#### **CITY OF RAYMORE**

100 Municipal Circle · Raymore, MO. 64083 Phone · 816-892-3045 · Fax · 816-892-3093



#### **ADDENDUM NO. 1**

West Hawk Ridge Improvements Project #22-386-201

All plan holders are hereby notified and agree by signature below, that the proposal includes consideration of the following changes, amendments, and/or clarifications and costs associated with these changes and are included in the proposal.

Addendum No. 1 - BID DATE REVISED - Question and clarification.

BID DATE REVISED: Bids are due March 23, 2022 at 10 a.m.

**1. Clarification:** Revised Bid Proposal Form E. Attached.

**2. Question:** Does the polygon building for the restroom pavilion have to be polygon or can an equivalent brand meeting the specifications be used?

**Answer:** It can be an equivalent brand as long as it meets the specifications and the design intent.

**3. Question:** Can you please provide the Geotech report?

**Answer:** The City will post that information separately on the QUEST site.

**4. Question:** Who is responsible for material testing?

**Answer:** The contractor

**5. Question:** If the excavated material onsite is unsuitable for fill, how will this be handled?

**Answer:** All materials should be suitable for fill. If not, the contractor may pile the excess in an approved location on site.

**6. Question:** Can onsite material be used as topsoil backfill or will better topsoil need to be hauled in for the top 4"?

**Answer:** Onsite material can be used as topsoil. Additional soil is available in a large pile north of the project site.

**7. Question:** What trees are to be removed?

**Answer:** The only trees that should be removed are associated with the alternate bid for the road. If the alternate road project is accepted, two trees have been identified for removal and general brush removal to widen the area that cuts between the woods just northwest of the parking lot/playground area.

**8. Question:** Will there be utility connection fees for electrical and water or will they be waived by the city? If so, what will those fees be?

**Answer:** The contractor shall coordinate with Evergy regarding the electrical service. Any costs associated with providing electrical services to the site will be the

responsibility of the City. Any fees associated with the water connection will be waived by the City.

**9. Question:** Items #6-8 are at "0" on the bid form. Can you please update these?

**Answer:** Updated. See attached Revised Bid proposal Form E.

**10. Question:** Will any permit fees be waived by the city? If not, what are those costs?

**Answer:** All City permit fees associated with the project will be waived.

**11. Question:** The parking lot curb on sheet 9 of the plans scales off at 1.5' wide. Is this an error?

**Answer:** The level road\_Curb\_back was turned-off. Now, it is turned-on. Curb and gutter is 2' wide.

**12. Question:** What does the electrical line tie into?

**Answer:** The location has been labeled on the utilities plan sheet. Contractor is responsible for coordinating the actual connection point with Evergy.

**13. Question:** What does the waterline tie into?

**Answer:** The location has been labeled on the utilities plan sheet.

**14. Question:** Is the thickness of the parking lot asphalt pavement also to be 8" total?

**Answer:** Yes per the typical section sheet pavement detail in the lower left hand corner.

**15. Question:** If Alternate #2 concrete bid items are selected, how will this affect other pay items? Will the asphalt items from the base bid drop as these increase or do the Alt #2 concrete items only represent the additional cost to install concrete in lieu of asphalt?

**Answer:** See revised attached Bid proposal form.

**16. Question:** Will any testing be required other than daily concrete testing? If so, please detail.

**Answer:** Contractor will be responsible for submitting mix designs for asphalt and concrete. Gradation and extraction of a representative asphalt field sample will be required to verify asphalt being placed meets the requirements of the approved mix design.

**17. Question:** There does not appear to be a pay item for the two "10' concrete grass parking access" pads shown on sheet 5 of the plans.

**Answer:** A pay item has been added to the bid tab.

**18. Question:** Where is the water meter obtained? What is the cost?

**Answer:** The City will provide the water meter at no cost.

**19. Question:** What are the requirements for subgrade?

**Answer:** Please see the City of Raymore Standard Technical Specifications located on the City of Raymore website (www.raymore.com).

**20. Question:** How does the alternate road tie into the existing parking lot?

**Answer:** Concept plan that shows the road, parking lot, and new playground - ATTACHED

**21. Question:** What is the thickness of the steel for the restroom enclosure?

**Answer:** Steel tube framing thickness for the gate shall be ¼" th. Thicknesses for the primary structural steel framing (13 3419) shall be determined through delegated design by the metal building systems manufacturer.

**22. Question:** Please confirm the contractor is not doing anything with the grass parking lot except for the 10' concrete access

**Answer:** Only restoration of areas disturbed by the construction of the concrete access is required under this contract.

**23. Question:** Please confirm Owner is providing Porta Potties

**Answer:** Correct, the owner will provide porta potties

**24. Question:** Please provide a specification for the "safety light and pole" required on the base bid?

**Answer:** See attached streetlight cut sheet

**25. Question:** How tall is the ribbon curb to be?

**Answer:** Ribbon curb is intended to be APWA Type C-1. 7" is the height.

**26. Question:** Are bid quantities final? Or would we re measure final quantities in the field and adjustments made for any discrepancies?

**Answer:** Final payment will be based on actual quantities measured in the field with the exception of unclassified excavation and embankment which will be paid on a plan quantity basis.

MoDOT Standard Specification 203.8 - 2021 will be replaced with the following Specification.

203.8 Method Of Measurement.

203.8.1 Contract Quantity Payment.

The quantities of excavation, compacting embankment, and embankment in place for which payment will be made will be those shown in the contract for the various items.

203.9 Basis of Payment.

Roadway and drainage excavation will be paid for at the contract unit price per cubic yard of plan quantity and will be considered full compensation for the following: (a) Excavating. (b) Hauling any distance. (c) Placing and forming embankments. (d) Preparation of subgrade. (e) Shouldering, rounding slopes, obliterating existing roadbeds or temporary construction, finishing of graded earth roadway, picking up and disposing of field stone and other rock. (f) Disposal of excess excavation. (g) Any work noted on the plans to be included in the contract unit price for excavation.

**28. Question:** What is the species of the tongue-and-groove wood decking?

**Answer:** The tongue-and-groove wood decking species is to be southern yellow pine with factory staining.

**29. Question:** The base bid quantities are only factoring in the trail cross sections, should the soccer loop cut and parking lot earthwork need to be added as well? We are also noticing that the plans are showing a cut of almost 5' in the NE corner of the lot and I'm not sure that this is what you are looking for since the existing ground is fairly flat and has a natural slope falling from east to west.

**Answer:** Earthwork quantities have been revised

Pre-Bid Attendees:

Sands Construction
Terry Snelling Construction
J Oliver Construction
CFS Engineers

Primetime Contracting Mega KC Corp Paritrave Innovations

Any other questions regarding this proposal shall be submitted to Kim Quade, CPPB by email at kquade@raymore.com or by phone at (816) 892-3045. There will be no questions allowed after March 18, 2022 at 5 p.m.

I hereby certify that the above have been considered and associated costs have been included in this bid.

Company Name:	
ву:	
Title: _	
City, State, Zip:	
	Phone:
Signature of Biddo	er:

#### ADDENDUM MUST BE SUBMITTED WITH BID

#### \*REVISED\* BID PROPOSAL FORM E - Project No. 22-386-201

#### **WEST HAWK RIDGE PARK IMPROVEMENTS**

#### **Base Bid**

Bid Items	Units	Estimated Quantities	\$/Units	Total
MOBILIZATION	L.S.	1		\$
CONSTRUCTION STAKING	L.S.	1		\$
CLEARING, GRUBBING, AND				_
DEMOLITION	L.S.	1		\$
UNCLASSIFIED EXCAVATION	C.Y.	324		\$
EMBANKMENT	C.Y.	1,496		\$
2" ASPHALTIC CONCRETE SURFACE	S.Y.	4,809		\$
4" ASPHALT BASE	S.Y.	2,916		\$
6" ASPHALT BASE	S.Y.	1,893		\$
6" AGGREGATE BASE	S.Y.	2,117		\$
ADA RAMP	EA.	2		\$
6" CONCRETE FOR PORTABLE RESTROOM	S.Y.	81		\$
2' DRY CURB AND GUTTER	L.F.	856		\$
6" RIBBON CURB	L.F.	98		\$
PORTABLE RESTROOM ENCLOSURE	EA.	1		\$
24" CONCRETE STORM PIPE	L.F.	74		\$
24" RCP END SECTION	EA.	2		\$
ELECTRICAL SERVICE	L.F.	328		\$
SAFETY LIGHT AND POLE	EA.	1		\$
2" WATER SERVICE LINE	L.F.	279		\$
8" X 2" REDUCER	EA.	1		\$
1.5" WATER METER	EA.	1		\$
2" BACKFLOW PREVENTER VALVE	EA.	1		\$
2" x 2" TEE	EA.	1		\$
2" 90 DEGREE BEND	EA.	1		\$
2" PLUG	EA.	1		\$
REMOVE AND REPLACE EXISTING				
HYDRANT	EA	1		\$
WATER SPIGOT	EA.	1		\$
PERMANENT SIGNING AND PAVEMENT MARKING	L.S.	1		\$
EROSION CONTROL, SODDING AND				Т
SEEDING	L.S.	1		\$
TRAFFIC CONTROL	L.S.	1		\$
TOTAL BASE BID				

#### Add Alternate #1

Bid Items	Units	Estimated Quantities	\$/Units	Total
CLEARING, GRUBBING & DEMOLITION	L.S.	1		\$
UNCLASSIFIED EXCAVATION	C.Y.	1,044		\$
EMBANKMENT	C.Y.	1,965		\$
2" ASPHALTIC CONCRETE SURFACE	S.Y.	1,788		\$
6" ASPHALT BASE	S.Y.	1,788		\$
6" AGGREGATE BASE	S.Y.	2,031		\$
2' DRY CURB AND GUTTER	L.F.	1,094		\$
6" RIBBON CURB	L.F.	1,002		\$
ADA RAMP	EA.	1		\$
PERMANENT SIGNING AND PAVEMENT MARKING	L.S.	1		\$
EROSION CONTROL, SODDING AND SEEDING	L.S.	1		\$
TRAFFIC CONTROL	L.S.	1		\$
TOTAL ADD ALTERNATE #1				\$

#### Add Alternate #2

Bid Items	Units	Estimat ed Quantiti es	\$/Unit s	Total
4" CONCRETE SIDEWALK	S.Y.	1185		\$
4" CONCRETE SIDEWALK AROUND				
FIELDS	S.Y.	1,775		\$
2" ASPHALTIC CONCRETE SURFACE	S.Y.	-2,960		\$
4" ASPHALT BASE	S.Y.	-2,960		\$
TOTAL ADD ALTERNATE #2				

# BID PROPOSAL FORM E - RFP 22-386-201 CONTINUED

Company Name	
Ву	ADDENDA  Bidder acknowledges receipt of the
Authorized Person's Signature	following addendum:
	Addendum No
Print or type name and title of signer	Addendum No
Company Address	Addendum No
	Addendum No
	Addendum No
Phone	Addendum No
Fax	
Email	
Data	

#### **LATE BIDS CANNOT BE ACCEPTED!**



Connectivity





#### **ADDENDUM**

SUNSET LANE & HAWK RIDGE PARK: PORTABLE RR ENCLOSURE CITY OF RAYMORE, RAYMORE, MISSOURI

ADDENDUM NO. 01 ISSUED: 03/09/2022

TO DOCUMENTS TITLED: UPDATED LAYOUT FOR THE PORTA POTTY STRUCTURE

01/20/2022

ENGINEER-OF-RECORD: CFS Engineers

1421 E. 104<sup>th</sup> St. Ste. 100 Kansas City, Missouri 64131

ARCHITECT-OF-RECORD: SFS Architecture Inc.

2100 Central Suite 31

Kansas City Missouri 64108

The Contract Documents for the above referenced project and the Work covered thereby are modified as described herein.

#### General Notes and Clarifications:

1. The tongue-and-groove wood decking species is to be southern yellow pine with factory staining.

#### Specifications:

- 1. SECTION 13 3419 METAL BUILDING SYSTEMS
  - a. REPLACE this specification section in its entirety.

#### Drawings:

1. N/A

Attachments: SPECIFICATION SECTION 13 3419 METAL BUILDING SYSTEMS

**END OF ADDENDUM** 

SFS / 211082 Hawk Ridge Park

## SECTION 13 3419 METAL BUILDING SYSTEMS

#### **PART 1 GENERAL**

#### 1.01 SECTION INCLUDES

- A. Manufacturer-engineered, shop-fabricated structural steel building frame.
- B. Metal wall and roof panels including soffits.

#### 1.02 REFERENCE STANDARDS

- A. AISC 360 Specification for Structural Steel Buildings 2016 (Revised 2021).
- B. ASTM A36/A36M Standard Specification for Carbon Structural Steel 2019.
- C. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.
- D. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.
- E. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.
- F. AWS D1.1/D1.1M Structural Welding Code Steel 2020.
- G. IAS AC472 Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems 2018.
- H. MBMA (MBSM) Metal Building Systems Manual 2019.

#### 1.03 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

#### 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on profiles, component dimensions, fasteners.
- C. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections; wall and roof system dimensions, panel layout, general construction details, anchors and methods of anchorage, and installation; framing anchor bolt settings, sizes, locations from datum, and foundation loads; indicate welded connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.
- D. Samples: Submit two samples of precoated metal panels for each color selected, 6 by 6 inch in size illustrating color and texture of finish.
- E. Manufacturer's Instructions: Indicate preparation requirements, anchor bolt placement, and similar coordination items as required for specified installation.
- F. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.
- G. Manufacturer's Qualification Statement: Provide documentation showing metal building manufacturer is accredited under IAS AC472.
  - Include statement that manufacturer designs and fabricates metal building system as integrated components and assemblies, including but not limited to primary structural members, secondary members, joints, roof, and wall cladding components specifically designed to support and transfer loads and properly assembled components form a complete or partial building shell.

#### 1.05 QUALITY ASSURANCE

- Perform work in accordance with AISC 360 and MBMA (MBSM).
- B. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
  - Not less than five years of documented experience.

Bid Documents 1/7/2022 Addendum #1

13 3419 - 1

Hawk Ridge Park SFS / 211082

- Erector Qualifications: Company specializing in performing the work of this section with minimum five years experience.
- D. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and no more than 12 months before start of scheduled welding work.

#### 1.06 WARRANTY

- A. See Section 01 7800 Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty for installation and finishes...
  - Include coverage for exterior pre-finished surfaces to cover pre-finished color coat against chipping, cracking or crazing, blistering, peeling, chalking, or fading. Include coverage for weather tightness of building enclosure elements after installation.

#### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Metal Buildings Systems:
  - 1. Porter Corp., a Playcore company; Polygon, Monoslope: www.poligon.com
  - 2. Park Planet: www.parkplanet.com
  - Substitutions: See Section 01 6000 Product Requirements.

#### 2.02 ASSEMBLIES

- A. Single span rigid frame.
- B. Primary Framing: Rigid frame of rafter beams and columns, canopy beams, and wind bracing.
- C. Secondary Framing: Purlins, and other items detailed.
- D. Roof System: Preformed metal panels, with 12" wide profile, oriented parallel to slope, with with 2x6 tongue and groove wood structural decking, and accessory components.
- E. Roof Slope: As indicated on Drawings.

#### 2.03 MATERIALS - FRAMING

- A. Structural Steel Members: ASTM A36/A36M.
- B. Welding Materials: Perform in accordance with AWS D1.1/D1.1M.

