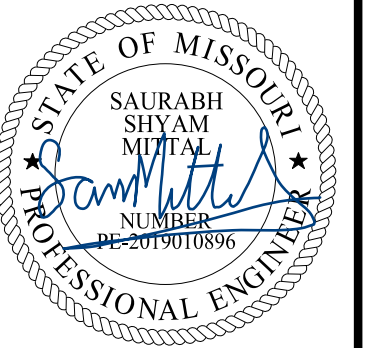


224'-7" SOLDIER PILE WALL

SEC/SUR: 114 TWP: 47N RGE: 7E



DATE PREPARED: 3/14/2022

ROUTE I-270 STATE MO

DISTRICT BR SHEET NO. 1

COUNTY ST. LOUIS CITY

JOB NO. J613020C

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9254

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

MoDOT

HORNER SHIFRIN

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103

314-531-4321 - FAX 314-531-4986

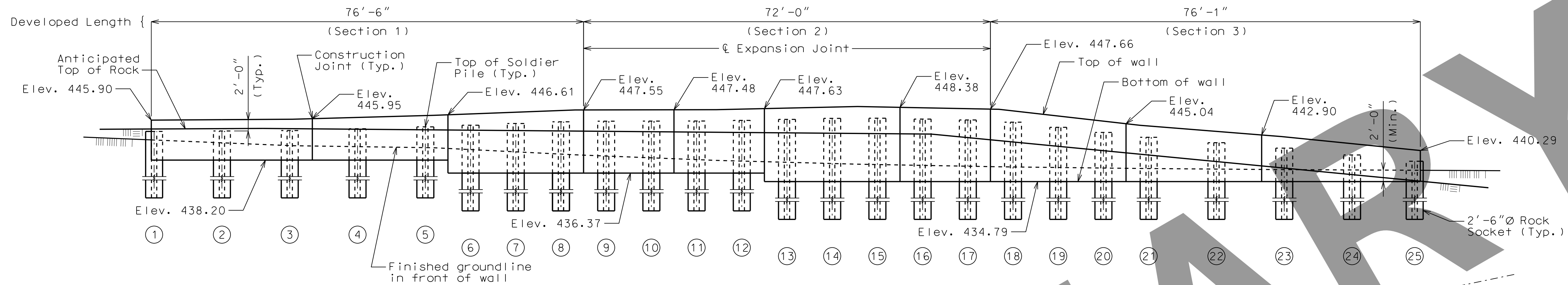
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DISCIPLINE: CIVIL ENGINEERING

CERTIFICATE OF AUTHORITY: 000169

I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL

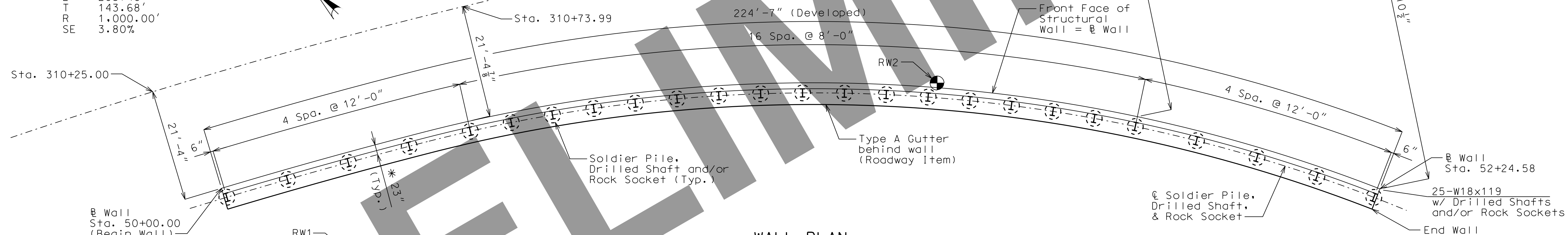
GENERAL PLAN AND ELEVATION



DEVELOPED WALL ELEVATION

(2'-6"Ø Rock Socket and 3'-0"Ø Drilled Shaft above bottom of wall, Type A Gutter (Roadway Item) and Underdrain not shown for clarity.)

RAMP 2 BL CURVE 2
 PI 309+69.55
 PC 308+25.88
 PT 311+11.28
 Δ 16° 21' 07.6" (RT)
 D 5° 43' 46.5"
 L 285.40'
 T 143.68'
 R 1,000.00'
 SE 3.80%



WALL PLAN

* Assumes vertical drain thickness is less than pile flange thickness. Adjust as necessary to maintain 12" (Min.) wall thickness. Does not include 1/2" (Max.) form liner thickness.

⊙ Indicates location of borings.

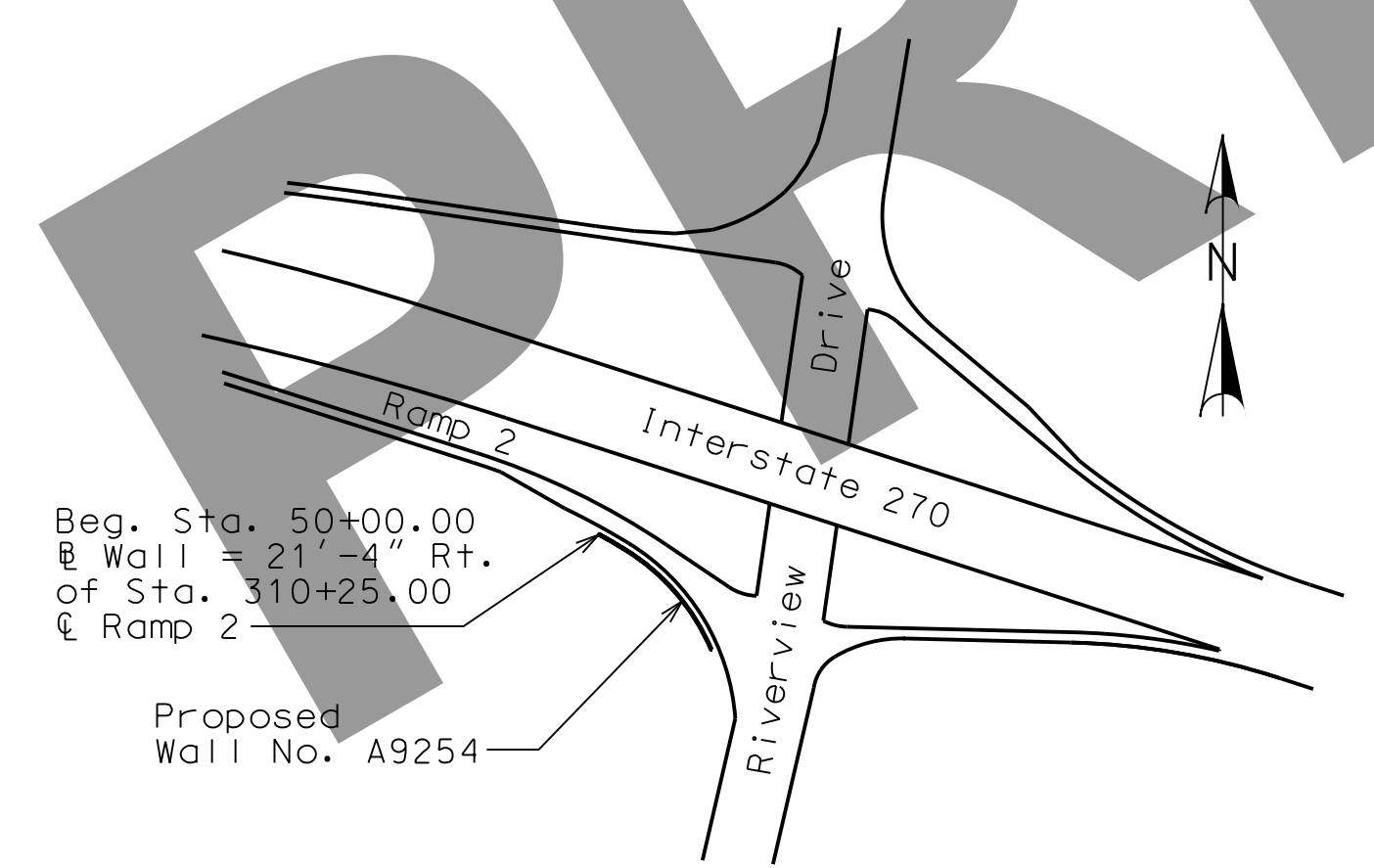
Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheets for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheets No. 9 and 10 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

