

Page 1 of 1

Date 4/21/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>I-80 at Center Street</u>	LOGGED BY	<u>DD</u>
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SECTION I-80 over Des Plaines River **LOCATION** SEC. 16, TWP. 35 N, RNG. 10 E,

Latitude , Longitude	DRILLING RIG	CME-75
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COUNTY	Will	DRILLING METHOD	HSA	HAMMER TYPE	AUTO
				HAMMER EFF (%)	91

STRUCT. NO. 099-8332	D	B	U	M	Surface Water Elev.	N/A	ft
Station	E	L	C	O	Stream Bed Elev.	N/A	ft

BORING NO. <u>BSB-67</u>	T	W	S	Groundwater Elev.:
Station <u>28+3.85'</u>	H	S	Qu	First Encounter <u>None</u> ft
Offset <u>46.48ft RT</u>				Upon Completion <u>N/A</u> ft
Ground Surface Elev. <u>593.57</u> ft	(ft)	(/6")	(tsf)	After <u>Hrs.</u> <u>N/A</u> ft
			(%)	

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

NOTE:

1. The location of Boring Log BSB-67 is at Sta. 28+97.91 (Center St.) Offset: 61.65' Rt. Elev. 593.57

Page 1 of 1

Date 4/21/22

ROUTE	I-80	DESCRIPTION	I-80 at Center Street	LOGGED BY	MH
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SECTION I-80 over Des Plaines River **LOCATION** SEC. 16, TWP. 35 N, RNG. 10 E,

Latitude , Longitude	DRILLING RIG	Diedrich D-50
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COUNTY	Will	DRILLING METHOD	HSA	HAMMER TYPE	AUTO
				HAMMER EFF (%)	98

STRUCT. NO. 099-8332	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O

BORING NO. <u>BSB-68</u>	T	W		S	Groundwater Elev.:	T	W	S
Station <u>27+05.61'</u>	H	S	Qu	T	First Encounter <u>None</u> ft	H	S	Qu
Offset <u>174.55ft RT</u>					Upon Completion <u>N/A</u> ft			
Ground Surface Elev. <u>575.39</u> ft	(ft)	(/6")	(tsf)	(%)	After <u>Hrs.</u> <u>N/A</u> ft	(ft)	(/6")	(tsf) (%)

15 inches of Asphalt				Light Gray	
3 inches of Aggregate Base				LIMESTONE, slightly weathered,	
Course	574.14	4		lightly fractured (<i>continued</i>)	
	573.89	9	15		
Brown and Gray, Dry to Moist		21			
FILL: SAND AND GRAVEL, with					
limestone fragments					
		7		Run 2: 23.5' - 28.5'	
		11	4	Recovery: 95%	
	-5	9		RQD: 92.5% (Excellent)	-25
		2			
		2	4		
		3			
		4			546.89
		16	2	End of Boring	
		8			-30
	564.39				
Very Dense		23			
Light Brown, Dry		50/5"	2		
SAND, with gravel (SPG)					
	561.89				
Auger refusal at 13.5 feet					
Light Gray					
LIMESTONE, slightly weathered,					
lightly fractured	-15				-35
Run 1: 13.5' - 23.5'					
Recovery: 95%					
RQD: 76.7% (Good)					
	-20				-40

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

NOTE:

1. The location of Boring Log BSB-68 is at Sta. 27+48.14 (Center St.) Offset: 21.69' Rt. Elev. 575.39



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (SHEET 2 OF 4)
STRUCTURE NO. 099-8332

SHEET SB-46 OF SB-48 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	701
		CONTRACT NO. 62R22		
ILLINOIS		FED. AID PROJECT		

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Page 1 of 1

Date 6/18/23

ROUTE	I-80	DESCRIPTION	I-80 at Center Street	LOGGED BY	AA
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SECTION I-80 over Des Plaines River **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude CME-75	Longitude HSA	HAMMER TYPE HAMMER EFF (%)	AUTO 79.8
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STRUCT. NO. 099-8332	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev.	N/A	ft	D E P T H	B L O W S	U C S	M O I S T		
Station						Stream Bed Elev.	N/A					ft	
BORING NO. BSB-301						Groundwater Elev.:							
Station 27+64.99'						First Encounter	Dry					ft	
Offset 162.09ft LT						Upon Completion	N/A					ft	
Ground Surface Elev. 599.00	ft	(ft)	(/6")	(tsf)	(%)	After	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The location of Boring Log BSB-301 is at Sta. 30+82.65' (Center St.) Offset: 43.02' Lt. Elev. 599.00

Page 1 of 1

Date 6/22/23

ROUTE	I-80	DESCRIPTION	I-80 at Center Street	LOGGED BY	EH
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SECTION I-80 over Des Plaines River **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude	Longitude	HAMMER TYPE	AUTO
			CME-75	HSA		

STRUCT. NO. 099-8332	D E P T H B L O W S U C S M O I S T Qu (ft) (/6") (tsf) (%)	Surface Water Elev. N/A ft
Station		Stream Bed Elev. N/A ft
BORING NO. BSB-302		Groundwater Elev.:
Station 26+94.09'		First Encounter Dry ft
Offset 132.49ft RT		Upon Completion N/A ft
Ground Surface Elev. 573.14 ft		After Hrs. N/A ft

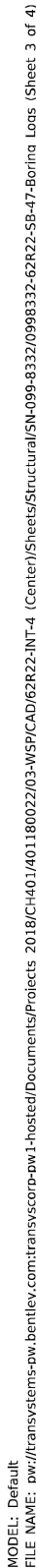
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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The location of Boring Log BSB-302 is: Sta. 27+80.94 (Center St.) Offset: 6.62' Lt. Elev. 573.14



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (SHEET 3 OF 4)
STRUCTURE NO. 099-8332

SHEET SB-47 OF SB-48 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	702
		CONTRACT NO. 62R22		
ILLINOIS		FED. AID PROJECT		

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SOIL BORING LOG

ROUTE I-80 DESCRIPTION I-80 at Center Street LOGGED BY AA

SECTION I-80 over Des Plaines River LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 79.8

STRUCT. NO. 099-8332	D	B	U	M	Surface Water Elev. N/A ft
Station	E	L	C	O	Stream Bed Elev. N/A ft
BORING NO. BSB-303	P	W	S	I	
Station 25+96.54'	T	H	Qu	T	Groundwater Elev.:
Offset 150.34ft RT					First Encounter Dry ft
Ground Surface Elev. 593.14 ft	(ft)	(/6")	(tsf)	(%)	Upon Completion N/A ft
					After Hrs. N/A ft
4 inches of Topsoil 592.81					
Dark Brown, Moist					
FILL: SILTY CLAY					
Auger refusal at 2 feet 591.14					
Light Gray					
LIMESTONE, slightly weathered					
Run 1: 2' - 7'					
Recovery: 100%					
RQD: 0% (Very Poor)					
-5					
586.14					
Light Gray					
LIMESTONE, slightly weathered					
Run 2: 7' - 12'					
Recovery: 100%					
RQD: 0% (Very Poor)					
-10					
581.14					
Light Gray					
LIMESTONE, slightly weathered					
Run 3: 12' - 17'					
Recovery: 100%					
RQD: 0% (Very Poor)					
-15					
576.14					
End of Boring					
-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

NOTE:

1. The location of Boring Log BSB-303 is at Sta. 27+19.74 (Center St.) Offset: 79.03' Lt. Elev. 593.14

MODEL: Default
FILE NAME: pw://transysystems-pw.bentley.com/transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-8332/0998332-62R22-SB-48-Boring Logs (Sheet 4 of 4)



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 4 OF 4)
STRUCTURE NO. 099-8332

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	703
CONTRACT NO. 62R22				
SHEET SB-48 OF SB-48 SHEETS				
ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at south ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: Entrance ramp traffic from SB Center St. to WB I-80 will be detoured to the west at Larkin Ave.

Salvage: None.

DESIGN STRESSES
FIELD UNITS

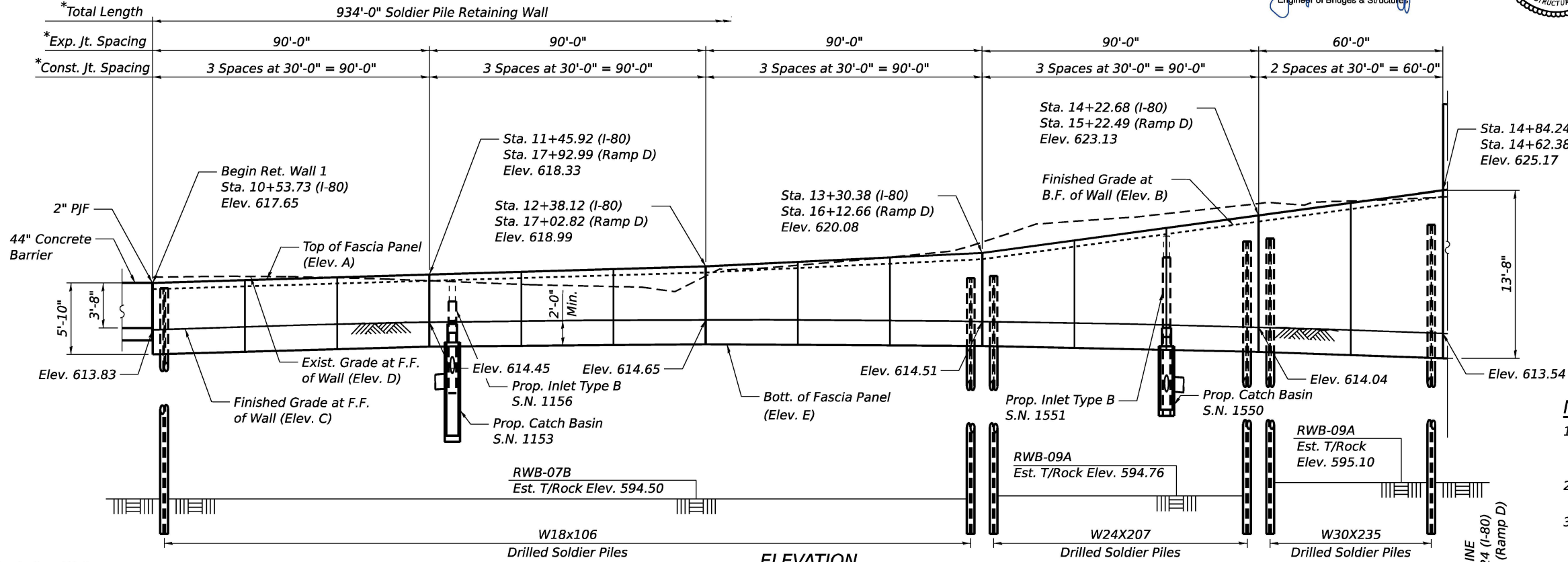
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50) Soldier Piles

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



Signed *Moussa A. Issa*
Dr. Moussa A. Issa, S.E. IL. Lic. No. 081-005738
Expires 11-30-2026
Date 4/22/2025 For Sheets SC-01 Thru SC-31.

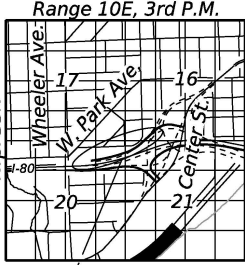
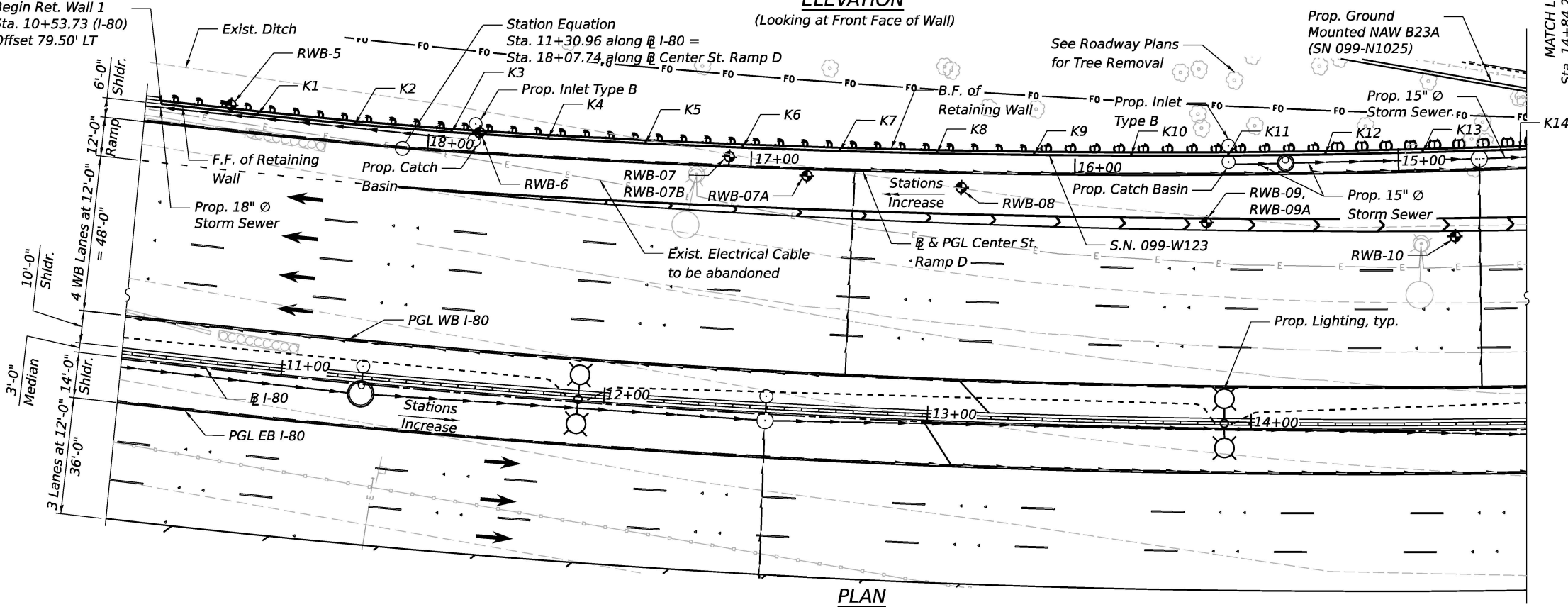


LEGEND

- E — Exist. Electrical Cable
- G — Exist. Gas line
- A — Exist. Aerial line
- S — Exist. Storm sewer
- S — Exist. Sanitary Sewer
- G — Guardrail
- EOP — EOP
- AC — ROW
- F — Fence
- P — Prop. Storm Sewer
- P — Prop. Pipe underdrain
- F — Prop. Fiber Optics
- L — Exist. Lighting
- P — Prop. Lighting
- I — Inlet / Catch Basin
- B — Boring
- T — Traffic Sign
- F.F. — Front Face
- B.F. — Back Face
- NAW — Noise Abatement Wall

NOTES:

- Stations and offsets are measured from the I-80 and Center St. Ramp D to the front face of the cast-in-place concrete facing.
- "K1" denotes wall Kink Point - Number 1, at the Front Face of wall.
- Space soldier piles to miss Pipe underdrains. For Drainage Structures to Pipe Underdrain connection details, see Roadway Plans.
- For Proposed Inlets Type B and Catch basins Details and quantities, see Roadway Plans.

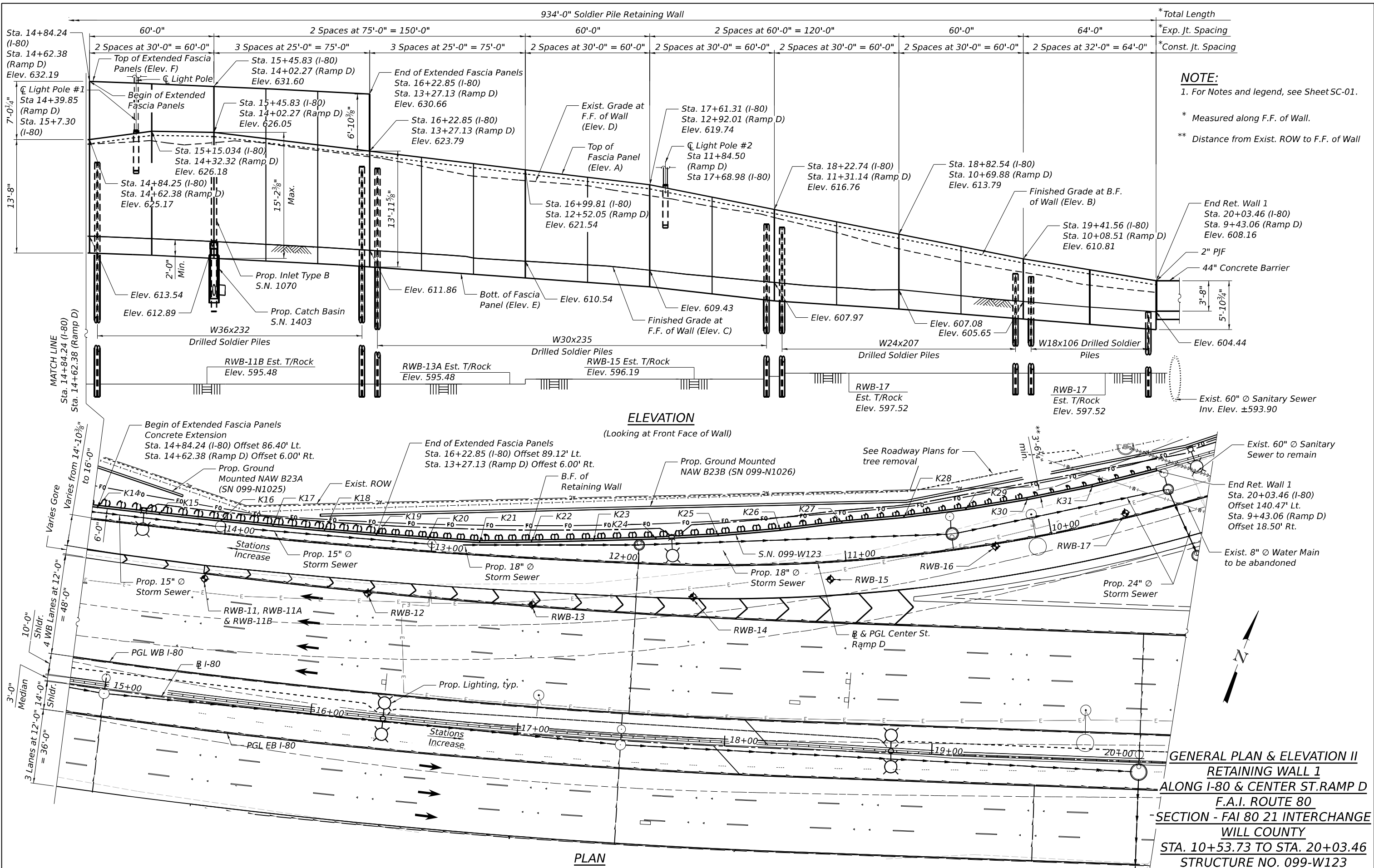


GENERAL PLAN & ELEVATION I
RETAINING WALL 1
ALONG I-80 & CENTER ST. RAMP D
F.A.I. ROUTE 80
SECTION- FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 10+53.73 TO STA. 20+03.46
STRUCTURE NO. 099-W123

HBM ENGINEERING GROUP, LLC	USER NAME =	DESIGNED - AGJ, JMI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 099-W123	SHEET SC-01 OF SC-31 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - MI, KJD	REVISED -				80	FAI 80 21 INTERCHANGE	WILL	1209	704
	PLOT DATE =	DRAWN - JMI, LR	REVISED -				CONTRACT NO. 62R222				
		CHECKED - MI	REVISED -				ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw://transsystems-pw1-hosted/Projects/2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W123-RW1099W123-62R22-SC-01-GPE1

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NOTE:
1. For Notes and legend, see Sheet SC-01.
* Measured along F.F. of Wall.
** Distance from Exist. ROW to F.F. of Wall



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W123

SHEET SC-02 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	705
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to exposed surfaces of the panels.
3. The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled soldier pile shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater and spoils resulting from Contractor's means and methods. No additional cost will be paid for this effort.
4. The Contractor shall field-verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
5. Wall to be built along straight Chords between kink points ("K_"), construction and expansion joints. See Wall Elevation table and Sheets SC-04 thru SC-16 for the locations for the construction joints, expansion joints and kink points.
6. Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The Contractor will not be compensated for issues related to the groundwater elevation.
7. Any storage of construction equipment and material behind wall is not allowed.
8. The Contractor shall exercise extreme caution in drilling and setting the soldier piles under Aerial Power Lines. The Contractor is responsible to coordinate with the utilities to de-energize these lines if required. The Contractor shall make necessary adjustments to the lengths of the soldier piles and to the auguring equipment to maintain adequate clearance to the Aerial Power Lines as specified in OSHA safety requirements. Lengths of soldier piles and any necessary splice details shall be approved by the Engineer prior to the start of work.