#### 2.04 MATERIALS - ROOF

- A. Steel Sheet: Hot-dipped galvanized, 24ga, steel sheet, ASTM A653/A653M, Designation SS (structural steel), Grade 33 (230), with G90/Z275 coating.
- B. Joint Seal Gaskets: Manufacturer's standard type.
- C. Fasteners: Manufacturer's standard type, galvanized to comply with requirements of ASTM A153/A153M, finish to match adjacent surfaces when exterior exposed.
- D. Sealant: Manufacturer's standard type.
- E. Trim, Closure Pieces, Caps, Flashings, Gutters, Downspouts, Rain Water Diverter, Fascias, and Infills: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

#### 2.05 FABRICATION - FRAMING

A. Fabricate members in accordance with AISC 360 for plate, bar, tube, or rolled structural shapes.

#### 2.06 FINISHES

- A. Framing Members (Structural Steel beams, Girders, and Purlins):
  - Basis-of-Design: Poligon, Poli-5000 powder coat system.
    - a. Color: As selected by Architect from manufacturer's full range of colors.
- Substitutions: See Section 01 6000 Product Requirements.
- B. Metal Roof Panels:

Bid Documents 1/7/2022 Addendum #1

Metal Building Systems

SFS / 211082 Hawk Ridge Park

- Basis-of-Design: Kynar 500 Polyvinylidene fluoride (PVDF) coating system.
  - a. Color: As selected by Architect from manufacturer's full range of colors.
- Substitutions: See Section 01 6000 Product Requirements.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

#### 3.02 ERECTION - FRAMING

- A. Erect framing in accordance with AISC 360.
- B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing. Locate braced bays as indicated.
- C. Set column base plates with non-shrink grout to achieve full plate bearing.
- D. Do not field cut or alter structural members without approval.
- E. After erection, prime welds, abrasions, and surfaces not shop primed.

#### 3.03 ERECTION - WALL AND ROOF PANELS

- A. Install in accordance with manufacturer's instructions.
- B. Exercise care when cutting prefinished material to ensure cuttings do not remain on finish surface.
- C. Fasten cladding system to structural supports, aligned level and plumb.
- D. Locate end laps over supports. End laps minimum 2 inches (50 mm). Place side laps over bearing.
- E. Provide expansion joints where indicated.
- F. Use concealed fasteners.
- G. Install sealant and gaskets, providing weather tight installation.

#### 3.04 TOLERANCES

- A. Framing Members: 1/4 inch (6 mm) from level; 1/8 inch (3 mm) from plumb.
- B. Siding and Roofing: 1/8 inch (3 mm) from true position.

#### **END OF SECTION**

Bid Documents 1/7/2022 Addendum #1 HORIZONTAL CONTROL IS BASED ON NAD 1983 (CONUS) MISSOURI WEST ZONE

VERTICAL DATUM (NAVD 88)

# CITY OF RAYMORE, MISSOURI WEST HAWK RIDGE PARK IMPROVEMENTS CASS COUNTY, MISSOURI

FINAL PLANS

**DESIGN DESIGNATION** 

Functional Classification: Local Access

Design Speed Limit: 20 MPH

#### **UTILITY INFORMATION**

NOTE: 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING COMPANIES FOR FIELD VERIFICATION OF UNDERGROUND UTILITIES.

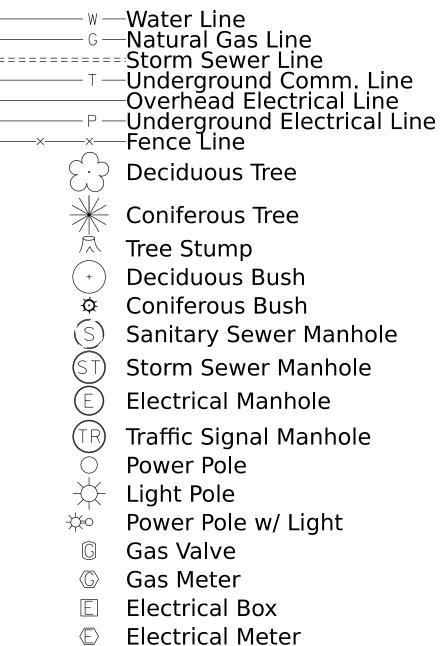
ATT DISTRIBUTION	FO,TEL,TV	(314)275-0020
EVERGY	Е	(816)471-5275
GOOGLE FIBER	FO	(913)486-5018
SPIRE MO WEST	G	(816)969-2298
KANSAS CITY WATER	W	(816)513-0296
SPECTRUM	TV	(800)778-9140

# Call or Click At Least Three Working Days Before You Dig

# RAYMORE

come home to more

## **LEGEND**



Water Valve

Water Meter

Marker Pole

Post or Bollard

Set Survey Monument w/ cap CF&S CLS 199914110

Found Survey Monument

Section Corner

Flag Pole

Sign

□ Communications Box

**Guy Wire Anchor** 

BEGIN PROJECT AT THE NORTH END OF LAURUS DR. AT STA. 10+39.33

**END PROJECT AT STA. 21+22.40** 

RAYMORE, CASS COUNTY, MISSOURI

# **INDEX OF SHEETS**

SHEET NUMBER	SHEET TITLE
01	TITLE SHEET
02	GENERAL NOTES
03	TYPICAL SECTIONS
04	SITE LAYOUT
05	SITE PLAN BASE BID
06	PLAN AND PROFILE
07	PLAN AND PROFILE
08	SIDEWALK PLAN AND GRADING
09	PARKING LOT LAYOUT AND GRADING PLAN
10	UTILITY PLANS
11	EROSION CONTROL
12-18	CROSS SECTIONS
S001	STRUCTURAL GENERAL NOTES
S002	PLAN & DETAILS
A101-A102	PORTABLE RESTROOM ENCLOSURE

"I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN

**EXCEPTIONS: NONE** 

		DATE:	
ENGINEER			
		DATE:	
APPROVED BY			
ADOPTED THIS	DAY OF		20

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MICHELLE L.  MAHONEY  MICHELLE L.	Date:	Comments	Init.
NUMBER PE-030000			
SONAL ENGINE			



CITY OF RAYMORE	TITLE SHEET	211082	
RAYMORE MISSOURI	IIILE SHEET		
HAWK RIDGE PARK WEST			
RAYMORE, MISSOURI		Sheet Number	01 of 18

#### **GENERAL NOTES**

#### NOTE:

The City of Raymore has adopted a standard document to be used for utility and street construction within the City. Each contractor bidding on this project is required to purchase a copy of this standard document titled "Standard Contract Documents and Technical Specifications for Utility and Street Construction" dated September 2019. This standard document includes the contract document and technical specifications which are the basis for this project.

#### **GENERAL NOTES:**

1. All construction shall conform to the standard construction and materials specifications of the current City of Raymore specifications. If no specification is listed, use KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION specification.

- 2. Contractor shall notify the City Engineer's office 24 hours before beginning construction.
- 3. No changes to the approved construction plans will be permitted without prior approval of the design engineer and the city engineer.
- 4. All trees, stumps, brush and other foreign material shall be removed from within the grading limits of the project and stockpiles at the discretion of the owner.
- 5. Burning may be permitted only upon prior approval from the owner and local government officials having jurisdiction in that area. Contractor shall obtain all required permits and shall comply with all local burning ordinances.
- 6. Fill material not used shall remain on site and shall be stockpiled for future use by the owner, at the discretion of the owner.
- 7. Before placement of stockpiled material, the existing surface shall be undercut a minimum of 6" to remove all vegetation.
- 8. Stockpiled material shall be free of all brush, tree limbs or roots, and other foreign material.
- 9. Damages resulting from demolition and construction are the responsibility of the contractor. The contractor will be responsible for payment of all damages.
- 10. It is the responsibility of the contractor to control excessive downstream erosion and siltation during all phases of construction. The contractor shall adhere to the provisions of the Stormwater Pollution Prevention Plan (SWPPP). The contractor shall be responsible for keeping all inspection, installation, and repair records and have such records available on-site.
- 11. All fill areas shall be undercut a minimum of 6" to remove vegetation and ensure good bonding with fill material. Any saturated soil or unsuitable material in place shall be over excavated and suitable material placed and compacted to 95% standard proctor density.
- 12. Contractor is to remove only those trees and shrubs which directly interfere with the proposed improvements. The contractor shall use extreme care to protect all other trees and shrubs from damage.
- 13. In places where sidewalks cross curbs, a wheelchair ramp shall be constructed.
- 14. These plans are valid for a period of one year from the date of approval by the City Engineer.
- 15. The contractor is responsible for providing all testing as required by the City of Raymore.
- 16. A limited number of borings were taken for the project. The geotechnical report can be available upon request to the City Engineer.

#### QUANTITIES:

BAS	E BID		
	ITEM	UNIT	QTY.
1	MOBILIZATION	L.S.	1
2	CONSTRUCTION STAKING	L.S.	1
3	CLEARING, GRUBBING, AND DEMOLITION	L.S.	1
4	UNCLASSIFIED EXCAVATION	C.Y.	324
5	EMBANKMENT	C.Y.	1,496
6	2" ASPHALTIC CONCRETE SURFACE	S.Y.	4,809
7	4" ASPHALT BASE	S.Y.	2,916
8	6" ASPHALT BASE	S.Y.	1,893
9	6" AGGREGATE BASE	S.Y.	2,117
10	ADA RAMP	EA.	2
11	6" CONCRETE (PORTABLE RESTROOM & GRASS PARKING ACCESSES)	S.Y.	81
12	2' DRY CURB AND GUTTER	L.F.	856
13	6" RIBBON CURB	L.F.	98
14	PORTABLE RESTROOM ENCLOSURE	EA.	1
15	12" CONCRETE STORM PIPE	L.F.	74
16	12" RCP END SECTION	EA.	2
17	ELECTRICAL SERVICE	L.F.	328
18	SAFETY LIGHT AND POLE	EA.	1
19	2" WATER SERVICE LINE	L.F.	279
20	8" x 2" REDUCER	EA.	1
21	1.5" WATER METER	EA.	1
22	2" BACKFLOW PREVENTER VALVE	EA.	1
23	2" x 2" TEE	EA.	1
24	2" 90 DEGREE BEND	EA.	1
25	2" PLUG	EA.	1
26	WATER SPIGOT	EA.	1
27	PERMANENT SIGNING AND PAVEMENT MARKING	L.S.	1
28	EROSION CONTROL, SODDING AND SEEDING	L.S.	1
29	TRAFFIC CONTROL	L.S.	1

ADD	ADD ALTERNATIVE NO 1 - CONNECTOR ROAD					
	ITEM	UNIT	QTY.			
1	CLEARING, GRUBBING & DEMOLITION	L.S.	1			
2	UNCLASSIFIED EXCAVATION	C.Y.	1,044			
3	EMBANKMENT	C.Y.	1,965			
4	2" ASPHALTIC CONCRETE SURFACE	S.Y.	1,788			
5	6" ASPHALT BASE	S.Y.	1,788			
6	6" AGGREGATE BASE	S.Y.	2,031			
7	2' DRY CURB AND GUTTER	L.F.	1,094			
8	6" RIBBON CURB	L.F.	1,002			
9	ADA RAMP	EA.	1			
10	PERMANENT SIGNING AND PAVEMENT MARKING	L.S.	1			
11	EROSION CONTROL, SODDING AND SEEDING	L.S.	1			
12	TRAFFIC CONTROL	L.S.	1			

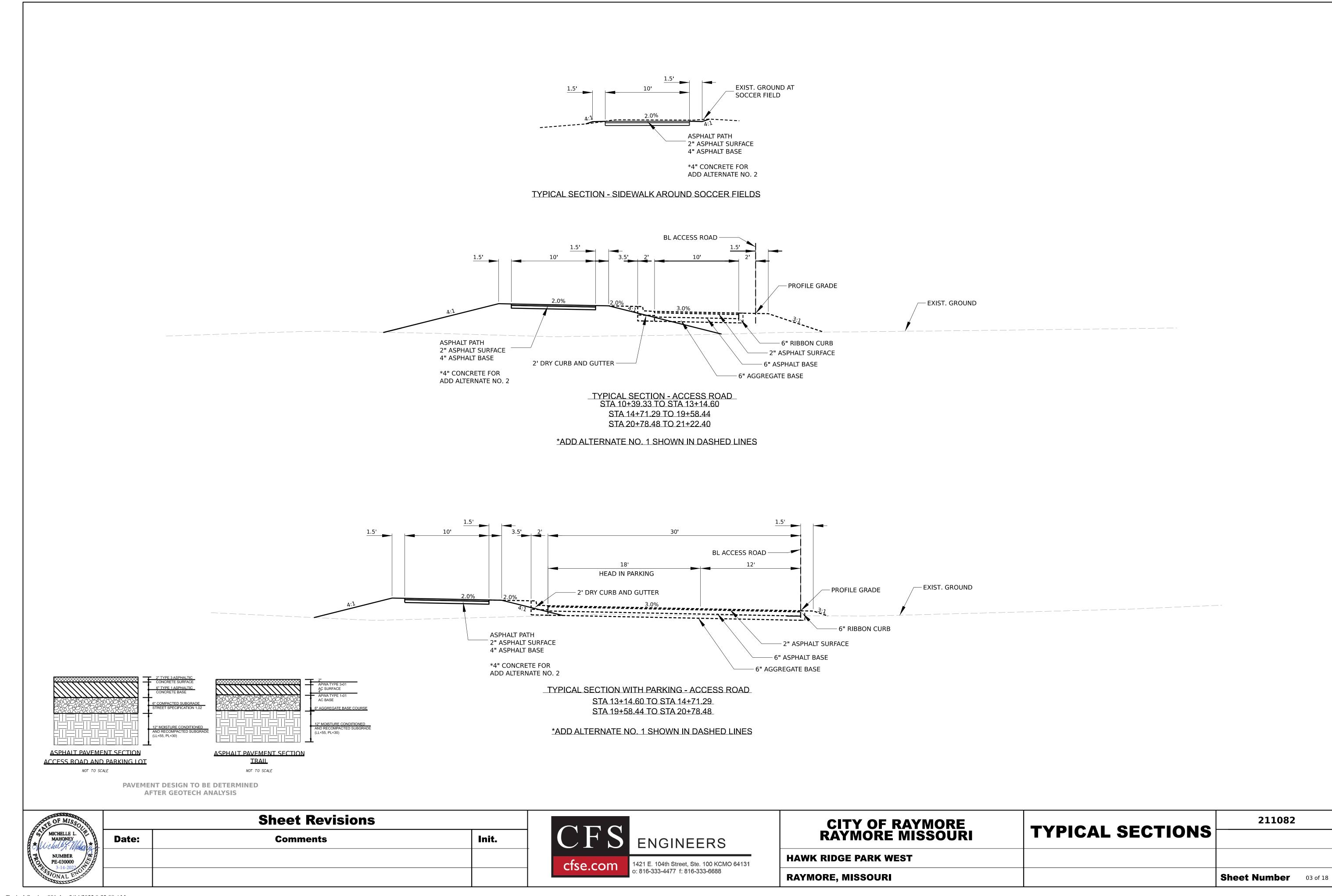
ADD ALTERNATIVE NO 2 - CONCRETE TRAIL						
	ITEM	UNIT	QTY.			
1	4" CONCRETE SIDEWALK	S.Y.	1,185			
2	4" CONCRETE SIDEWALK AROUND FIELDS	S.Y.	1,775			
3	2" ASPHALT CONCRETE SURFACE	S.Y.	-2,960			
4	4" ASPHALT BASE	S.Y.	-2,960			