RETAINING WALL: ALONG SOUTHWEST RAMP TO RIVERVIEW DRIVE

ROUTE I-270 (EB) FROM RTE. 367 TO MISSOURI STATE LINE
 ABOUT 3.0 MILES EAST OF ROUTE 367
 STA. 310+25.00 ALONG EB I-270 RAMP 2



LOCATION SKETCH

Designed: SSM
 Detailed: CAB
 Checked: TPL

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 11

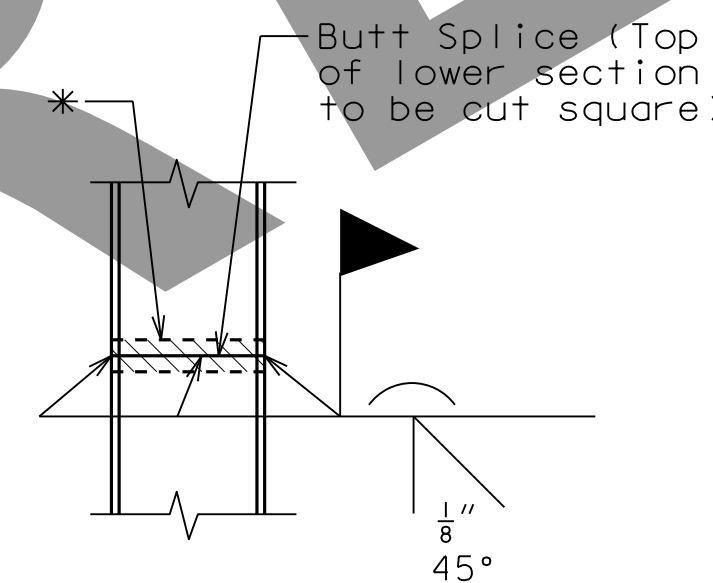
Estimated Quantities				
Item		Alternate A CIP Wall Total	Alternate B Precast Wall Total	Alternate C Precast Lagging Total
Timber Lagging	sq. foot	1783	1783	-
Drainage System	lump sum	1	1	1
Drilled Shafts (3 ft. 0 in. Dia.)	linear foot	57.1	57.1	57.1
Rock Sockets (2 ft. 6 in. Dia.)	linear foot	395.6	395.6	395.6
Galvanized Soldier Piles (W18x119)	linear foot	467	467	467
Class B Concrete (Retaining Walls)	cu. yard	85.8	-	-
Aesthetic Concrete Stain	lump sum	1	1	1
Form Liners	sq. yard	238	238	238
Precast Wall Panels	sq. foot	-	2139	2139
Reinforcing Steel (Epoxy Coated)	pound	8000	-	-
Fabricated Structural Carbon Steel (Misc.)	pound	550	-	-

The Contractor shall bid only one of the Alternates. See Special Provisions.

The quantity shown for Class B Concrete (Retaining Walls) assumes 1" thick vertical drain core and 12" wall thickness. Excess concrete for form liners will be considered completely covered by the concrete unit price for Form Liners. No adjustment will be made for variations in concrete quantity except if appreciable errors are found; however the contract unit price shall govern.

SUGGESTED CONSTRUCTION SEQUENCE:

1. Install temporary work pad or berm to get access for drilling equipment. Do not remove soil in front of wall before soldier beams and wood lagging are in place.
2. Drill holes for drilled shafts and rock sockets. Set soldier pile with welded shear connectors, per the plans, in the hole. Use templates or other devices to hold the soldier pile within tolerance given in the Job Special Provisions.
3. Concrete the drilled shaft and rock socket up to the bottom of wall elevation and fill with flowable backfill above the concrete to grade. Take care to support soldier beam within tolerances given in the Job Special Provisions when concreting.
4. When the concrete has cured, carefully excavate soil, rock or flowable backfill and install timber lagging. Install lagging in lifts as recommended by the engineer responsible for the timber lagging design. Only excavate and lag the area that can be completed in each shift. Do not leave unlagged faces open overnight or between shifts.
5. Install vertical drain behind wall and structural underdrain under wall.
6. Install reinforced concrete wall with ashlar form liner.
7. Install Aesthetic Concrete Stain.
8. Install Type A Concrete Gutter (Roadway Item).



STEEL PILE SPLICE
(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

GENERAL NOTES:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specifications (9th Edition)
Seismic Design Category B

Design Loading:
Earth 135#/Cu. Ft.
Equivalent Fluid Pressure = 107.1#/Cu. Ft. $\phi = 16'$,
81.4#/Cu. Ft. $\phi = 20'$
Rock Sm = 7.8 ksf

Design Unit Stresses:
Class B Concrete (Retaining Wall) $f'_c = 3,000$ psi
Class B-2 Concrete (Drilled Shafts & Rock Sockets) $f'_c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
Structural Steel (ASTM A709 Grade 50) $f_y = 50,000$ psi

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

All reinforcing steel shall be epoxy coated.

Concrete Protective Coatings:
All exposed vertical concrete surfaces shall be treated with Aesthetic Concrete Stain.

Miscellaneous:
See Roadway Plans for traffic control.

Excavation will be paid for as a Roadway Item. See Roadway Plans.

Weight of 550 pounds of shear connectors is included in the weight of Fabricated Structural Carbon Steel (Misc.).

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

A different size pile may be used provided it has the same or greater bending and shear strength. No adjustments will be made to the contract unit price.

CIP WALL ALTERNATE A:

The plans are developed for CIP Wall Alternate A. See Special Provisions.

PRECAST WALL ALTERNATE B:

At the Contractor's option a Precast Wall (Alternate B) may be used in lieu of the proposed Cast-in-Place Wall (Alternate A). See Special Provisions.

The Precast Wall alternate shall consist of precast panels with an ashlar form lined finish. Precast panels shall be attached to the front of the wall. Panels shall be designed for the wall loads, independent of any timber lagging by a Professional Engineer at the Contractor's expense.

PRECAST LAGGING ALTERNATE C:

At the Contractor's option a Precast Lagging (Alternate C) may be used in lieu of the proposed Cast-in-Place Wall (Alternate A). See Special Provisions.

The Precast Lagging alternate shall consist of precast panels with an ashlar form lined finish. Panels shall be designed by a Professional Engineer at the Contractor's expense.



03/16/22

DATE PREPARED
3/14/2022

ROUTE I-270 STATE MO

DISTRICT BR SHEET NO. 2

COUNTY ST. LOUIS CITY

JOB NO. J613020C

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9254

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITAL JEFFERSON CITY, MO 65102 1-888-ASK-MDOT (1-888-275-6636)

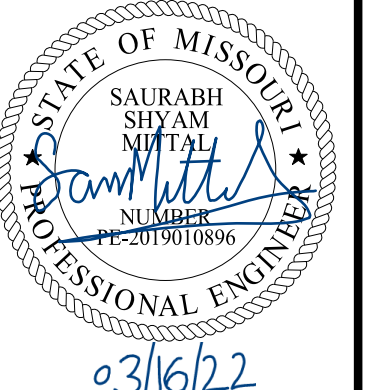
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401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103 314-531-4321 - FAX 314-531-4986 WWW.HORNERSHIFRIN.COM DISCIPLINE: CIVIL ENGINEERING CERTIFICATE OF AUTHORITY: 00109

