

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

September 13, 2024

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd. NW
Albuquerque, NM 87120

RE: Event Center
1611 Airtech Ct. SE
Grading and Drainage Plans
Engineer's Stamp Date: 06/20/2024
Hydrology File: N15D017

Dear Mr. Fierro:

Based upon the information provided in your submittal received 06/21/2024, the Grading & Drainage Plan is approved for Grading Permit. The following conditions need to be addressed prior to approval of Building Permit.

1. Rough grading must stay away 30 ft from the property lines until a firm design and assurance from a structural engineer stating that the retaining walls as designed will be buildable and will not create safety issues with the adjacent property.
2. Please provide garden wall design details. Total wall height (garden wall on top of the retaining wall) must be reviewed and approved by the Code Enforcement division.
3. Install a manhole at the location that the Type D inlet with the 18-in storm drain connecting to the existing 60-in pipe.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3695 or tchen@cabq.gov.

Sincerely,

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

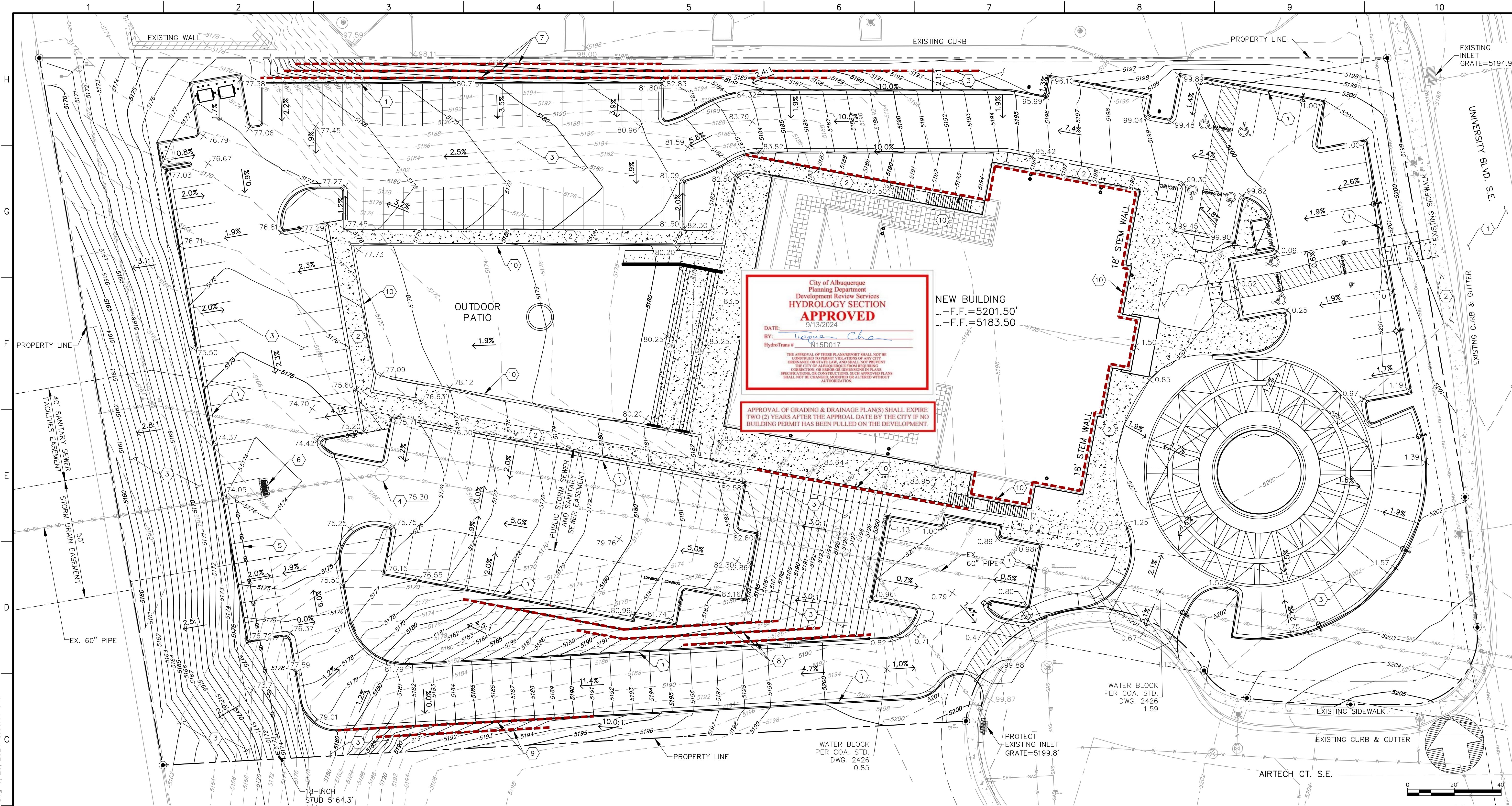
ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G&D PLAN
GRADING & DRAINAGE PLAN
DRAINAGE REPORT
DRAINAGE MASTER PLAN
CLOMR/LOMR
TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
TRAFFIC IMPACT STUDY (TIS)
STREET LIGHT LAYOUT
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

BUILDING PERMIT APPROVAL
CERTIFICATE OF OCCUPANCY
CONCEPTUAL TCL DFT APPROVAL
PRELIMINARY PLAT APPROVAL
FINAL PLAT APPROVAL
SITE PLAN FOR BLDG PERMIT DFT
APPROVAL
SIA/RELEASE OF FINANCIAL GUARANTEE
FOUNDATION PERMIT APPROVAL
GRADING PERMIT APPROVAL
SO-19 APPROVAL
PAVING PERMIT APPROVAL
GRADING PAD CERTIFICATION
WORK ORDER APPROVAL
CLOMR/LOMR
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

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GENERAL GRADING NOTES:

1. THE CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES SHOWN AND COORDINATE WITH ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATIVE VEGETATION TO A MINIMUM.
3. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
4. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF CITY OF ALBUQUERQUE, NEW MEXICO.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
7. CLEAR AND GRUBBING PER NM APWA SECTION 201 SPECIFICATION.
8. SPOT ELEVATIONS ARE TO FINISH GRADE UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL CONFINE THEIR WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.
10. CONTRACTOR TO CLEAN UP SEDIMENT AND DEBRIS ON THE STREET, WHICH IS CAUSED BY CONSTRUCTION, AT THE END OF EACH WORK DAY. TEMPORARY DIRT RAMPS ARE NOT TO BE LEFT IN STREETS OR NEAR CURB.