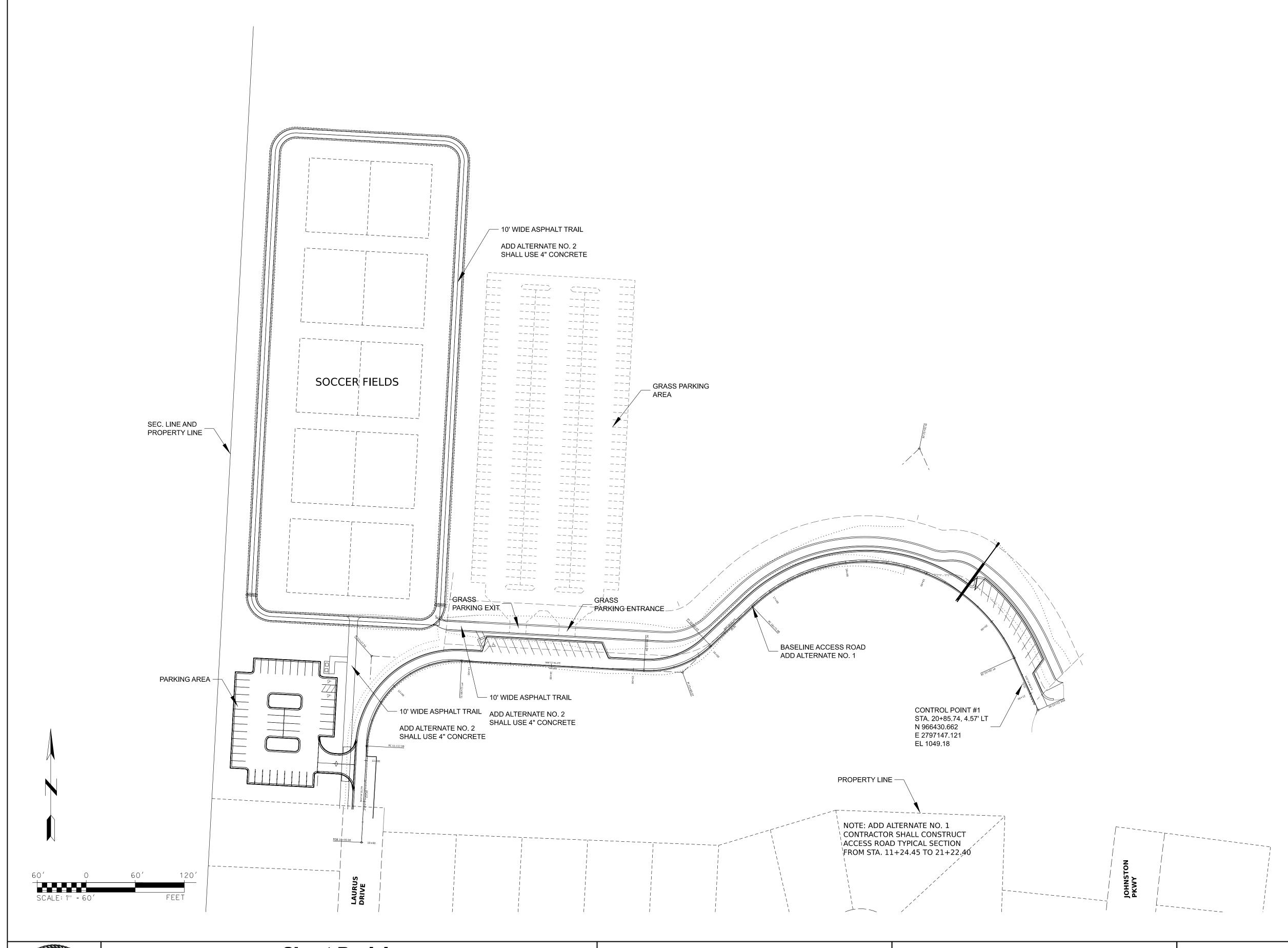
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3/14/2022	UPDATED QUANTITIES FOR ASPHALT AND CONCRETE	



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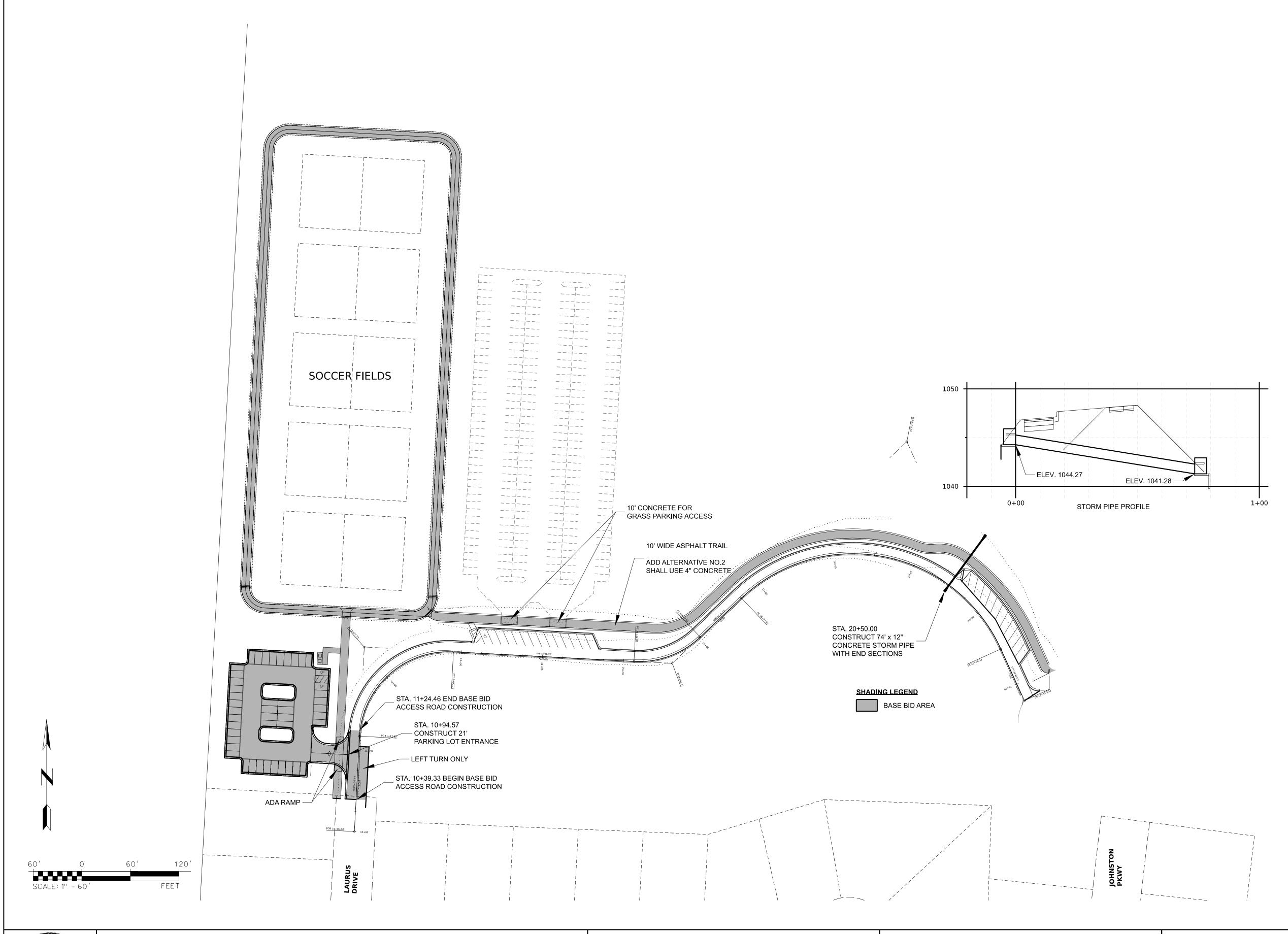




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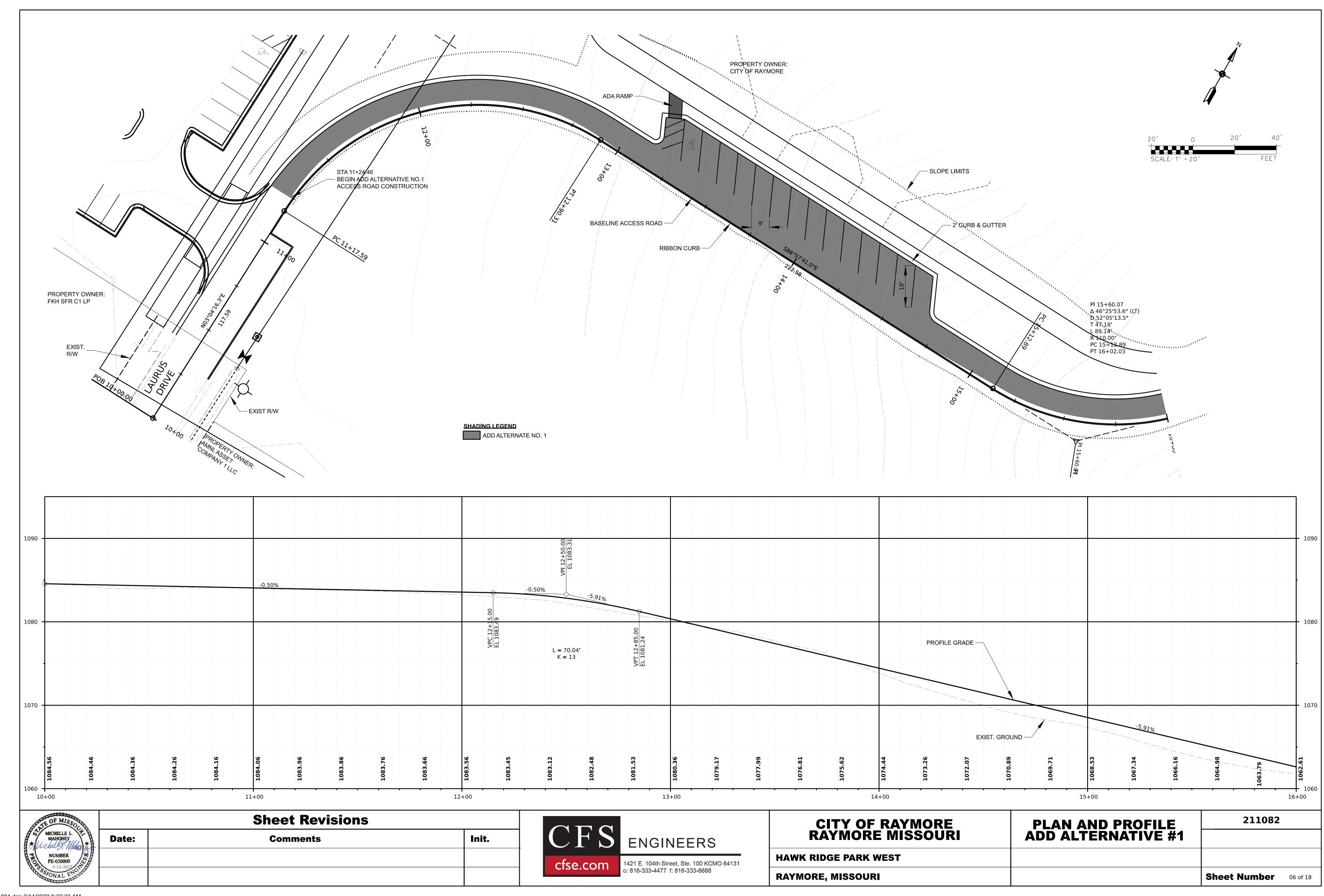
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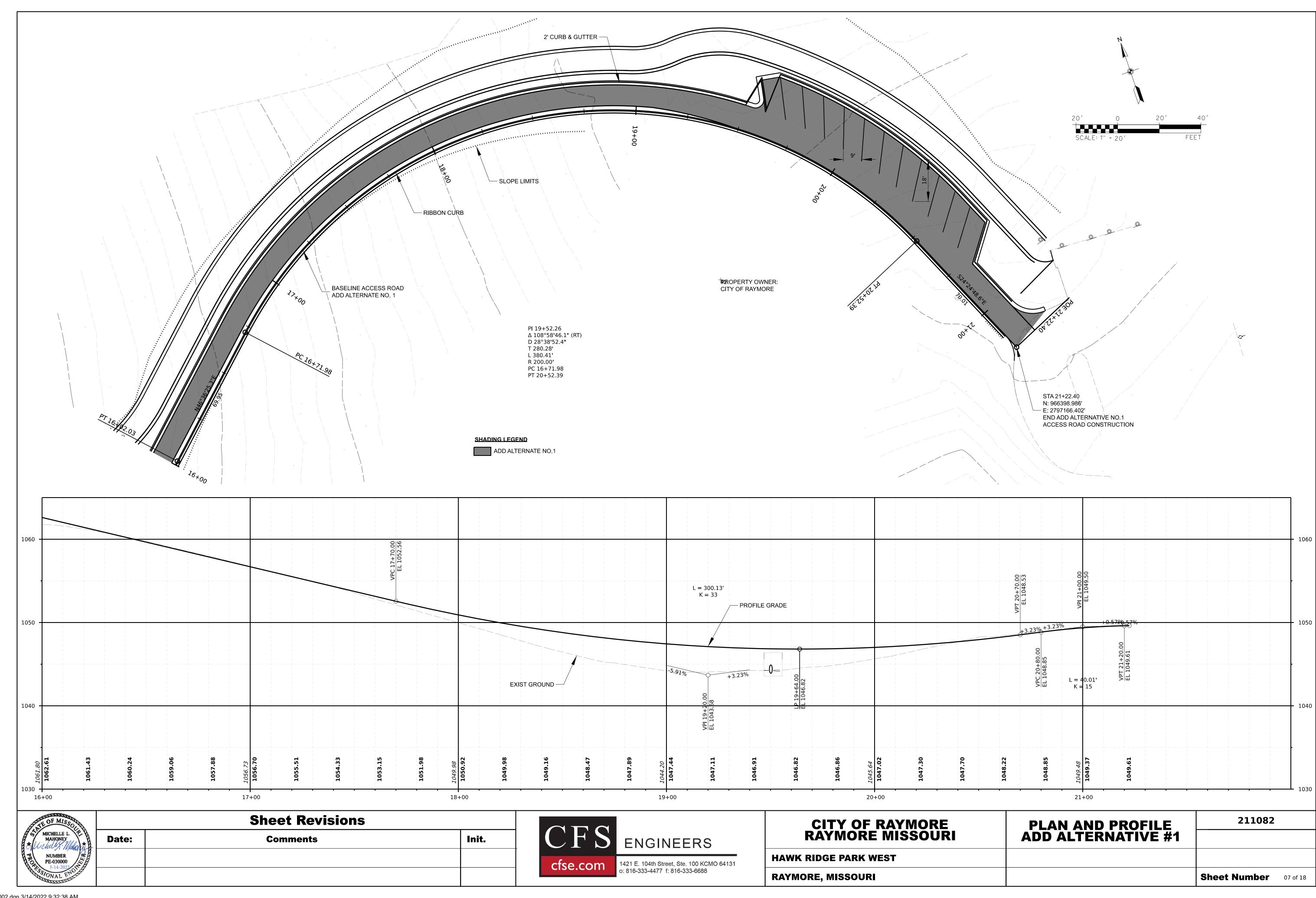