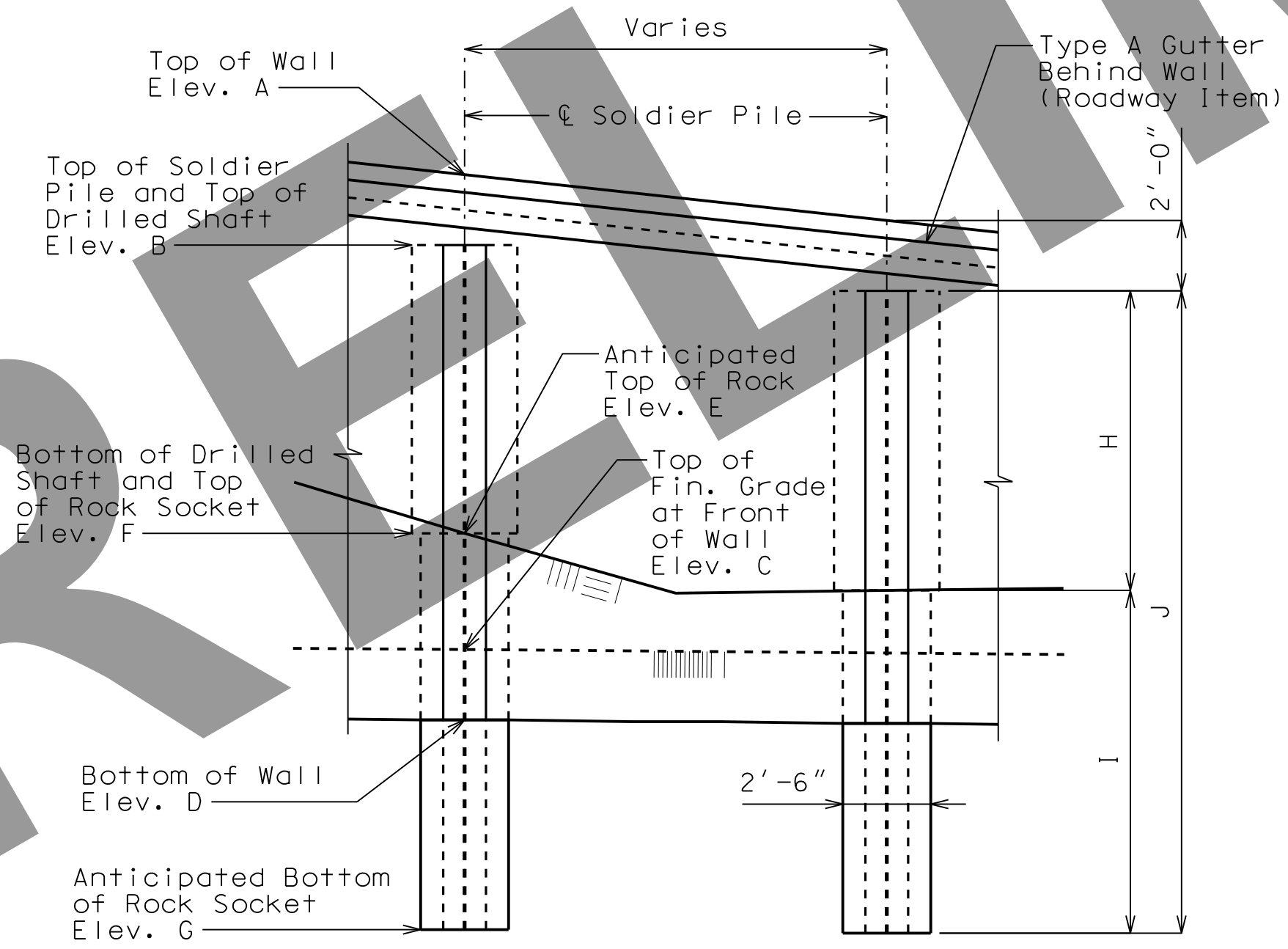
I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL

GENERAL NOTES



WALL, DRILLED SHAFT, ROCK SOCKET AND SOLDIER PILE DATA

	Pile Number	Wall Station	Top of Wall Elev. A	Top of Soldier Pile & Top of Drilled Shaft Elev. B	Top of Finished Grade at Front of Wall Elev. C	Bottom of Wall Elev. D	Anticipated Top of Rock Elev. E	Bottom of Drilled Shaft Top of Rock Socket Elev. F	Anticipated Bottom of Rock Socket Elev. G	Drilled Shaft Pay Limit (feet) Dim H	Rock Socket Pay Limit (feet) Dim I	Anticipated Soldier Pile Length (feet) Dim J	Soldier Pile Pay Length (feet)
Section 1	1	50+00.50	445.90	443.90	442.38	438.20	443.90	443.90	426.59	0.00	17.31	17.31	18.00
	2	50+12.50	445.42	443.42	441.90	438.20	443.96	443.42	426.37	0.00	17.06	17.06	18.00
	3	50+24.50	445.81	443.81	441.37	438.20	443.96	443.81	426.14	0.00	17.67	17.67	18.00
	4	50+36.50	446.10	444.10	440.86	438.20	443.86	443.86	425.78	0.24	18.08	18.32	19.00
	5	50+48.50	446.47	444.47	440.36	438.20	443.76	443.76	425.41	0.71	18.35	19.06	20.00
	6	50+56.50	446.72	444.72	440.05	436.37	443.69	443.69	425.54	1.03	18.15	19.18	20.00
	7	50+64.50	447.00	445.00	439.76	436.37	443.62	443.62	425.77	1.38	17.85	19.23	20.00
	8	50+72.50	447.35	445.35	439.54	436.37	443.55	443.55	426.00	1.80	17.55	19.35	20.00
Section 2	9	50+80.50	447.59	445.59	439.25	436.37	443.49	443.49	425.86	2.10	17.63	19.73	20.00
	10	50+88.50	447.49	445.49	438.99	436.37	443.42	443.42	425.55	2.07	17.87	19.94	20.00
	11	50+96.50	447.49	445.49	438.74	436.37	443.35	443.35	425.24	2.14	18.11	20.25	21.00
	12	51+04.50	447.57	445.57	438.48	436.37	443.28	443.28	425.03	2.29	18.25	20.54	21.00
	13	51+12.50	447.71	445.71	438.24	434.79	443.22	443.22	424.91	2.49	18.31	20.80	21.00
	14	51+20.50	447.93	445.93	438.20	434.79	443.15	443.15	424.79	2.78	18.36	21.14	22.00
	15	51+28.50	448.21	446.21	437.81	434.79	443.08	443.08	424.74	3.13	18.34	21.47	22.00
	16	51+36.50	448.38	446.38	437.65	434.79	443.01	443.01	424.77	3.37	18.24	21.61	22.00
	17	51+44.50	447.88	445.88	437.50	434.79	442.37	442.37	424.81	3.51	17.57	21.07	22.00
Section 3	18	51+52.50	447.46	445.46	437.37	434.79	441.60	441.60	425.04	3.86	16.57	20.43	21.00
	19	51+60.50	446.49	444.49	437.26	434.79	440.83	440.83	425.69	3.66	15.14	18.80	19.00
	20	51+68.50	445.51	443.51	437.16	434.79	440.06	440.06	426.35	3.45	13.72	17.16	18.00
	21	51+76.50	444.58	442.58	437.10	434.79	439.29	439.29	426.92	3.29	12.37	15.66	16.00
	22	51+88.50	443.27	441.27	437.00	434.79	438.14	438.14	427.23	3.13	10.91	14.04	15.00
	23	52+00.50	442.74	440.74	436.91	434.79	436.98	436.98	427.57	3.76	9.41	13.17	14.00
	24	52+12.50	441.37	439.37	436.83	434.79	435.82	435.82	428.48	3.55	7.35	10.89	11.00
	25	52+24.08	440.04	438.04	436.79	434.79	434.76	434.76	429.35	3.28	5.40	8.69	9.00



PART ELEVATION OF SOLDIER PILE WALL
(ANTICIPATED ROCK ABOVE BOTTOM OF WALL)

WALL ELEVATION DATA TABLE

- Notes:
- Top of Rock Socket is at Top of Rock.
 - For location of piles, see Sheets No. 1.
 - For Typical Wall Details, see Sheet No. 7.

Designed: SSM
Detailed: CAB
Checked: TPL

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 11

DATE PREPARED
3/14/2022
ROUTE 1-270 STATE MO
DISTRICT BR SHEET NO. 3
COUNTY ST. LOUIS CITY
JOB NO. J613020C
CONTRACT ID.