**EST. UNADJUSTED EARTHWORK VOLUMES
(EXCLUDING SUB EXCAVATIONS,
SHRINKING AND SWELLING FACTORS)**
CUT = 10,500 C.Y.
FILL = 16,950 C.Y.
UNADJUSTED NET FILL=6,450 C.Y.

**EST. ADJUSTED EARTHWORK VOLUMES
(SHRINKING AND SWELLING FACTORS,
AND OVEREX NOT INCLUDED)**
SUB-EXCAVATION CALCULATION:
MISC. CONC. (4"): AREA= 22,260 SQ.FT.
ASPHALT SECTION (8"): AREA= 70,460 SQ.FT.
BUILDING CONC. (4"): AREA= 19,000 SQ.FT.
THEREFORE:
ADDITIONAL CUT FROM ABOVE = 2,250 CU.FT.
NOT INCLUDING SUB-EXCAVATION FOR FOOTINGS OR
ANYTHING ELSE NOT LISTED ABOVE

CUT = 10,500 C.Y.
FILL = 16,950 C.Y.
SUB-EX = 2,250 CU.FT.
ADJUSTED NET FILL= 4,200 C.Y.

PROJECT INFORMATION

BENCHMARK
ALBUQUERQUE SURVEY MONUMENT: ACS BM, 3-N14
NORTHING: 1469185.928 (NMSPC, CENTRAL, NAD 1983)
EASTING: 1522103.492 (NMSPC, CENTRAL, NAD 1983)
ELEVATION: 4958.90' (NAVD 1988, U.S. SURVEY FOOT)

DESCRIPTION
TRACT B PLAT OF TRACTS A, B, C, D & E AIRPORT
TECHNICAL CENTER

FLOOD NOTE:
THIS PROPERTY LIES WITHIN FLOOD ZONE X WHICH IS
DEFINED AS AN AREA OF MINIMAL FLOOD HAZARD. AS
DETERMINED BY F.E.M.A. AND SHOWN ON THE FLOOD
INSURANCE RATE MAP DATED SEPTEMBER 26, 2008, MAP
NO. 35001C0342G.

SURVEYOR INFORMATION
TOPOGRAPHIC SURVEY PERFORMED OCTOBER AND
NOVEMBER 2023 BY OTHERS.

LEGEND

- APPARENT PROPERTY BOUNDARY
- APPARENT ADJOINER PROPERTY LINE
- PROPERTY CORNER
- ROOF FLOW DIRECTION
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING STORM DRAIN
- EXISTING SEWER LINE
- EXISTING WATER LINE
- POND CONTOUR
- NEW STORM LINE
- NEW RETAINING WALL
- RTW RETAINING WALL
- M.H. MANHOLE
- E.G. EXISTING GRADE
- F.G. FINISH GRADE

CONSTRUCTION NOTES:

1. NEW HEADER CURB.
2. NEW SIDEWALK.
3. STABILIZE SIDE SLOPES WITH NATIVE GRASS SEED (PER City Spec 1012) WITH AGGREGATE MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CGP 2.2.1.4.b.)
4. ADJUST STORM MANHOLE RIM PER CITY WORK ORDER.
5. CONSTRUCT PRIVATE 18" DIA. STORM PIPE. CONNECTION TO EXISTING 60-IN RCP PER CITY WORK ORDER.
6. CONSTRUCT STORM INLET TYPE "D" (DOUBLE GRATE) PER COA STD. DWG. NO. 2206 CONNECT TO EXISTING 60" DIA. PIPE PER CITY WORK ORDER.
7. NEW RETAINING WALL. (NO. 1). SEE SHEETS C-3 TO C-4.
8. NEW RETAINING WALLS. (NO. 2). SEE SHEETS C-5 TO C-6.
9. NEW RETAINING WALLS. (NO. 3). SEE SHEETS C-7 TO C-8.
10. RETAINING WALLS. SEE ARCHITECTURE AND STRUCTURAL SHEETS