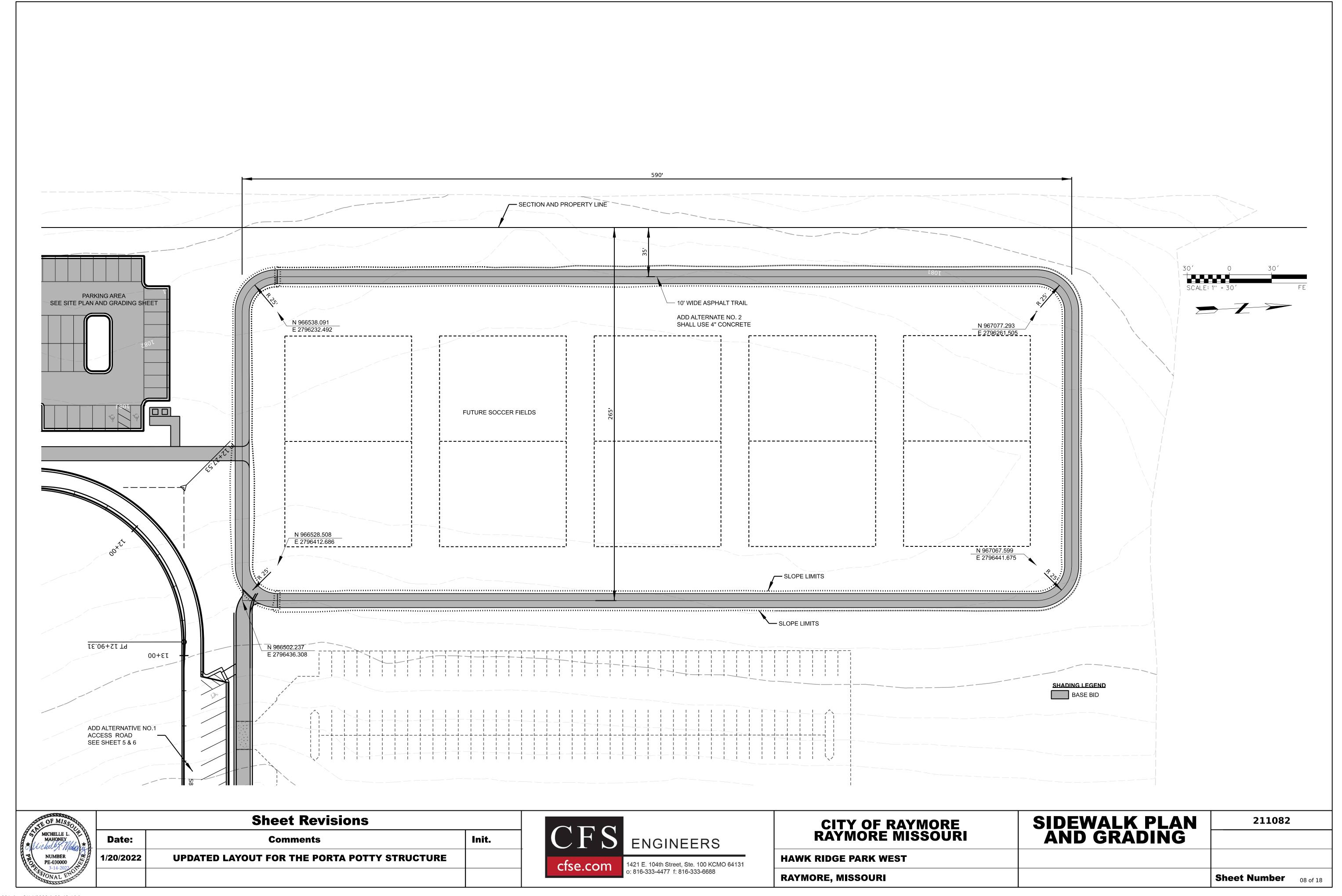
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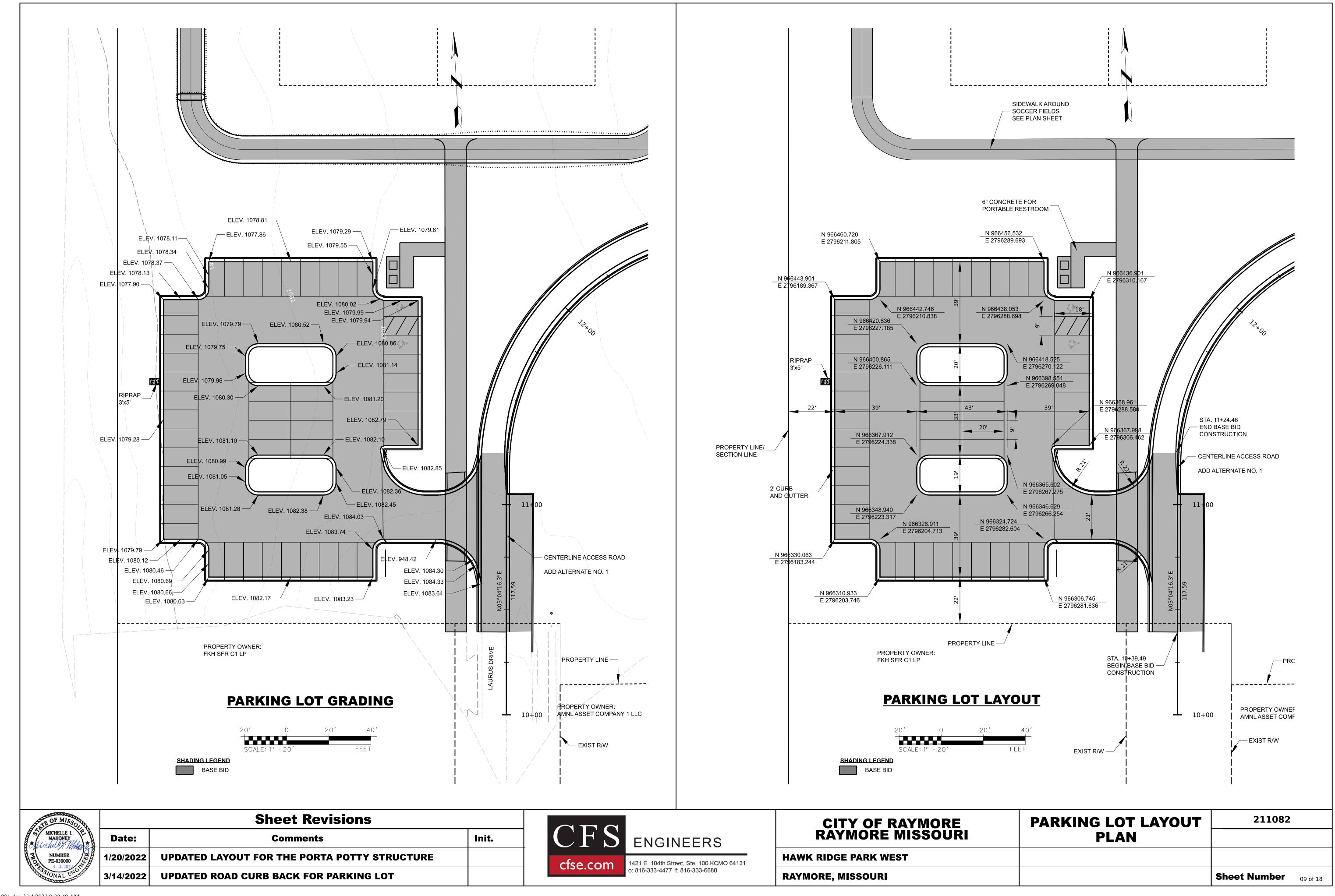


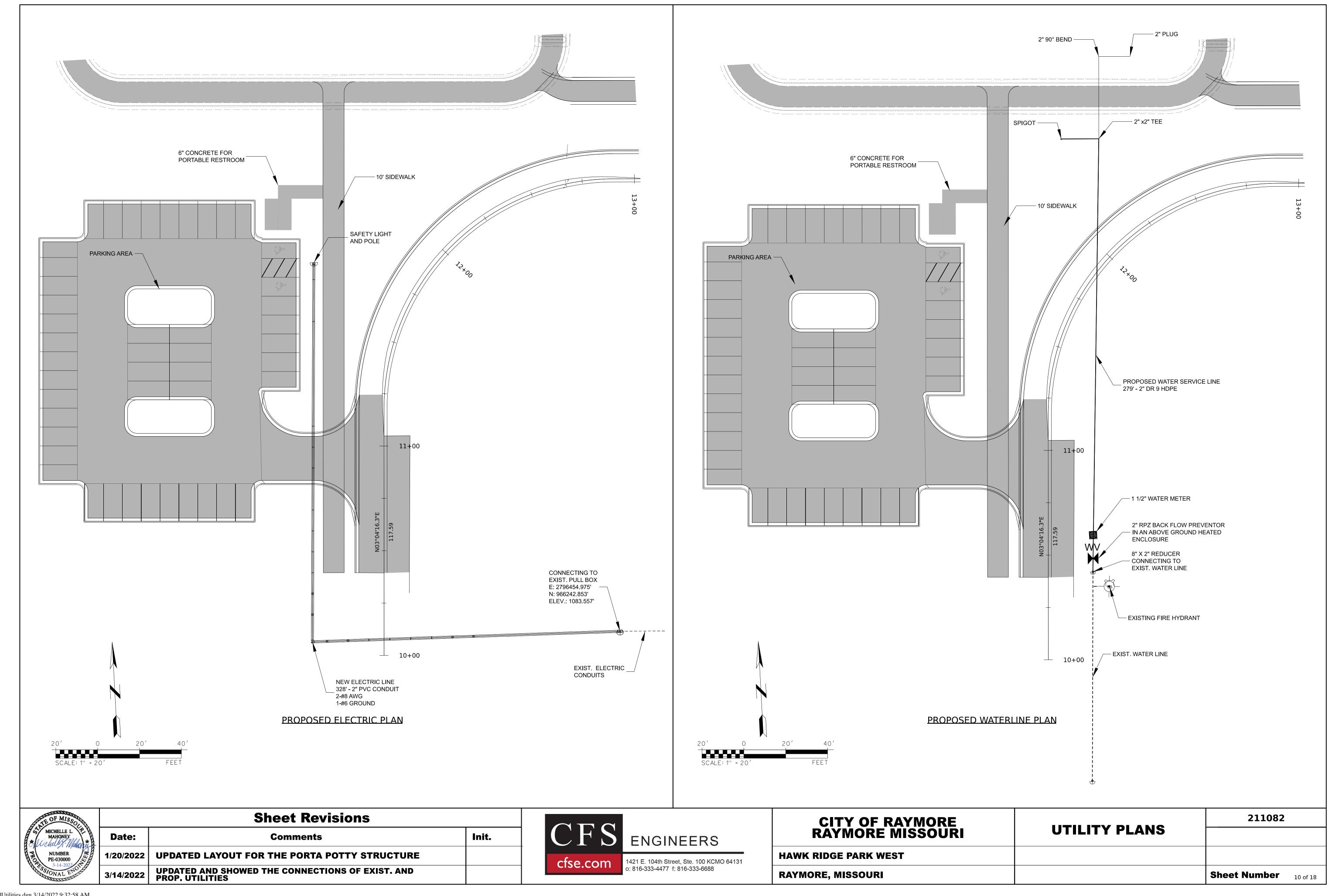
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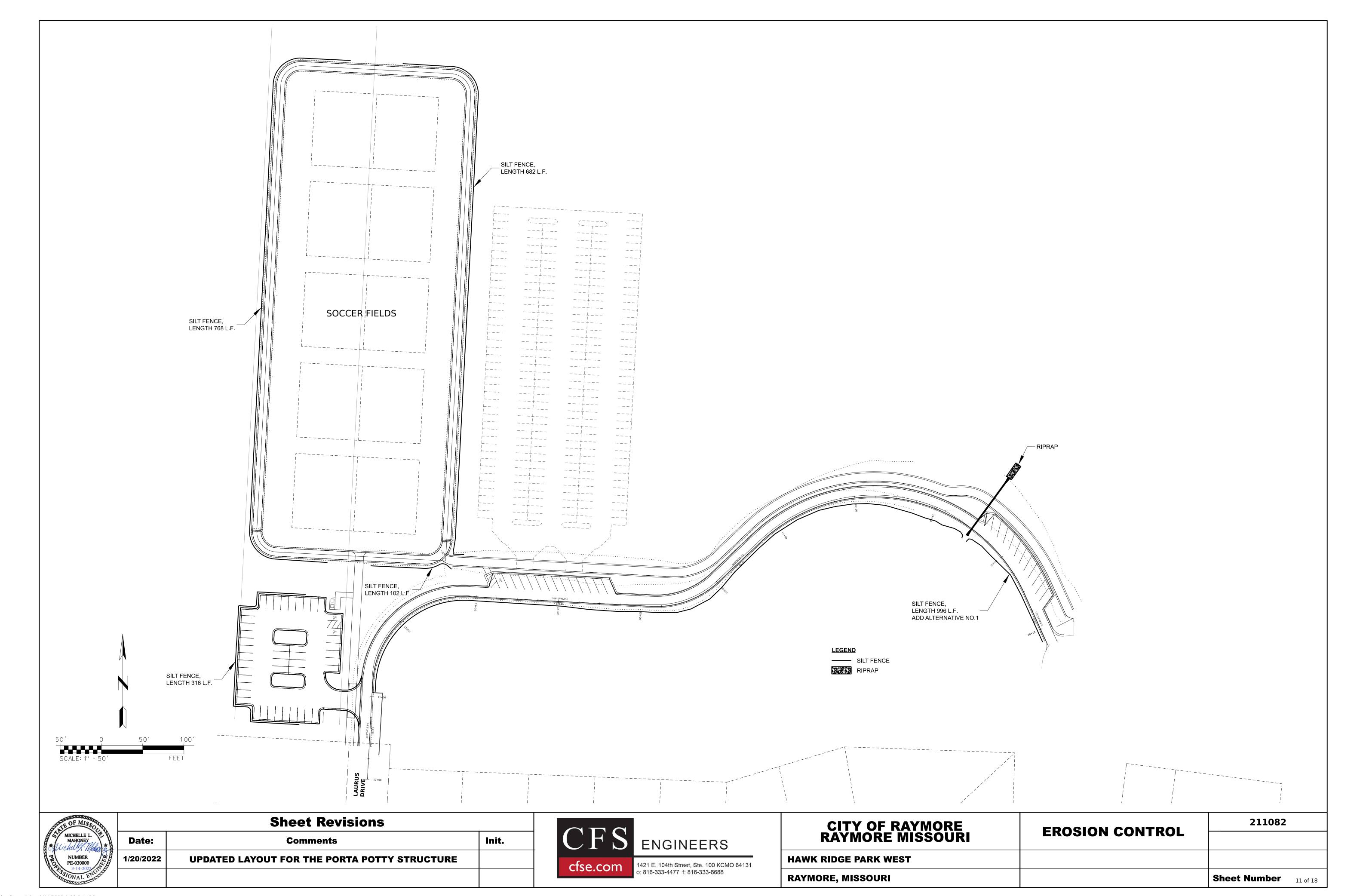