INDEX OF SHEETS

- SC-01 General Plan & Elevation I
- SC-02 General Plan & Elevation II
- SC-03 General Notes, Index of Sheets & Total Bill of Material
- SC-04 Plan and Elevation (Sheet 1 of 13)
- SC-05 Plan and Elevation (Sheet 2 of 13)
- SC-06 Plan and Elevation (Sheet 3 of 13)
- SC-07 Plan and Elevation (Sheet 4 of 13)
- SC-08 Plan and Elevation (Sheet 5 of 13)
- SC-09 Plan and Elevation (Sheet 6 of 13)
- SC-10 Plan and Elevation (Sheet 7 of 13)
- SC-11 Plan and Elevation (Sheet 8 of 13)
- SC-12 Plan and Elevation (Sheet 9 of 13)
- SC-13 Plan and Elevation (Sheet 10 of 13)
- SC-14 Plan and Elevation (Sheet 11 of 13)
- SC-15 Plan and Elevation (Sheet 12 of 13)
- SC-16 Plan and Elevation (Sheet 13 of 13)
- SC-17 Wall Cross Sections and Details (Sheet 1 of 5)
- SC-18 Wall Cross Sections and Details (Sheet 2 of 5)
- SC-19 Wall Cross Sections and Details (Sheet 3 of 5)
- SC-20 Wall Cross Sections and Details (Sheet 4 of 5)
- SC-21 Wall Cross Sections and Details (Sheet 5 of 5)
- SC-22 Boring Logs (Sheet 1 of 10)
- SC-23 Boring Logs (Sheet 2 of 10)
- SC-24 Boring Logs (Sheet 3 of 10)
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- SC-26 Boring Logs (Sheet 5 of 10)
- SC-27 Boring Logs (Sheet 6 of 10)
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- SC-30 Boring Logs (Sheet 9 of 10)
- SC-31 Boring Logs (Sheet 10 of 10)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	1,235	1,235
Concrete Structures	Cu Yd	-	374	374
Stud Shear Connectors	Each	-	2,316	2,316
Reinforcement Bars, Epoxy Coated	Pound	-	47,730	47,730
Name Plates	Each	-	1	1
Furnishing Soldier Piles (W Section)	Foot	-	4,151	4,151
Drilling And Setting Soldier Piles (In Soil)	Cu Ft	-	23,302	23,302
Drilling And Setting Soldier Piles (In Rock)	Cu Ft	-	10,878	10,878
Untreated Timber Lagging	Sq Ft	-	10,851	10,851
Concrete Sealer	Sq Ft	-	12,301	12,301
Geocomposite Wall Drain	Sq Yd	-	924	924
Pipe Underdrains For Structures 4"	Foot	-	938	938

STA. 10+53.73 TO STA. 20+03.46
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. Rte. 80
Sec. FAI 80 21 Interchange
LOADING HL-93
STR. NO. 099-W123

NAME PLATE

See Std. 515001

WALL ELEVATION TABLE

Location	I-80		Ramp D		Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F
	Station	Offset	Station	Offset						
Begin Wall	10+53.73	79.50' Lt.	-	-	617.65	617.15	613.83	618.12	611.83	-
K1	10+84.46	79.50' Lt.	-	-	617.87	617.37	614.08	618.18	612.04	-
K2	11+15.19	79.50' Lt.	-	-	618.10	617.60	614.29	618.07	612.25	-
K3	11+45.92	79.79' Lt.	17+92.99	6.00' Rt.	618.33	617.83	614.45	617.83	612.45	-
K4	11+76.65	80.39' Lt.	17+62.93	6.00' Rt.	618.55	618.05	614.55	617.54	612.52	-
K5	12+07.38	80.99' Lt.	17+32.88	6.00' Rt.	618.77	618.27	614.62	617.36	612.58	-
K6	12+38.12	81.58' Lt.	17+02.82	6.00' Rt.	618.99	618.49	614.65	618.21	612.65	-
K7	12+68.87	82.18' Lt.	16+72.77	6.00' Rt.	619.36	618.86	614.64	619.08	612.60	-
K8	12+99.62	82.78' Lt.	16+42.71	6.00' Rt.	619.72	619.22	614.60	619.73	612.56	-
K9	13+30.38	83.39' Lt.	16+12.66	6.00' Rt.	620.08	619.58	614.51	620.96	612.51	-
K10	13+61.14	83.99' Lt.	15+82.60	6.00' Rt.	621.12	620.62	614.39	622.65	612.35	-
K11	13+91.91	84.59' Lt.	15+52.55	6.00' Rt.	622.12	621.62	614.23	623.29	612.20	-
K12	14+22.68	85.19' Lt.	15+22.49	6.00' Rt.	623.13	622.63	614.04	624.10	612.05	-
K13	14+53.46	85.80' Lt.	14+92.44	6.00' Rt.	624.15	623.65	613.81	624.31	611.77	-
K14	14+84.24	86.40' Lt.	14+62.38	6.00' Rt.	625.17	624.67	613.54	624.63	611.50	632.19
K15	15+15.04	87.00' Lt.	14+32.32	6.00' Rt.	626.18	625.68	613.23	625.03	611.23	631.91
K16	15+45.83	87.61' Lt.	14+02.27	6.00' Rt.	626.05	625.55	612.89	624.81	610.85	631.60
K17	15+71.50	88.11' Lt.	13+77.22	6.00' Rt.	625.30	624.80	612.57	624.71	610.53	631.31
K18	15+97.17	88.62' Lt.	13+52.18	6.00' Rt.	624.54	624.04	612.23	623.87	610.21	630.99
K19	16+22.85	89.12' Lt.	13+27.13	6.00' Rt.	623.79	623.29	611.86	623.10	609.82	630.66
K20	16+48.53	89.63' Lt.	13+02.09	6.00' Rt.	623.04	622.54	611.47	621.99	609.38	-
K21	16+74.21	90.23' Lt.	12+77.04	6.10' Rt.	622.29	621.79	610.91	620.78	608.94	-
K22	16+99.81	92.52' Lt.	12+52.05	7.89' Rt.	621.54	621.04	610.54	620.23	608.50	-
K23	17+30.55	95.27' Lt.	12+22.04	10.03' Rt.	620.64	620.14	610.09	619.62	607.97	-
K24	17+61.31	98.02' Lt.	11+92.01	12.17' Rt.	619.74	619.24	609.43	618.40	607.43	-
K25	17+92.06	101.17' Lt.	11+61.62	14.35' Rt.	618.25	617.75	608.67	617.10	606.59	-
K26	18+22.74	105.14' Lt.	11+31.14	16.52' Rt.	616.76	616.26	607.97	615.79	605.74	-
K27	18+52.78	109.77' Lt.	11+00.56	18.50' Rt.	615.27	614.77	607.37	613.97	605.24	-
K28	18+82.54	113.51' Lt.	10+69.88	18.50' Rt.	613.79	613.29	607.08	612.02	604.74	-
K29	19+12.15	118.34' Lt.	10+39.20	18.50' Rt.	612.30	611.80	606.36	610.46	604.14	-
K30	19+41.56	124.26' Lt.	10+08.51	18.50' Rt.	610.81	610.31	605.65	609.18	603.54	-
K31	19+72.69	131.67' Lt.	9+75.79	18.50' Rt.	609.49	608.99	604.99	607.64	602.90	-
End Wall	20+03.46	140.47' Lt.	9+43.06	18.50' Rt.	608.16	607.66	604.44	606.76	602.26	-

Elevation A - Top of Fascia Panel

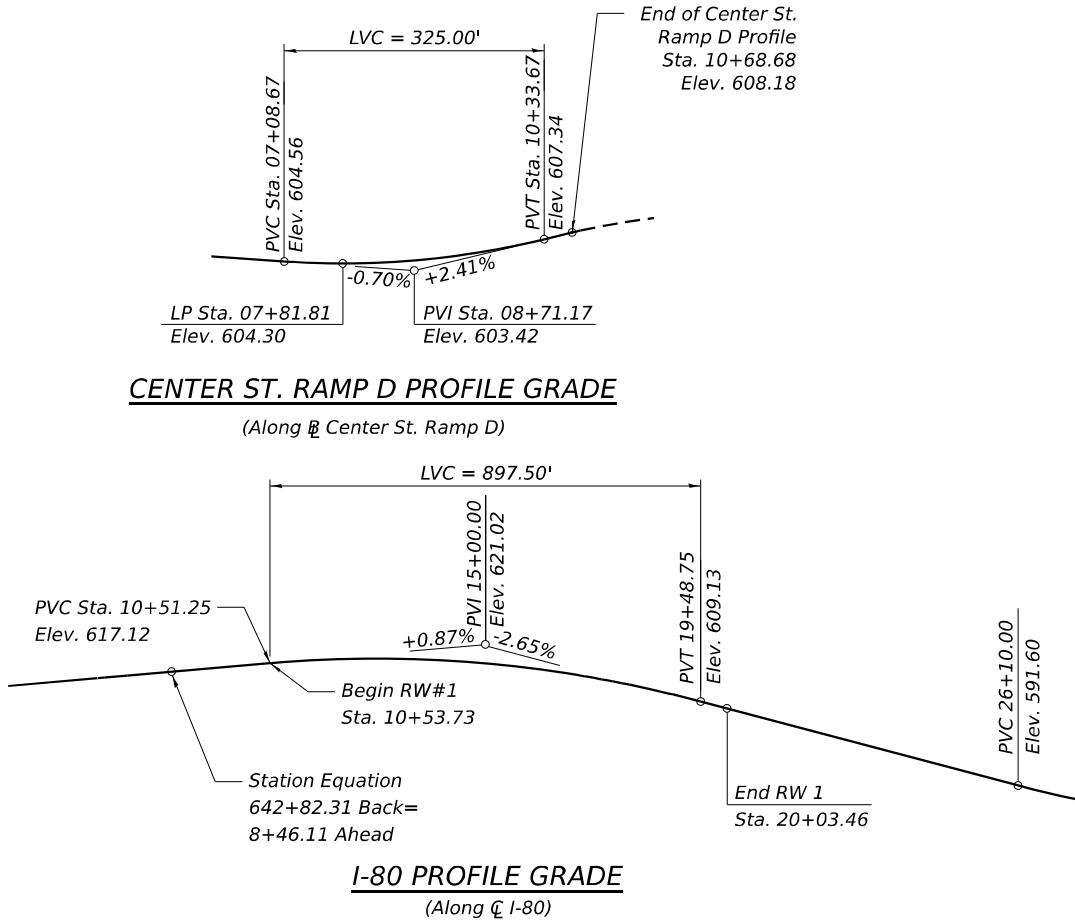
Elevation B - Finished Grade at B.F. of Wall

Elevation C - Finished Grade at F.F. of Wall

Elevation D - Exist. Grade at F.F. of Wall

Elevation E - Bott. of Fascia Panel

Elevation F - Top of Extended Fascia Panels



SUGGESTED SEQUENCE OF CONSTRUCTION

1. Locate all existing utilities that are to remain. The Contractor shall coordinate any required improvements to, or removals of, existing utilities with utility owner(s), CDOT and IDOT.
2. Install drilled shafts for the Proposed Noise Abatement Wall NAW B23A (SN 099-N1025) and NAW B23B (SN 099-N1026) along their full lengths in areas adjacent to the proposed RW1 Retaining Wall (SN 099-W123).
3. Install Drilled Soldier Piles throughout the full length of proposed retaining wall.
4. Excavate for proposed RW1 Retaining Wall (SN 099-W123) and proposed 15" Ø storm sewer as required and install untreated timber lagging for drilled soldier piles from top down as excavation proceeds.
5. Construct the Catch Basin and proposed 15" Ø storm sewer located in front of the wall.
6. Construct the proposed inlet structures 1156, 1551 and 1070 and connect them with a 15" Ø storm sewer to the new Catch Basin located in front of the wall.
7. Back fill above storm sewer to the bottom of the 4" Ø pipe underdrain.
8. Install Geocomposite Wall Drain, pipe underdrain for structures and associated drainage elements.
9. Construct reinforced concrete facing for proposed RW1 Retaining Wall (SN 099-W123).
10. Backfill to proposed grade at front face of retaining and at concrete curb (back face of retaining wall).
11. Construct Type B Concrete Gutter.
12. Apply protective concrete sealer, install light poles.
13. Construct proposed sidewalk, curb wall and roadway elemets at front face of retaining wall. See Roadway Plans.

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GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
STRUCTURE NO. 099-W123

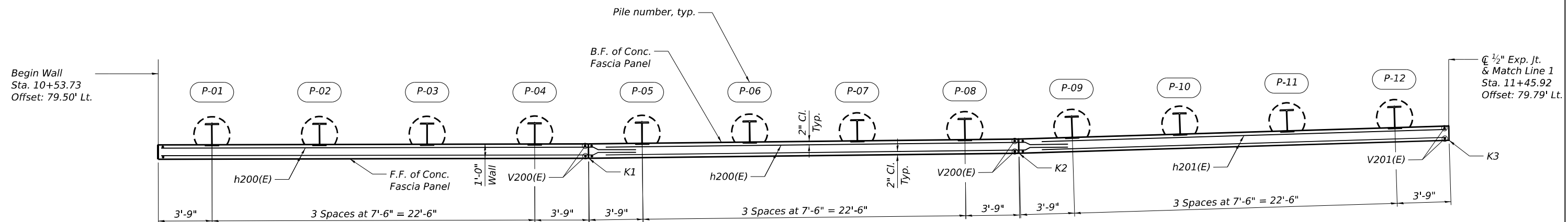
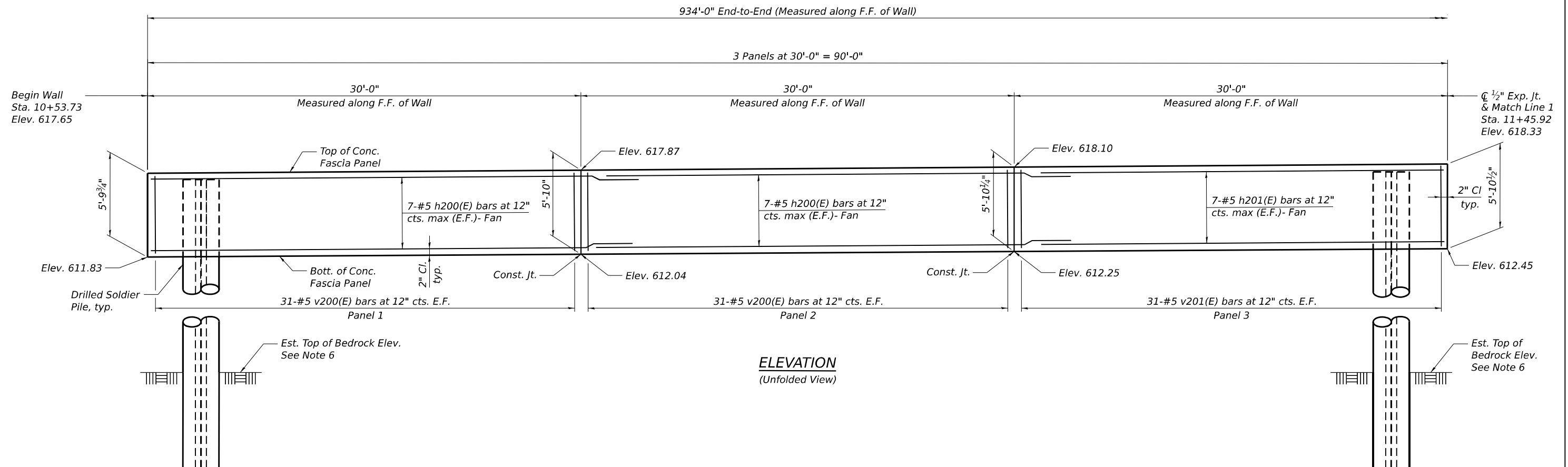
SHEET SC-03 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	706
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

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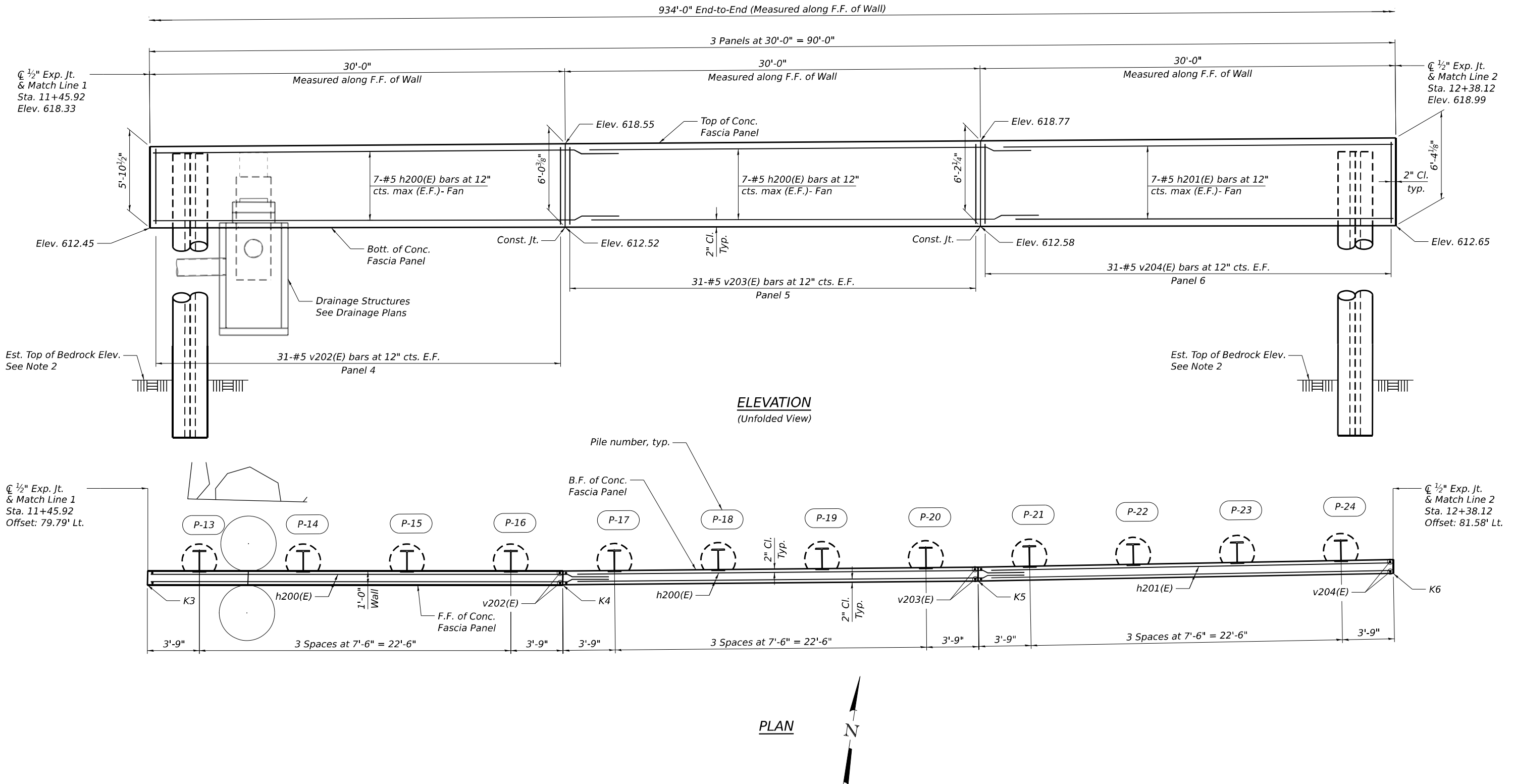
NOTES:

1. *All dimensions are along F.F. of wall.*
2. *For typical wall cross sections and details, see Sheets SC-17 thru SC-20.*
3. *For Bill of Material, minimum Bar Laps and bar diagrams and details see Sheet SC-20.*
4. *For Soldier Pile Layout Table, minimum bar laps, section details, and Bill of Material, see Sheet SC-21.*
5. *Stations and Offsets are measured along the F.F. of the wall from the C of I-80.*
6. *For Est. Top of Bedrock Elev., see sheet SC-21.*

LEGEND

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

MODEL: Default
FILE NAME: pw://transys/pw.bentley.com/transyscorp/pw1-hosted/Documents/Projects_2018/CH40_1401.180022/03-WSP(CAD)/62R22-INT-4 (Center)/Sheets/Structural/SC-05-Plan&Elev/



NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
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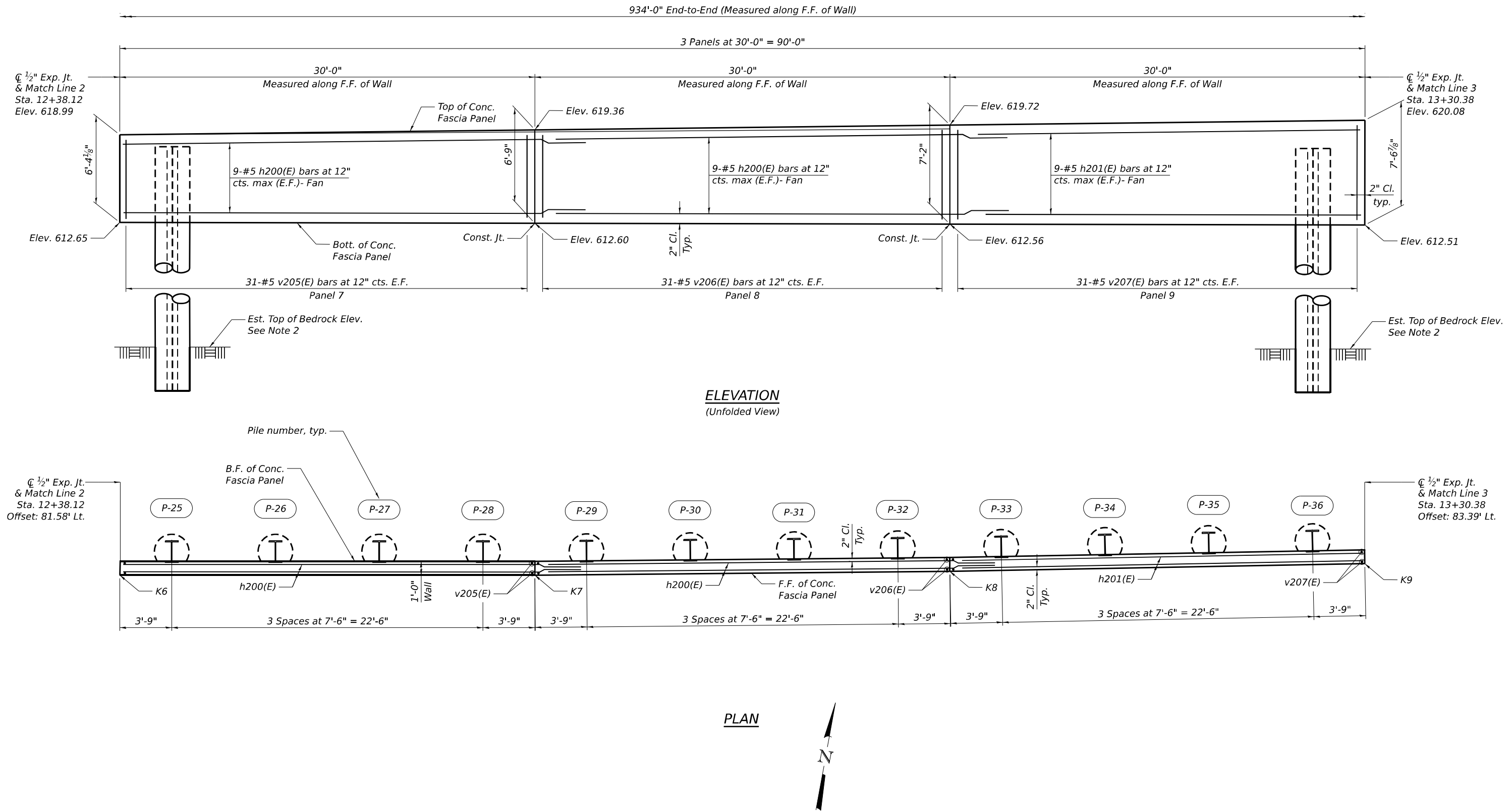
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 2 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-05 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	708
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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



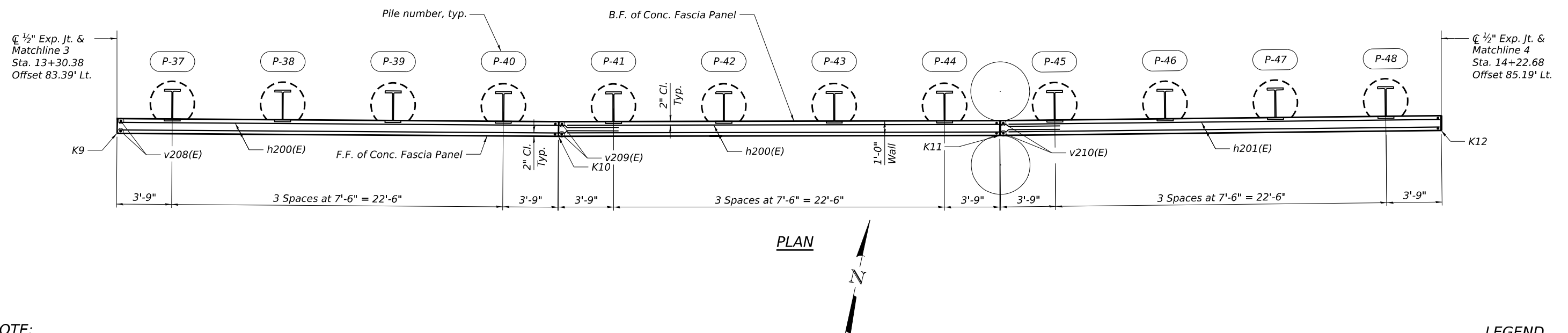
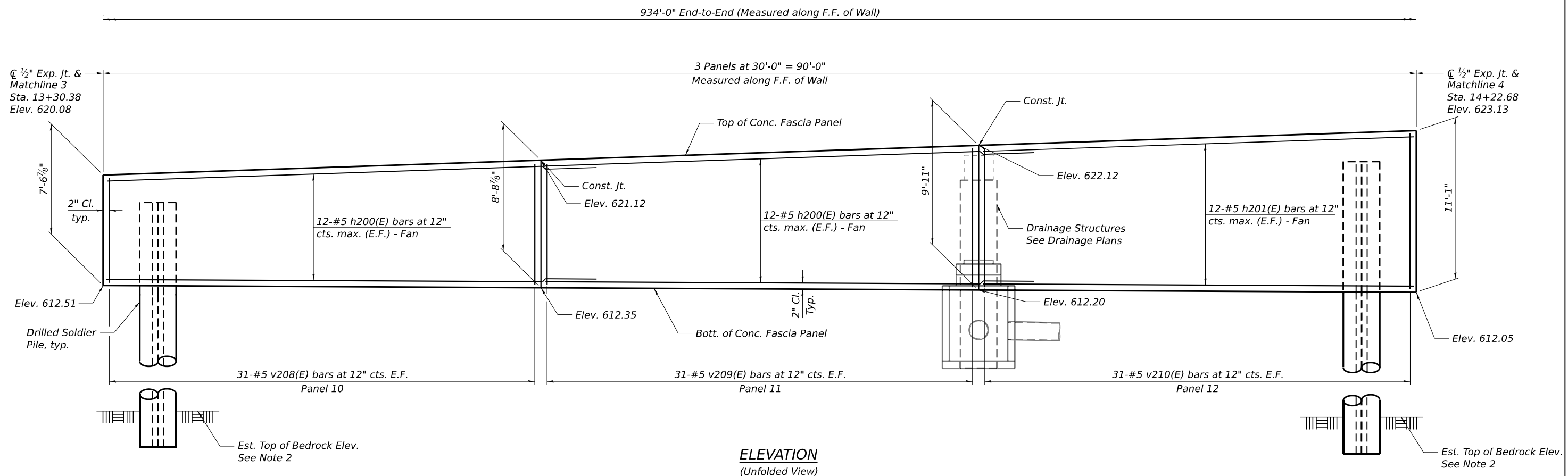
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	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
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PLAN AND ELEVATION (SHEET 3 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-06 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	709
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		



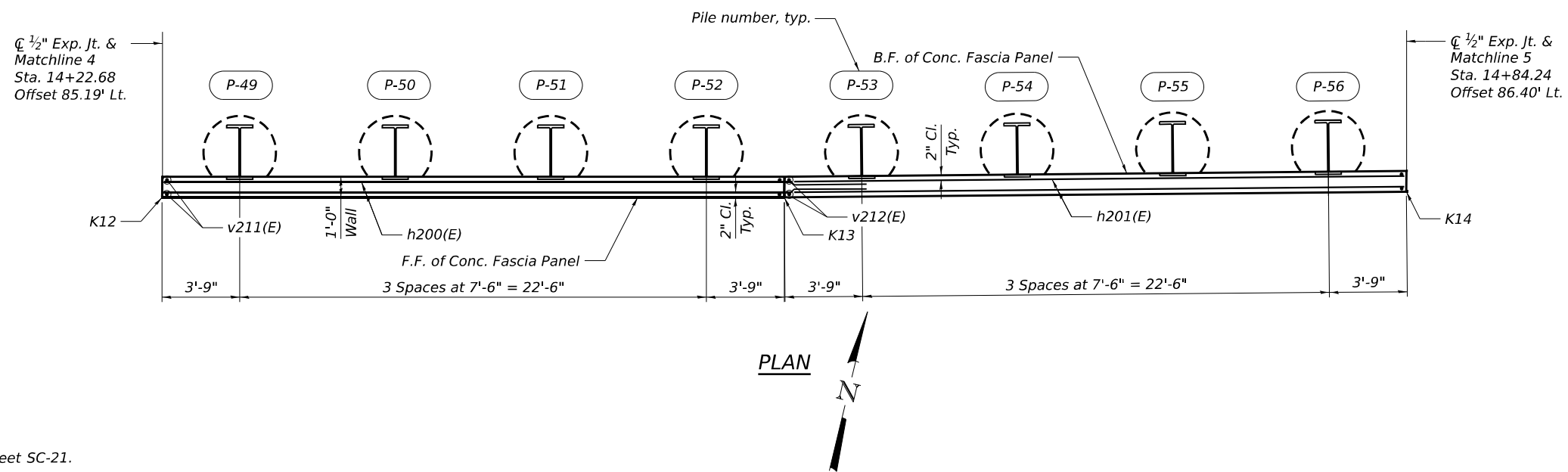
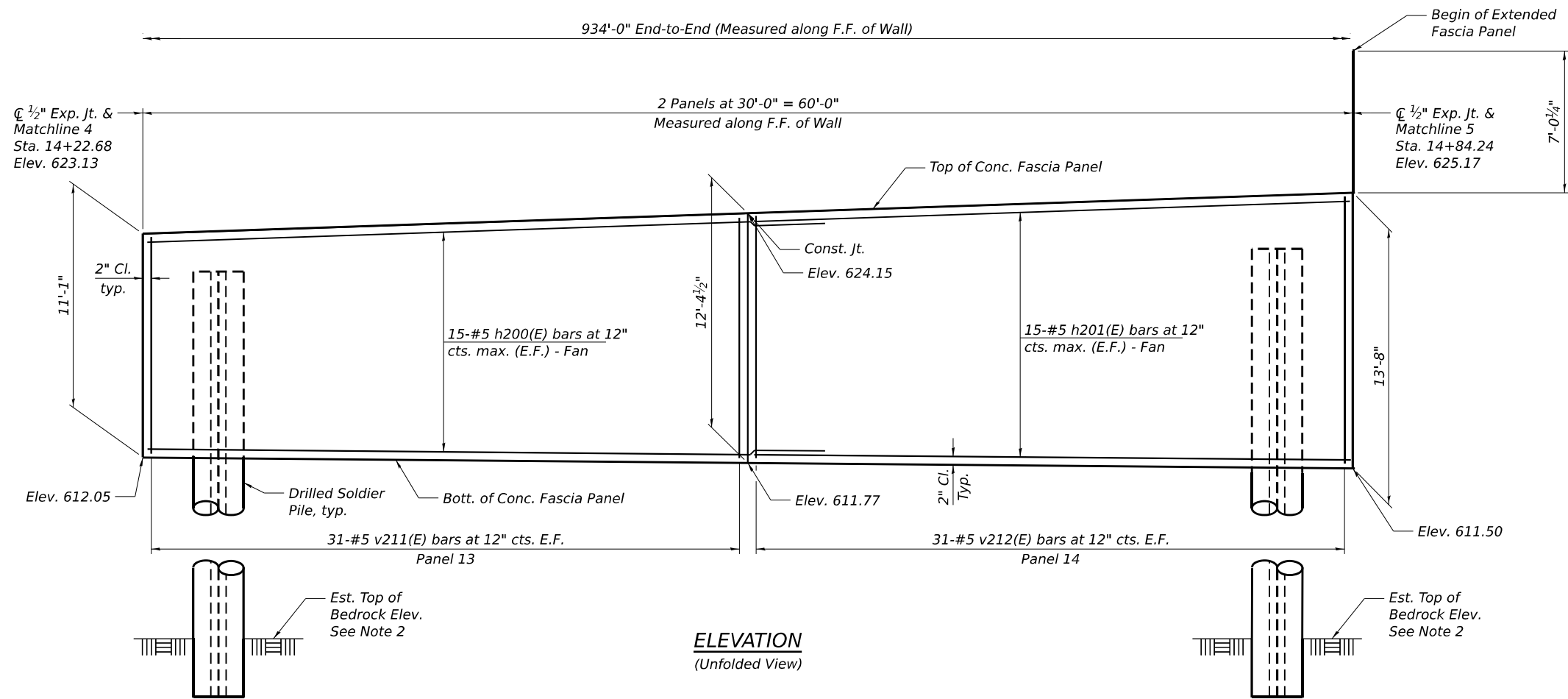
NOTE:

1. For Notes, see Sheet SC-04.
2. For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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

MODEL: Default
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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
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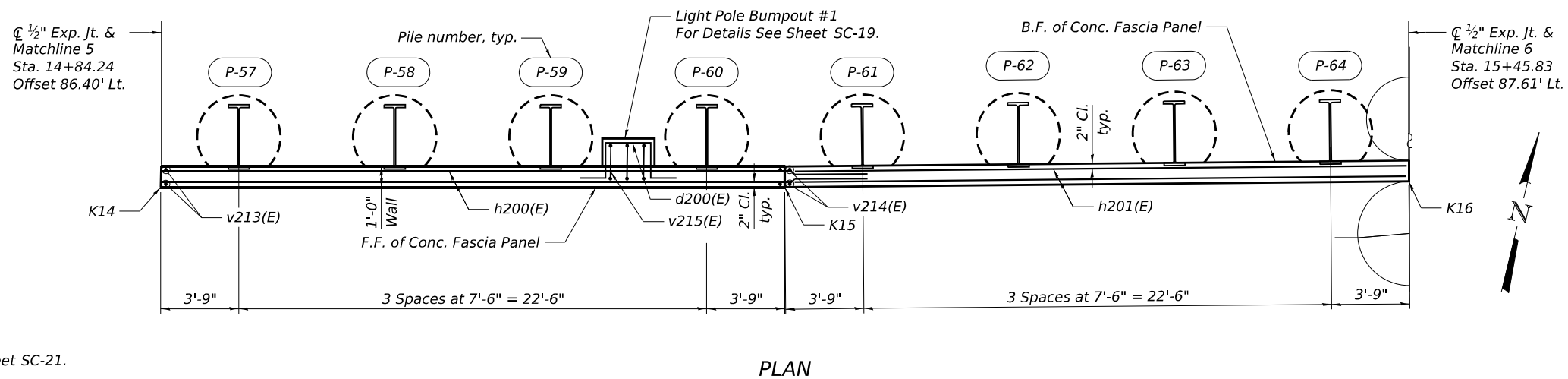
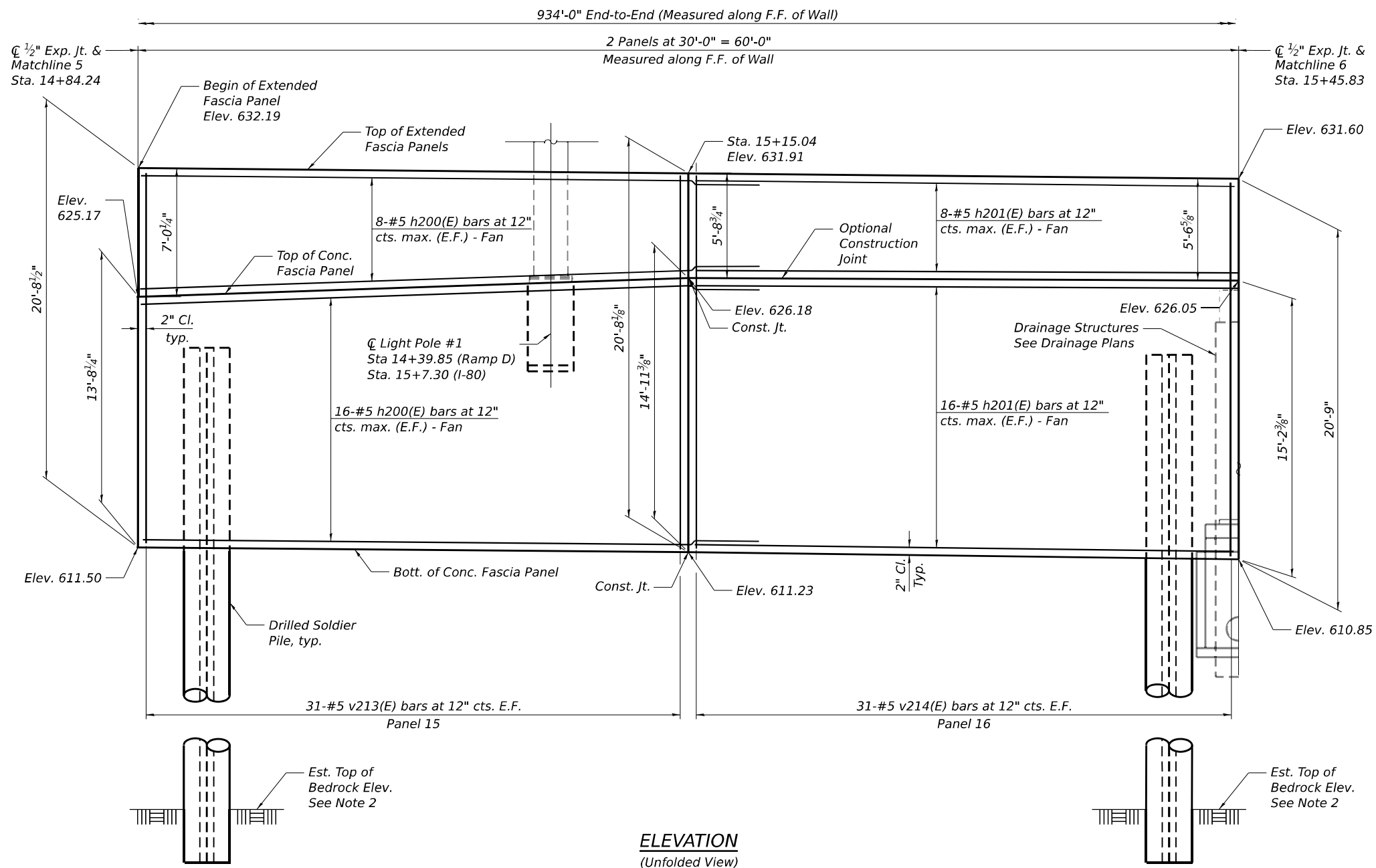
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 5 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-08 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	711
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
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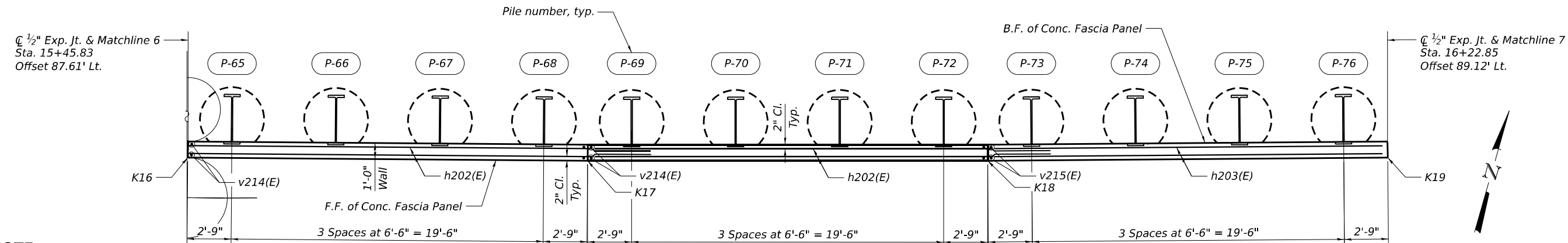
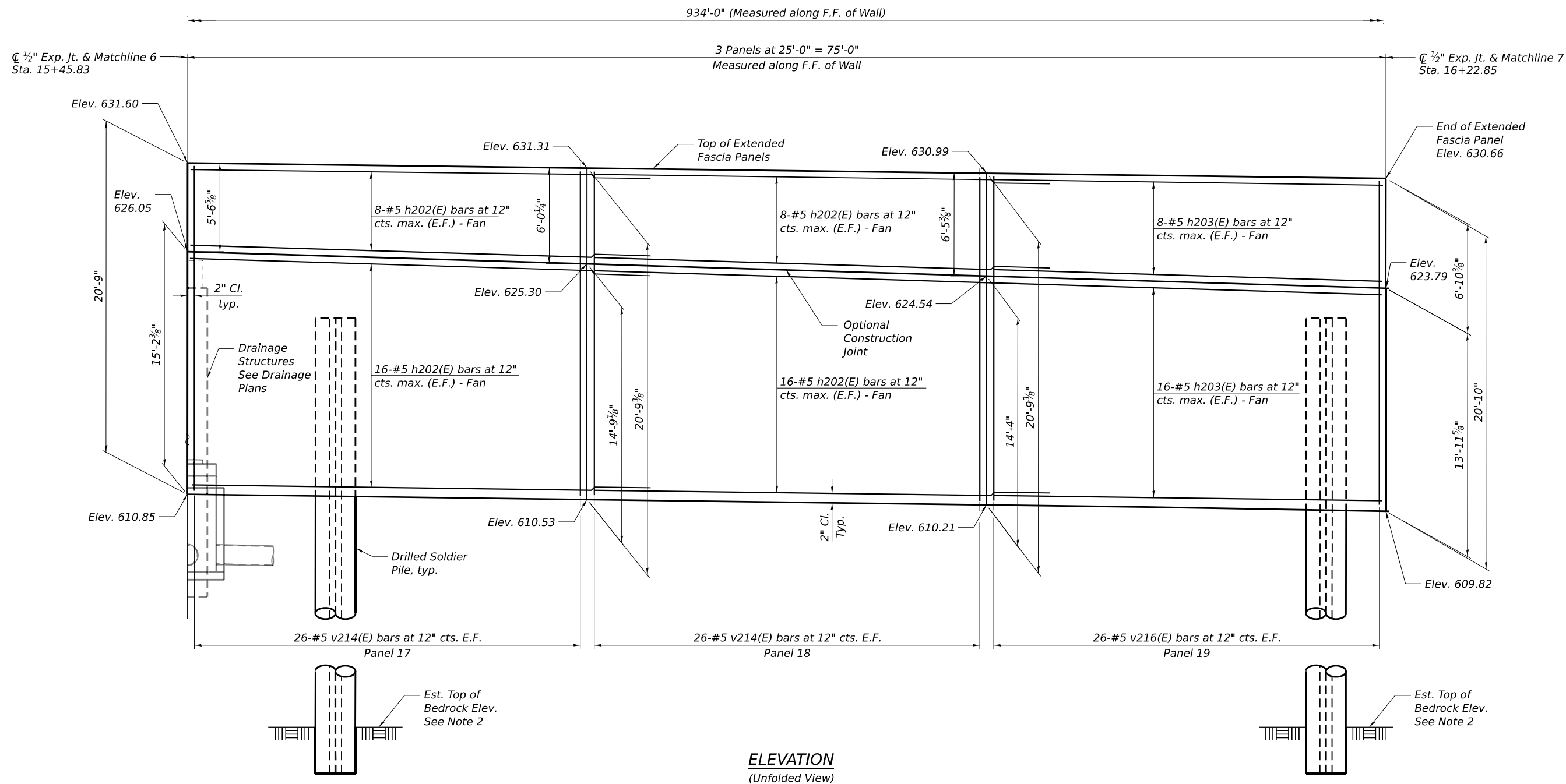
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 6 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-09 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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- NOTE:**
- For Notes, see Sheet SC-04.
 - For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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