**Fierro & Company**
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www.fierrocompany.com

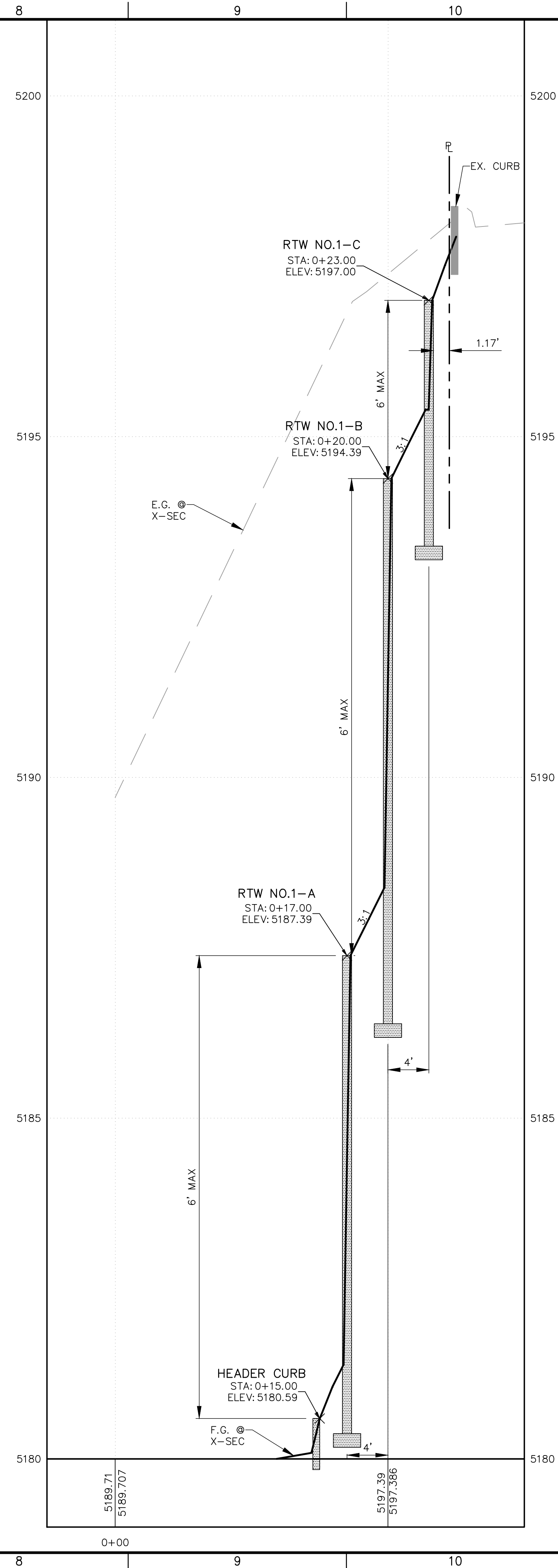
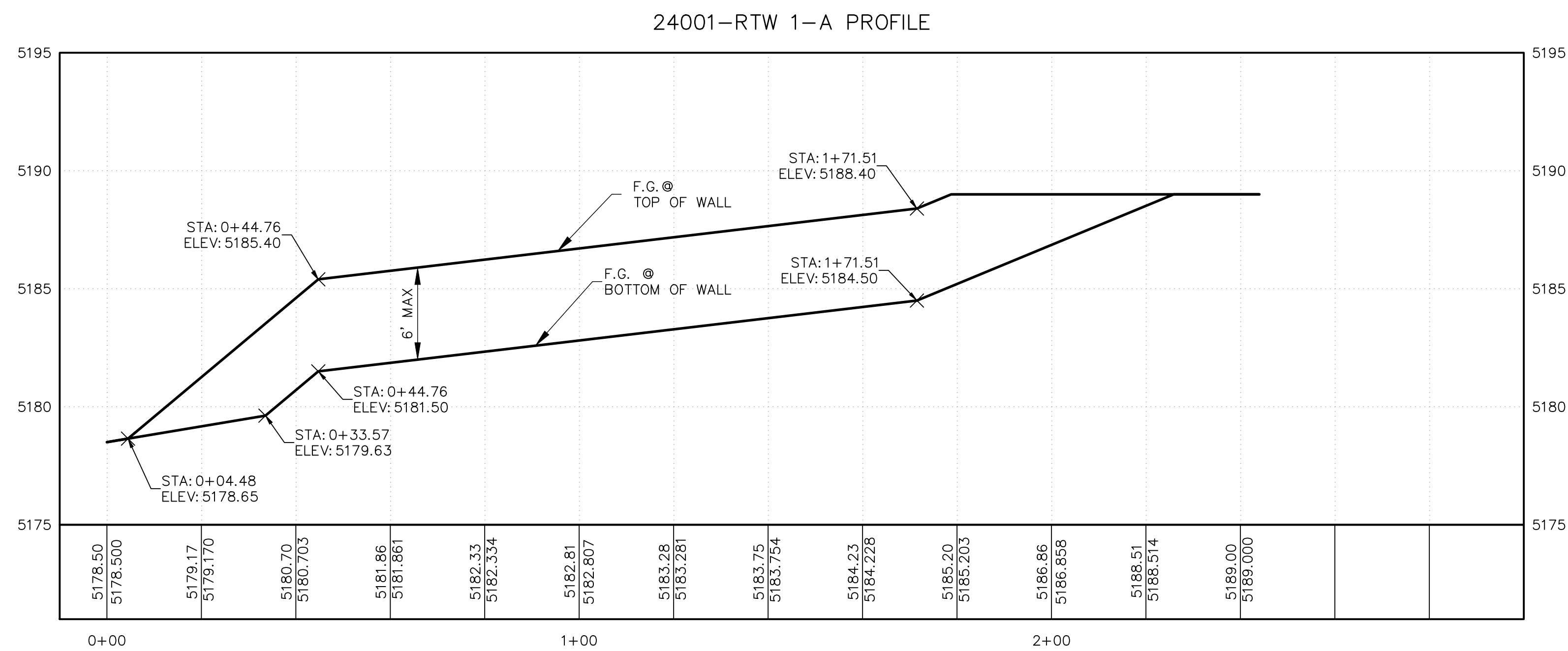
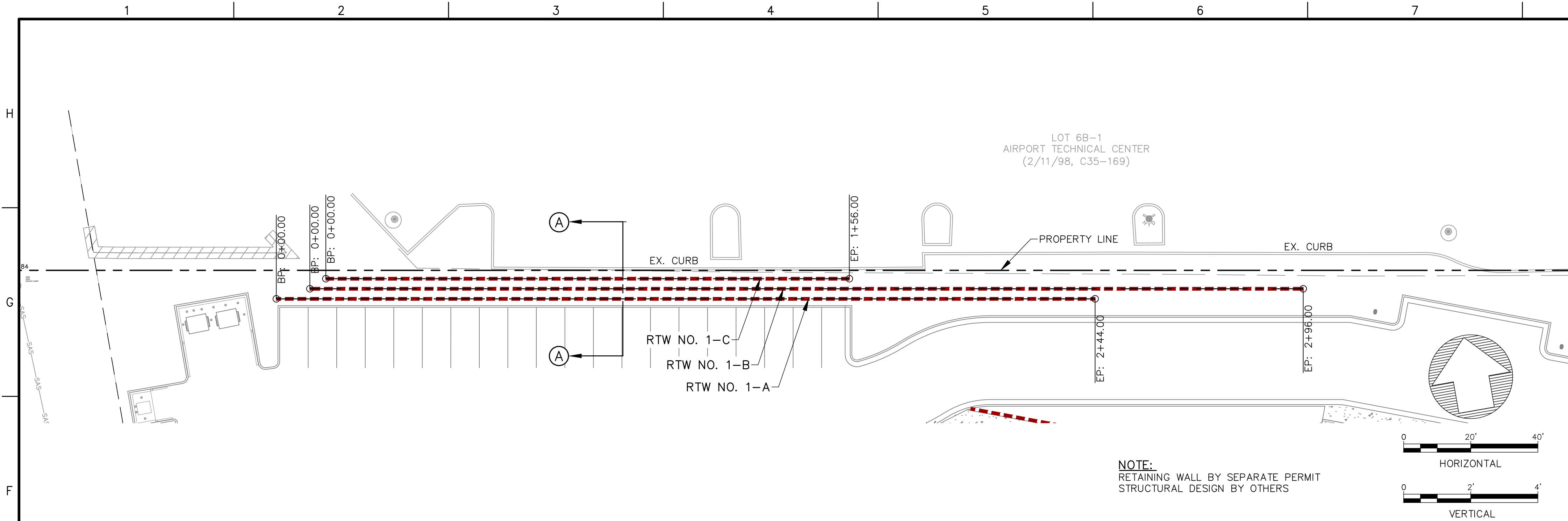
**ROBERT J. FIERRO**
20685
NEW MEXICO
Professional Engineer