PROJECT NO.
BRIDGE NO. A9254

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

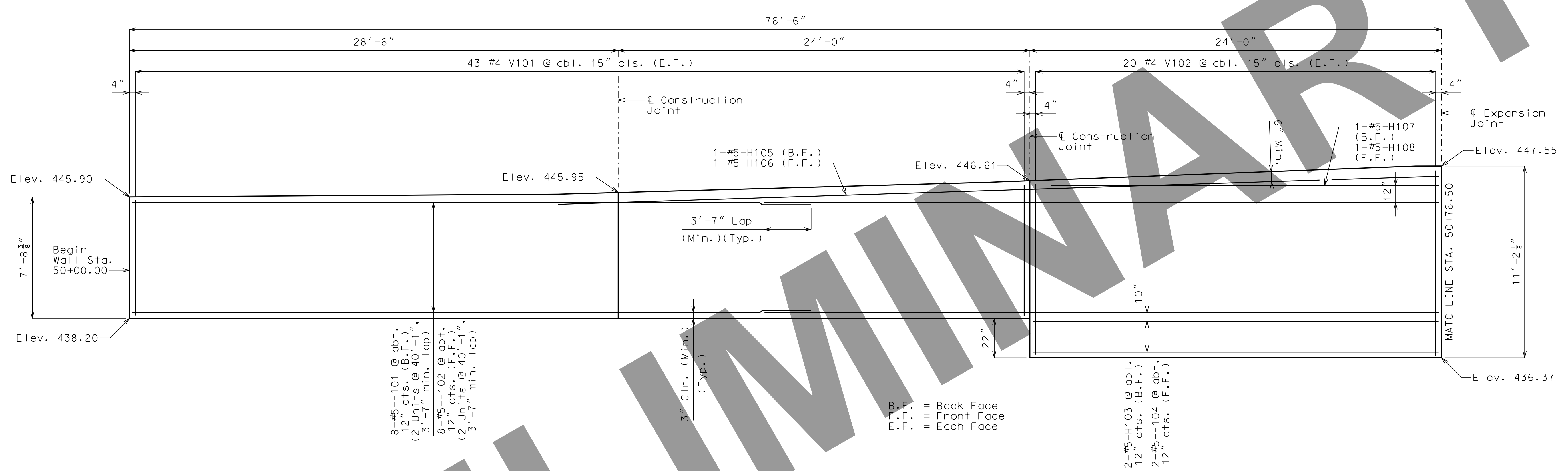
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
 314-531-4321 - FAX 314-531-4986
 WWW.HORNERSHIFRIN.COM
 REGISTERED PROFESSIONAL ENGINEERING
 CERTIFICATE OF AUTHORITY: 000169

I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL
 WALL ELEVATION DATA TABLE



DATE PREPARED
3/14/2022

ROUTE I-270	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY ST. LOUIS CITY	
JOB NO. J613020C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9254	



DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

HORNER SHIFRIN
 401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
 314-531-4321 - FAX 314-531-4986
 WWW.HORNERSHIFRIN.COM
 DISCIPLINE: CIVIL ENGINEERING
 CERTIFICATE OF AUTHORITY: 000169

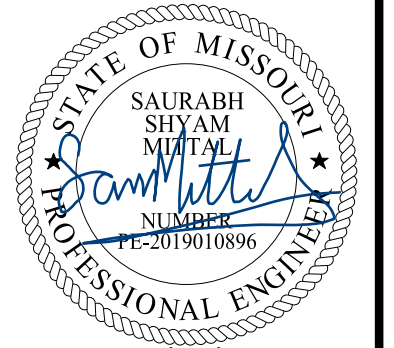
I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL
 CIP WALL DETAILS SECTION 1

PART DEVELOPED ELEVATION
 (Piles and Type A Gutter not shown for clarity.)
 (Looking at back face of wall.)

- Notes:
 Field Bend H-bars to fit.
 For Typical Section Thru Wall, see Sheet No. 7.
 For Details of Expansion Joints and Construction Joints, see Sheet No. 7.

CIP WALL DETAILS - SECTION 1

Designed: SSM
 Detailed: CAB
 Checked: TPL



03/16/22

DATE PREPARED

3/14/2022

ROUTE	STATE
I-270	MO
DISTRICT	SHEET NO.
BR	5

COUNTY

ST. LOUIS CITY

JOB NO.

A9254

BRIDGE NO.

CONTRACT ID.

PROJECT NO.

DESCRIPTION

DATE

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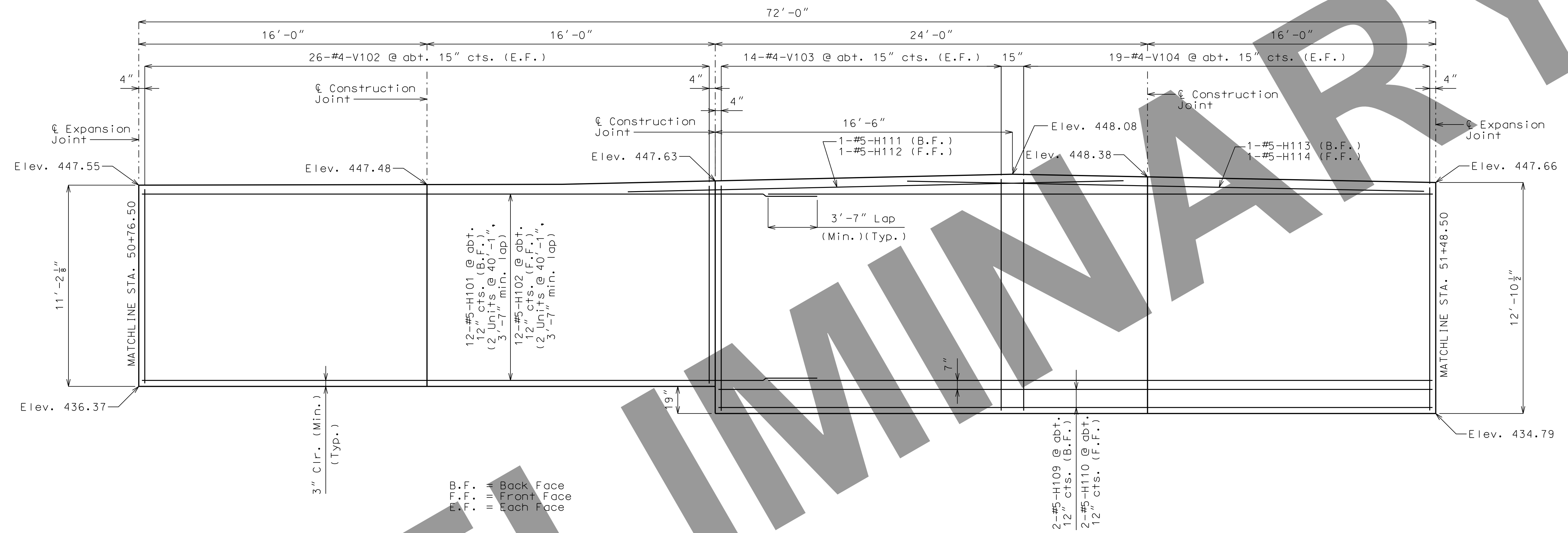
DATE

DESCRIPTION

DATE

DESCRIPTION

DATE



B.F. = Back Face
 F.F. = Front Face
 E.F. = Each Face

PART DEVELOPED ELEVATION

(Piles and Type A Gutter not shown for clarity.)
(Looking at back face of wall.)

- Notes:
- Field Bend H-bars to fit.
 - For Typical Section Thru Wall, see Sheet No. 7.
 - For Details of Expansion Joints and Construction Joints, see Sheet No. 7.