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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
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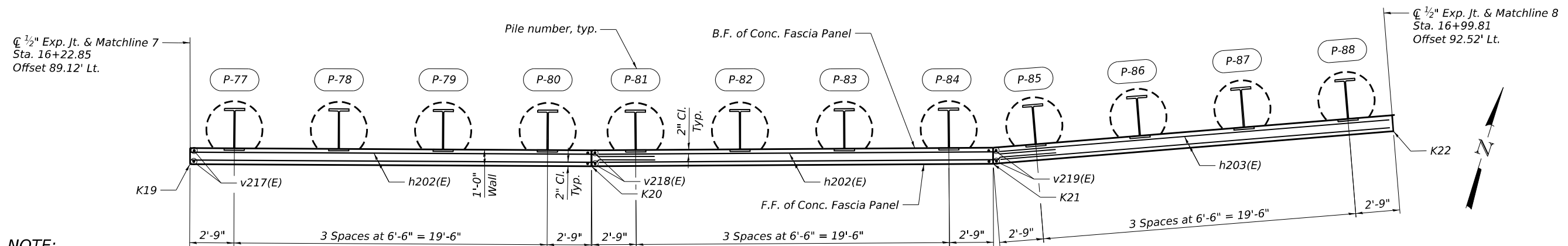
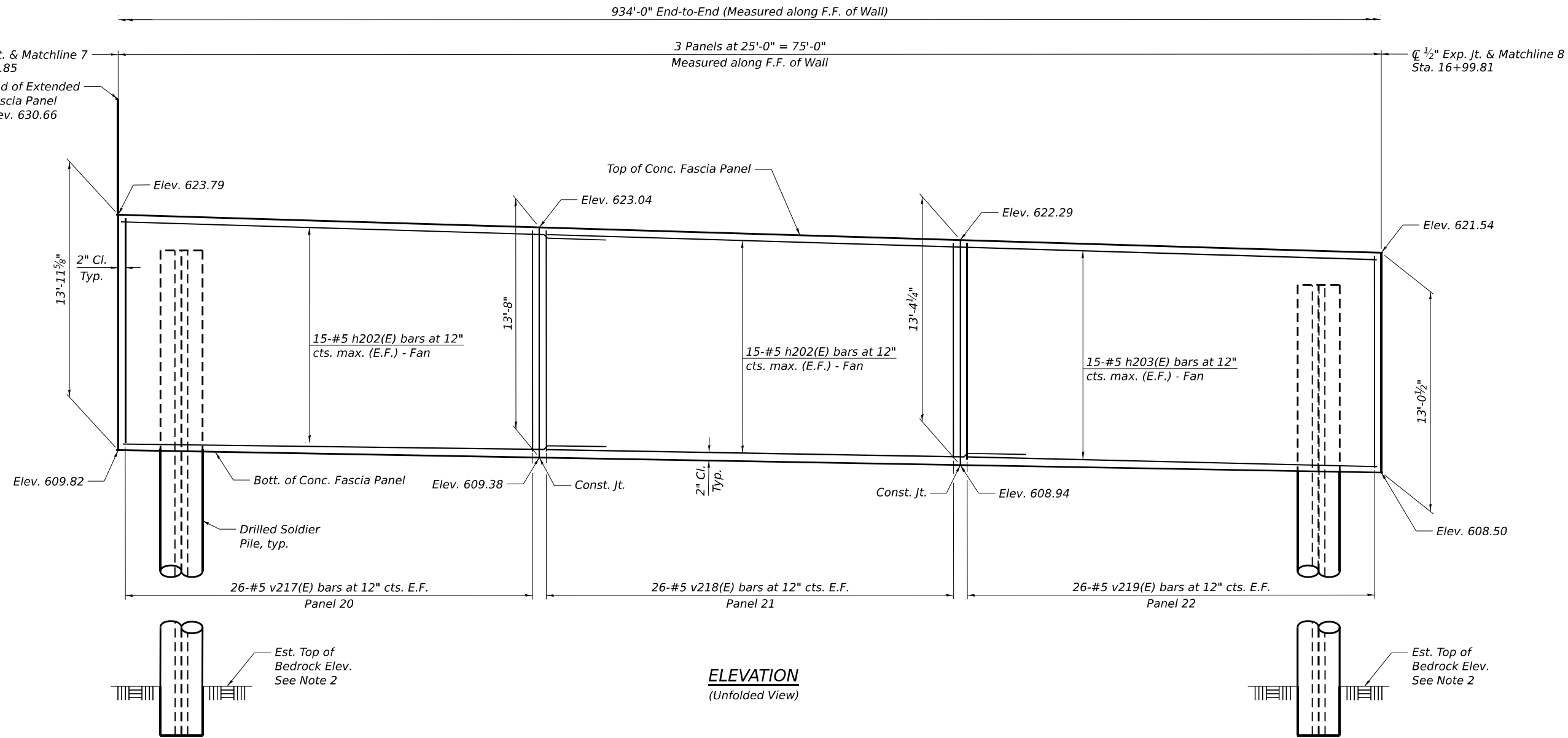
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 7 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-10 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	713
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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LEGEND

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

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

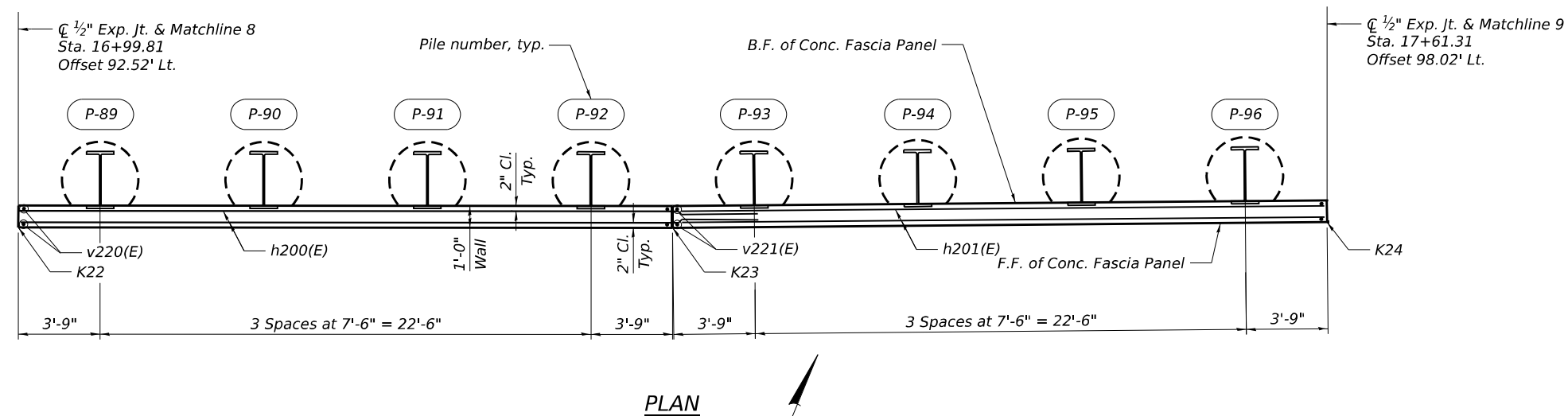
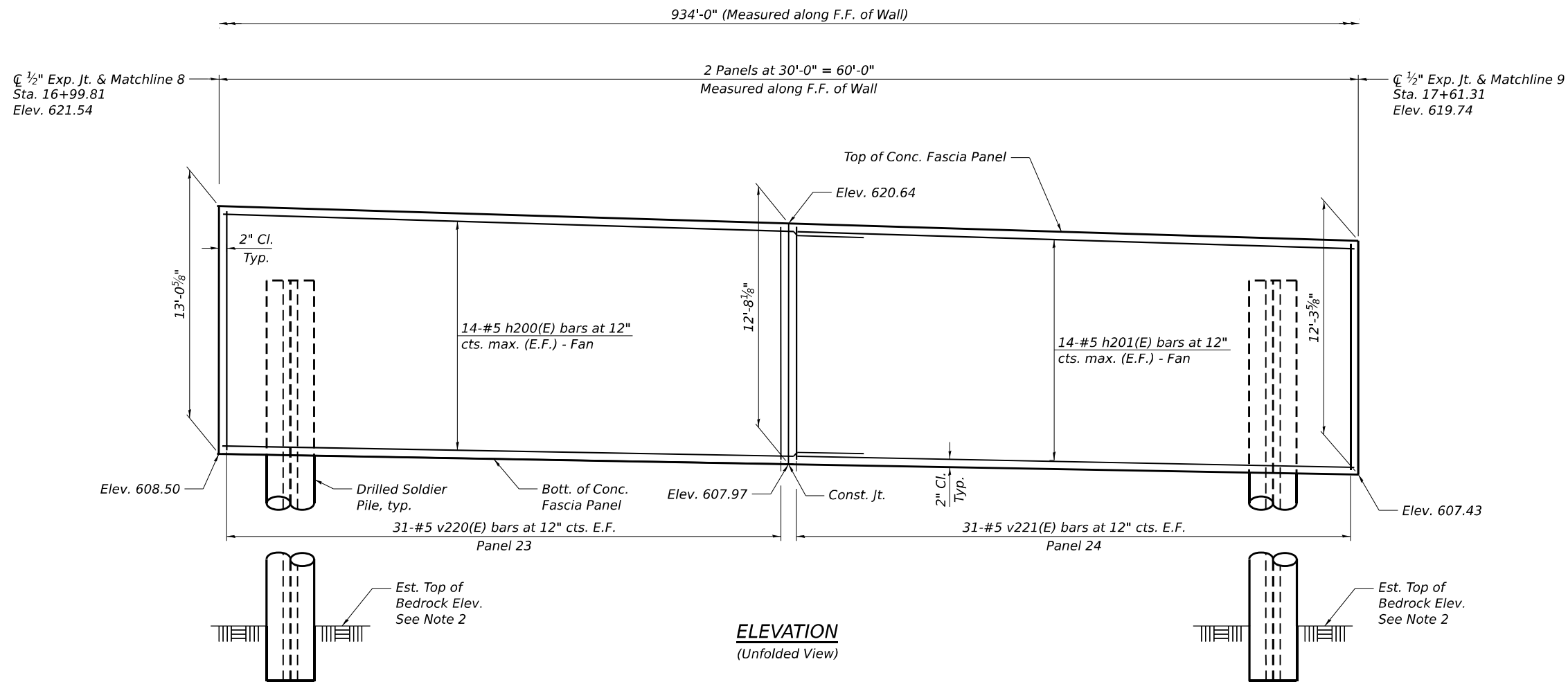
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 8 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-11 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	714
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

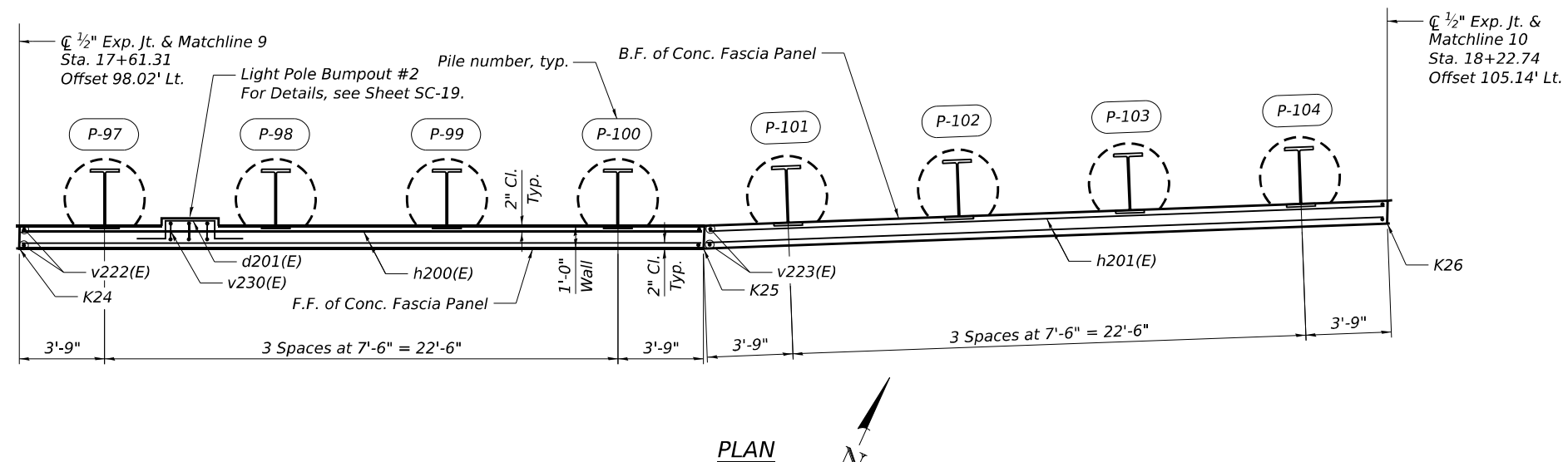
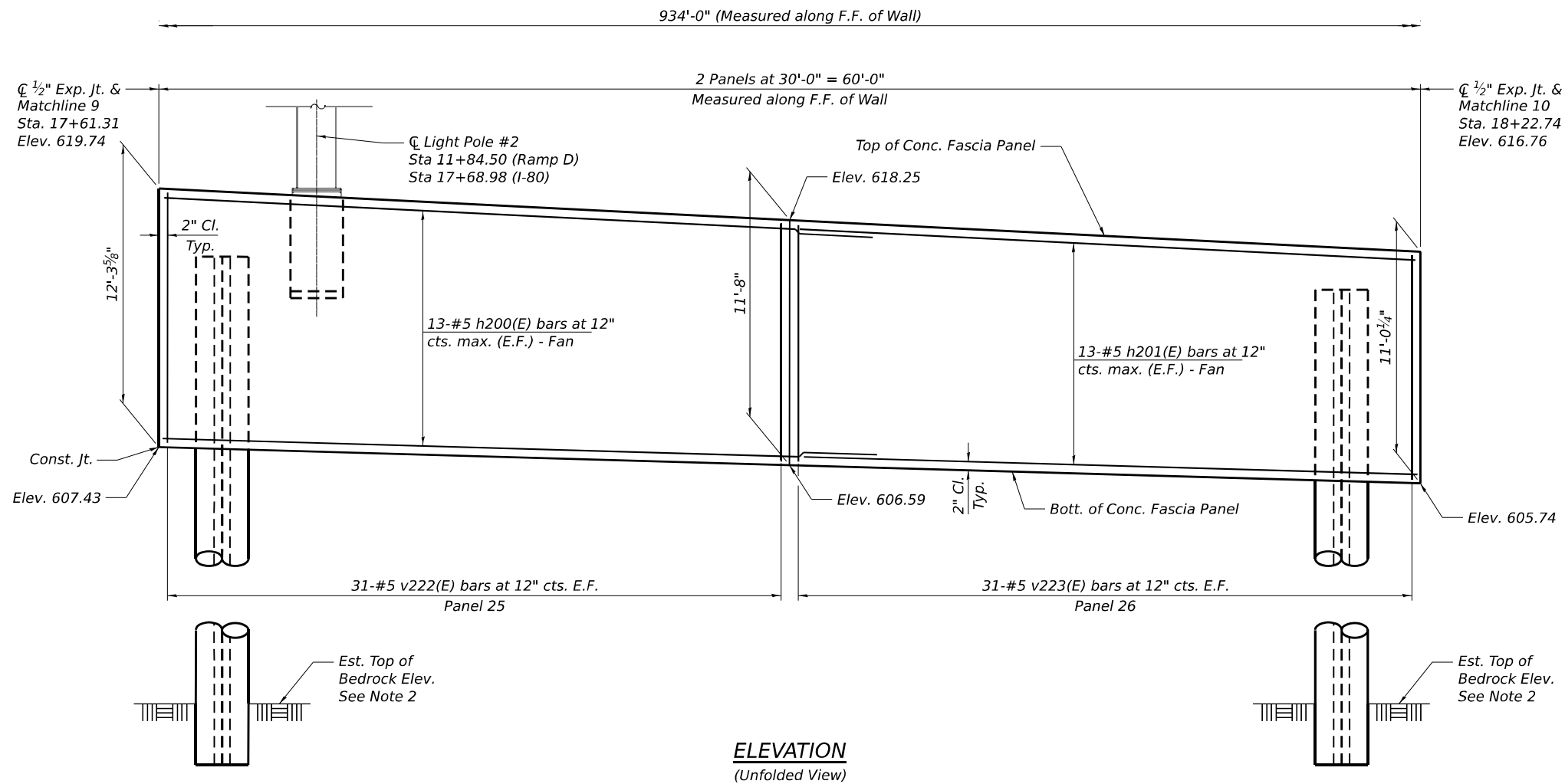
PLAN AND ELEVATION (SHEET 9 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-12 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	715
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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