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ALBUQUERQUE, NM

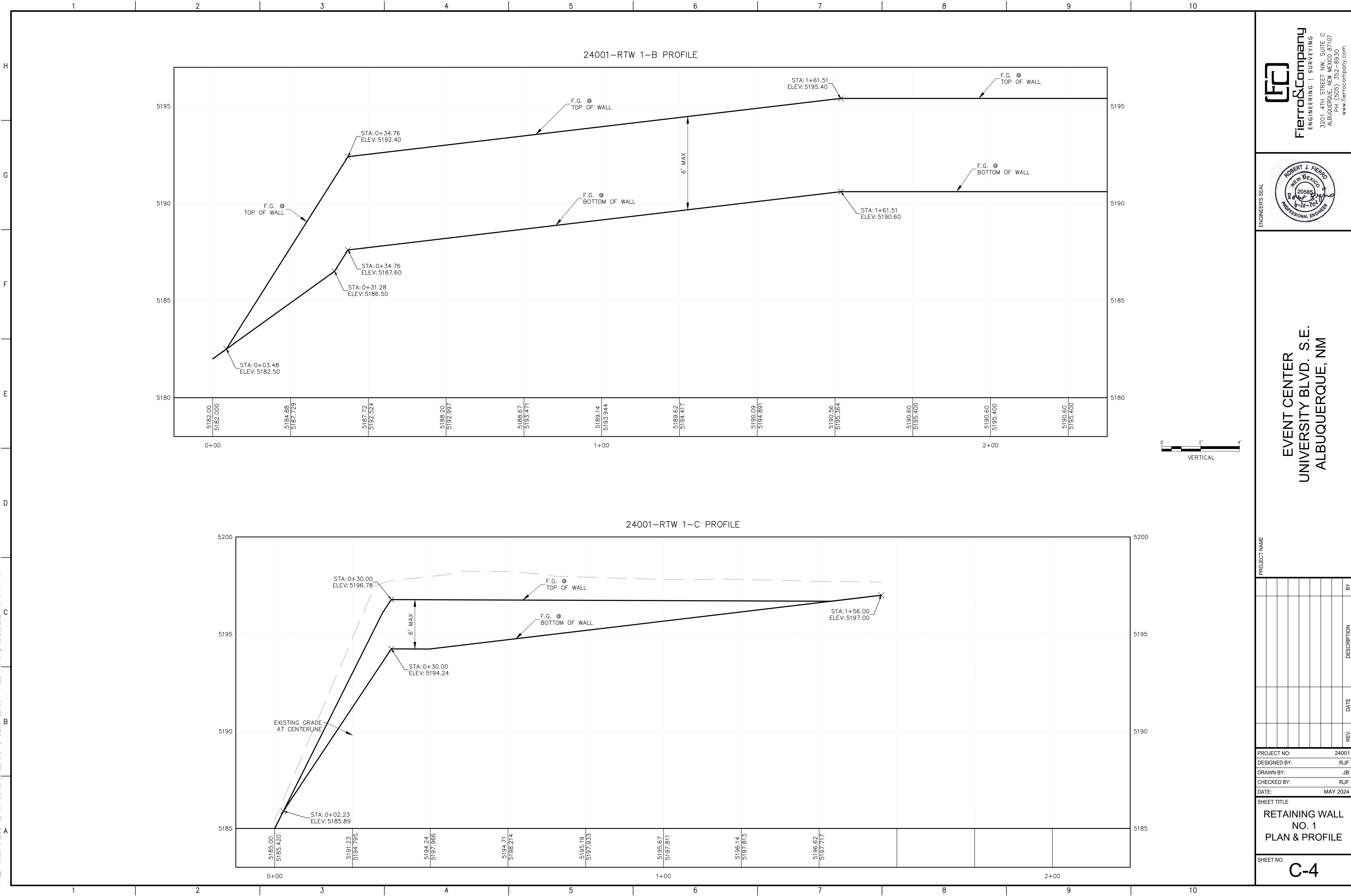
PROJECT NAME	PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REV.	DESCRIPTION	BY
	24001	RJF	JB	RJF	JUNE 2024			