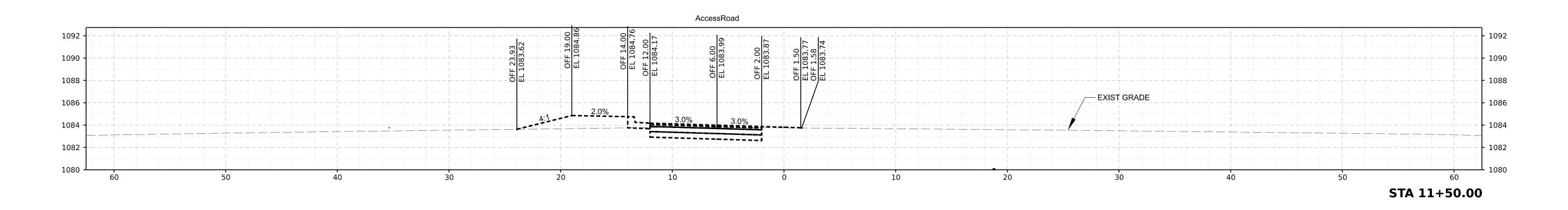


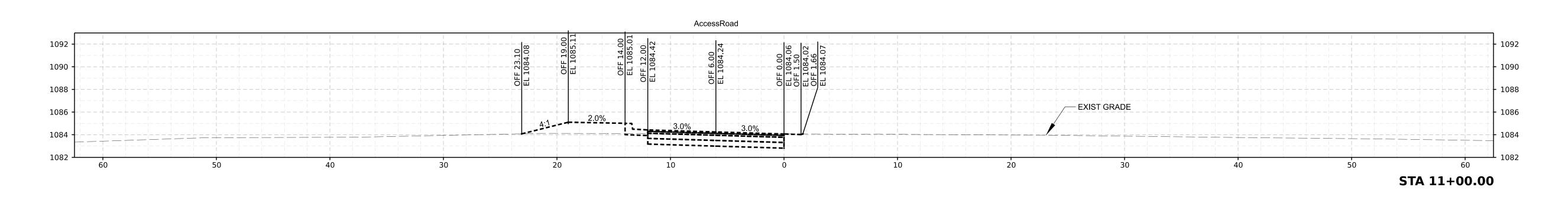


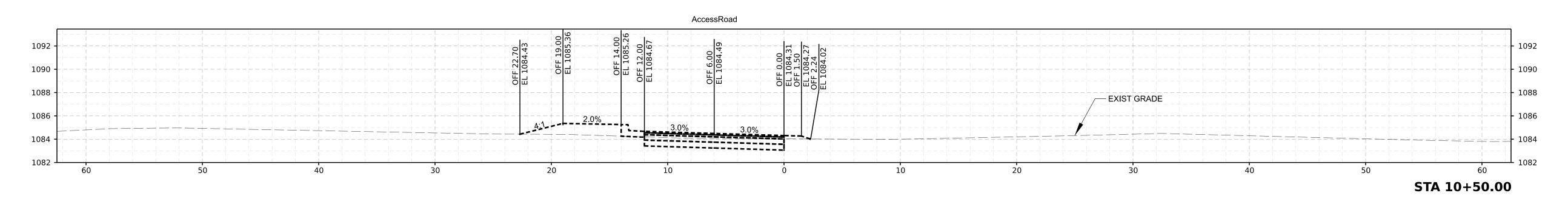




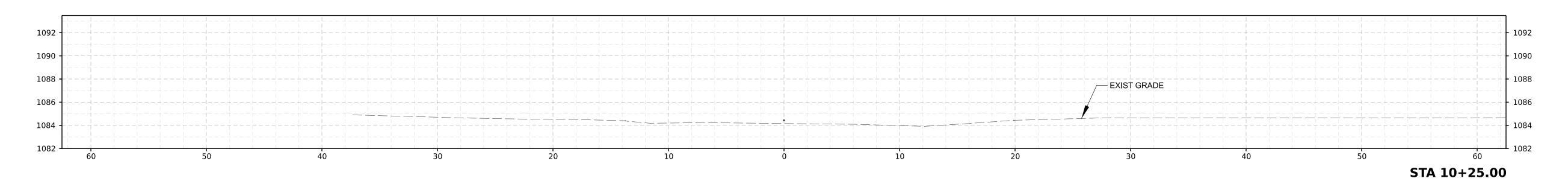








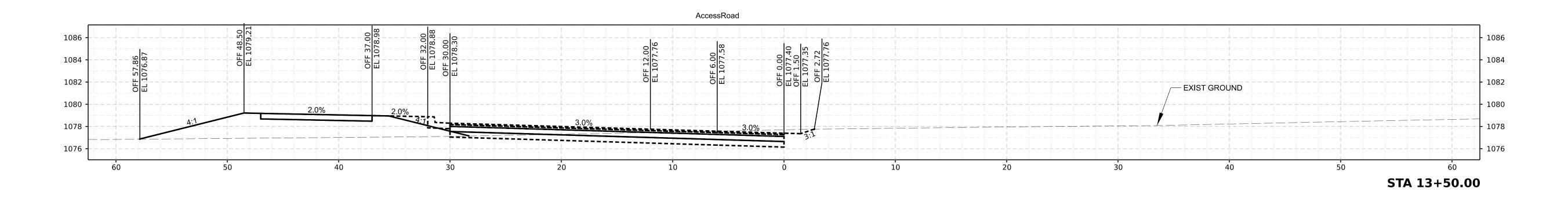
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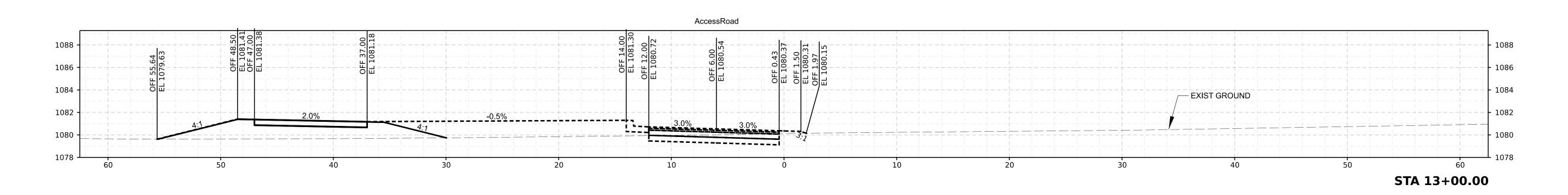


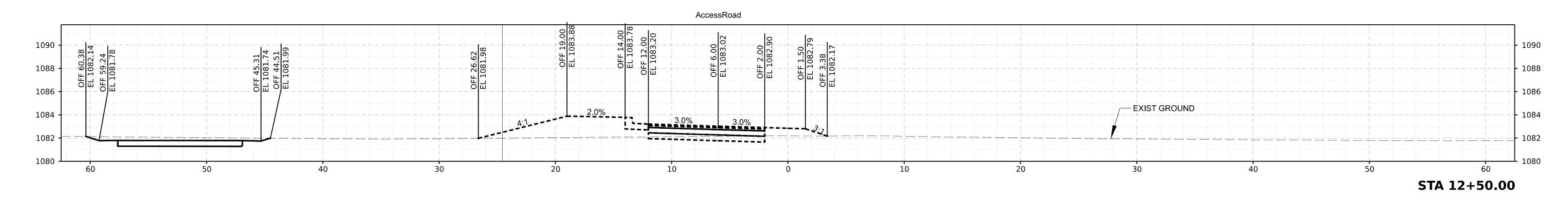
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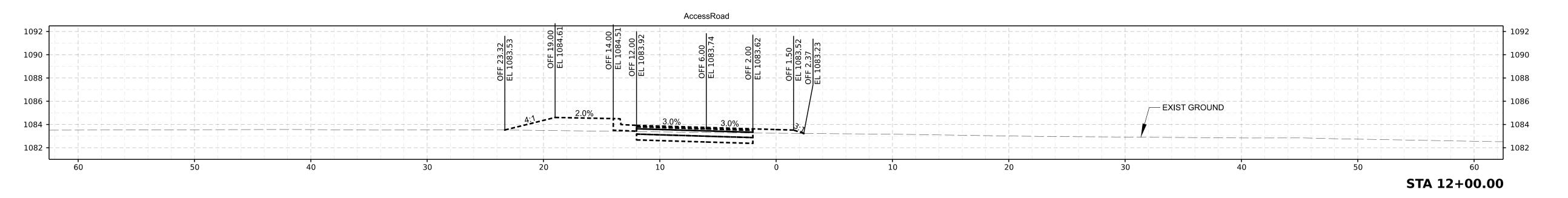
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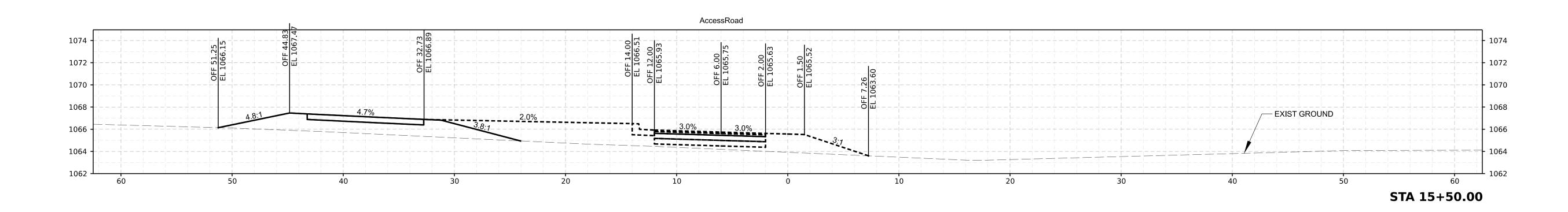
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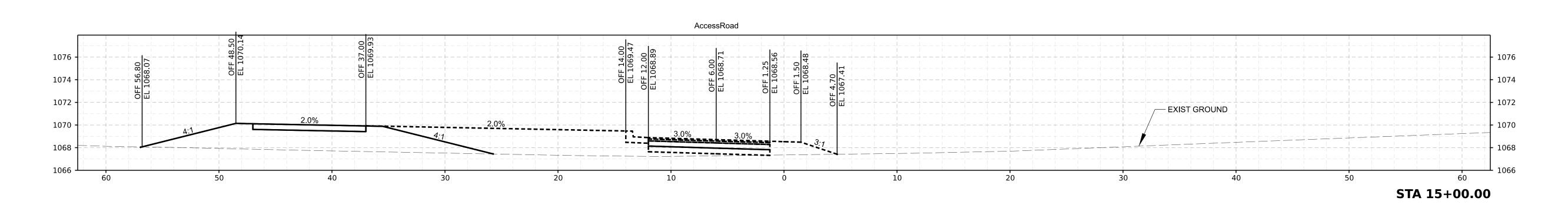


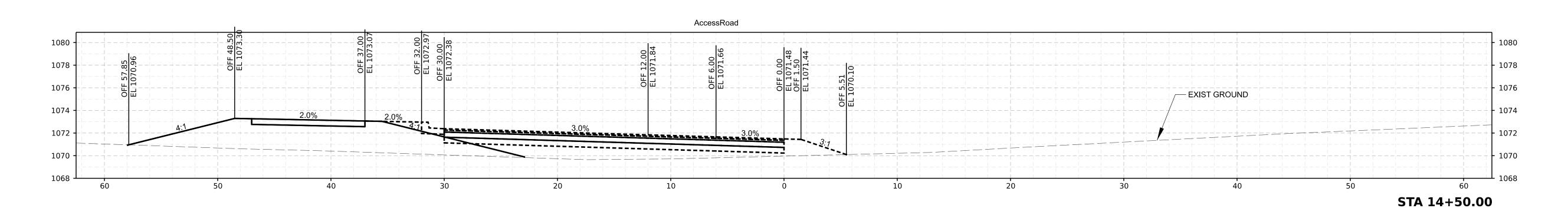
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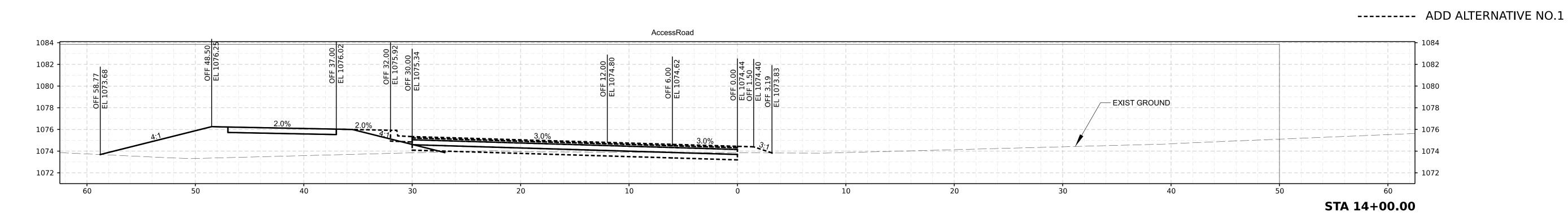


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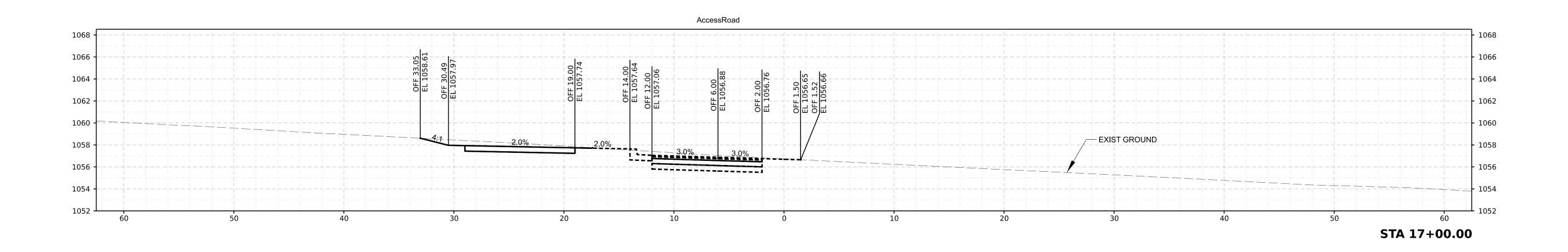


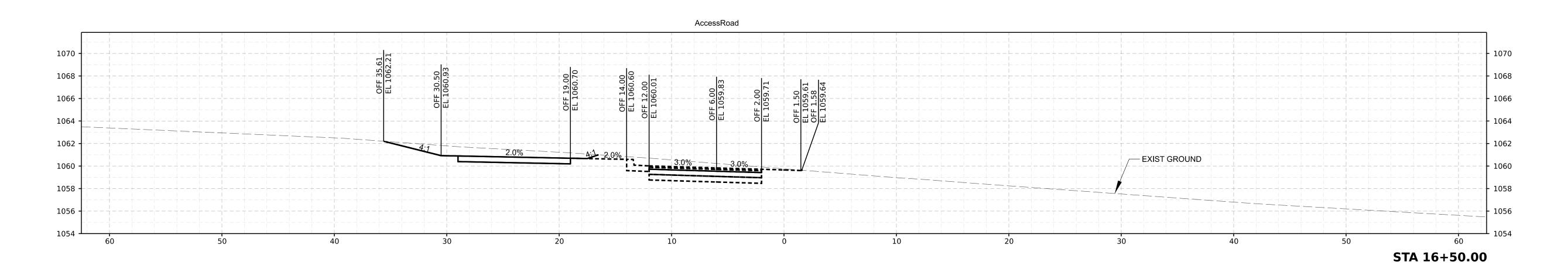


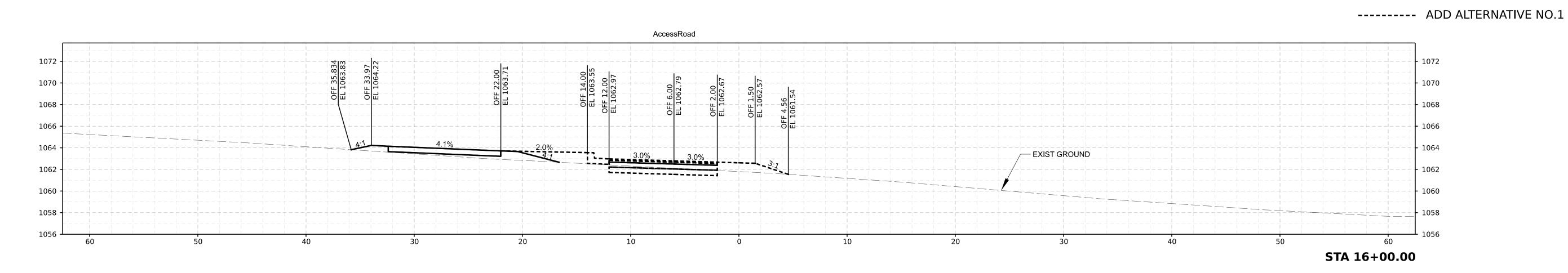
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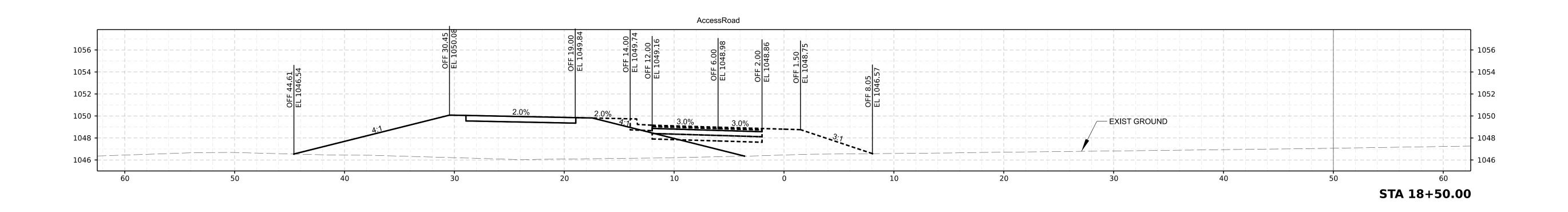


