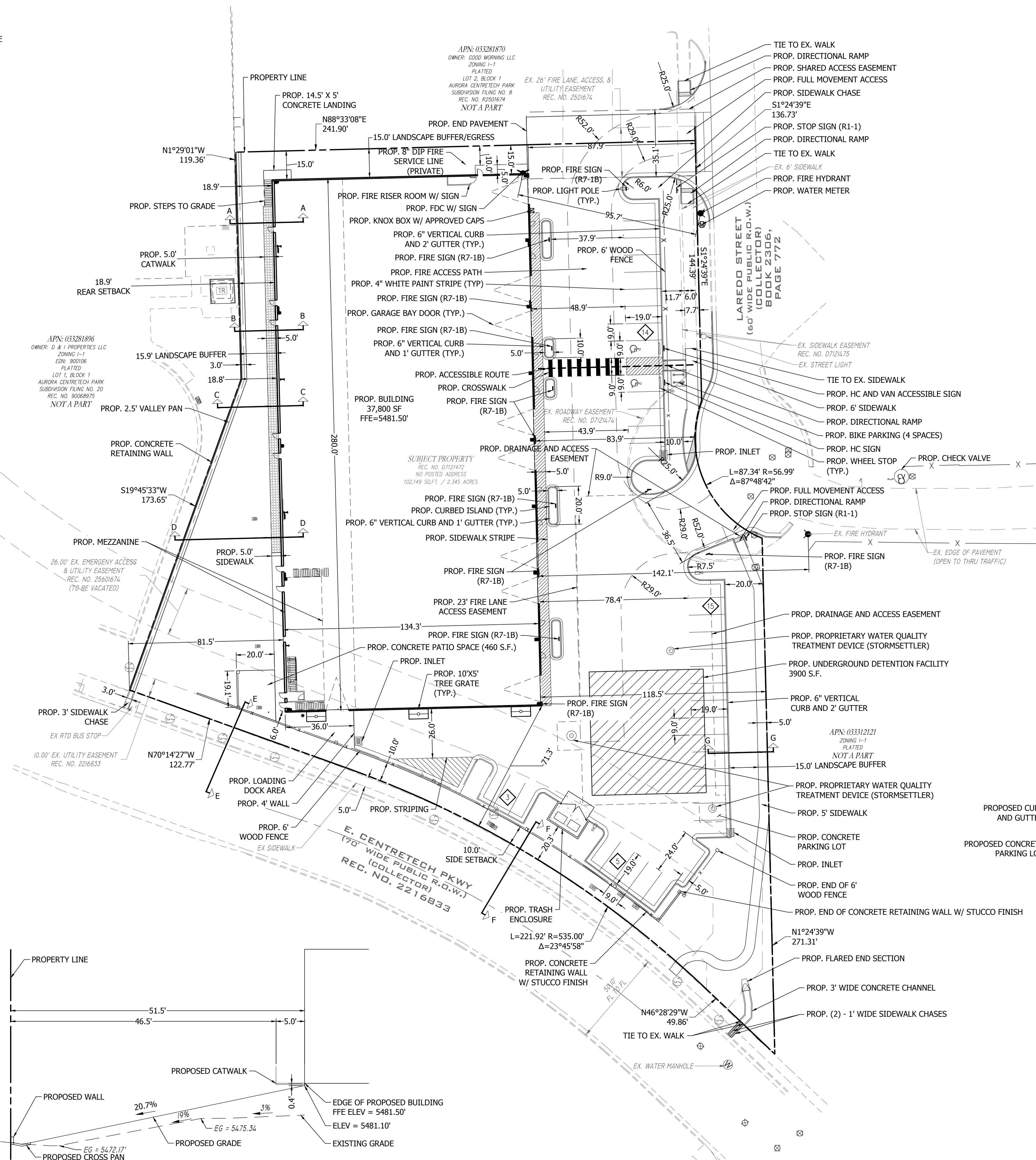
CATWALK: SECTION B
1" = 10'



CATWALK: SECTION C
1" = 10'



CATWALK: SECTION D
1" = 10'



REVISION	DATE	BY	NO.
2nd SUBMISSION	10/04/23	ESJ	1
3rd SUBMISSION	12/20/23	RSD	2

**ENGINEERS
SURVEYORS**

R&R ENGINEERS-SURVEYORS, INC.
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DENVER, COLORADO 80204
PHONE: 303-753-6730

WWW.RRENGINEERS.COM

WEST CENTERTECH
SITE ADDRESS: 16001 E. LOCKHEED DRIVE
AURORA, CO 80011
PREPARED FOR: WEST CENTERTECH, LLC
PO BOX 472918
AURORA, CO 80047

SITE PLAN

NO. 2 OF 12