GRADING PLAN

C-1



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ENGINEER'S SEAL

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PROJECT NAME

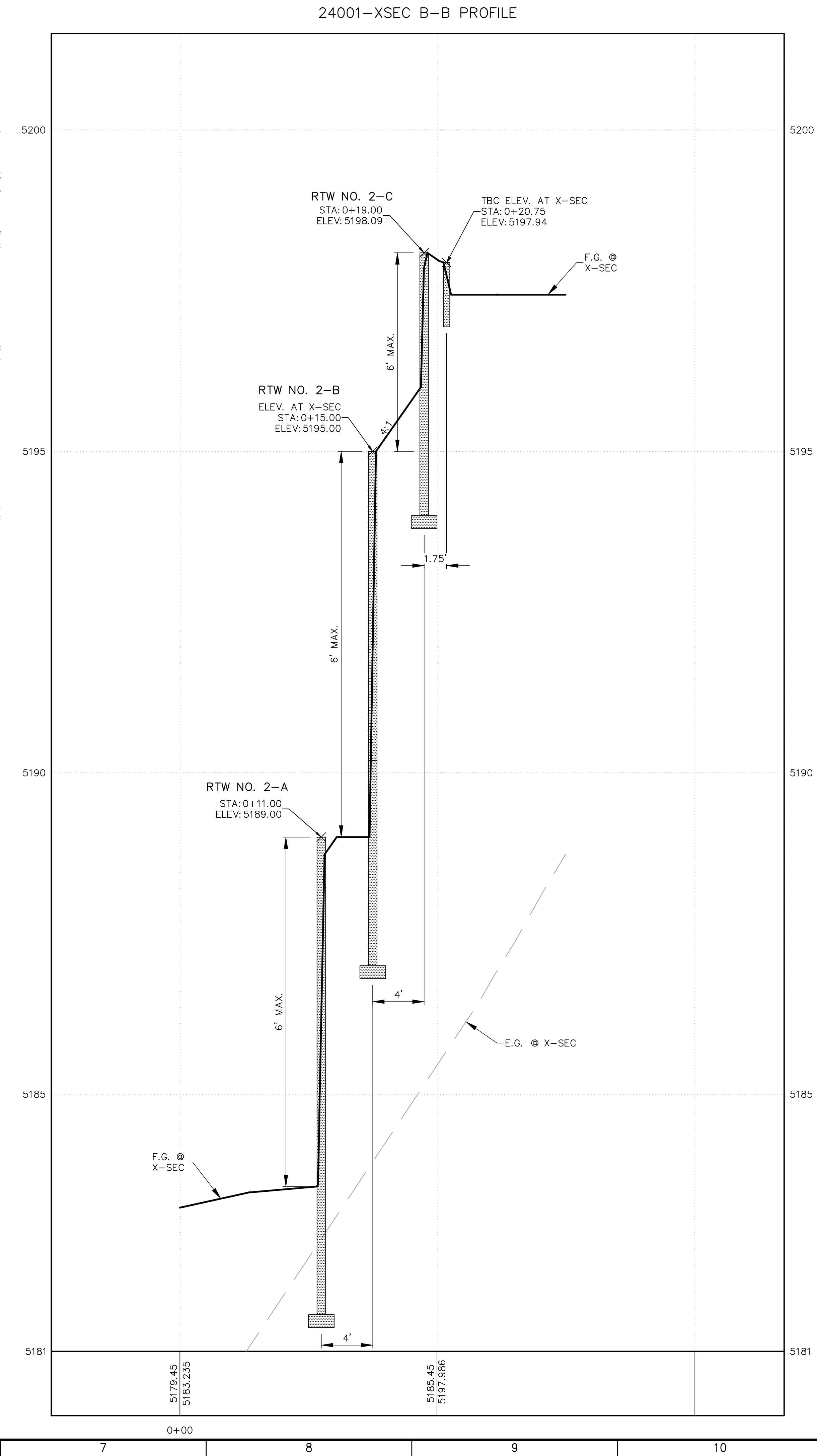
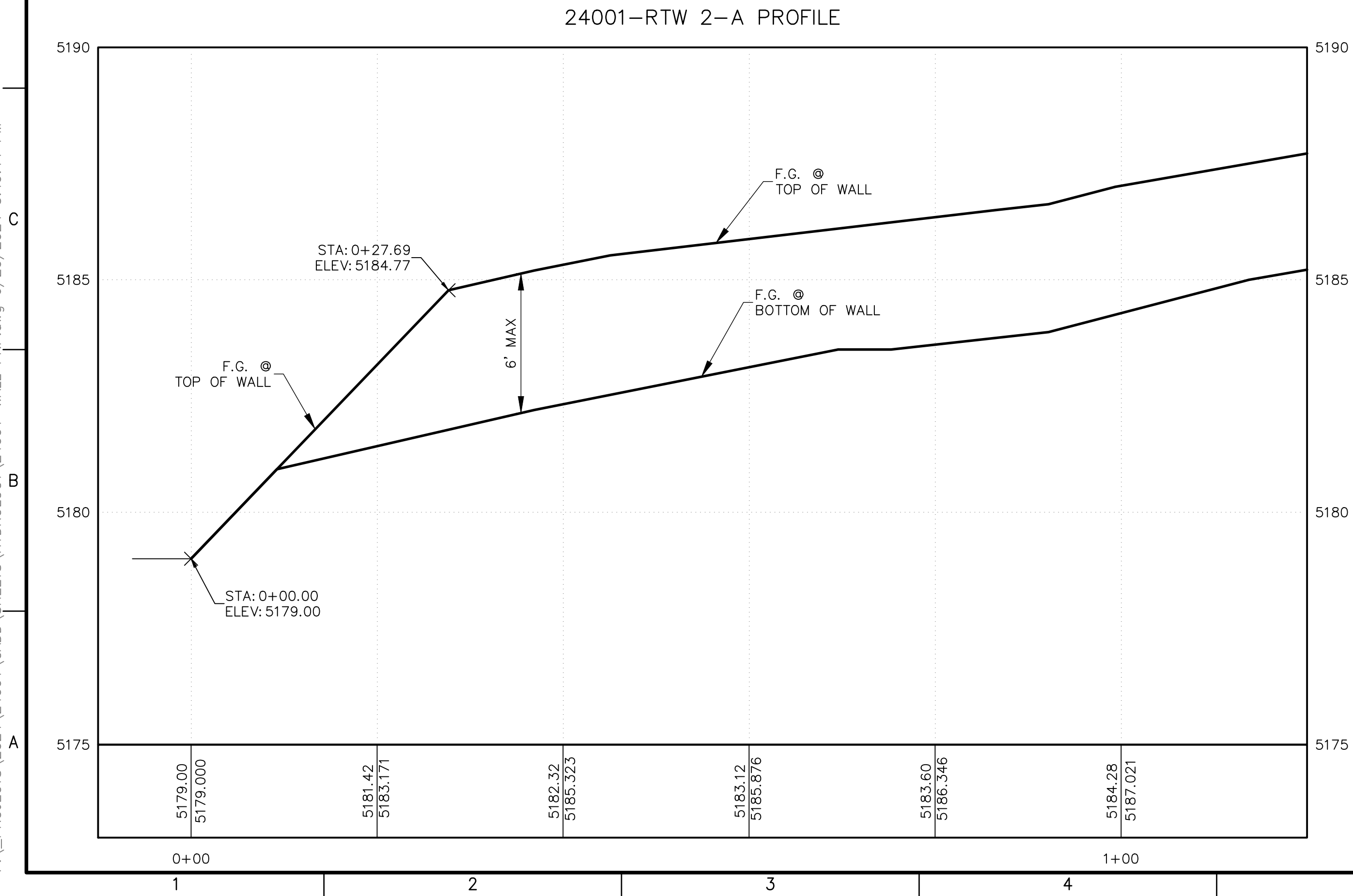
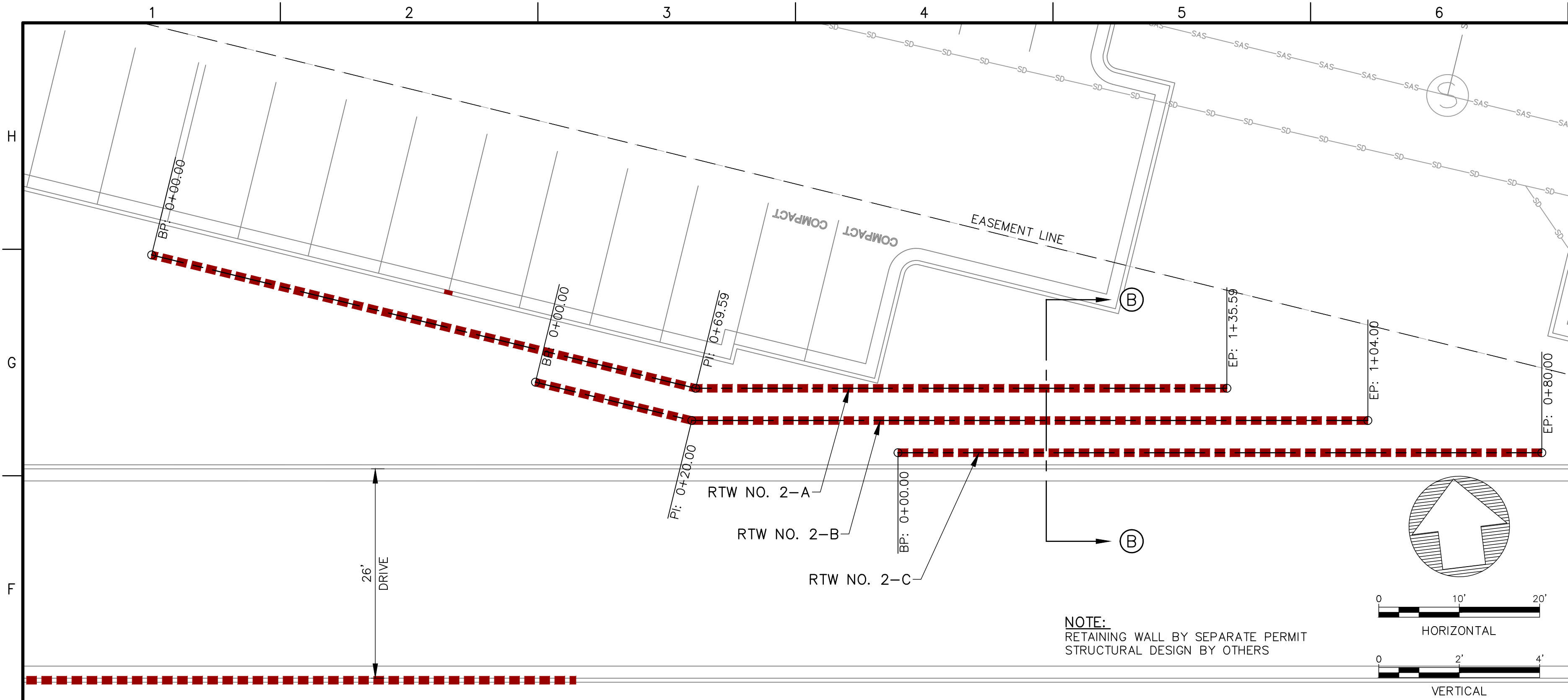
REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001
DESIGNED BY: RJF
DRAWN BY: JB
CHECKED BY: RJF
DATE: MAY 2024