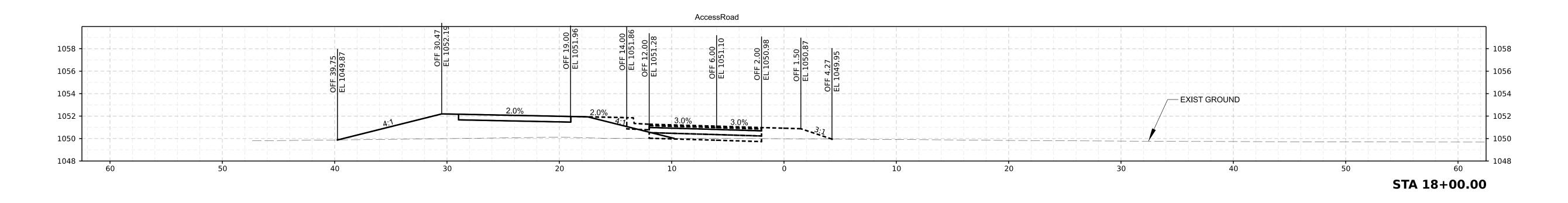


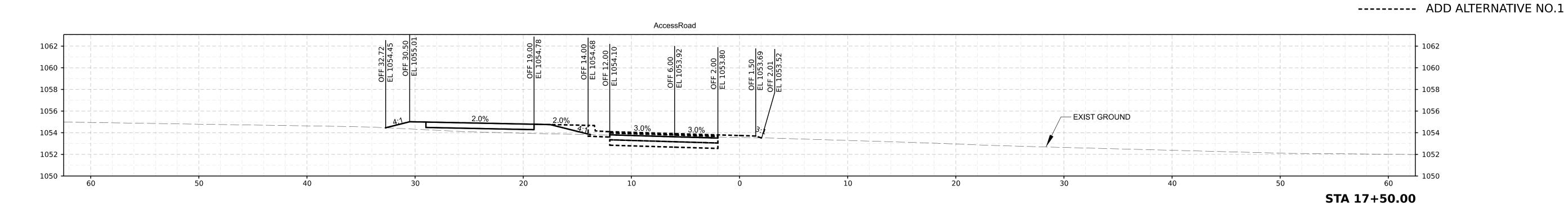
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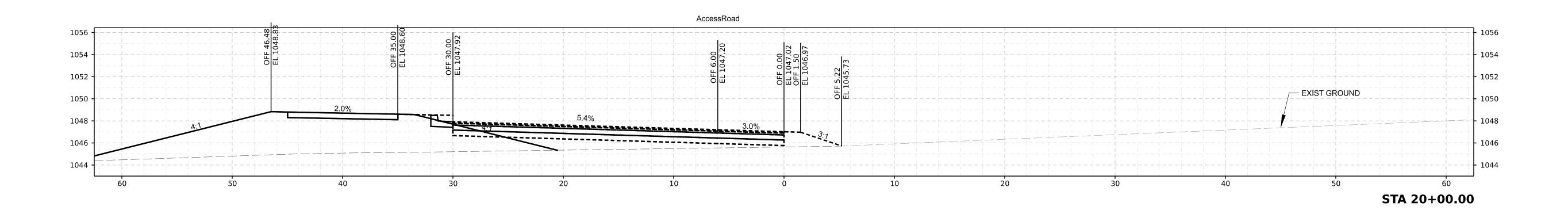


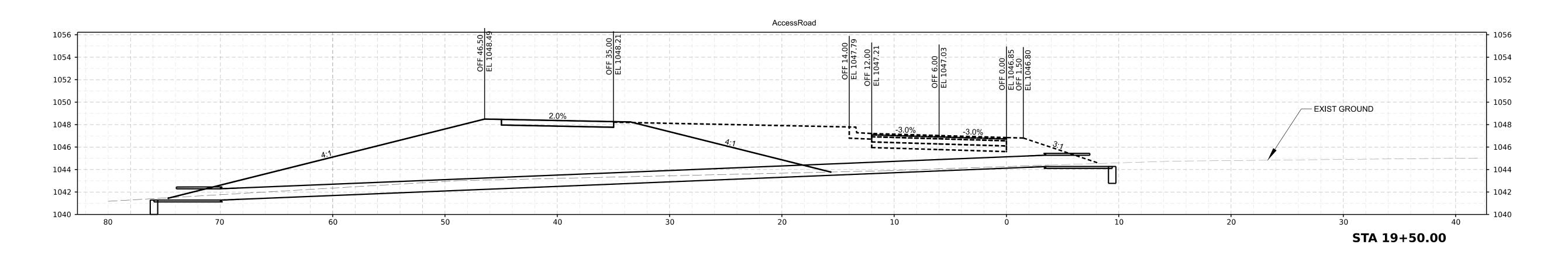


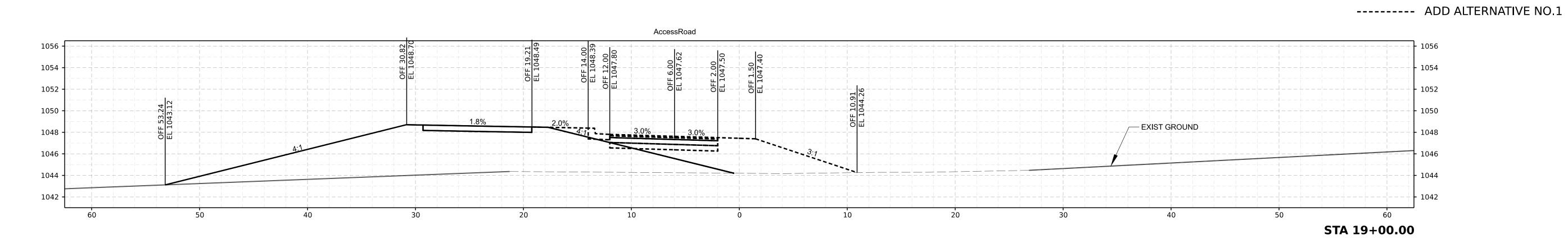
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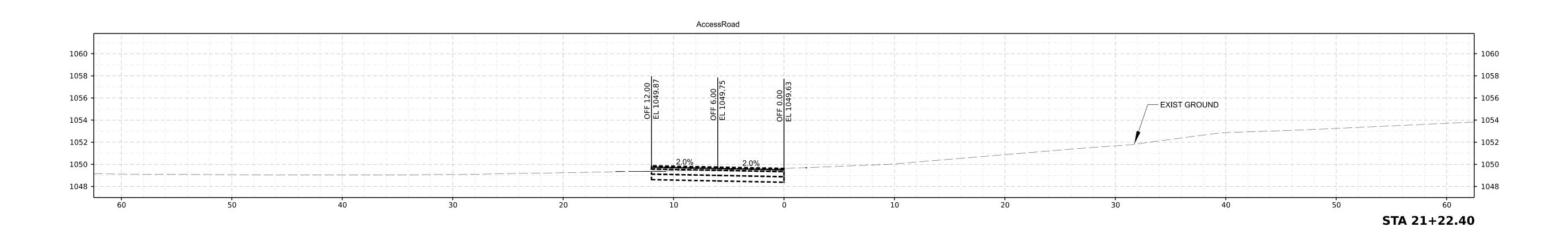


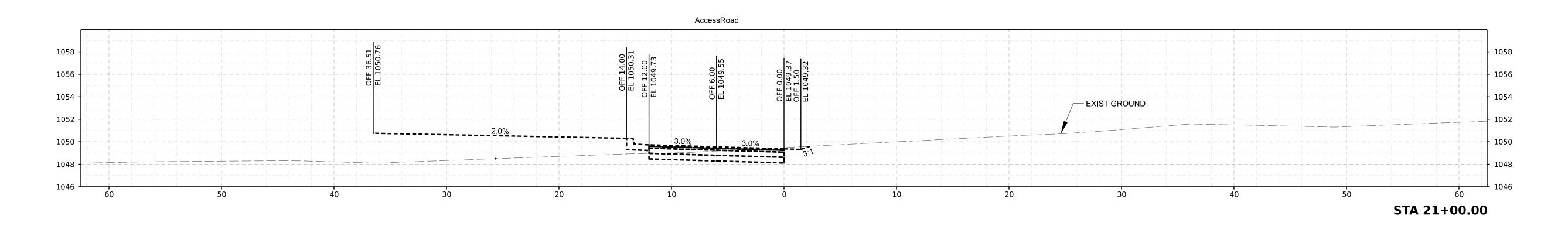


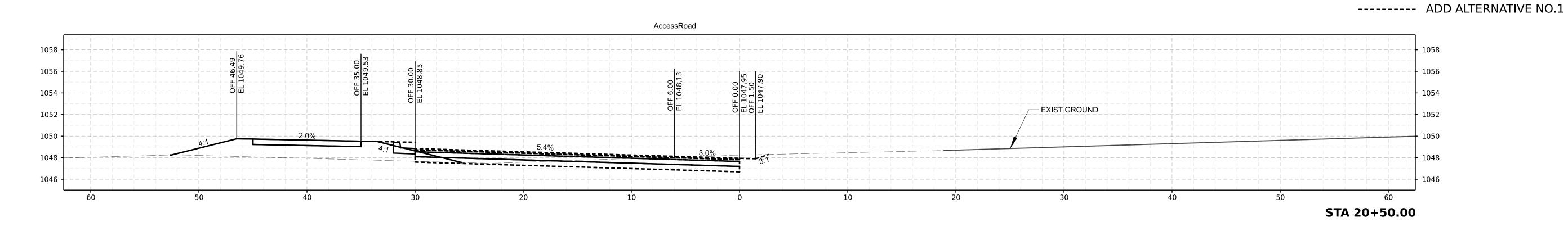
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#### STRUCTURAL DESIGN CRITERIA (2018 IBC AND ASCE 7-16): 1. BUILDING OCCUPANCY RISK CATEGORY II 2. LIVE LOADS [UNIFORM (PSF) / POINT LOADS (KIPS)]: 3. ROOF SNOW LOAD: -- GROUND SNOW LOAD (Pg):. -- FLAT ROOF SNOW LOAD (Pf): ..15.4 PSF W/ DRIFT -- MIN UNIFORM ROOF SNOW LOAD (Pm):......20 PSF (NO DRIFT OR RAIN) -- RAIN ON SNOW SURCHARGE (Prs) ....... .....5.0 PSF -- SNOW EXPOSURE FACTOR (Ce):.. -- SNOW LOAD IMPORTANCE FACTOR (Is):......1.0 -- THERMAL FACTOR (Ct):... 4. WIND DESIGN DATA: -- BASIC WIND SPEED (3 SEC GUST):.... ...110 MPH -- WIND EXPOSURE: -- DIRECTIONALITY FACTOR (Kd) . -- INTERNAL PRESSURE COEFF:. -- COMPONENTS AND CLADDING WIND (ULTIMATE 1.0\*W) PRESSURES (BASED ON TRIB 10 S.F., EXP. C, MAY BE REDUCED FOR COMPONENTS WITH LARGER TRIB PER BLDG CODE): ZONE 1:. ZONE 2 ...+13 / -40 PSF ....+13 / -69 PSF ZONE 3: ....+27 / -29 PSF ZONE 4: ZONE 5: ...+27 / -36 PSF

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# 6. GUARD RAILS:.....50 PLF, AND/OR 200# CONCENTRATED LOAD APPLIED IN ANY DIRECTION.

7. ADDI	TIONAL DELEGATED DESIGN CRITERIA:	
A.	LOADS	
	PEMB COLLATERAL ROOF LOAD:	5 PSF
B.	MEMBER DEFLECTION LIMITS (LIVE)	
	ROOF:	L/240
	WALL GIR	L/180
C.	BUILDING DRIFT LIMITS:	
	BRITTLE EXTERIOR FINISH:	H/240

-- ANALYSIS PROCEDURE:

## STRUCTURAL GENERAL NOTES:

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2018 EDITION AS AMENDED BY THE CITY OF RAYMORE, MISSOURI. REFER TO THE SPECIAL STRUCTURAL INSPECTION NOTES FOR ADDITIONAL REQUIREMENTS.

2. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCING WORK.

3. IF DISCREPANCIES EXIST BETWEEN STRUCTURAL PLANS, ARCHITECTURAL PLANS, OTHER PLANS, OR SPECIFICATIONS, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

4. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE AND DETERMINE FINAL ERECTION PROCEDURES, SEQUENCING AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYING OR TIE DOWNS WHICH MIGHT BE NECESSARY.

5. THE STRUCTURE AND FOUNDATIONS ARE NOT DESIGNED FOR FUTURE EXPANSION.

6. FABRICATORS AND SUPPLIERS SHALL CLEARLY NOTE AND HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS, WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.

7. COLUMNS, BEAMS, JOISTS, OR TRUSSES SHALL NOT BE FIELD CUT OR TRIMMED FOR ANY REASON WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.

8. HOLES, PIPES, SLEEVES, ETC. NOT SHOWN ON THE DRAWINGS MUST BE REVIEWED BY THE ARCHITECT/ENGINEER BEFORE PLACEMENT THROUGH STRUCTURAL MEMBERS.

9. IF MECHANICAL AND ELECTRICAL EQUIPMENT SIZES, WEIGHTS, OR LOCATIONS DO NOT COINCIDE WITH EQUIPMENT SHOWN ON THE PLANS, COORDINATE ADJUSTMENTS WITH THE ARCHITECT.

10. NO AREA OF THE STRUCTURE SHALL BE LOADED WITH CONSTRUCTION MATERIALS OR EQUIPMENT THAT EXCEEDS FINAL DESIGN CRITERIA.

11. BEAMS, COLUMNS, WALLS AND FOOTING CENTERS SHALL BE CENTERED UNDER SUPPORTING MEMBERS (TYPICAL UNLESS NOTED OTHERWISE).

12. DELEGATED DESIGN - DEFERRED SUBMITTALS SHALL BE SIGNED/ SEALED PRIOR TO SUBMITTAL FOR REVIEW. THESE INCLUDE:

SUBMIT THESE SHOP DRAWINGS AND CALCULATIONS SEALED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE JURISDICTION OF THE PROJECT SHALL BE FURNISHED TO THE ENGINEER OF RECORD FOR REVIEW. CONTRACTOR SHALL SUBMIT COPIES OF DEFERRED SUBMITTALS TO BUILDING DEPARTMENT AFTER ARCH/ENG REVIEW.

13. TYPICAL DETAILS ARE SHOWN ON SHEET. THE INCLUDED TYPICAL DETAILS MAY OR MAY NOT BE CUT / REFERENCED ON PLANS OR SECTIONS, BUT ARE TO BE USED AS APPLICABLE.

#### CAST IN PLACE CONCRETE:

A. PRE-ENGINEERED METAL BUILDING

1. SUBMIT PROPOSED MIXED DESIGNS OF EACH TYPE FOR REVIEW.

REQUIRED MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS:		
	<u>f'c</u>	MAX W/CM RATIO
a. FOOTING CONCRETEb. SLAB ON GRADE CONCRETE		0.55 0.45
2. ALL CONCRETE MIX DESIGNS SHALL HAV AGGREGATE RATIO. CONCRETE MIX DESIGN ABOVE STANDARD AND/OR CONTAIN WATER SUBMITTED WITH APPROPRIATE TEST DATA CONFORMANCE WITH THE A.C.I. 301 STAND/	NS THAT DO NOT CO R REDUCING ADMIX A PER A.C.I ALL CO	ONFORM TO THE TURES SHALL BE NCRETE SHALL BE IN

3. EXTERIOR CONCRETE (FLOOR SLABS, WALLS, ETC) SHALL HAVE 6.5% (PLUS/MINUS 1.5%) ENTRAINED AIR.

4. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" (VERIFY WITH ARCHITECT).

5. NO ALUMINUM SHALL BE EMBEDDED IN ANY CONCRETE.

BUILDING CODE AT THE TIME OF PERMITTING THE PROJECT

6. NO CALCIUM CHLORIDE SHALL BE USED IN CONCRETE

7. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK IS THE RESPONSIBILITY OF THE CONTRACTOR

8. ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS SIMILAR SECTIONS OR AREAS.

9. CONSTRUCTION JOINTS IN GRADE BEAMS, CONTINUOUS FOOTINGS, AND WALLS THAT DO NOT CHANGE DIRECTION SHALL BE SPACED NO GREATER THAN 60'-0". INTERMEDIATE CONTROL JOINTS SHALL BE SPACED AT 25'-0" MAX FOR WALLS. CONTROL JOINTS IN WALLS SHALL ALSO BE LOCATED 15'-0" FROM CORNERS AND AT CHANGES IN WALL THICKNESS

10. WHERE FRESH CONCRETE IS DEPOSITED AGAINST HARDENED CONCRETE (GREATER THAN 8 HRS OLD), CLEAN EXISTING SURFACE OF LAITANCE AND FOREIGN MATERIAL AND DAMPEN THE EXISTING SURFACE. IF REQUIRED, ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE.

11. SLABS ON GRADE SHALL BE 4" THICK MINIMUM ON 4" OF GRANULAR FILL. REINF SLAB WITH 6 X 6-W2.1xW2.1 WWR OR #3 BARS @ 18" OC EA WAY. PLACE REINF IN UPPER 1/3 OF SLAB THICKNESS. AT INTERIOR SLABS, A 10 MIL VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND GRANULAR BASE AND CARE SHOULD BE TAKEN DURING CURING TO PREVENT SLAB CURLING. THIS NOTE SHALL BE TYPICAL UNLESS NOTED OTHERWISE

12. SAW CUT JOINTS OR KEYED CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 225 SQUARE FEET. THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSIONS BY MORE THAN 40%. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. SPACING BETWEEN JOINTS SHALL NOT EXCEED 15 FEET. CONTRACTOR SHALL SUBMIT JOINT LAYOUT TO ARCHITECT FOR APPROVAL. REFER TO TYPICAL DETAILS.