HBM
ENGINEERING GROUP, LLC

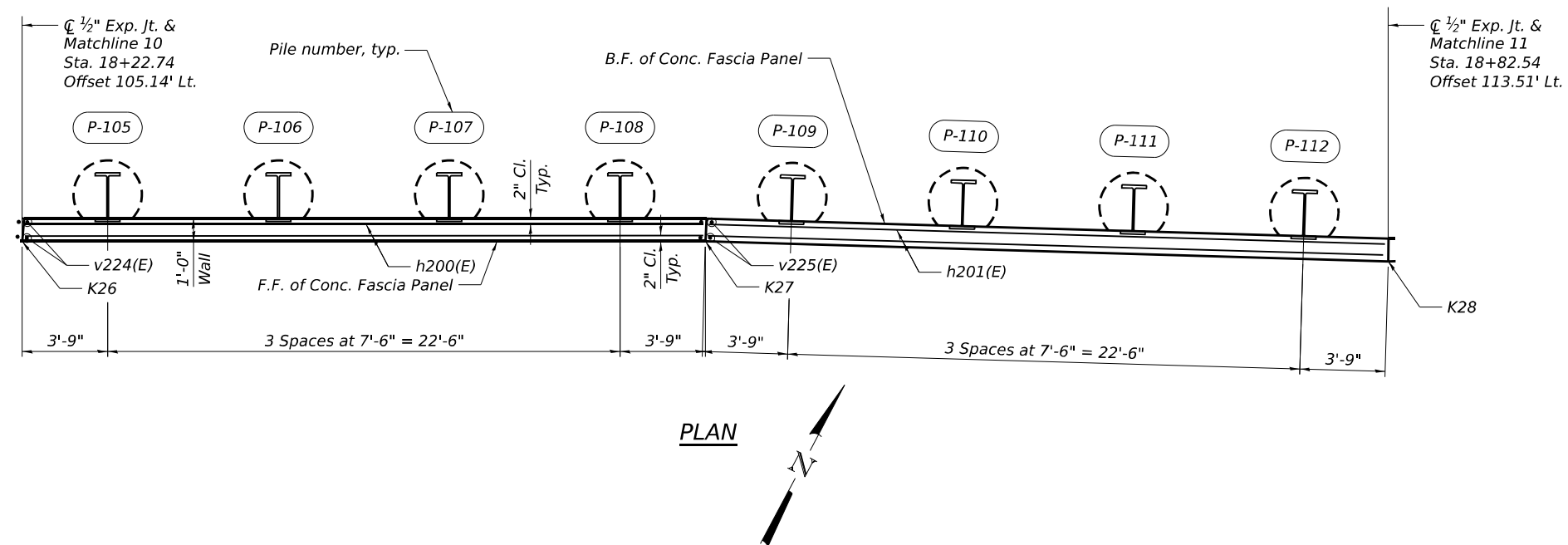
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

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PLAN AND ELEVATION (SHEET 10 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-13 OF SC-31 SHEETS

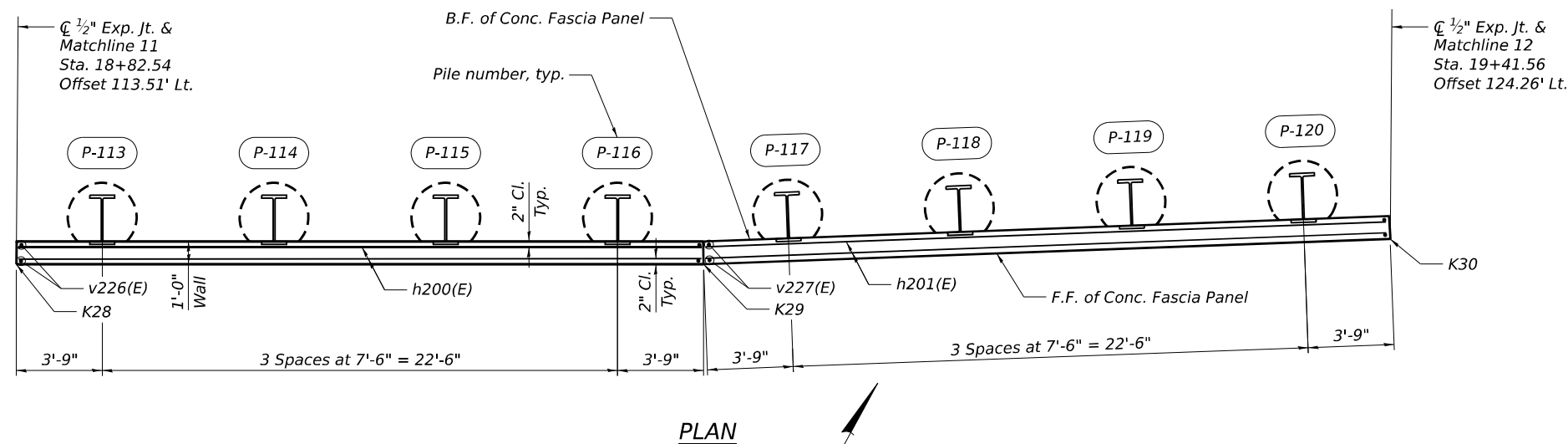
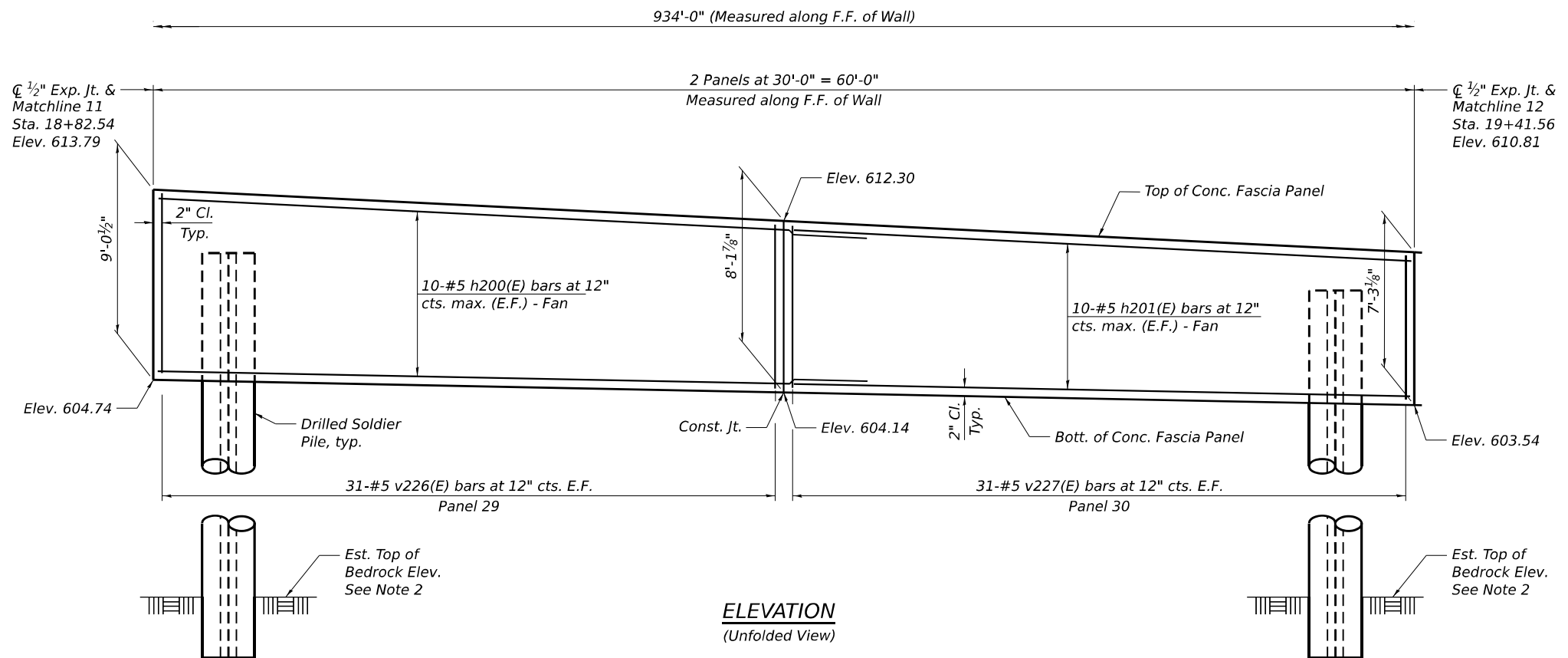
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80	FAI 80 21 INTERCHANGE	WILL	1209	716
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	717
		CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		

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NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

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



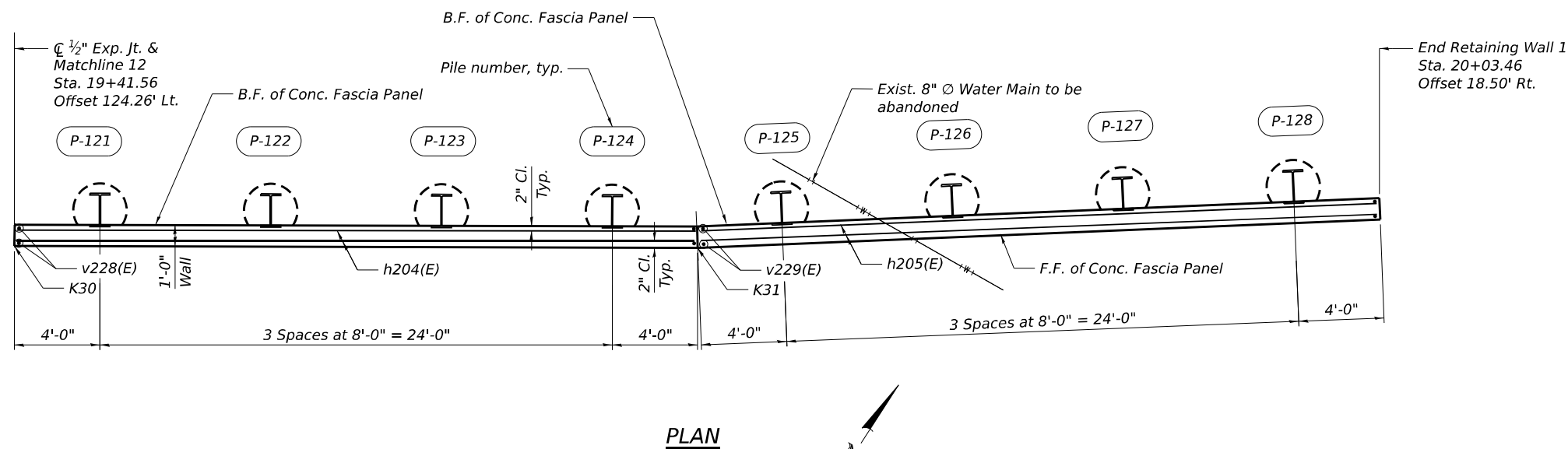
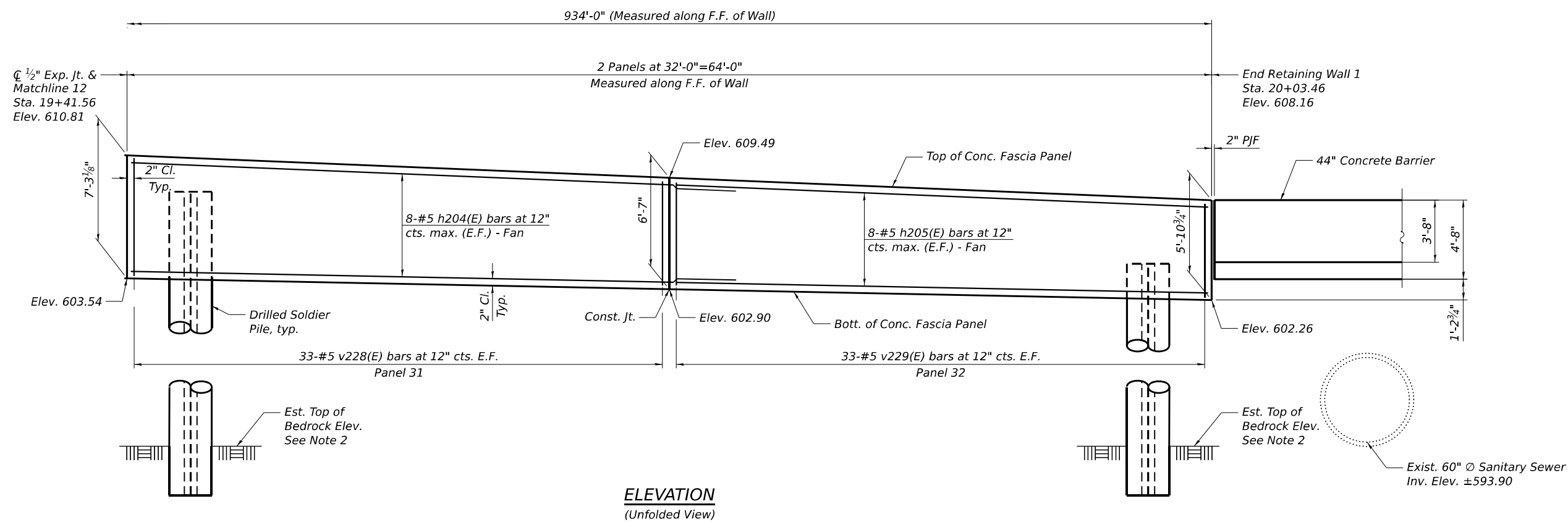
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 12 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-15 OF SC-31 SHEETS

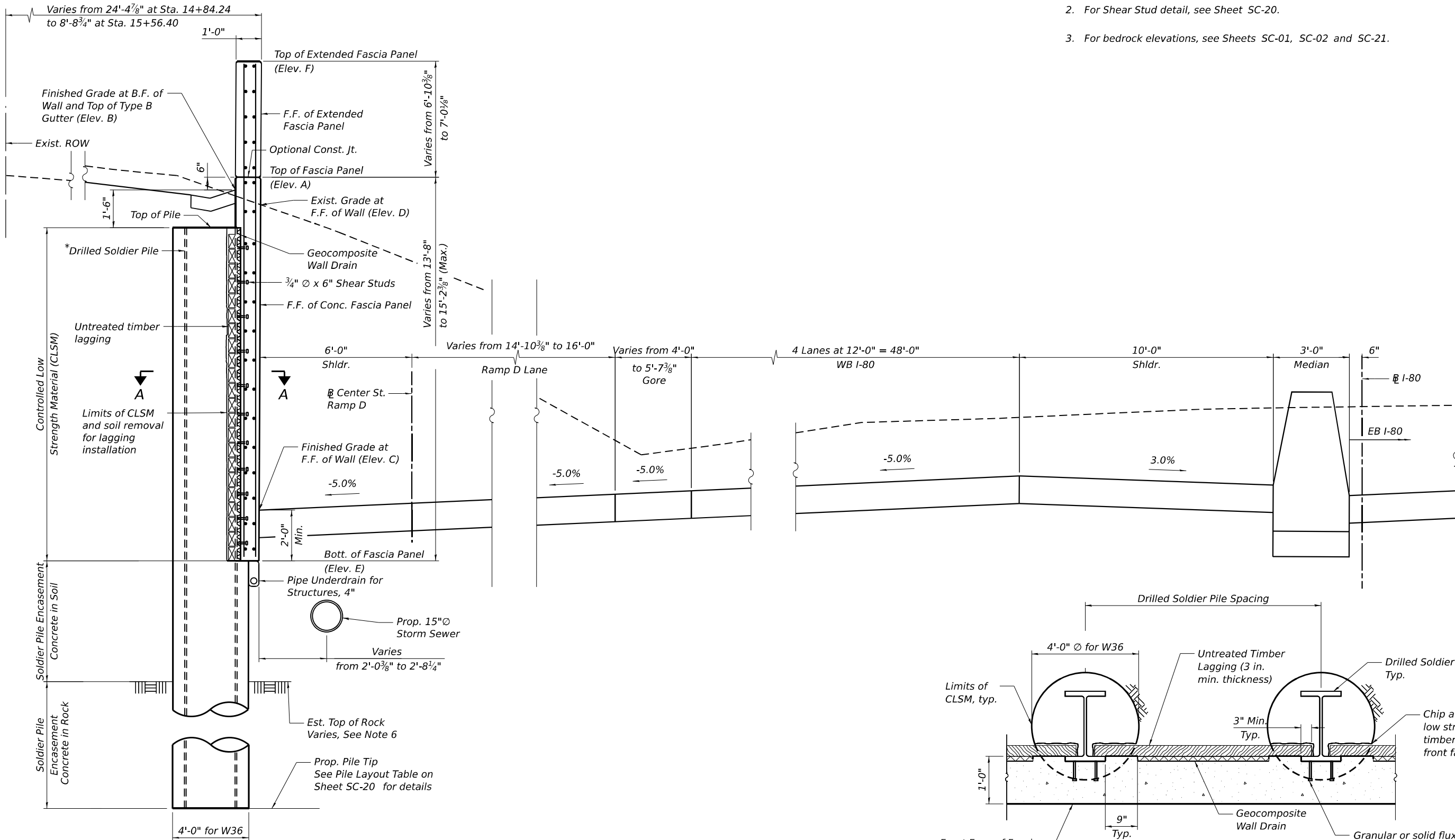
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80	FAI 80 21 INTERCHANGE	WILL	1209	718
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



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

NOTES:

1. The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
2. For Shear Stud detail, see Sheet SC-20.
3. For bedrock elevations, see Sheets SC-01, SC-02 and SC-21.



LEGEND

F.F. - Front Face
B.F. - Back Face

TYPICAL CROSS SECTION

(Looking East)
(Sta. 14+84.24 to Sta. 16+22.85) I-80

SECTION A-A

MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH40/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/5N-099-W123-RW1/099W123-62R22-5C-17-5ec6Detail1



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	CHECKED - MI, KJD	REVISED -
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL CROSS SECTIONS AND DETAILS (SHEET 1 OF 5)
STRUCTURE NO. 099-W123

SHEET SC-17 OF SC-31 SHEETS

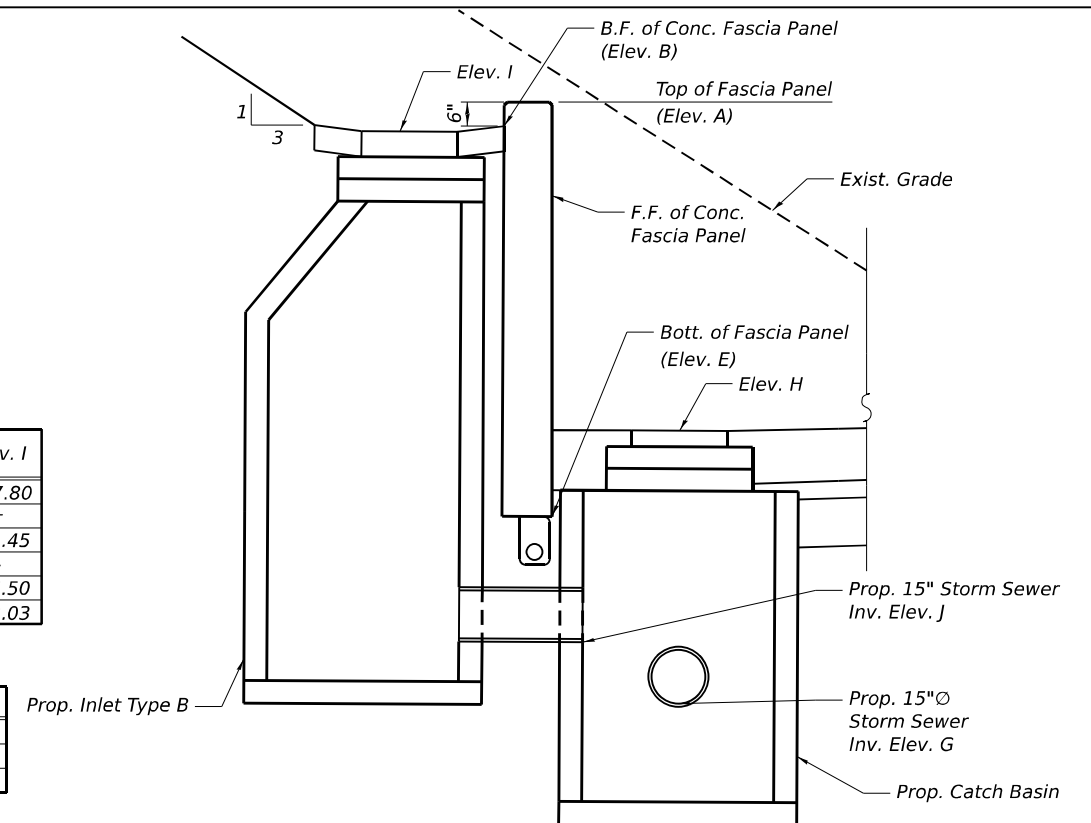
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80	FAI 80 21 INTERCHANGE	WILL	1209	720
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