SHEET TITLE
RETAINING WALL
NO. 1
PLAN & PROFILE

SHEET NO:
C-4

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ALBUQUERQUE, NM

PROJECT NO.	24001	BY
DESIGNED BY:	RJF	
DRAWN BY:	JB	
CHECKED BY:	RJF	
DATE:	MAY 2024	

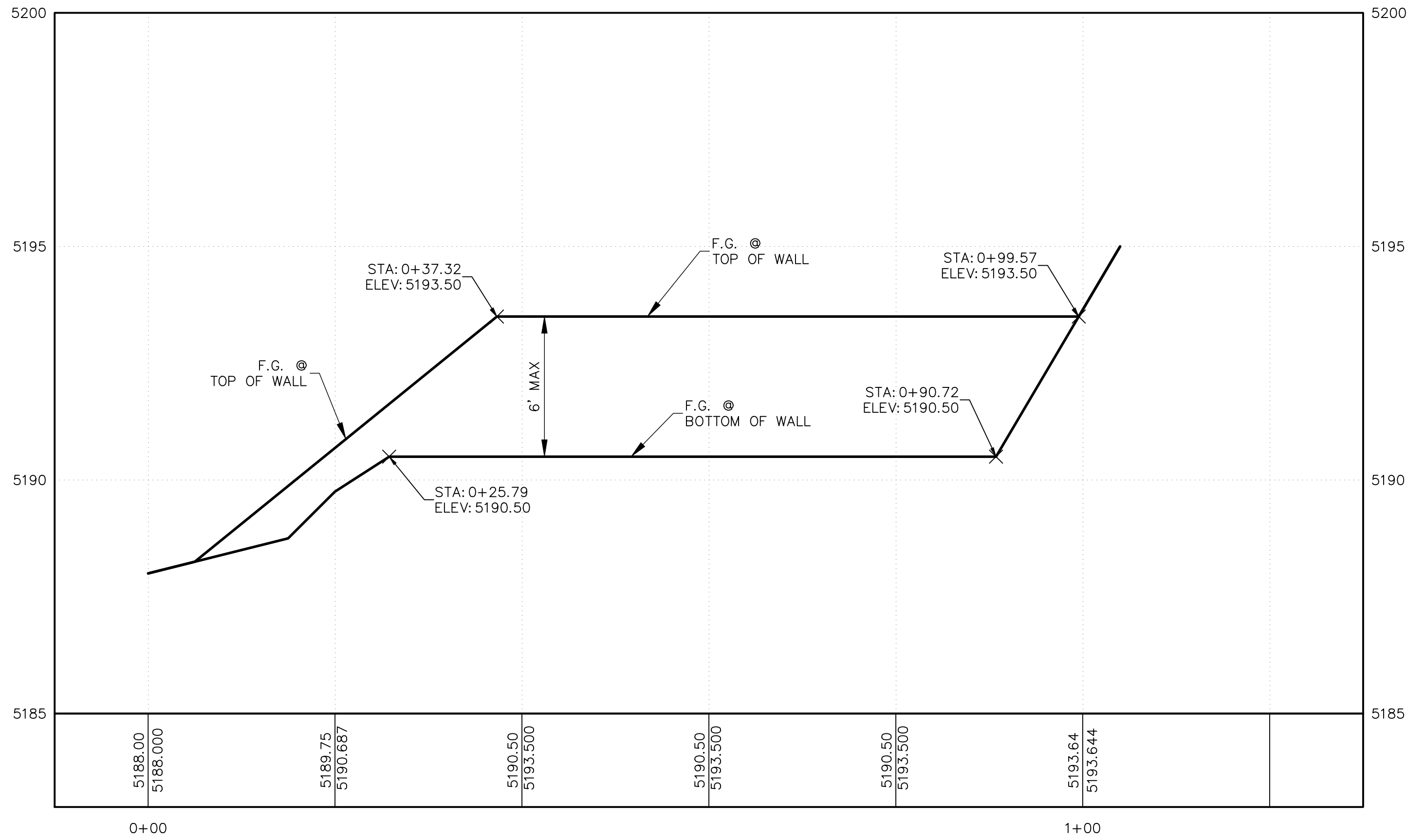
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**RETAINING WALL
NO. 2
PLAN & PROFILE**