CIP WALL DETAILS - SECTION 2

Designed: SSM
Detailed: CAB
Checked: TPL

I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL

CIP WALL DETAILS SECTION 2

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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03/16/22

DATE PREPARED
3/14/2022

ROUTE I-270	STATE MO
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DISTRICT BR	SHEET NO. 6
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COUNTY

ST. LOUIS CITY

JOB NO.
J613020C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9254

DESCRIPTION

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MISSOURI HIGHWAYS AND TRANSPORTATION

COMMISSION

COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

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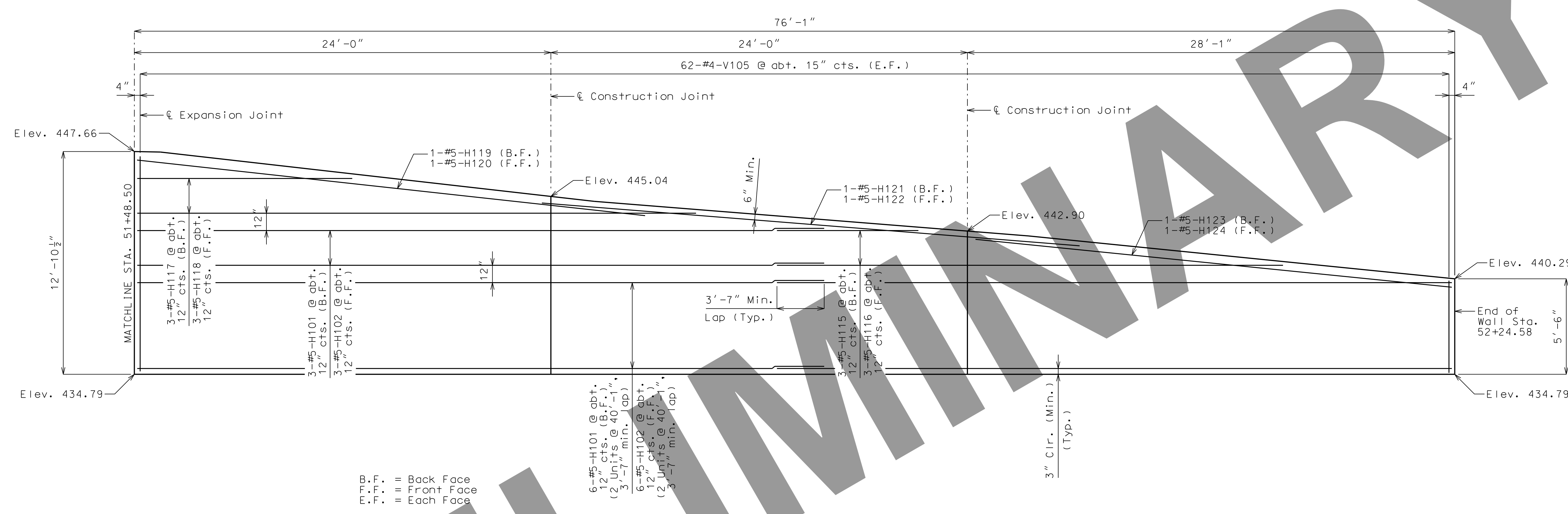
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COMMISSION



B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

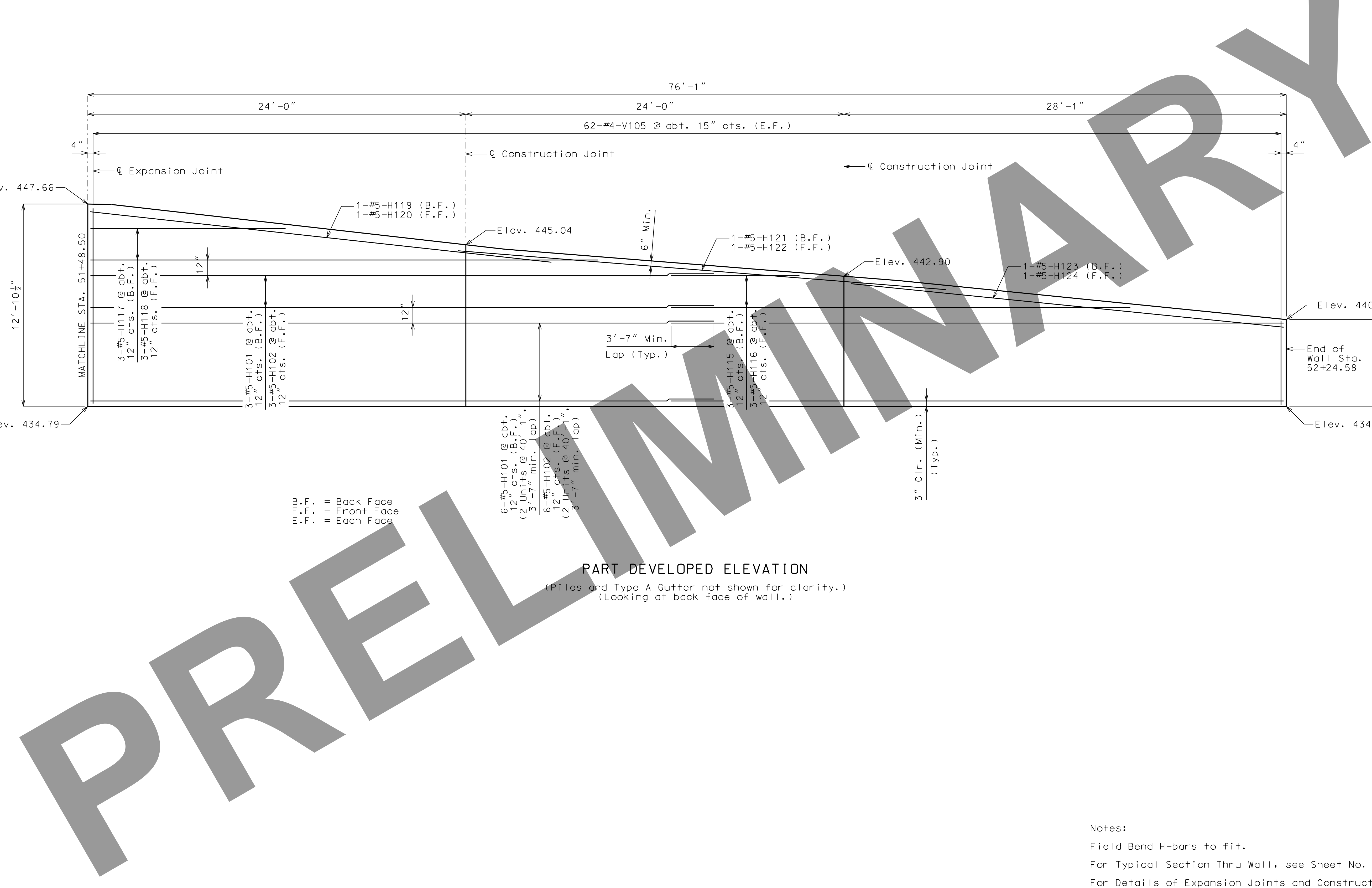
PART DEVELOPED ELEVATION
(Piles and Type A Gutter not shown for clarity.)
(Looking at back face of wall.)

Notes:
Field Bend H-bars to fit.
For Typical Section Thru Wall, see Sheet No. 7.
For Details of Expansion Joints and Construction Joints, see Sheet No. 7.