13. REINFORCEMENT SHALL BE CONTINUOUS AND LAPPED 53 BAR DIAMETERS (2' -6" MIN.) EXCEPT AS NOTED AND PROVIDE CORNER BARS OF SAME SIZE AND SPACING

14. MINIMUM CONCRETE WALL REINFORCING (WALL 10" OR GREATER) SHALL BE #5 AT 10" CENTERS EACH WAY, EACH FACE

15. MINIMUM REINFORCING AROUND CONCRETE WALL OPENINGS 2'-0" OR GREATER (TYPICAL UNLESS NOTED): 2 - #5, EXTEND REINF 2'-0" PAST OPENINGS. PROVIDE 2-#5 x 4'-0" DIAGONAL BARS AT CORNERS

16. CONTRACTOR SHALL COORDINATE ALL CURING COMPOUNDS WITH FLOOR FINISH REQUIREMENTS TO ENSURE COMPATIBILITY.

17. FOUNDATION CONTRACTOR TO ENSURE PROPER ANCHOR ROD PROJECTION AND THAT ANCHOR RODS ARE HELD SECURELY IN POSITION PRIOR TO CONCRETE PLACEMENT. INSTALL ANCHOR RODS TO THE STRICT DIMENSIONAL TOLERANCES PER AISC REQUIREMENTS. STRUCTURAL STEEL COLUMN ANCHOR RODS SHALL BE SET WITH A RIGID TEMPLATE.

18. AGGREGATES AND/OR CONCRETE MIXES SHALL BE CERTIFIED TO BE FREE OF AND ELIMINATE DAMAGE OF CONCRETE DUE TO ALKALI-SILICA REACTION OR ALKALI-AGGREGATE REACTIONS WHEN EXPOSED TO SOILS AND/OR AN EXTERIOR ENVIRONMENT.

19. ALL CONCRETE MIX DESIGNS EXPOSED TO AN EXTERIOR ENVIRONMENT SHALL MEET THE REQUIREMENTS OF THE KANSAS CITY METRO MATERIALS BOARD (KCMMB) OR THE JOHNSON COUNTY CONCRETE BOARD (JCCB).

20. ANY CONCRETE WALLS EXPOSED TO VIEW OR TO BE FORMED WITH A FORM LINER SHALL BE CONSIDERED "ARCHITECTURAL CONCRETE" PER ACI 301 CHAPTER 6. A MOCKUP SHALL BE MADE AND REVIEWED FOR ACCEPTANCE BY THE ARCHITECT AND OR THE CLIENT FOR CONFORMANCE WITH FINISH INTENT. THE INPLACE CONCRETE SHOULD BE REVIEWED AT SEVERAL INTERVALS DURING CONSTRUCTION TO CONFIRM THAT THE FINISH IS MATCHING THE APPROVED MOCKUP STANDARD FOR FINISH. THE INTERVALS SHALL BE DETERMINED BY THE ARCHITECT.

#### **CONCRETE REINFORCING STEEL:**

1. SUBMIT SHOP DRAWINGS FOR REBAR. ALL REINFORCING BARS SHALL MEET ASTM A615 GRADE 60.

2. ALL MESH SHALL MEET ASTM A-185: LAP A MINIMUM OF 8" OR ONE FULL MESH, WHICHEVER IS GREATER.

WHICHEVER IS GREATER.

3. REINFORCING BAR QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY.

4. PROVIDE AN ADDITIONAL ALLOWANCE OF 1% OF THE TOTAL REINFORCING SHOWN ON THE FINAL DRAWINGS TO BE FABRICATED AND ERECTED DURING THE PROGRESS OF THE WORK AT THE DIRECTION OF THE STRUCTURAL ENGINEER. FOR THE ADDITIONAL REINFORCING ALLOWANCE, INCLUDE BOTH THE COST OF THE REINFORCING AND THE LABOR TO PLACE IT.

5. CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 34" CLEAR FOR SLABS, 2" CLEAR FOR FORMED SURFACES AND 3" CLEAR FOR FOOTINGS (TYPICAL UNLESS

6. CONTRACTOR SHALL VERIFY THAT ALL REINFORCEMENT, SLAB DOWELS, INSERTS, SLEEVES AND EMBEDDED ITEMS ARE PROPERLY LOCATED AND RIGIDLY SECURED PRIOR TO CONCRETE PLACEMENT, "WET STICKING" DOWELS WILL NOT BE ALLOWED.

7. REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL BY A QUALIFIED AND EXPERIENCED FIRM AND PERSON. PLACE AND SUPPORT REINFORCEMENT WITH ACCESSORIES: MAXIMUM SPACING - 48" CENTERS (PLASTIC-TIPPED LEGS FOR EXPOSED SURFACES). USE 3" SBP SUPPORTS AT ALL FOOTINGS.

8. ALL STRUCTURAL ADHESIVE SHALL BE SIMPSON SET 3G OR HILTI HY-200 R OR EQUIVALENT. ALL STRUCTURAL ADHESIVE SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS. SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL WITH APPROPRIATE ICBO EVALUATION REPORTS.

#### **EARTHWORK AND FOUNDATIONS:**

1. ALL FOOTINGS SHALL BEAR AT A MINIMUM DEPTH BELOW GRADE OF 3'- 0" ON FIRM NATIVE MATERIALS, COMPACTED OR ENGINEERED FILL CAPABLE OF SUPPORTING A PRESUMPTIVE ALLOWABLE BEARING PRESSURE OF 1,500 PSF PER THE IBC. DEEPEN FOOTINGS, AND REMOVE AND REPLACE UNACCEPTABLE SOILS WITH ENGINEERED FILL AS REQUIRED TO PROVIDE THIS MINIMUM DEPTH AND SUITABLE BEARING.

2. SURFACE WATER SHALL NOT BE ALLOWED TO STAND ADJACENT TO OR DRAIN TOWARDS THE FOUNDATION AND SLAB SUBGRADES UNDER ANY CIRCUMSTANCES. PAVEMENTS OR GRADED SOILS AT THE PERIMETER OF THE BUILDING, EXCEPT AS REQUIRED AT EXITS OR AS NOTED, SHALL BE SLOPED AWAY AT 5% OR 6" MIN FOR THE FIRST TEN FEET AND AS REQUIRED TO PROVIDE POSITIVE DRAINAGE.

3. FOOTINGS MAY BE POURED TO NEAT LINES OF EXCAVATIONS PROVIDING VERTICAL LINES OF EXCAVATIONS CAN BE MAINTAINED DURING CONCRETE PLACEMENT.

#### PRE-ENGINEERED METAL BUILDING:

1. THE PRE-ENGINEERED METAL BUILDING SUPPLIER SHALL BE RESPONSIBLE FOR THE PEMB DESIGN. THE PEMB DESIGN AND CALCULATIONS SHALL BE SEALED BY AN ENGINEER LICENSED TO PRACTICE IN THE JURISDICTION OF THE PROJECT AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE FABRICATION.

2. PEMB DRAWINGS SHALL BE APPROVED BY THE ARCHITECT/ENGINEER BEFORE INSTALLATION OF ANY FOUNDATION ELEMENTS SUPPORTING THE PEMB COMPONENTS.

3. ROOF LIVE LOADS, INCLUDING SNOW LOADS, SHALL NOT BE REDUCED. DESIGN ROOF AND ROOF MEMBERS FOR ALL REQUIRED UNBALANCED LOADS AND SNOW

4. CONTRACTOR TO VERIFY AND COORDINATE ALL BASE PLATE ELEVATIONS AND GROUTING REQUIREMENTS WITH PEMB SUPPLIER.

## SPECIAL INSPECTIONS:

1. PROVIDE SPECIAL STRUCTURAL INSPECTIONS AND VERIFICATIONS BY A THIRD PARTY MEETING THE REQUIREMENTS OF CHAPTER 17 OF THE BUILDING CODE AND THE BUILDING OFFICIAL.

2. SPECIAL INSPECTORS SHALL BE QUALIFIED AND FURNISH THEIR REPORTS IN A TIMELY MANNER TO THE CONTRACTOR, BUILDING OFFICIALS, ARCHITECT, AND/OR ENCINEER

3. SHOULD INSPECTOR IDENTIFY ANY DISCREPANCY, THEY SHALL NOTIFY CONTRACTOR FIRST, AND THEN ARCHT/ ENGINEER IMMEDIATELY THEREAFTER IF CORRECTIVE ACTION IS NEEDED.

4. SPECIAL INSPECTIONS AS REQUIRED BY CODE:

A. STEEL: SECTION 1705.2, AND AISC 360. PERIODIC OBSERVATIONS OF CONNECTION, ALL BRACED-FRAME CONNECTIONS, WELDERS & FIELD

WELDING.
B. CONCRETE: SECTION 1705.3 AND TABLE 1705.3 CONCRETE MATERIAL SAMPLING AND TESTING, REBAR OBSERVATIONS. TAKE SET OF (3) CYLINDERS FOR EVERY 50 C.Y., BUT NOT LESS THAN ONE SET OF SAMPLES PER DAY'S WORK AND PER MIX.
C. EARTHWORK: FOUNDATION BEARING, EXCAVATION, FILL PLACEMENT.

#### STRUCTURAL STEEL:

UNLESS NOTED OTHERWISE):

EQUIVALENT

STRUCTURAL ENGINEER.

1. SUBMIT SHOP DRAWINGS FOR STEEL. STRUCTURAL STEEL SHAPES AND PLATE MATERIAL REQUIREMENTS (TYPICAL

a. WIDE FLANGE SHAPES - ASTM A992 (FY = 50 KSI MIN.)
b. CHANNELS, ANGLES, AND PLATES: - ASTM A36 (FY = 36 KSI MIN)
c. ROUND HSS - ASTM A500, GR B (FY = 42 KSI)
d. RECTANGULAR HSS - ASTM A500, GR B (FY = 46 KSI)
e. PIPE - ASTM A53, GR B (FY = 35 KSI)
f. ANCHOR RODS - ASTM F1554 (FY = 36 KSI MIN.),
g. ADHESIVE ANCHORS - SIMPSON SET-3G, HILTI HIT-HY 200, OR

2. STRUCTURAL STEEL SHALL BE NEW AND MEET THE 15TH EDITION A.I.S.C. "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES", AND THE "CODE OF STANDARD PRACTICES FOR STEEL BUILDINGS AND BRIDGES", EXCLUDING SECTION 4.4.1.B.

3. THE STRUCTURAL STEEL FABRICATOR SHALL BE AN AISC QUALITY CERTIFIED COMPANY FOR THE CATEGORY OF WORK IN THIS PROJECT OR PROVIDE A QUALITY ASSURANCE PLAN AND SPECIAL INSPECTIONS AS DEFINED IN THE CODE.

4. USE STANDARD AISC FRAMING CONNECTIONS WITH A325-N BOLTS, F436 WASHERS, AND A563 HEAVY-HEX NUTS AS REQUIRED, UNLESS NOTED OTHERWISE.

5. BOLTS IN MOMENT AND BRACED FRAME CONNECTIONS SHALL BE PRE-TENSIONED. ALL A490 BOLTS SHALL BE PRE-TENSIONED. OTHER BOLTED CONNECTIONS USING A325 BOLTS MAY BE SNUG-TIGHTENED, UNLESS NOTED OTHERWISE.

6. STEEL BEAMS SHALL BE FABRICATED WITH MILL CAMBER UP.

7. WELDING SHALL CONFORM TO THE CURRENT AND APPLICABLE AWS STANDARDS AND BE COMPLETED BY AN AWS CERTIFIED WELDER. ALL WELDS SHALL UTILIZE E70xx ELECTRODES. SHOP DRAWINGS SHALL SHOW FIELD WELDS, AS APPROPRIATE.

a. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL

b. AWS D1.3 - STRUCTURAL WELDING CODE - SHEET STEEL
 c. AWS D1.6 - STRUCTURAL WELDING CODE - STAINLESS STEEL

8. WELD SIZES SHALL BE INCREASED TO MEET THE REQUIRED EFFECTIVE THROAT WIDTH IF GAPS EXIST AT THE FAYING SURFACE.

9. NO COLUMN OR BEAM SPLICES, UNLESS CLEARLY INDICATED ON THE STRUCTURAL DRAWINGS, WILL BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE

10. SEE ARCHITECTURAL PLANS FOR FIREPROOFING & FINISHING REQUIREMENTS,

AND COORDINATE STEEL PRIMING & COATINGS ACCORDINGLY.

11. GROUT WHERE INDICATED ON PLANS AT BASE PLATES SHALL BE NON-METALLIC NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 28 DAYS CONFORMING TO ASTM C1107

12. ALL POST-INSTALLED ANCHORS WHERE NOTED SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE OR HILTI, INC. AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS. SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL WITH APPROPRIATE IC-ES EVALUATION REPORTS.

13. ALL STEEL AND ASSOCIATED FASTENERS NOT PROTECTED FROM WEATHER OR WHOLLY WITHIN A CONDITIONED SPACE (INCLUDING ALL MASONRY LINTELS) SHALL BE HOT DIPPED GALVANIZED PER ASTM A123.





FLG

FLR

FS

FTG

FV

GA

**GALV** 

GB

HORIZ

HSA

INT

LCS

LTE

LTS

LW

MFCR

MTL

NIC

NTS

OVS

P/C

PAF

PAR

PERP

PLF

PREFAB

PRELIM

REINF

REQD

SDS

SIM

SLV

SOG

FLANGE

FLOOR

FAR SIDE

FOOTING

GAUGE

FIELD VERIFY

GALVANIZED

GRADE BEAM

HORIZONTAL

INSIDE FACE

KIPS (1000 LBS)

LIGHTWEIGHT

METAL

MANUFACTURER

NOT IN CONTRACT

NEAR SIDE

NOT TO SCALE

ON CENTER

OPPOSITE

OVERSIZED

PRECAST

PARALLEL

PENETRATION

PERPENDICULAR

PREFABRICATED

PRELIMINAR\

REFER TO

REQUIRED

RIGID FRAME

SLIP CRITICAL

SIMII AR

REINFORCING

OUTSIDE FACE

INTERIOR

GENERAL CONTRACTOR

HEADED STUD ANCHOR

ILONG LEG HORIZONTAL

LONG LEG VERTICAL

HOLLOW STRUCTURAL SECTION

COMPRESSION EMBEDMENT LENGTH

COMPRESSION LAP SPLICE LENGTH

TENSION EMBEDMENT LENGTH

POWDER ACTUATED FASTENER

POUNDS PER LINEAR FOOT

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

REINFORCED CONCRETE

SELF DRILLING SCREW

SHORT LEG VERTICAL

SLAB ON GRADE

PRE-ENGINEERED METAL BUILDING

TENSION LAP SLICE LENGTH

Sheet Revisions

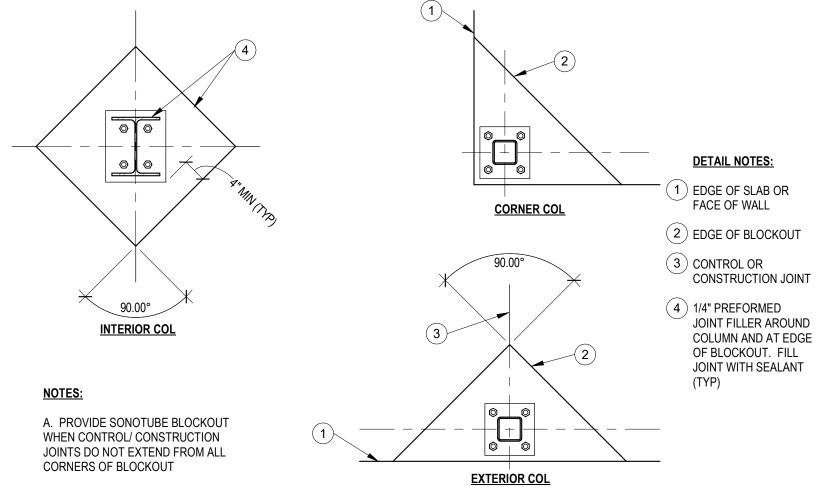
Date: Comments Init.