SHEET NO:
C-5

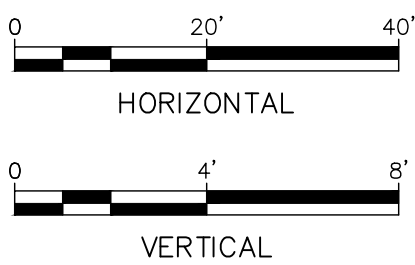
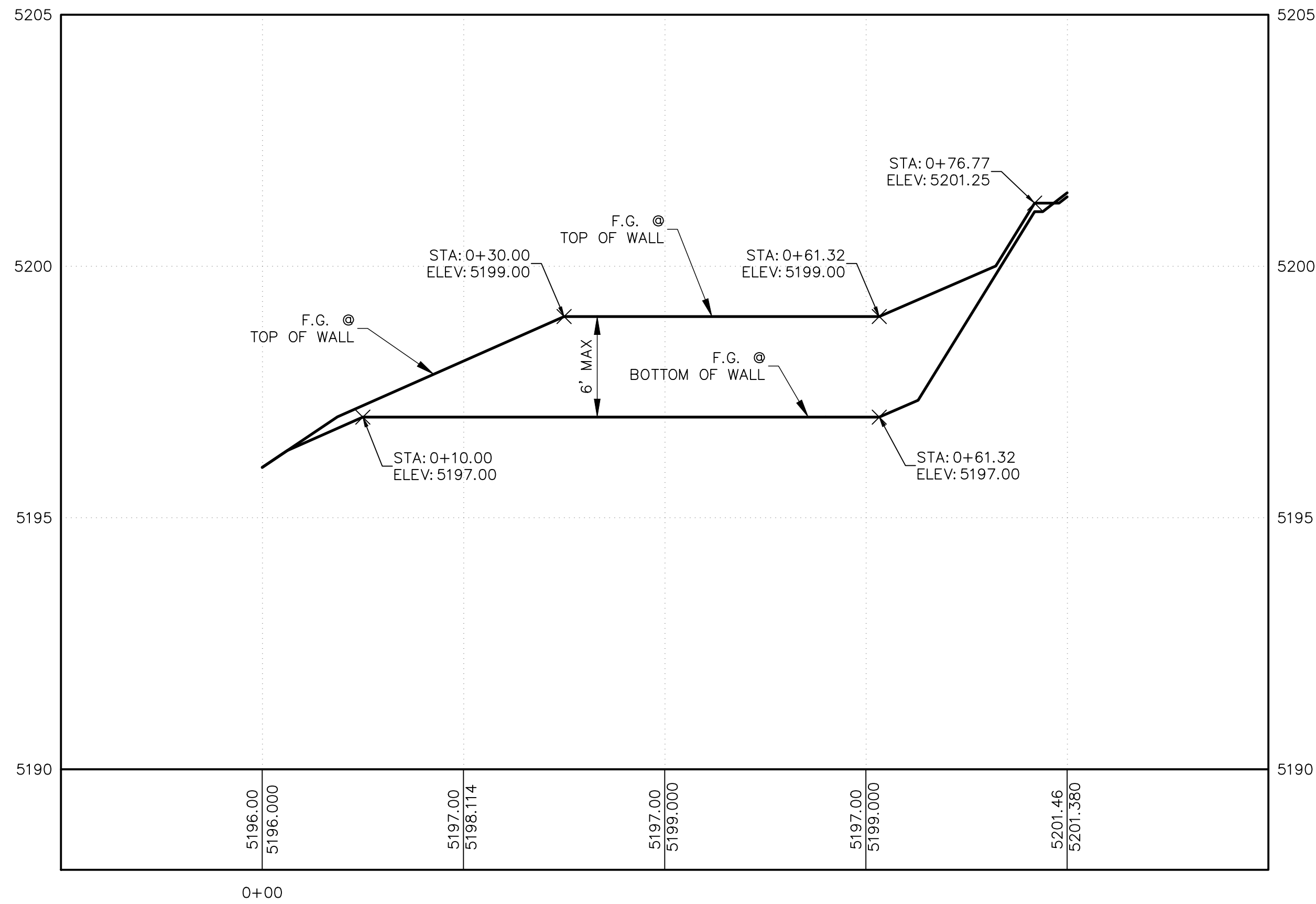
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24001-RTW 2-B PROFILE