CIP WALL DETAILS - SECTION 3

Designed: SSM
Detailed: CAB
Checked: TPL

Note: This drawing is not to scale. Follow dimensions. Sheet No. 6 of 11





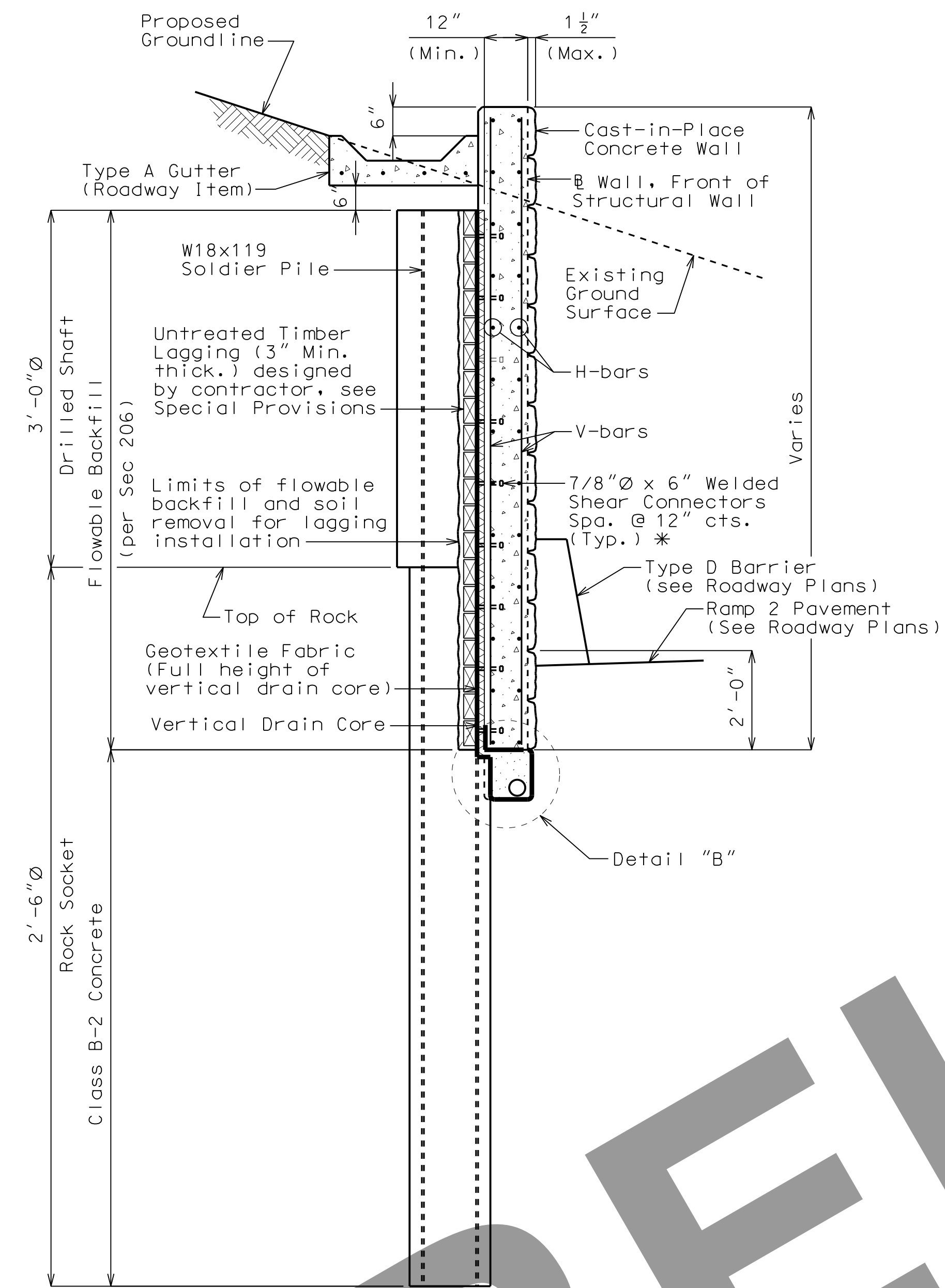
DATE PREPARED 3/14/2022	
ROUTE I-270	STATE MO
DISTRICT BR	SHEET NO. 7
COUNTY ST. LOUIS CITY	
JOB NO. J613020C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9254	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

HORNER SHIFRIN
 401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
 314-531-4321 - FAX 314-531-4986
 WWW.HORNERSHIFRIN.COM
 DESIGNER/ENGINEER
 CERTIFICATE OF AUTHORITY: 000169

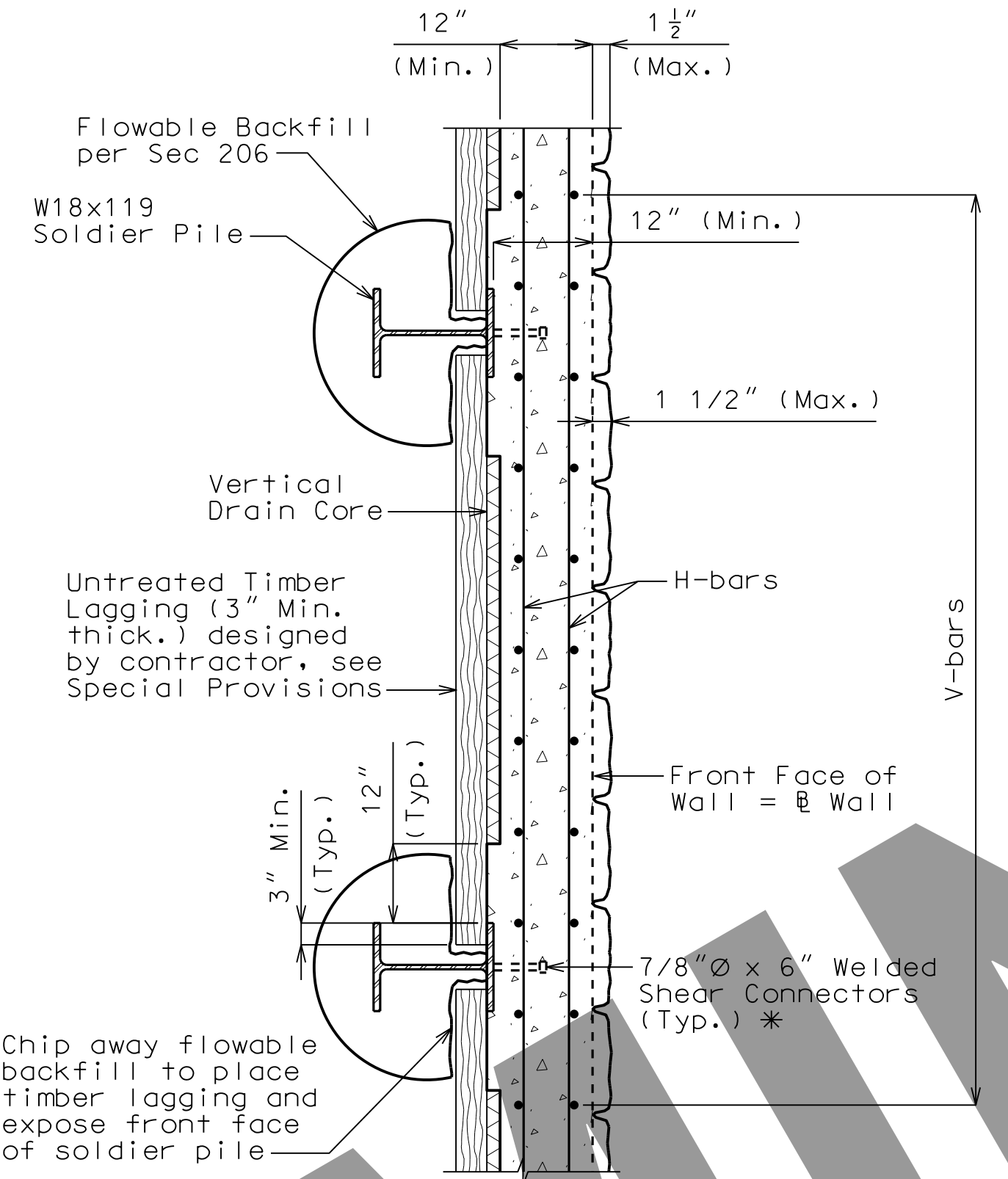
I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL
 TYPICAL DETAILS