1/20/2022 UPDATED LAYOUT FOR THE PORTA POTTY STRUCTURE



CITY OF RAYMORE		211082
RAYMORE MISSOURI		
SUNSET LANE & HAWK RIDGE PARK		
RAYMORE, MISSOURI	STRUCTURAL GENERAL NOTES	S001

# SLAB ON GRADE CONTROL JOINTS 3/4" = 1'-0"



SLAB ON GRADE JOINTS @ COLUMNS

3/4" = 1'-0"

SPLICE & DEVELOPMENT SCHEDULE

3/4" = 1'-0"

42

NOTES (PERTAINING TO TABLE):
A. TOP BARS ARE HORIZONTAL BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE

DEVELOPMENT AND LAP SPLICE SCHEDULE

COMPRESSION | TENSION (LTE) | COMPRESSION | TENSION (LTS) | HOOK | COMPRESSION | TENSION (LTE) |

TOP OTHER (LDH)

28 21

37 28

46 36

56 43

81 62

93 71

105 80

118 90

131 | 100 | 22

F'c=4000 psi

23

38

42

NOTES (GENERAL):

A. STAGGER ALL SPLICES 12 db MIN, BUT NOT LESS THAN 12"

C. BARS GREATER THAN #11 SHALL BE MECHANICALLY SPLICED

D. ALL SPLICES SHALL BE WIRED IN CONTACT STACKED VERTICAL

ALL EMBEDMENT AND LAP SPLICE LENGTHS SHALL BE INCREASED

B. ALL DIMENSIONS INDICATED IN TABLE ARE IN INCHES

AS REQ'D BY THE MULIPLIERS BELOW. APPLY MULTIPLE

1.3 -- IF CONC CONTAINS LIGHT WEIGHT AGGREGATES

LAP SPLICE

COMPRESSION TENSION (LTS) HOOK

TOP OTHER (LDH)

16 | 16 | 7

24 | 18 | 9

37

116 90 21

108 24

35 27

78 60

96 74

164 | 126 | 27

48

140

**EMBEDMENT** 

TOP OTHER

12 12

18 14

37 28

60 46

74 57

90 69

108 83

126 97

MULTIPLIERS IF APPLICABLE

1.3 -- IF EPOXY COATED REBAR USED

**MULTIPLIERS**:

- LDH - HOOKED BAR TENSION EMBEDMENT LENGTH

THICKNESS

2' - 4"

SCHEDULE - SPREAD FOOTING

F'c=3000 psi

**EMBEDMENT** 

14

19

25

28

#10

#11

TYPE MARK

LENGTH

CAST BELOW THEM.

C. ABBREVIATIONS:

TOP OTHER

13 12

21 16

31 24

43 33

69 53

85 66

103 80

124 96

146 112

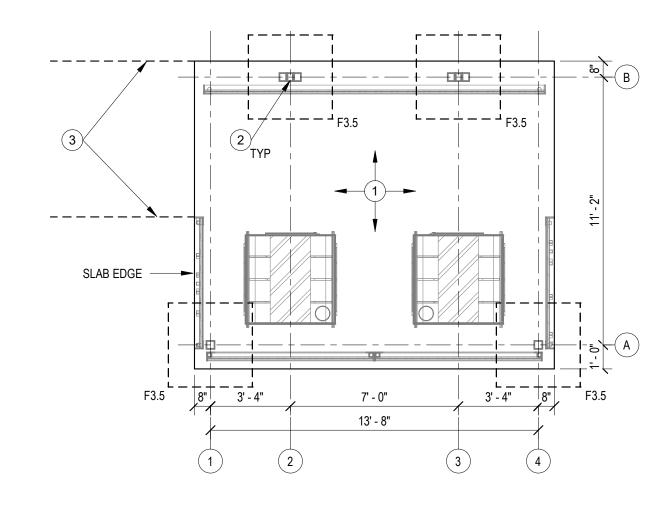
B. ALL BARS THAT ARE NOT "TOP BARS" ARE "OTHER" BARS

- LCE - COMPRESSION EMBEDMENT LENGTH

- LCS - COMPRESSION LAP SPLICE LENGTH

- LTE - TENSION EMBEDMENT LENGTH

- LTS - TENSION LAP SPLICE LENGTH



FOUNDATION PLAN

# **SHEET NOTES:**

A. REFERENCE GENERAL NOTES ON THIS SHEET. REVIEW NOTES & DETAILS FOR APPLICABILITY.

B. SEE ARCHITECTURAL DRAWING FOR DETAILS & DIMENSIONS NOT SHOWN.

C. REFER TO THIS SHEET FOR TYPICAL DETAILS.

D. TOP OF FOOTING ELEVATIONS TO BE 0' - 8" MIN BELOW TOP OF SLAB. REFERENCE ARCHITECTURAL DRAWINGS FOR SLAB ELEVATION.

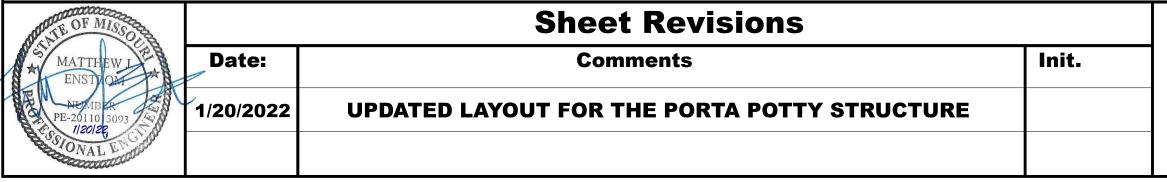
E. SPREAD FOOTINGS DENOTED ON PLAN BY "Fx.x". REFER TO SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCING.

F. PROVIDE BLOCKOUTS IN SLAB FOR COLUMNS PER TYPICAL DETAIL

## **PLAN NOTES:**

- (1) 4" CONCRETE SLAB ON GRADE. RE:GENERAL NOTES FOR REINFORCING, GRANULAR FILL, AND JOINTING REQUIREMENTS. PROVIDE 8"X8" THICKENED EDGE AT SLAB PERIMETER W/ (1) #4 CONT BAR. RE: ARCHITECTURAL FOR SLAB EXTENTS AND LOCATION.
- (2) STEEL COLUMNS BY PEMB MFCR
- (3) RE: CIVIL FOR CONTINUED SLAB EXTENTS

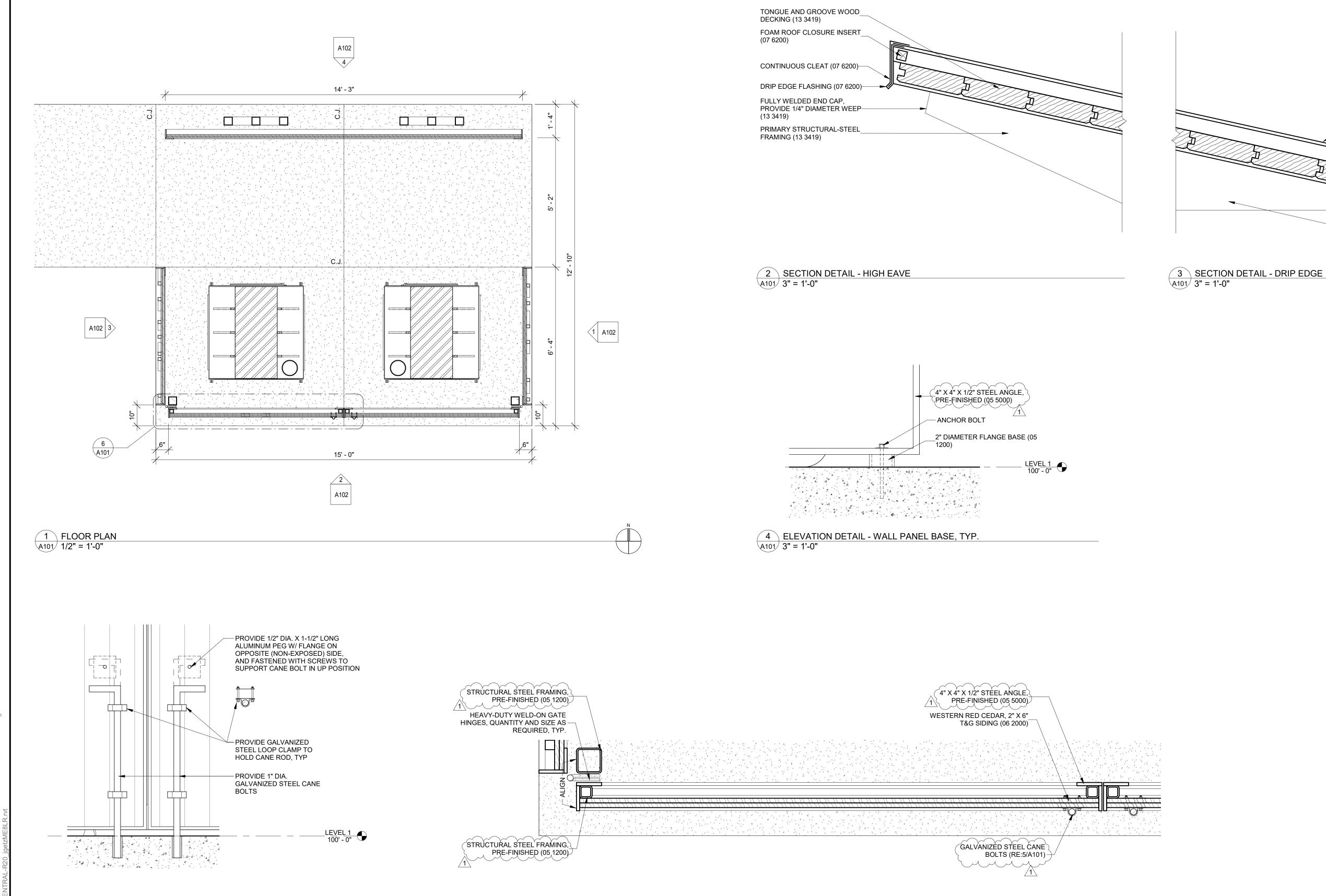






(6) #4 EA WAY TOP & BOT

CITY OF RAYMORE		211082
RAYMORE MISSOURI		
SUNSET LANE & HAWK RIDGE PARK		
RAYMORE, MISSOURI	PLAN & DETAILS	<b>S002</b>



nit.

6 PLAN DETAIL - ENCLOSURE DOORS, TYP.

A101/ 1 1/2" = 1'-0"

**Sheet Revisions** 

Comments

**ENGINEERS** 1421 E. 104th Street, Ste. 100 KCMO 64131 o: 816-333-4477 f: 816-333-6688 cfse.com

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CITY OF RAYMORE		211082
RAYMORE MISSOURI		
SUNSET LANE & HAWK RIDGE PARK		
RAYMORE, MISSOURI	PORTABLE RESTROOM ENCLOSURE	A101

A101 1 1/2" = 1'-0"

5 ELEVATION DETAIL - TRASH ENCLOSURE CANE BOLTS

ADDENDUM #1

Date:

03/14/22

-METAL ROOF PANEL (13 3419)

TONGUE AND GROOVE WOOD

FOAM ROOF CLOSURE INSERT

-CONTINUOUS CLEAT (07 6200)

-DRIP EDGE FLASHING (07 6200)

FULLY WELDED END CAP,
—PROVIDE 1/4" DIAMETER WEEP

PRIMARY STRUCTURAL-STEEL

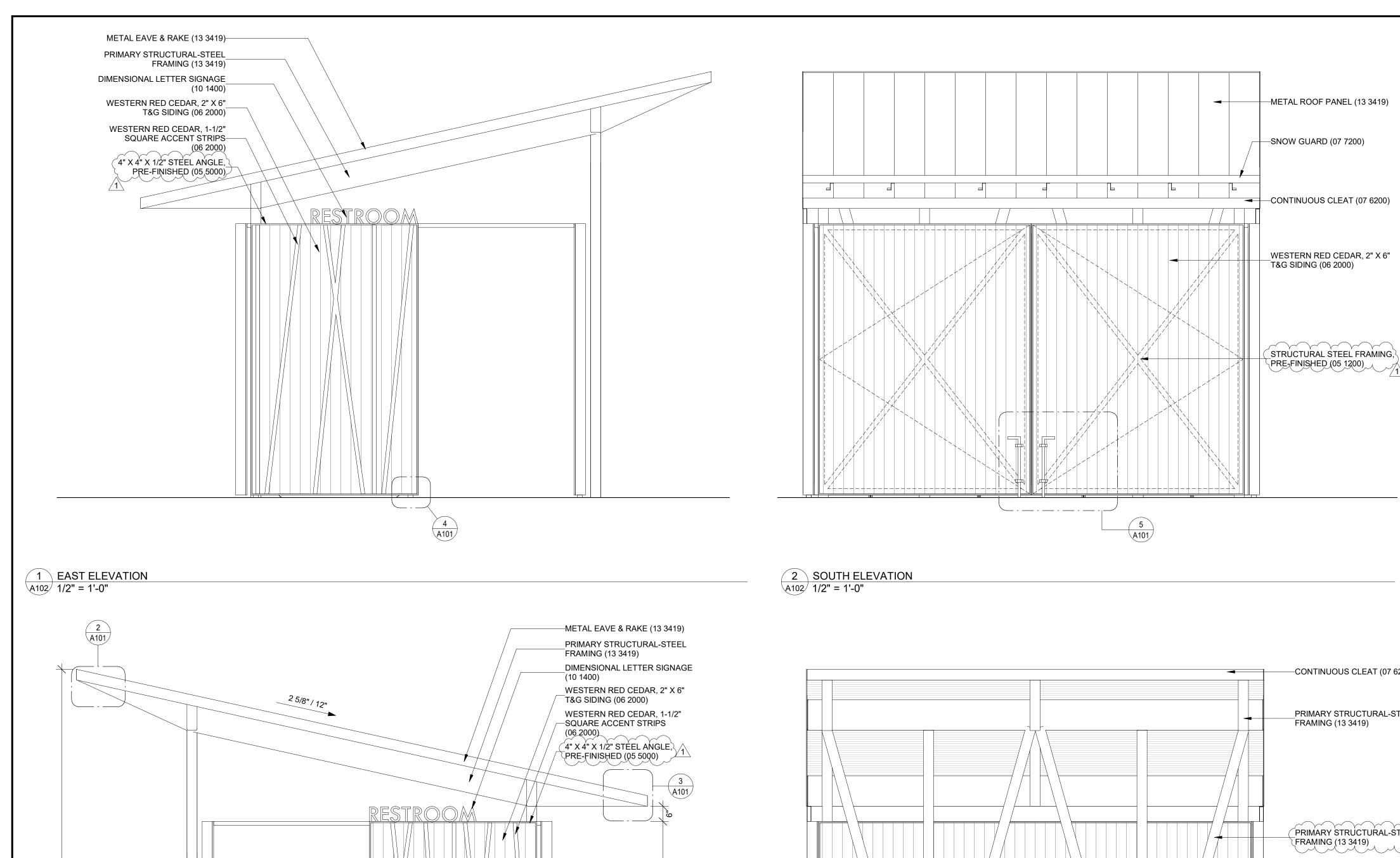
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2100 Central St. Suite 31 Kansas City, MO 64108

FRAMING (13 3419)

(13 3419)

DECKING (13 3419)



PRIMARY STRUCTURAL-STEEL FRAMING (13 3419) PRIMARY STRUCTURAL-STEEL FRAMING (13 3419) 1 \_\_WESTERN RED CEDAR, 2" X 6" T&G SIDING (06 2000) 4" X 4" X 1/2" STEEL ANGLE, PRE-FINISHED (05 5000)

3 WEST ELEVATION A102 1/2" = 1'-0"

4 NORTH ELEVATION A102 1/2" = 1'-0"

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NUMBER 3/14/202 A-005831	<sup>2</sup> 03/14/22	ADDENDUM #1	
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RAYMORE MISSOURI	SUNSET LANE & HAWK RIDGE PARK RAYMORE, MISSOURI	PORTABLE RESTROOM ENCLOSURE	A102
	RAYMORE MISSOURI		
CITY OF RAYMORE 211082	CITY OF RAYMORE		211082

—CONTINUOUS CLEAT (07 6200)