B.F. - Back Face
F.F. - Front Face
NAW - Noise Abatement Wall

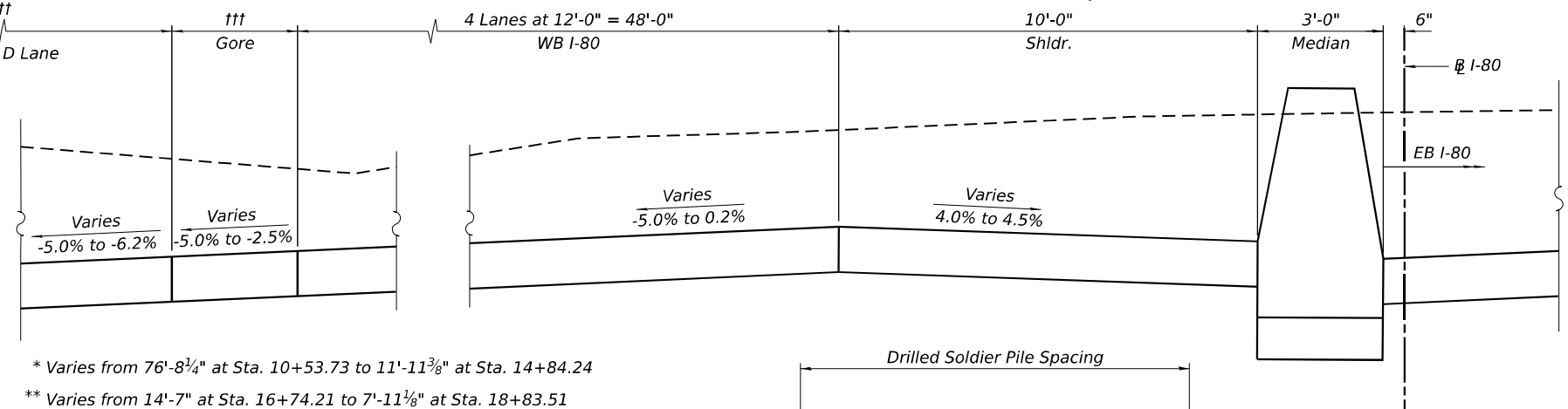
1. *Stations for location of catch basins are given to Front Face of Retaining Wall #1 and along I-80.*
2. *For Bedrock Elevations, see Sheets SC-01, SC-02, and SC-21.*
3. *The Pile shall be drilled to the pile tip elevations regardless of the estimated rock elevations.*

Structure No.	Structure Type	I-80 Sta.	Elev. J		Elev. G		Elev. H	Elev. I
			NORTH	SOUTH	WEST	EAST		
1156	Inlet Type B	11+53.34	610.35	-	-	-	-	617.80
1153	Catch Basin	11+53.34	-	610.33	609.07	-	614.58	-
1551	Inlet Type B	13+91.96	606.84	-	-	-	-	621.45
1550	Catch Basin	13+91.96	-	606.83	-	608.83	614.35	-
1070	Inlet Type B	15+45.80	604.44	-	-	-	-	625.50
1403	Catch Basin	15+45.80	-	605.51	606.50	605.03	-	613.03

	<i>I-80 Sta. 10+53.73 to Sta. 14+84.24</i>	<i>I-80 Sta. 16+22.85 to Sta. 20+03.46</i>
<i>f</i>	<i>6'-0"</i>	<i>Varies from 6'-0" to 18'-6"</i>
<i>ff</i>	<i>Varies from 12'-0" to 14'-10³/₈"</i>	<i>16'-0"</i>
<i>fff</i>	<i>Varies from 0'-0" to 4'-0"</i>	<i>Varies from 5'-7³/₈" to 42'-11⁵/₈"</i>

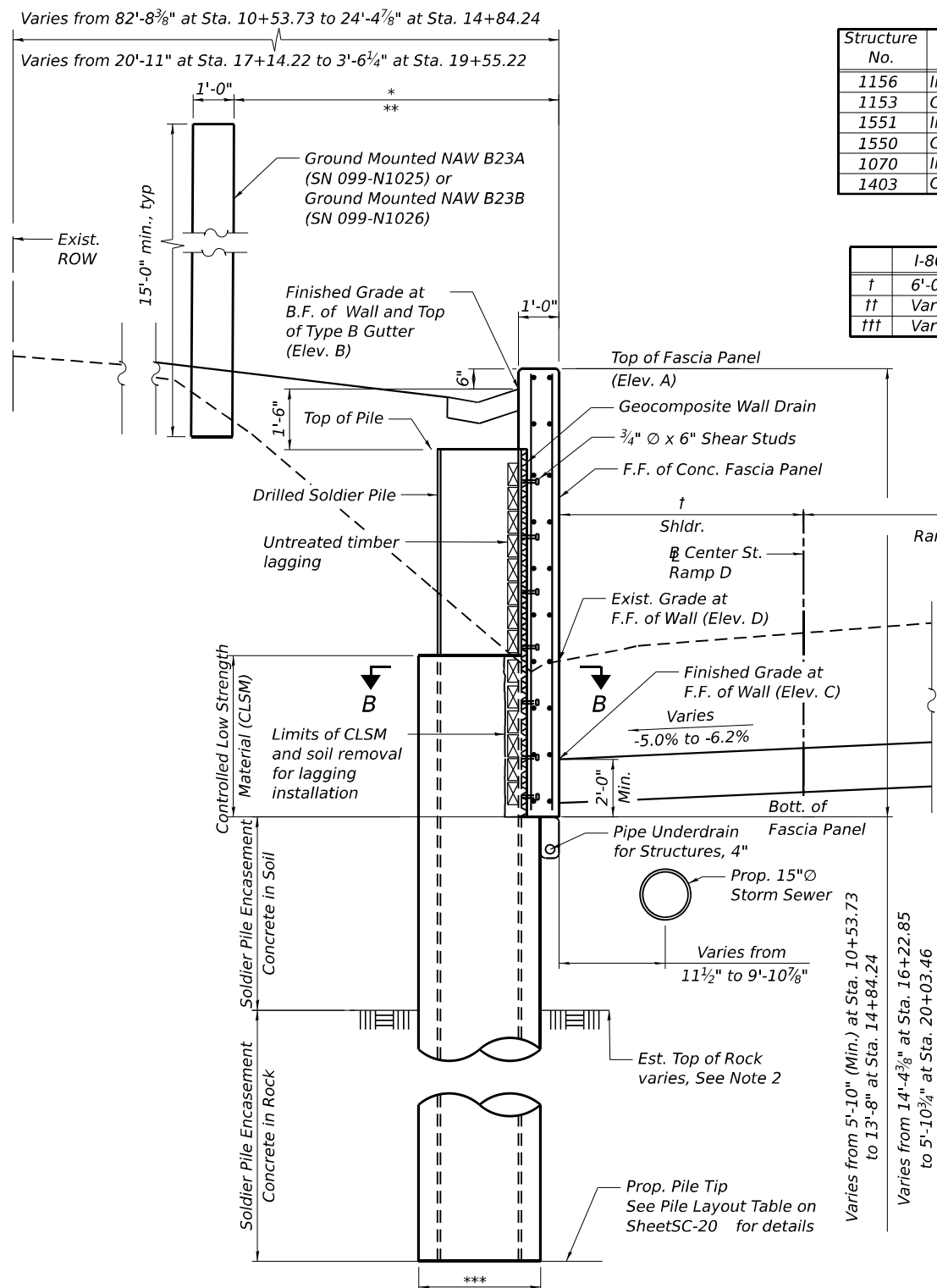
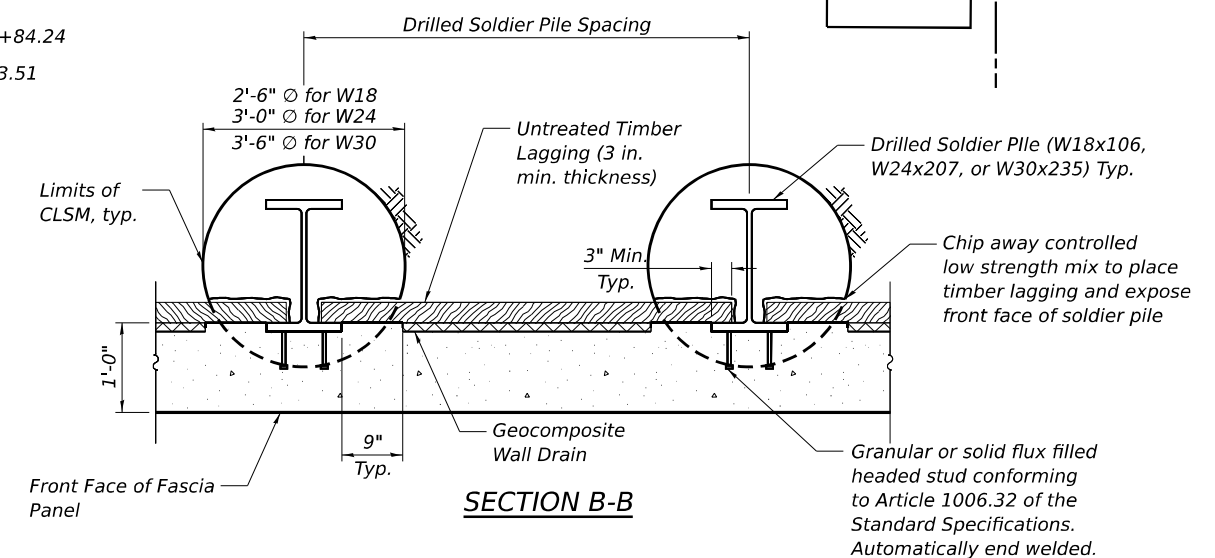


(Looking East)
(Reinforcement not shown for clarity)

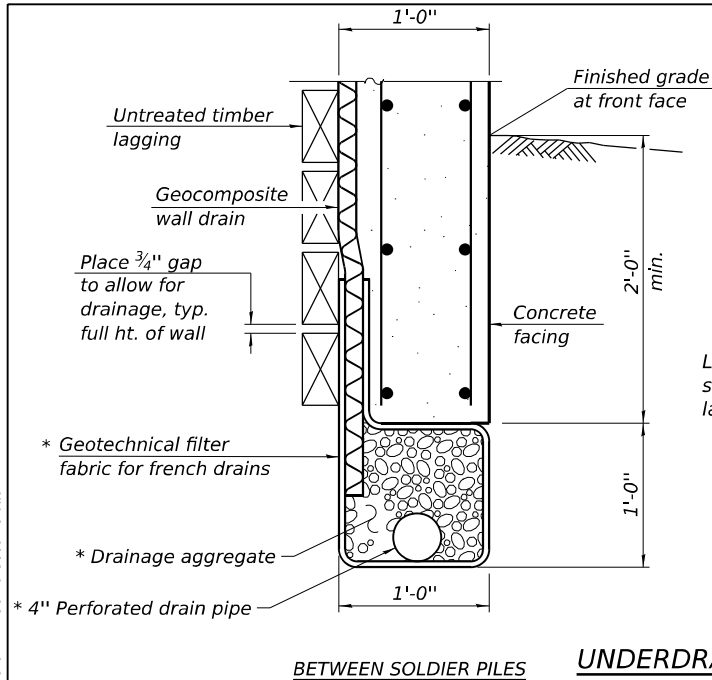


* *Varies from 76'-8 $\frac{1}{4}$ " at Sta. 10+53.73 to 11'-11 $\frac{3}{8}$ " at Sta. 14+84.24*
 ** *Varies from 14'-7" at Sta. 16+74.21 to 7'-11 $\frac{1}{8}$ " at Sta. 18+83.51*
 *** *2'-6" for W18*
 3'-0" for W27
 3'-6" for W30

(Looking East)
(Sta. 10+53.73 to Sta. 14+84.24) I-80
(Sta. 16+22.85 to Sta. 20+03.46) I-80

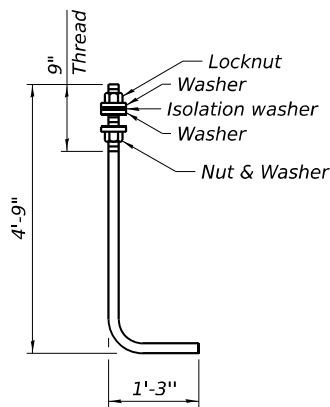


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UNDERDRAIN DETAILS FOR SOLDIER PILE WALLS

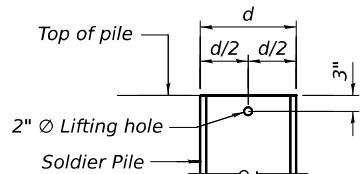
* Included in the cost of Pipe Underdrains for Structures



ANCHOR ROD DETAIL

(4 Required per Light Pole)

Diameter as specified for light poles.
(ASTM F 1554 Grade 105) Full length
hot dipped galvanized.



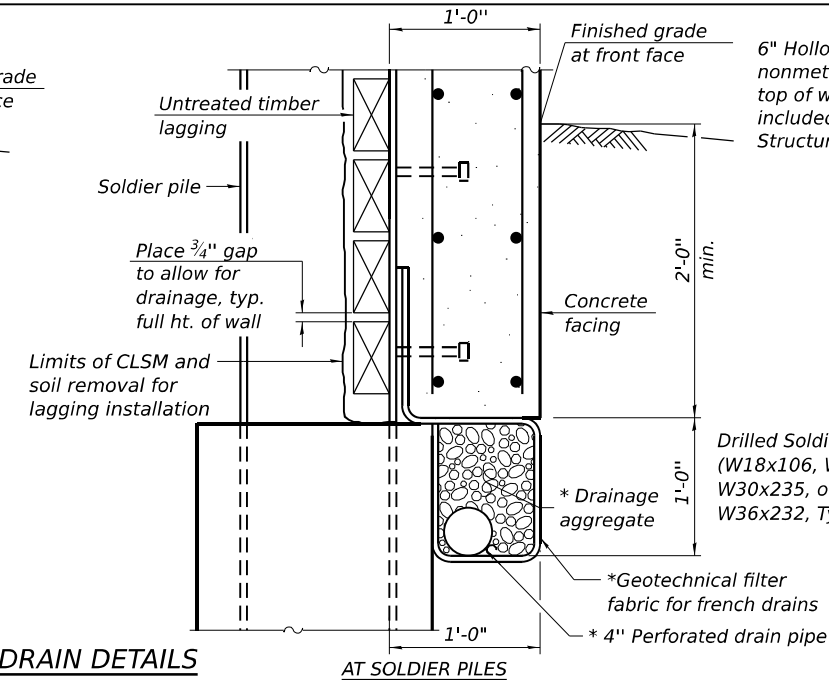
LIFTING HOLE DETAIL

LEGEND

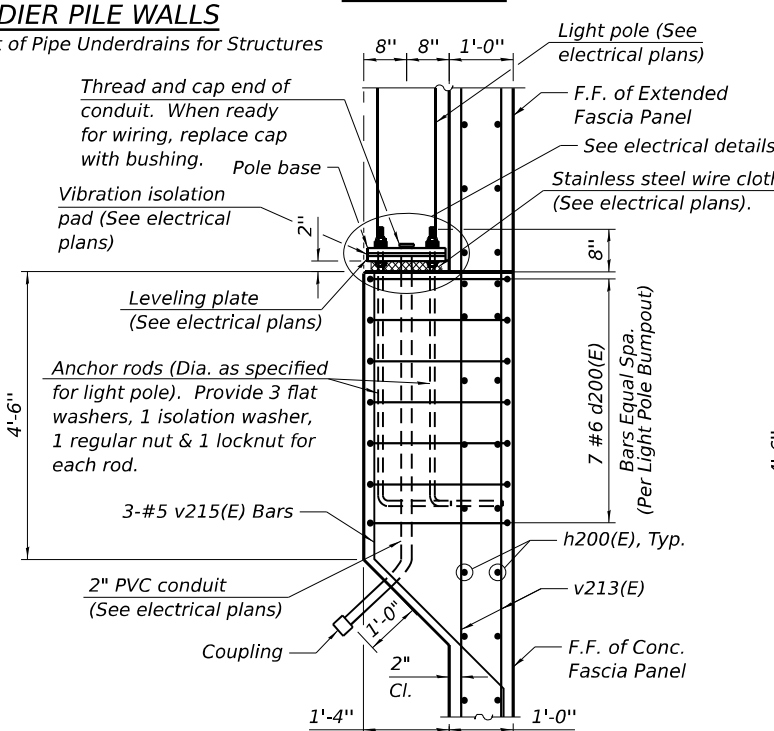
F.F. Front Face
B.F. Back Face
CSLM Controlled Low-Strength
Material

NOTES:

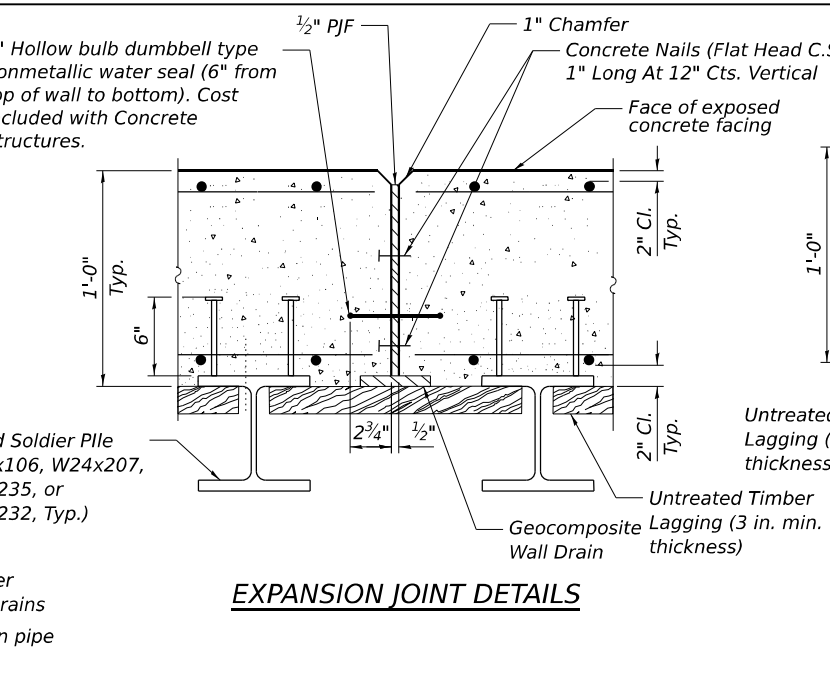
- For additional Notes, see Sheet SC-17.
- Cost of anchor bolts is included with Concrete Structures.
- For Bedrock Elevations, see Sheets SC-01, SC-02 and SC-21.