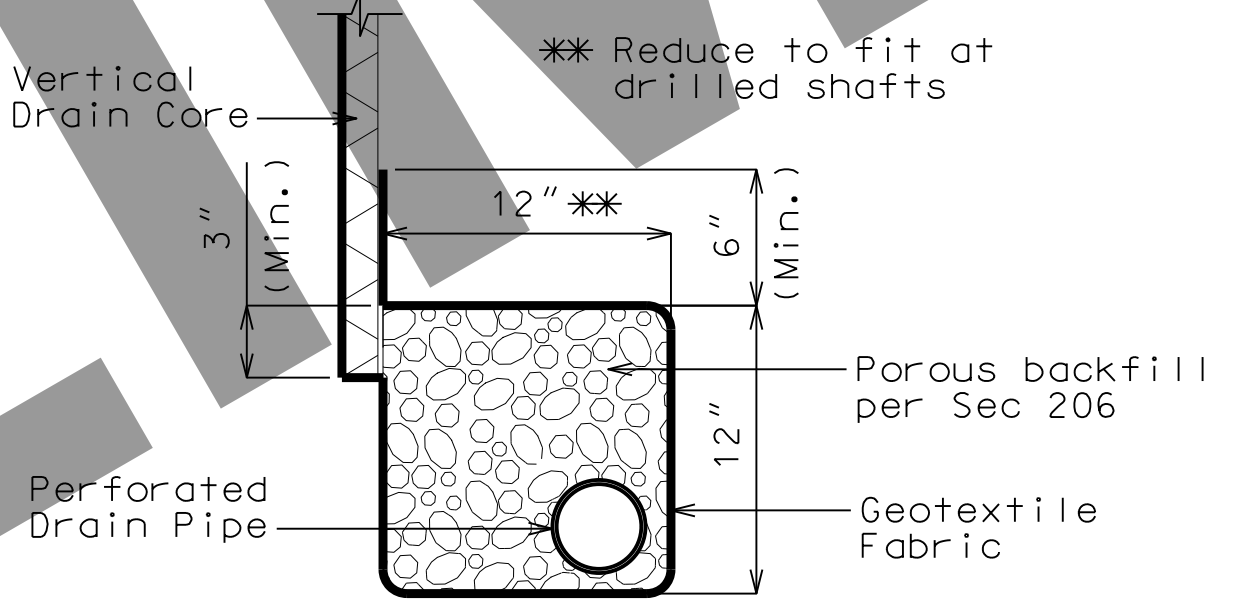
TYPICAL SECTION THRU SOLDIER PILE WALL

Note: For details of H-bars and V-bars, see Sheets No. 4 to 6.

* Piles with welded shear connectors may not fit in rock socket hole. The contractor may either drill a larger diameter rock socket or weld the shear connectors after exposing the piles. No adjustment will be made to the contract unit cost of any pay item.



PART PLAN OF SOLDIER PILE WALL



DETAIL "B"

Drainage System Notes:

Cost of installing drainage system complete in place will be considered completely covered by the contract price for Drainage System. See Special Provisions.

Drain pipe may be either 6" diameter corrugated metallic-coated steel pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

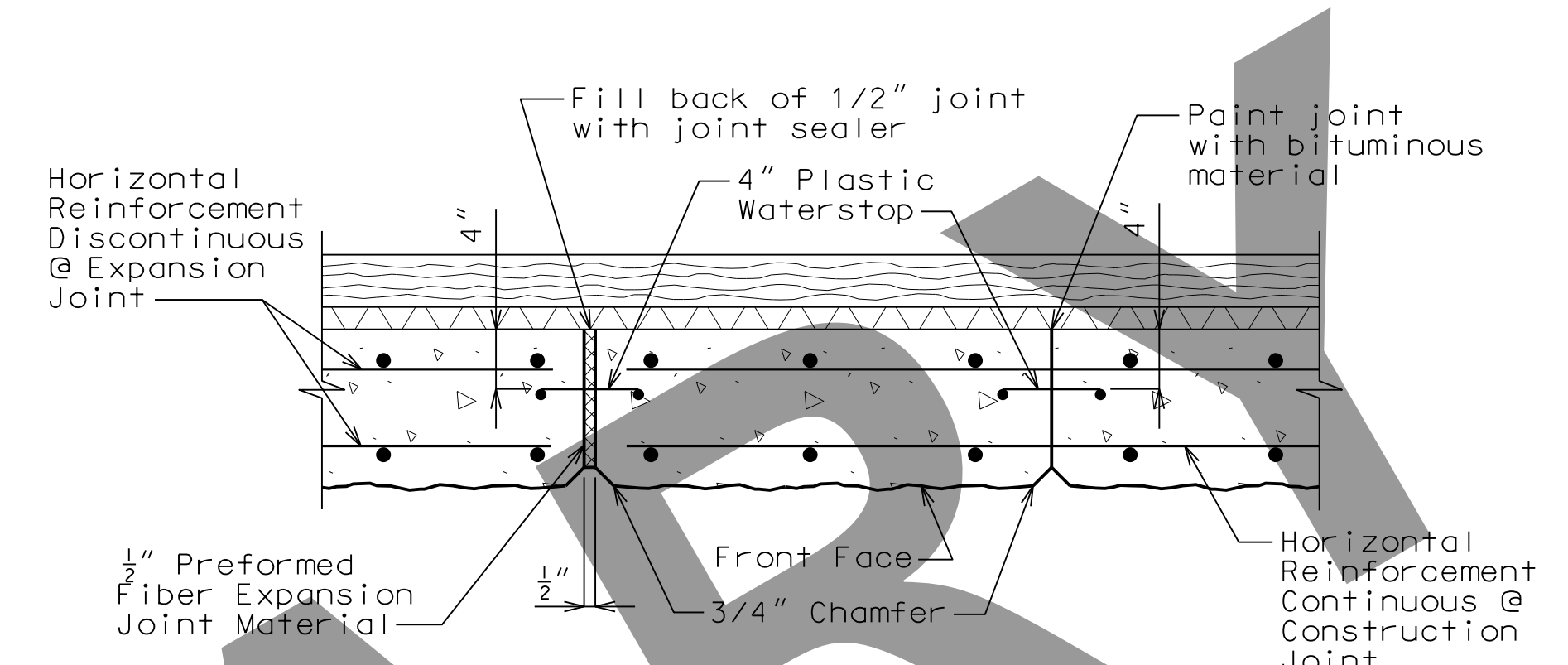
Slope pipe to drain and continue to daylight as approved by the Engineer.

Perforated pipe shall be placed as shown under wall and plain pipe shall be used from end of wall to end of pipe.

Vertical drain core shall be in accordance with Sec 1012.3.3.

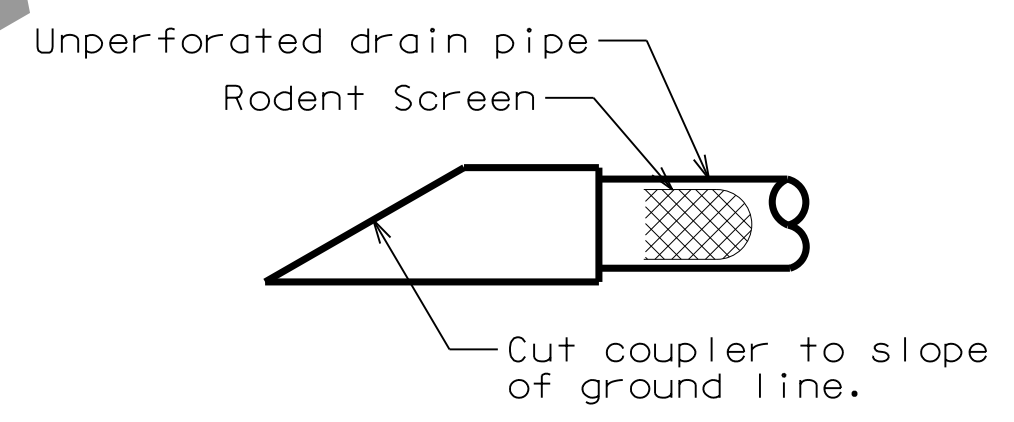
TYPICAL DETAILS

Note: This drawing is not to scale. Follow dimensions.

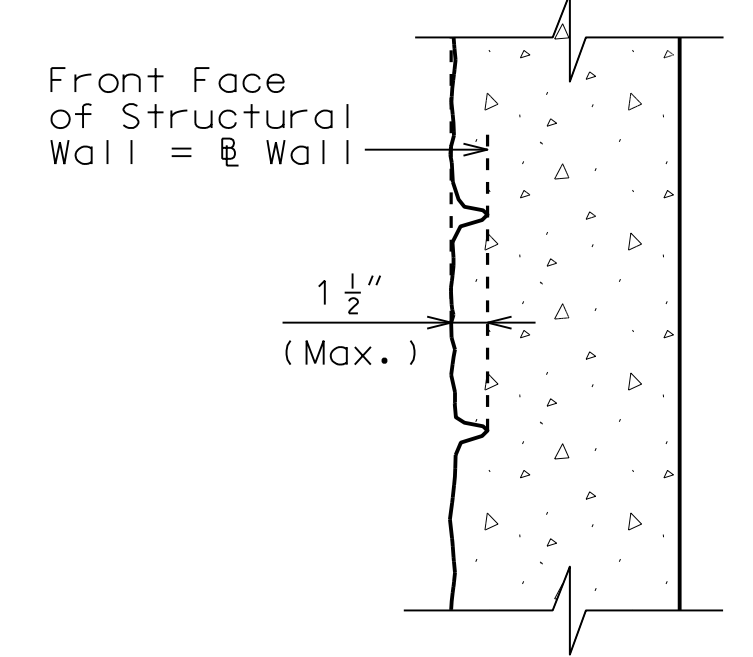


PART SECTION THRU WALL SHOWING JOINTS

Cost of water stop and expansion joint material shall be included in the contract unit price for other items. For location of joints, see Sheet No. 1.