24001-RTW 2-C PROFILE



PROJECT NAME

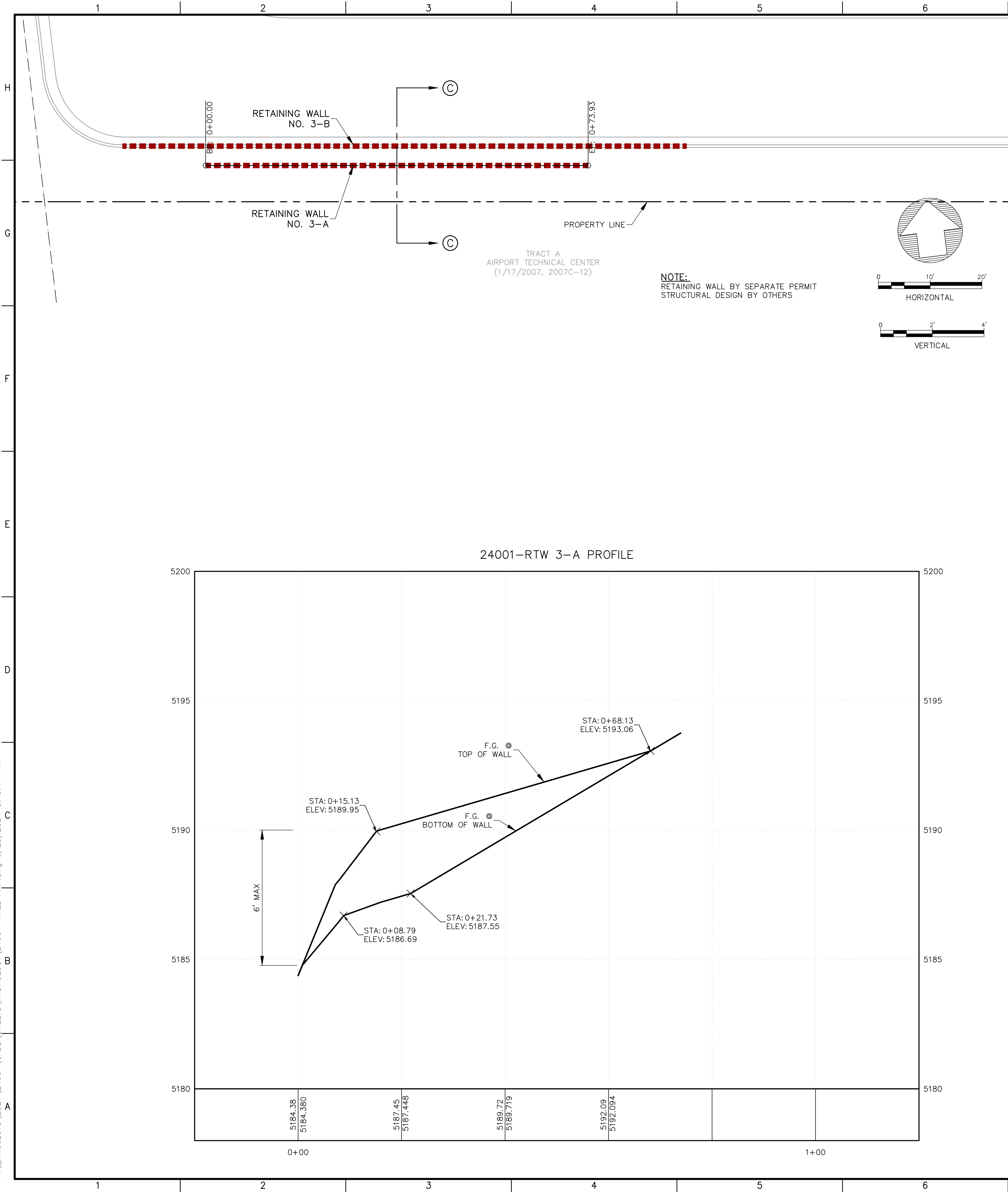
REV.	DATE	DESCRIPTION	BY

PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE
**RETAINING WALL
NO. 2
PLAN & PROFILE**

SHEET NO:
C-6

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PROJECT NAME				
REV.	DATE	DESCRIPTION	BY	

PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE
RETAINING WALL NO. 3 PLAN & PROFILE

SHEET NO:
C-7



FLOOD INSURANCE RATE MAP
MAP NO. 35001C0342G
EFFECTIVE DATE: 09/26/2008

Introduction

The site is located at the northwest intersection of University Blvd./Airtech Court, and is 3.7 acres. This property is part of a Master Drainage Plan for Airport Technical Center, being Tract B of said Center. Allowable discharge rates have been established. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the allowable and proposed condition, 2) satisfy allowable stormwater quality requirements, and 3) seek approval for building permit.

Methodology

Hydrologic procedures presented in the Hydrology Section of the DMP, Article 6-2(a), approved June 8, 2020 were followed. Precipitation Zone 2 data was used in the hydrologic computations.

Existing Condition

The site is undeveloped. There is a 40-foot elevation difference from the East to West property line. Prior to becoming Tract B, this land used to convey runoff via an arroyo which crossed the property with its runoff being intercepted by a 60-inch RCP at the west property line common to the East property line of UNM Golf Course. This 60-inch R.C.P. pipe has been extended through said Tract B to University Blvd. The terrain still represents features of an arroyo; however, all offsite flow now is conveyed via the 60-inch R.C.P. On-site flow discharges to UNM Golf Course with concentrated flow near the 60-inch RCP. The subject site is within the Master Drainage Plan for Lots 6B-2 and 8B, Airport Technical Center with an allowable discharge rate of 16.4 cfs.

Proposed Condition

An event center is proposed at this site. To help make this tract developable the following design elements were incorporated: 1) several retaining walls, steep drive aisle from East to West, steep slopes along the western boundary, and a two tier building. The site will discharge to a double grate inlet which will connect to the 60-inch storm drain. The western 40-feet of the site has steep slopes of 2.5H:1V which discharge directly to UNM Golf Course. UNM Golf Course benefits from this development, since the entire site will not surface discharge to UNM Golf Course as in the existing condition. Also, the proposed surface discharge to UNM Golf Course is not concentrated as in the existing condition.

The proposed site cannot accommodate storing the storm water quality requirement due to the following reasons:

- 1) site is encumbered by public easements
- 2) Steep grades
- 3) Platting of Tract B and Master Drainage Plan allowed free discharge of the site; therefore, anticipated the Tract not being able to detain/retain runoff due to the two items above.

A waiver application from stormwater quality volume management on-site is being submitted to seek payment-in-lieu.

BASIN MAP

DRAINAGE NARRATIVE

STORMWATER QUALITY VOLUME (WAIVER):

GIVEN:

Area_D = 114,478 sq.ft.

SOLUTION:

$$SWQV = \frac{1}{12}(R_D * Area_D) = \frac{1}{12}[0.420" * 114,478 \text{ sq.ft}] = \underline{4,007 \text{ cu.ft.}}$$

CONCLUSION: A waiver application is being submitted to allow runoff generated from 114,478 sq.ft of impervious area to discharge directly to the 60" storm drain within Tract B.

S.W.Q.V. CALCULATIONS

HYDROLOGY SUMMARY									
Allowable runoff based on Master Drainage Plan Lots 6B-2 and 8B, Airport Technical Center									
BASIN	Total Area	Total Area	Land Treatment (%)				Q _{100yr-6hr}	V _{100yr-24hr}	V _{100yr-24hr}
	(sq.ft.)	(acres)	A	B	C	D	(cfs)	(ac-ft)	(cu.ft.)
100 _{ALLOWABLE}	163540	3.754	0.0	0.0	20.0	80.0	15.3	0.723	31481
100 _{PROPOSED}	163540	3.754	0.0	15.0	15.0	70.0	14.5	0.662	28831

HYDROLOGY SUMMARY

LEGEND

	PROPERTY BOUNDARY
	FLOW PATH
	FLOW FLOW
	SURFACE DRAINAGE
	EASEMENT LINE
	EXISTING SEWER LINE
	EXISTING STORM DRAIN
	NEW STORM DRAIN
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	BASIN

FC

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