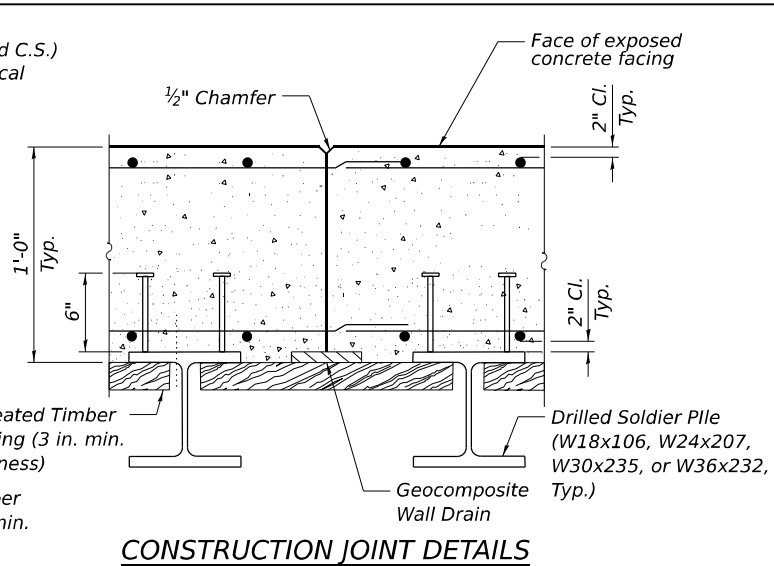
AT SOLDIER PILES



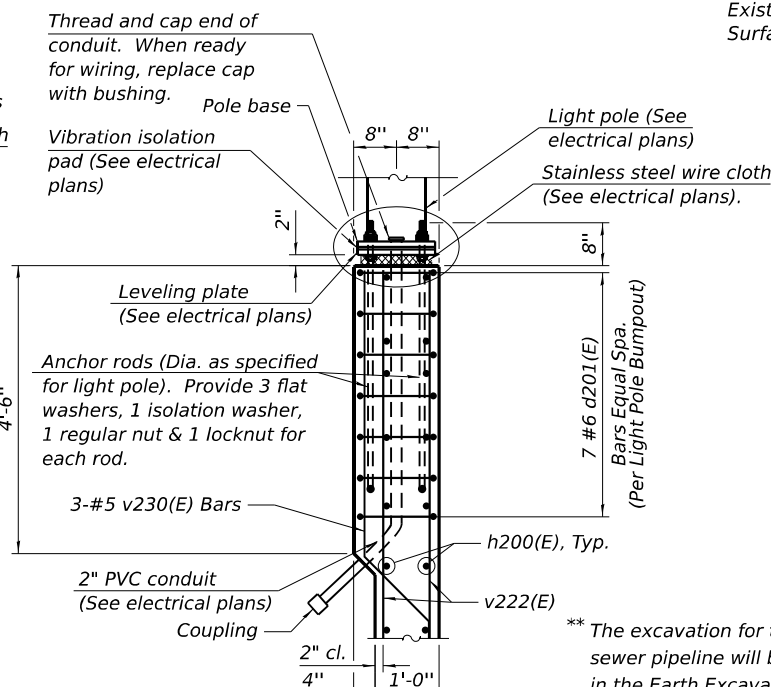
SECTION A-A



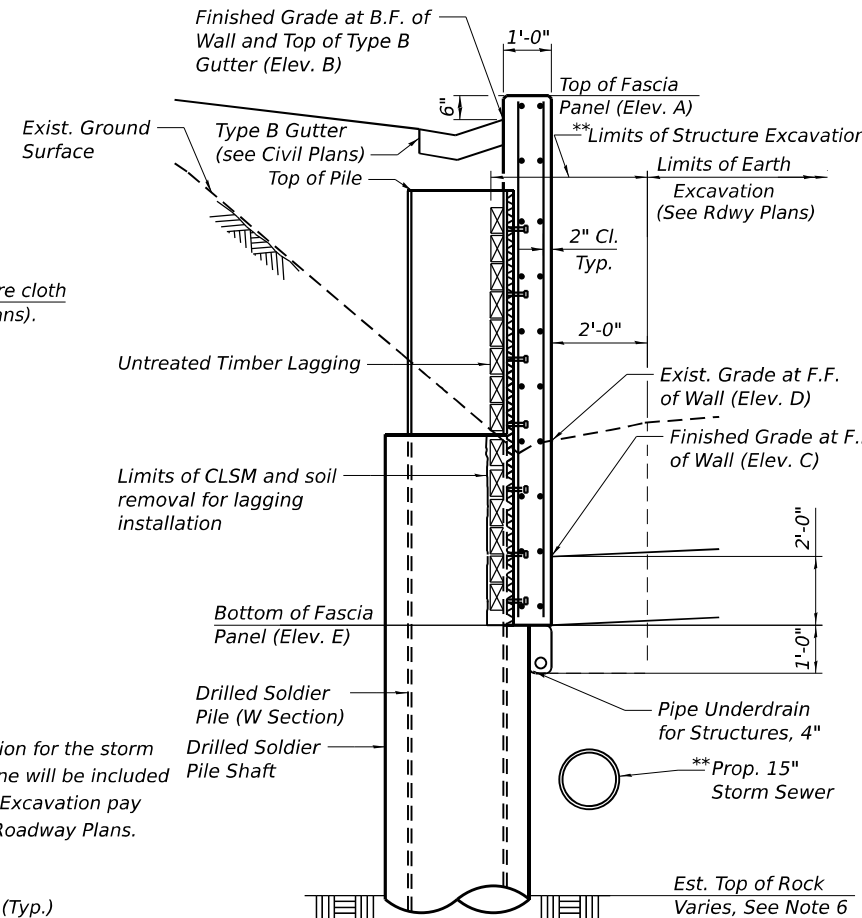
EXPANSION JOINT DETAILS



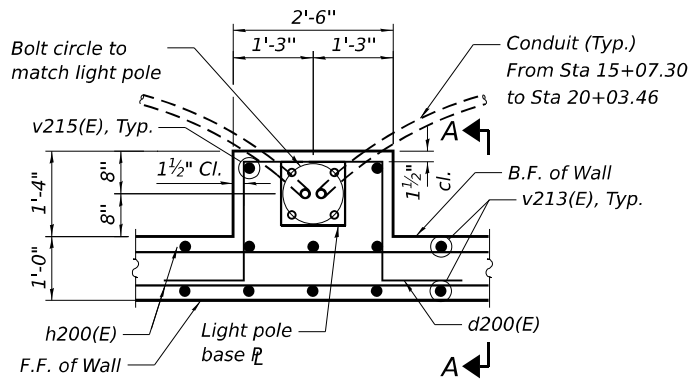
CONSTRUCTION JOINT DETAILS



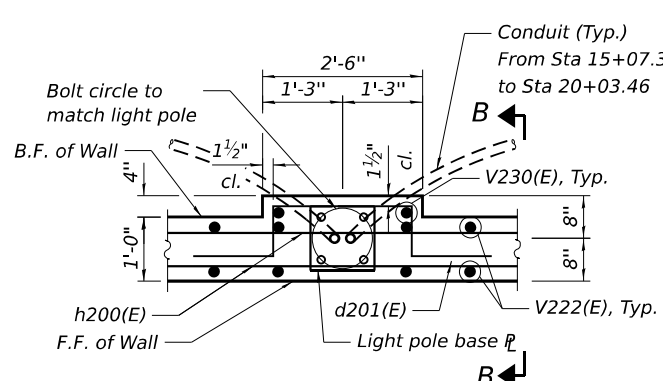
SECTION B-B



STRUCTURE EXCAVATION



LIGHT POLE BUMPOUT #1 PLAN

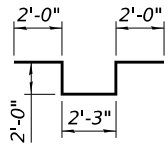


LIGHT POLE BUMPOUT #2 PLAN

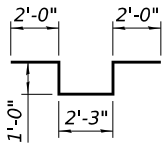
HBM ENGINEERING GROUP, LLC	USER NAME =	DESIGNED - AGJ, JMI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WALL CROSS SECTIONS AND DETAILS (SHEET 3 OF 5) STRUCTURE NO. 099-W123	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - MI, KJD	REVISED -			80	FAI 80 21 INTERCHANGE	WILL	1209	722
	PLOT DATE =	DRAWN - JMI, LR	REVISED -			CONTRACT NO. 62R22				
		CHECKED - MI, KJD	REVISED -			ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw://transsystems-pw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/5N-099-W123-RV1/099W123-62R22-5C-20-5ec6Detail1V

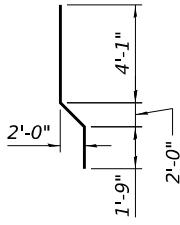
Minimum Bar Lap	
Bar	Lap
#5	3'-7"



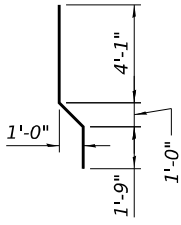
d200(E)



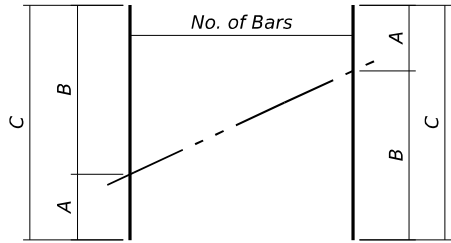
d201(E)



v215(E)



v230(E)



FIELD CUTTING DIAGRAM

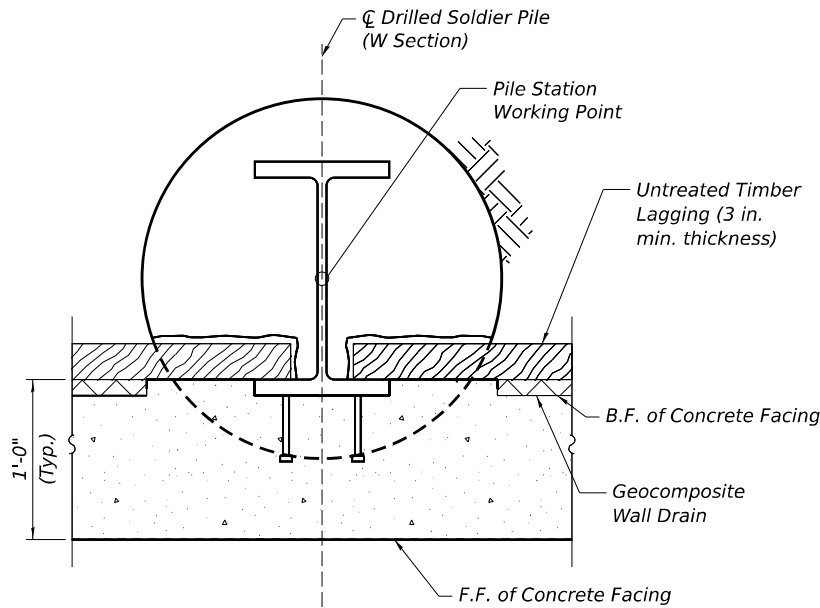
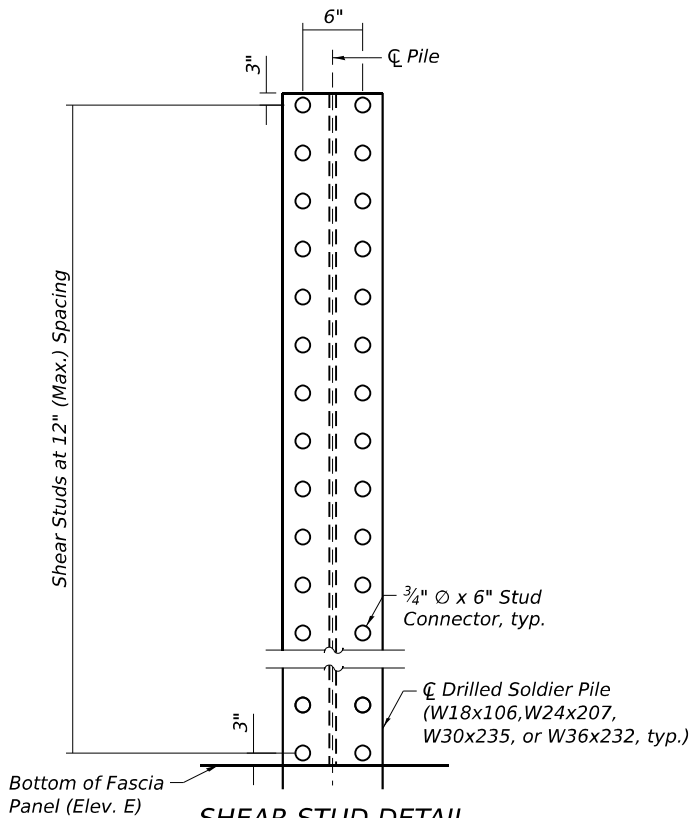
See Bar Table Schedule for dimensions
Make all cuts normal to bart axis

BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	Bar No.	No. of Bars Per Set	A	B	C
v202(E)	1	#5	31	5'-7"	5'-8"	11'-3"
v203(E)	1	#5	31	5'-8"	5'-10"	11'-6"
v204(E)	1	#5	31	5'-10"	6'-0"	11'-10"
v205(E)	1	#5	31	6'-0"	6'-5"	12'-5"
v206(E)	1	#5	31	6'-5"	6'-10"	13'-3"
v207(E)	1	#5	31	6'-10"	7'-3"	14'-1"
v208(E)	1	#5	31	7'-3"	8'-5"	15'-8"
v209(E)	1	#5	31	8'-5"	9'-7"	18'-0"
v210(E)	1	#5	31	9'-7"	10'-9"	20'-4"
v211(E)	1	#5	31	10'-9"	12'-1"	22'-10"
v212(E)	1	#5	31	12'-1"	13'-4"	25'-5"
v217(E)	1	#5	26	13'-8"	13'-4"	27'-0"
v218(E)	1	#5	26	13'-4"	13'-0"	26'-4"
v219(E)	1	#5	26	13'-0"	12'-9"	25'-9"
v220(E)	1	#5	31	12'-9"	12'-4"	25'-1"
v221(E)	1	#5	31	12'-4"	12'-0"	24'-4"
v222(E)	1	#5	31	12'-0"	11'-4"	23'-4"
v223(E)	1	#5	31	11'-4"	10'-8"	22'-0"
v224(E)	1	#5	31	10'-8"	9'-8"	20'-4"
v225(E)	1	#5	31	9'-8"	8'-9"	18'-5"
v226(E)	1	#5	31	8'-9"	7'-10"	16'-7"
v227(E)	1	#5	31	7'-10"	6'-11"	14'-9"
v228(E)	1	#5	33	6'-11"	6'-3"	13'-2"
v229(E)	1	#5	33	6'-3"	5'-7"	11'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	316	#5	33'-7"	
h201(E)	246	#5	29'-8"	
h202(E)	156	#5	28'-7"	
h203(E)	78	#5	24'-8"	
h204(E)	16	#5	35'-7"	
h205(E)	16	#5	31'-8"	
v200(E)	124	#5	5'-6"	
v201(E)	62	#5	5'-7"	
v202(E)	31	#5	11'-3"	
v203(E)	31	#5	11'-6"	
v204(E)	31	#5	11'-10"	
v205(E)	31	#5	12'-5"	
v206(E)	31	#5	13'-3"	
v207(E)	31	#5	14'-1"	
v208(E)	31	#5	15'-8"	
v209(E)	31	#5	18'-0"	
v210(E)	31	#5	20'-4"	
v211(E)	31	#5	22'-10"	
v212(E)	31	#5	25'-5"	
v213(E)	62	#5	20'-4"	
v214(E)	166	#5	20'-5"	
v215(E)	3	#5	8'-8"	
v216(E)	52	#5	20'-6"	
v217(E)	26	#5	27'-0"	
v218(E)	26	#5	26'-4"	
v219(E)	26	#5	25'-9"	
v220(E)	31	#5	25'-1"	
v221(E)	31	#5	24'-4"	
v222(E)	31	#5	23'-4"	
v223(E)	31	#5	22'-0"	
v224(E)	31	#5	20'-4"	
v225(E)	31	#5	18'-5"	
v226(E)	31	#5	16'-7"	
v227(E)	31	#5	14'-9"	
v228(E)	33	#5	13'-2"	
v229(E)	33	#5	11'-10"	
v230(E)	3	#5	7'-3"	
d200(E)	7	#5	10'-3"	
d201(E)	7	#5	8'-3"	
Structure Excavation			Cu Yd	1,235
Concrete Structures			Cu Yd	374
Stud Shear Connectors			Each	2,316
Reinforcement Bars, Epoxy Coated			Pound	47,730
Furnishing Soldier Piles (W Section)			Foot	4,151
Drilling And Setting Soldier Piles (In Soil)			Cu Ft	23,302
Drilling And Setting Soldier Piles (In Rock)			Cu Ft	10,878
Untreated Timber Lagging			Sq Ft	10,851
Concrete Sealer			Sq Ft	12,301
Geocomposite Wall Drain			Sq Yd	924
Pipe Underdrains For Structures 4"			Foot	938



NOTE:

For Notes, see Sheets SC-04 and SC-17

LEGEND

F.F.-Front Face
B.F.-Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL CROSS SECTIONS AND DETAILS (SHEET 4 OF 5)
STRUCTURE NO. 099-W123

SHEET SC-20 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	723
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

PILE LAYOUT

Pile	I-80		Ramp D		Top of Pile Elevation	Top of Encasement/ Bottom of CLSM Elev.	Estimated Top of Bedrock Elevation	Boring	Section	Auger Diameter	Pile Tip Elevation	Pile Length (ft)
	Station at Working Point	Offset	Station at Working Point	Offset								
P-01	10+57.57	81.22' Lt.	-	-	615.68	611.86	594.50	RWB-07B	W18x106	2'-6"	586.50	29.18
P-02	10+65.25	81.23' Lt.	-	-	615.73	611.91	594.50	RWB-07B	W18x106	2'-6"	586.50	29.23
P-03	10+72.94	81.23' Lt.	-	-	615.79	611.96	594.50	RWB-07B	W18x106	2'-6"	586.50	29.29
P-04	10+80.63	81.22' Lt.	-	-	615.84	612.01	594.50	RWB-07B	W18x106	2'-6"	586.50	29.34
P-05	10+88.30	81.22' Lt.	-	-	615.90	612.07	594.50	RWB-07B	W18x106	2'-6"	586.50	29.40
P-06	10+95.98	81.23' Lt.	-	-	615.96	612.12	594.50	RWB-07B	W18x106	2'-6"	586.50	29.46
P-07	11+03.67	81.23' Lt.	-	-	616.01	612.17	594.50	RWB-07B	W18x106	2'-6"	586.50	29.51
P-08	11+11.36	81.22' Lt.	-	-	616.07	612.22	594.50	RWB-07B	W18x106	2'-6"	586.50	29.57
P-09	11+19.01	81.25' Lt.	-	-	616.13	612.27	594.50	RWB-07B	W18x106	2'-6"	586.50	29.63
P-10	11+26.72	81.34' Lt.	-	-	616.19	612.33	594.50	RWB-07B	W18x106	2'-6"	586.50	29.69
P-11	11+34.38	81.41' Lt.	18+04.24	7.85' Rt.	616.24	612.37	594.50	RWB-07B	W18x106	2'-6"	586.50	29.74
P-12	11+42.07	81.47' Lt.	17+96.72	7.75' Rt.	616.30	612.42	594.50	RWB-07B	W18x106	2'-6"	586.50	29.80
P-13	11+49.72	81.58' Lt.	17+89.24	7.72' Rt.	616.36	612.46	594.50	RWB-07B	W18x106	2'-6"	586.50	29.86
P-14	11+57.41	81.75' Lt.	17+81.72	7.73' Rt.	616.41	612.48	594.50	RWB-07B	W18x106	2'-6"	586.50	29.91
P-15	11+65.09	81.90' Lt.	17+74.20	7.73' Rt.	616.47	612.49	594.50	RWB-07B	W18x106	2'-6"	586.50	29.97
P-16	11+72.78	82.03' Lt.	17+66.68	7.72' Rt.	616.52	612.51	594.50	RWB-07B	W18x106	2'-6"	586.50	30.02
P-17	11+80.45	82.18' Lt.	17+59.18	7.72' Rt.	616.58	612.53	594.50	RWB-07B	W18x106	2'-6"	586.50	30.08
P-18	11+88.14	82.34' Lt.	17+51.66	7.73' Rt.	616.63	612.54	594.50	RWB-07B	W18x106	2'-6"	586.50	30.13
P-19	11+95.82	82.49' Lt.	17+44.15	7.73' Rt.	616.69	612.56	594.50	RWB-07B	W18x106	2'-6"	586.50	30.19
P-20	12+03.51	82.63' Lt.	17+36.63	7.72' Rt.	616.74	612.57	594.50	RWB-07B	W18x106	2'-6"	586.50	30.24
P-21	12+11.18	82.78' Lt.	17+29.13	7.72' Rt.	616.80	612.59	594.50	RWB-07B	W18x106	2'-6"	586.50	30.30
P-22	12+18.87	82.94' Lt.	17+21.61	7.73' Rt.	616.85	612.61	594.50	RWB-07B	W18x106	2'-6"	586.50	30.35
P-23	12+26.56	83.09' Lt.	17+14.09	7.73' Rt.	616.91	612.62	594.50	RWB-07B	W18x106	2'-6"	586.50	30.41
P-24	12+34.25	83.22' Lt.	17+06.57	7.72' Rt.	616.96	612.64	594.50	RWB-07B	W18x106	2'-6"	586.50	30.46
P-25	12+41.92	83.37' Lt.	16+99.07	7.72' Rt.	617.04	612.64	594.50	RWB-07B	W18x106	2'-6"	586.50	30.54
P-26	12+49.61	83.54' Lt.	16+91.55	7.73' Rt.	617.13	612.63	594.50	RWB-07B	W18x106	2'-6"	586.50	30.63
P-27	12+57.31	83.69' Lt.	16+84.04	7.73' Rt.	617.22	612.62	594.50	RWB-07B	W18x106	2'-6"	586.50	30.72
P-28	12+65.00	83.82' Lt.	16+76.52	7.72' Rt.	617.31	612.61	594.50	RWB-07B	W18x106	2'-6"	586.50	30.81
P-29	12+72.67	83.97' Lt.	16+69.02	7.72' Rt.	617.40	612.60	594.50	RWB-07B	W18x106	2'-6"	586.50	30.90
P-30	12+80.36	84.14' Lt.	16+61.50	7.73' Rt.	617.49	612.59	594.50	RWB-07B	W18x106	2'-6"	586.50	30.99
P-31	12+88.05	84.29' Lt.	16+53.98	7.73' Rt.	617.58	612.58	594.50	RWB-07B	W18x106	2'-6"	586.50	31.08
P-32	12+95.75	84.42' Lt.	16+46.46	7.72' Rt.	617.67	612.57	594.50	RWB-07B	W18x106	2'-6"	586.50	31.17
P-33	13+03.42	84.57' Lt.	16+38.96	7.72' Rt.	617.76	612.55	594.50	RWB-07B	W18x106	2'-6"	586.50	31.26
P-34	13+11.12	84.74' Lt.	16+31.44	7.73' Rt.	617.85	612.54	594.50	RWB-07B	W18x106	2'-6"	586.50	31.35
P-35	13+18.81	84.89' Lt.	16+23.93	7.73' Rt.	617.94	612.53	594.50	RWB-07B	W18x106	2'-6"	586.50	31.44
P-36	13+26.50	85.03' Lt.	16+16.41	7.72' Rt.	618.03	612.52	594.50	RWB-07B	W18x106	2'-6"	586.50	31.53
P-37	13+34.17	85.42' Lt.	16+08.91	7.96' Rt.	618.21	612.49	594.76	RWB-09A	W24x207	3'-0"	584.76	33.45
P-38	13+41.87	85.58' Lt.	16+01.39	7.97' Rt.	618.47	612.45	594.76	RWB-09A	W24x207	3'-0"	584.76	33.71
P-39	13+49.56	85.73' Lt.	15+93.87	7.97' Rt.	618.73	612.41	594.76	RWB-09A	W24x207	3'-0"	584.76	33.97
P-40	13+57.26	85.87' Lt.	15+85.56	8.53' Rt.	618.99	612.37	594.76	RWB-09A	W24x207	3'-0"	584.76	34.23
P-41	13+64.93	86.02' Lt.	15+78.85	7.96' Rt.	619.24	612.33	594.76	RWB-09A	W24x207	3'-0"	584.76	34.48
P-42	13+72.63	86.19' Lt.	15+71.33	7.98' Rt.	619.49	612.29	594.76	RWB-09A	W24x207	3'-0"	584.76	34.73
P-43	13+80.33	86.34' Lt.	15+63.81	7.98' Rt.	619.74	612.26	594.76	RWB-09A	W24x207	3'-0"	584.76	34.98
P-44	13+88.03	86.47' Lt.	15+56.30	7.96' Rt.	619.99	612.22	594.76	RWB-09A	W24x207	3'-0"	584.76	35.23
P-45	13+95.70	86.62' Lt.	15+48.80	7.96' Rt.	620.24	612.18	594.76	RWB-09A	W24x207	3'-0"	584.76	35.48
P-46	14+03.40	86.78' Lt.	15+41.28	7.97' Rt.	620.50	612.14	594.76	RWB-09A	W24x207	3'-0"	584.76	35.74
P-47	14+11.10	86.94' Lt.	15+33.76	7.98' Rt.	620.75	612.11	594.76	RWB-09A	W24x207	3'-0"	584.76	35.99
P-48	14+18.80	87.07' Lt.	15+26.24	7.95' Rt.	621.00	612.07	594.76	RWB-09A	W24x207	3'-0"	584.76	36.24
P-49	14+26.47	87.47' Lt.	15+18.74	8.20' Rt.	621.26	612.02	595.10	RWB-09A	W30x235	3'-6"	585.10	36.16
P-50	14+34.17	87.62' Lt.	15+11.22	8.21' Rt.	621.51	611.95	595.10	RWB-09A	W30x235	3'-6"	585.10	36.41
P-51	14+41.87	87.78' Lt.	15+03.70	8.21' Rt.	621.77	611.88	595.10	RWB-09A	W30x235	3'-6"	585.10	36.67
P-52	14+49.58	87.92' Lt.	14+96.18	8.20' Rt.	622.02	611.81	595.10	RWB-09A	W30x235	3'-6"	585.10	36.92
P-53	14+57.25	88.06' Lt.	14+88.69	8.20' Rt.	622.28	611.74	595.10	RWB-09A	W30x235	3'-6"	585.10	37.18
P-54	14+64.96	88.23' Lt.	14+81.17	8.21' Rt.	622.53	611.67	595.10	RWB-09A	W30x235	3'-6"	585.10	37.43
P-55	14+72.66	88.39' Lt.	14+73.65	8.21' Rt.	622.79	611.60	595.10	RWB-09A	W30x235	3'-6"	585.10	37.69
P-56	14+80.36	88.52' Lt.	14+66.13	8.20' Rt.	623.04	611.53	595.10	RWB-09A	W30x235	3'-6"	585.10	37.94
P-57	14+88.03	88.91' Lt.	14+58.63	8.43' Rt.	623.29	611.47	595.48	RWB-11B	W36x232	4'-0"	583.48	39.81
P-58	14+95.74	89.07' Lt.	14+51.11	8.45' Rt.	623.55	611.40	595.48	RWB-11B	W36x232	4'-0"	583.48	40.07
P-59	15+03.44	89.23' Lt.	14+43.59	8.45' Rt.	623.80	611.33	595.48	RWB-11B	W36x232	4'-0"	583.48	40.32
P-60	15+11.15	89.36' Lt.	14+36.07	8.43' Rt.	624.05	611.26	595.48	RWB-11B	W36x232	4'-0"	583.48	40.57
P-61	15+18.83	89.51' Lt.	14+28.58	8.43' Rt.	624.16	611.18	595.48	RWB-11B	W36x232	4'-0"	583.48	40.68
P-62	15+26.53	89.68' Lt.	14+21.06	8.45' Rt.	624.13	611.09	595.48	RWB-11B	W36x232	4'-0"	583.48	40.65
P-63	15+34.24	89.83' Lt.	14+13.54	8.45' Rt.	624.10	610.99	595.48	RWB-11B	W36x232	4'-0"	583.48	40.62
P-64	15+41.94	89.96' Lt.	14+06.02	8.43' Rt.	624.07	610.90	595.48	RWB-11B	W36x232	4'-0"	583.48	40.59