DETAIL "C"



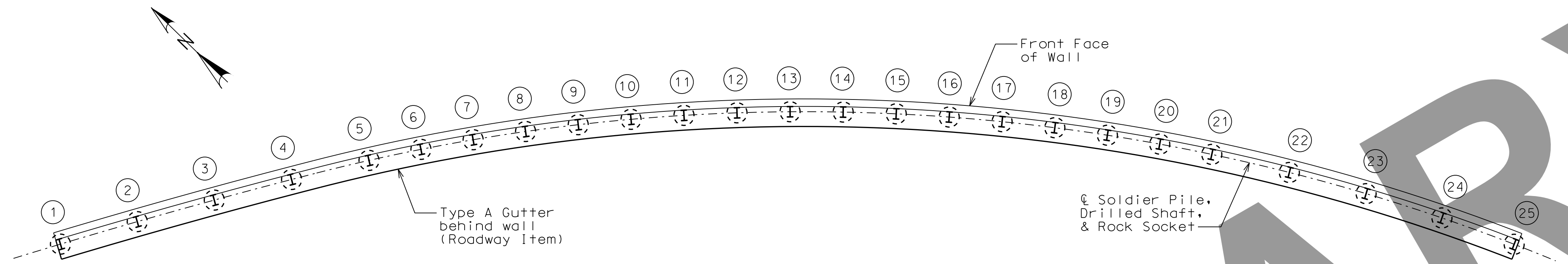
FORM LINER DETAIL

Form Liner may be one of the following or equal as approved by the Engineer:

- Scott System, Inc.:
Form Liner Pattern #167 "Ashlar Stone"
- Fitzgerald Form Liners:
Form Liner Pattern #16986 "Ashlar Stone"
- Dayton Superior/Symons:
Form Liner Pattern #1515 "Ashlar Stone"
- Spec Formliners, Inc.:
Form Liner Pattern #1515 "Ashlar Stone"
- Custom Rock:
Form Liner Pattern #1501 "Large Sandstone Ashlar"

Designed: SSM
 Detailed: CAB
 Checked: TPL

Sheet No. 7 of 11



PART PLAN SHOWING
 PILE AND DRILLED SHAFT NUMBERING FOR RECORDING
 AS-BUILT PILE AND DRILLED SHAFT DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

As-Built Drilled Shaft Data				
Shaft No.	Top of Sound Rock (Elev.)	Tip of Casing (Elev.)	Bottom of Rock Socket (Elev.)	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

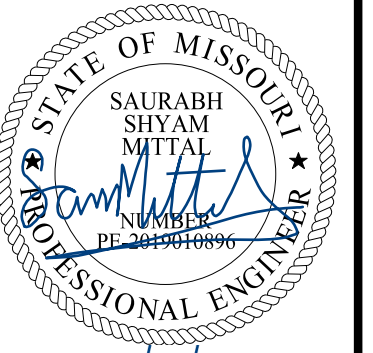
Note:
 Indicate in remarks column:
 A. Pile type and grade
 B. Batter
 C. Driven to practical refusal
 This sheet to be completed by MoDOT construction personnel.

AS-BUILT PILE AND DRILLED SHAFT DATA

Designed: SSM
 Detailed: CAB
 Checked: TPL

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 9 of 11



03/16/22

DATE PREPARED

3/14/2022

ROUTE STATE

I-270 MO

DISTRICT SHEET NO.

BR 9

COUNTY

ST. LOUIS CITY

JOB NO.

J613020C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9254

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

MoDOT

HORNER SHIFRIN

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103

314-531-4321 - FAX 314-531-4986

WWW.HORNERSHIFRIN.COM

DISCIPLINE: CIVIL ENGINEERING

CERTIFICATE OF AUTHORITY: 80059

I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL

AS-BUILT PILE AND DRILLED SHAFT DATA



Millennia Professional Services

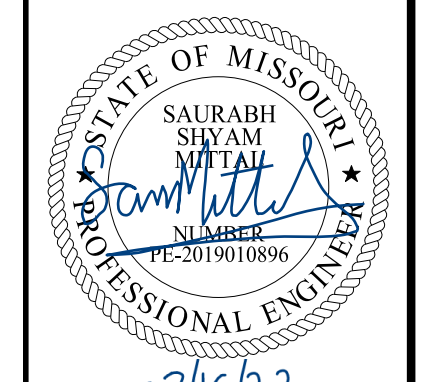
BORING NUMBER RW-3

PAGE 1 OF 1

CLIENT Homer & Shifrin, Inc. PROJECT NAME Interstate 270 at Riverview Drive - MSE Wall
 PROJECT NUMBER MG20007 PROJECT LOCATION St. Louis, Missouri
 DATE STARTED 8/18/21 COMPLETED 8/18/21 GROUND ELEVATION 438.607 ft HOLE SIZE inches
 DRILLING CONTRACTOR Bulldog, CME75LC, Efficiency: 94% GROUND WATER LEVELS:
 DRILLING METHOD Hollow Stem Auger AT TIME OF DRILLING --- Not encountered
 LOGGED BY B.Fisher CHECKED BY J. Schaeffer AT END OF DRILLING --- Not available due to coring fluid
 NOTES Offset 10 ft. West. Vegetation stripped during access clearance. AFTER DRILLING ---

GEO TECH BH COLUMNS - GINT STD US LAB.GDT - 8/30/21 15:49 - G:\PROJECT FILES\2020\MG20007\I-270 RIVERVIEW DRIVE INTERCHANGE\FIELD DATA\JULY 2021 MSE WALL\MSE WALL - I270 AT RIVERVIEW DRIVE.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		Brown to reddish brown, mottled with grey, lean CLAY (CL), with sand, trace fine roots, gravel, and coal	SS 1	22	4-3-3 (6)	2.5		19	42	19	23	
		434.857 Black, silty COAL 434.357	SS 2	50	6-14-15 (29)			33				
5		Black, highly weathered SHALE - trace coal seams above 5.0 ft. - grey below 6.0 ft.	SS 3	89	7-10-16 (26)			15				
		- light grey, slickensided below 8.5 ft.	SS 4	100	5-17-26 (43)			11	43	20	23	
10		- sandy from 11.0 to 12.5 ft.	SS 5	100	10-23-26 (49)			11				
15		- light grey to whiteish grey, calcareous, hard below 14.0 ft. Refusal at 15.0 feet. Bottom of borehole at 15.0 feet.	SS 6	84	14-50/6"			8				



DATE PREPARED 3/14/2022
 ROUTE I-270 STATE MO
 DISTRICT BR SHEET NO. 11
 COUNTY ST. LOUIS CITY
 JOB NO. J613020C
 CONTRACT ID. _____
 PROJECT NO. _____
 BRIDGE NO. A9254

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

HORNER SHIFRIN
 401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
 314-531-4321 - FAX 314-531-4986
 WWW.HORNERSHIFRIN.COM
 DISCIPLINE: GEOTECHNICAL ENGINEERING
 CERTIFICATE OF AUTHORITY: 000169

I-270 OVER ROUTE H (RIVERVIEW DRIVE) SOLDIER PILE WALL
BORING DATA

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Note: This drawing is not to scale. Follow dimensions. Sheet No. 11 of 11

Designed: SSM
 Detailed: CAB
 Checked: TPL