PILE LAYOUT CONTINUED

Pile	I-80		Ramp D		Top of Pile Elevation	Top of Encasement/ Bottom of CLSM Elev.	Estimated Top of Bedrock Elevation	Boring	Section	Auger Diameter	Pile Tip Elevation	Pile Length (ft)
	Station at Working Point	Offset	Station at Working Point	Offset								
P-65	15+48.60	90.09' Lt.	13+99.52	8.43' Rt.	623.97	610.82	595.48	RWB-11B	W36x232	4'-0"	583.48	40.49
P-66	15+55.28	90.23' Lt.	13+93.00	8.44' Rt.	623.77	610.73	595.48	RWB-11B	W36x232	4'-0"	583.48	40.29
P-67	15+61.96	90.37' Lt.	13+86.49	8.44' Rt.	623.58	610.65	595.48	RWB-11B	W36x232	4'-0"	583.48	40.10
P-68	15+68.64	90.48' Lt.	13+79.97	8.43' Rt.	623.38	610.57	595.48	RWB-11B	W36x232	4'-0"	583.48	39.90
P-69	15+74.26	90.59' Lt.	13+74.48	8.43' Rt.	623.22	610.50	595.48	RWB-11B	W36x232	4'-0"	583.48	39.74
P-70	15+80.94	90.74' Lt.	13+67.96	8.44' Rt.	623.02	610.41	595.48	RWB-11B	W36x232	4'-0"	583.48	39.54
P-71	15+87.62	90.87' Lt.	13+61.44	8.44' Rt.	622.82	610.33	595.48	RWB-11B	W36x232	4'-0"	583.48	39.34
P-72	15+94.30	90.99' Lt.	13+54.93	8.43' Rt.	622.62	610.25	595.48	RWB-11B	W36x232	4'-0"	583.48	39.14
P-73	15+99.94	91.10' Lt.	13+49.43	8.43' Rt.	622.46	610.17	595.48	RWB-11B	W36x232	4'-0"	583.48	38.98
P-74	16+06.62	91.24' Lt.	13+42.91	8.44' Rt.	622.26	610.07	595.48	RWB-11B	W36x232	4'-0"	583.48	38.78
P-75	16+13.30	91.37' Lt.	13+36.40	8.44' Rt.	622.07	609.97	595.48	RWB-11B	W36x232	4'-0"	583.48	38.59
P-76	16+19.98	91.49' Lt.	13+29.88	8.43' Rt.	621.87	609.86	595.48	RWB-11B	W36x232	4'-0"	583.48	38.39
P-77	16+25.62	91.36' Lt.	13+24.38	8.19' Rt.	621.71	609.77	595.48	RWB-13A	W30x235	3'-6"	585.48	36.23
P-78	16+32.30	91.52' Lt.	13+17.87	8.21' Rt.	621.51	609.66	595.48	RWB-13A	W30x235	3'-6"	585.48	36.03
P-79	16+38.98	91.64' Lt.	13+11.35	8.21' Rt.	621.32	609.54	595.48	RWB-13A	W30x235	3'-6"	585.48	35.84
P-80	16+45.67	91.77' Lt.	13+04.83	8.19' Rt.	621.12	609.43	595.48	RWB-13A	W30x235	3'-6"	585.48	35.64
P-81	16+51.29	91.89' Lt.	12+99.35	8.20' Rt.	620.96	609.33	595.48	RWB-13A	W30x235	3'-6"	585.48	35.48
P-82	16+57.97	92.06' Lt.	12+92.83	8.23' Rt.	620.76	609.22	595.48	RWB-13A	W30x235	3'-6"	585.48	35.28
P-83	16+64.65	92.22' Lt.	12+86.31	8.27' Rt.	620.57	609.10	595.48	RWB-13A	W30x235	3'-6"	585.48	35.09
P-84	16+71.34	92.36' Lt.	12+79.80	8.28' Rt.	620.37	608.99	595.48	RWB-13A	W30x235	3'-6"	585.48	34.89
P-85	16+76.80	92.67' Lt.	12+74.47	8.47' Rt.	620.21	608.90	595.48	RWB-13A	W30x235	3'-6"	585.48	34.73
P-86	16+83.46	93.27' Lt.	12+67.96	8.96' Rt.	620.02	608.78	595.48	RWB-13A	W30x235	3'-6"	585.48	34.54
P-87	16+90.12	93.86' Lt.	12+61.46	9.43' Rt.	619.82	608.67	595.48	RWB-13A	W30x235	3'-6"	585.48	34.34
P-88	16+96.78	94.44' Lt.	12+54.96	9.88' Rt.	619.63	608.55	595.48	RWB-13A	W30x235	3'-6"	585.48	34.15
P-89	17+03.42	95.05' Lt.	12+48.47	10.35' Rt.	619.43	608.44	596.19	RWB-15	W30x235	3'-6"	584.19	35.24
P-90	17+11.11	95.75' Lt.	12+40.97	10.89' Rt.	619.21	608.31	596.19	RWB-15	W30x235	3'-6"	584.19	35.02
P-91	17+18.80	96.44' Lt.	12+33.46	11.44' Rt.	618.98	608.17	596.19	RWB-15	W30x235	3'-6"	584.19	34.79
P-92	17+26.49	97.11' Lt.	12+25.95	11.96' Rt.	618.76	608.04	596.19	RWB-15	W30x235	3'-6"	584.19	34.57
P-93	17+34.16	97.80' Lt.	12+18.46	12.48' Rt.	618.53	607.91	596.19	RWB-15	W30x235	3'-6"	584.19	34.34
P-94	17+41.86	98.50' Lt.	12+10.95	13.04' Rt.	618.31	607.77	596.19	RWB-15	W30x235	3'-6"	584.19	34.12
P-95	17+49.55	99.19' Lt.	12+03.44	13.57' Rt.	618.08	607.64	596.19	RWB-15	W30x235	3'-6"	584.19	33.89
P-96	17+57.25	99.86' Lt.	11+95.93	14.10' Rt.	617.86	607.50	596.19	RWB-15	W30x235	3'-6"	584.19	33.67
P-97	17+64.89	100.59' Lt.	11+88.44	14.68' Rt.	617.57	607.33	596.19	RWB-15	W30x235	3'-6"	584.19	33.38
P-98	17+72.58	101.39' Lt.	11+80.83	15.29' Rt.	617.19	607.12	596.19	RWB-15	W30x235	3'-6"	584.19	33.00
P-99	17+80.27	102.19' Lt.	11+73.20	15.84' Rt.	616.82	606.91	596.19	RWB-15	W30x235	3'-6"	584.19	32.63
P-100	17+87.97	102.97' Lt.	11+65.57	16.30' Rt.	616.45	606.70	596.19	RWB-15	W30x235	3'-6"	584.19	32.26
P-101	17+95.56	103.84' Lt.	11+58.02	16.84' Rt.	616.08	606.49	596.19	RWB-15	W30x235	3'-6"	584.19	31.89
P-102	18+03.23	104.86' Lt.	11+50.39	17.46' Rt.	615.71	606.28	596.19	RWB-15	W30x235	3'-6"	584.19	31.52
P-103	18+10.91	105.84' Lt.	11+42.75	18.02' Rt.	615.33	606.07	596.19	RWB-15	W30x235	3'-6"	584.19	31.14
P-104	18+18.59	106.83' Lt.	11+35.09	18.50' Rt.	614.96	605.85	596.19	RWB-15	W30x235	3'-6"	584.19	30.77
P-105	18+26.21	107.66' Lt.	11+27.50	18.79' Rt.	614.59	605.68	597.52	RWB-17	W24x207	3'-0"	585.52	29.07
P-106	18+33.87	108.81' Lt.	11+19.84	19.33' Rt.	614.21	605.55	597.52	RWB-17	W24x207	3'-0"	585.52	28.69
P-107	18+41.32	109.96' Lt.	11+12.18	19.82' Rt.	613.84	605.43	597.52	RWB-17	W24x207	3'-0"	585.52	28.32
P-108	18+48.74	111.11' Lt.	11+04.50	20.26' Rt.	613.47	605.31	597.52	RWB-17	W24x207	3'-0"	585.52	27.95
P-109	18+56.22	112.17' Lt.	10+96.75	20.50' Rt.	613.10	605.18	597.52	RWB-17	W24x207	3'-0"	585.52	27.58
P-110	18+63.67	113.10' Lt.	10+89.06	20.57' Rt.	612.73	605.06	597.52	RWB-17	W24x207	3'-0"	585.52	27.21
P-111	18+71.11	114.04' Lt.	10+81.37	20.57' Rt.	612.36	604.93	597.52	RWB-17	W24x207	3'-0"	585.52	26.84
P-112	18+78.55	114.97' Lt.	10+73.68	20.51' Rt.	611.99	604.81	597.52	RWB-17	W24x207	3'-0"	585.52	26.47
P-113	18+85.89	116.03' Lt.	10+66.07	20.50' Rt.	611.62	604.67	597.52	RWB-17	W24x207	3'-0"	585.52	26.10
P-114	18+93.29	117.25' Lt.	10+58.38	20.57' Rt.	611.25	604.52	597.52	RWB-17	W24x207	3'-0"	585.52	25.73
P-115	19+00.69	118.45' Lt.	10+50.69	20.57' Rt.	610.88	604.37	597.52	RWB-17	W24x207	3'-0"	585.52	25.36
P-116	19+08.10	119.65' Lt.	10+43.00	20.50' Rt.	610.50	604.22	597.52	RWB-17	W24x207	3'-0"	585.52	24.98
P-117	19+15.40	120.99' Lt.	10+35.39	20.50' Rt.	610.14	604.07	597.52	RWB-17	W24x207	3'-0"	585.52	24.62
P-118	19+22.75	122.47' Lt.	10+27.70	20.57' Rt.	609.76	603.92	597.52	RWB-17	W24x207	3'-0"	585.52	24.24
P-119	19+30.10	123.94' Lt.	10+20.01	20.57' Rt.	609.39	603.77	597.52	RWB-17	W24x207	3'-0"	585.52	23.87
P-120	19+37.45	125.42' Lt.	10+12.32	20.50' Rt.	609.02	603.62	597.52	RWB-17	W24x207	3'-0"	585.52	23.50
P-121	19+45.04	126.84' Lt.	10+04.45	20.26' Rt.	608.66	603.47	597.52	RWB-17	W18x106	2'-6"	585.52	23.14
P-122	19+52.82	128.69' Lt.	0996.25	20.32' Rt.	608.33	603.31	597.52	RWB-17	W18x106	2'-6"	585.52	22.81
P-123	19+60.60	130.55' Lt.	0988.05	20.29' Rt.	608.00	603.15	597.52	RWB-17	W18x106	2'-6"	585.52	22.48
P-124	19+68.39	132.40' Lt.	0979.85	20.20' Rt.	607.67	602.99	597.52	RWB-17	W18x106	2'-6"	585.52	22.15
P-125	19+76.05	134.41' Lt.	0971.73	20.20' Rt.	607.34	602.83	597.52	RWB-17	W18x106	2'-6"	585.52	21.82
P-126	19+83.74	136.60' Lt.	0963.53	20.29' Rt.	607.01	602.67	597.52	RWB-17	W18x106	2'-6"	585.52	21.49
P-127	19+91.43	138.80' Lt.	0955.33	20.32' Rt.	606.68	602.51	597.52	RWB-17	W18x106	2'-6"	585.52	21.16
P-128	19+99.13	141.00' Lt.	0947.13	20.26' Rt.	606.35	602.35	597.52	RWB-17	W18x106	2'-6"	585.52	20.83



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Mobile B-57 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. 099-W123
Station
BORING NO. RWB-05
Station 10+75.6639
Offset 81.61ft LT
Ground Surface Elev. 618.29 ft

D E P T H
B L O W S
U C S
M O I S T

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

7 inches of Asphalt	617.70				
Gray, Moist					
FILL: SILTY CLAY, trace gravel		7			
		8	2.1	14	
		7	B		
		2			
		3	2.1	22	
		5	B		
		-5			
		2			
		2	2.1	21	
		6	B		
	610.29				
Stiff to Hard					
Brown, Moist		1			
SILTY CLAY (CL/ML)		2	1.0	17	
		4	B		
		-10			
		2			
		5	4.2	17	
		10	B		
	605.29				
Stiff to Very Stiff					
Gray, Moist		2			
SILTY CLAY (CL/ML)		5	2.1	21	
		8	B		
		-15			
		2			
		5	1.0	21	
		5	B		
		4			
		8	2.1	23	
		10	B		
	598.29	-20			

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

NOTE:
1. The stations are measured along I-80.



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Mobile B-57 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. 099-W123
Station
BORING NO. RWB-06
Station 11+54.8112
Offset 80.47ft LT
Ground Surface Elev. 618.30 ft

D E P T H
B L O W S
U C S
M O I S T

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

6 inches of Asphalt	617.80				
Very Stiff to Hard					
Gray, Moist		5			
SILTY CLAY, trace gravel		7	5.2	19	
(CL/ML)		7	B		
		2			
		3	3.1	19	
		6	B		
		-5			
		3			
		3	2.1	21	
		7	B		
		3			
		6	4.2	17	
		9	B		
		-10			
		2			
		7	3.1	21	
		6	B		
		3			
		6	3.1	23	
		6	B		
		-15			
		3			
		5	3.3	23	
		7	B		
		5			
		9	4.2	20	
		12	B		
	598.30	-20			

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 1 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-22 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	725
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw:///transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W123-RW1099W123-62R22-5C-21-Boring_Logs_1



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO. 099-W123 Station BORING NO. RWB-07 Station 12+34.1223 Offset 78.55ft LT Ground Surface Elev. 618.53 ft

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter Dry ft Upon Completion N/A ft After Hrs. N/A ft

D E P T H (ft)	B L O W S (/6")	U C S (tsf)	M O I S T (%)
14 inches of Asphalt			
617.36	7		
Brown, Moist FILL: SILTY CLAY, trace gravel	5	3.8	19
Very Stiff	5	B	
Brown, Moist SILTY CLAY, trace gravel (CL/ML)	4		
5	2.5	15	
-5	5	B	
612.53	3		
Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)	5	2.3	15
6	B		
3			
6	2.9	16	
8	B		
-10			
3			
7	4.6	20	
8	B		
2			
6	4.2	20	
7	B		
-15			
3			
6	4.2	18	
8	B		
3			
6	4.2	20	
8	B		
598.53	-20		

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

NOTE:
1. The stations are measured along I-80.



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DF

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 79.8

STRUCT. NO. 099-W123 Station BORING NO. RWB-07A Station 12+58.947 Offset 74.06ft LT Ground Surface Elev. 618.50 ft

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter 597.0 ft Upon Completion N/A ft After Hrs. N/A ft

D E P T H (ft)	B L O W S (/6")	U C S (tsf)	M O I S T (%)
Blind drill to 21 feet			
597.50			
Loose to Very Dense Gray, Wet SILTY SAND (SM)	5		
3		20	
5			
594.50	50/4"		
Auger refusal at 24 feet End of Boring			19
-25			
-5			
-10			
-15			
-20			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W123-RW1099W123-62R22-5C-22-Boring_Logs 2



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 2 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-23 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	726
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 6/21/23

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 Latitude Longitude Longitude Longitude DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev. N/A ft	E	L	C	O
BORING NO. RWB-07B	P	O	S	I	Groundwater Elev.:	P	O	S	I
Station 12+34.1223	T	S	Qu	T	First Encounter 606.5 ft	T	S	Qu	T
Offset 78.55ft LT	H	S			Upon Completion N/A ft	H	S		
Ground Surface Elev. 618.95 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft	(ft)	(/6")	(tsf)	(%)
12 inches of Asphalt					Medium Dense				
617.95					Gray, Moist				
Stiff to Hard	4				SAND (SP) (continued) 597.45	3			
Brown and Gray, Moist	5	6.9			Very Stiff	3	2.1		
SILTY CLAY, trace gravel	7	B			Gray, Moist	50/3"	S		
(CL/ML)					SILTY CLAY LOAM, trace gravel				
					(CL/ML)				
	3				Auger refusal at 23.5 feet 595.45				
	4	4.2			Gray				
	6	B			LIMESTONE, heavily weathered,				
	-5				heavily fractured -25				
					Run 1: 23.5' - 33.5'				
	3				Recovery: 100%				
	5	6.3			RQD: 25.8% (Poor)				
	8	B							
	3								
	4	5.2							
	7	B							
	-10								
	3								
	5	5.2							
	8	B							
	4				End of Boring 585.45				
	6	1.8							
	9	P							
	-15								
	3								
	5	4.6							
	8	B							
	3								
	6	5.0							
599.45									
	10	B							
	-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along I-80.



SOIL BORING LOG

Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Diedrich D-50 Latitude Longitude Longitude Longitude DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 98

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev. N/A ft	E	L	C	O
BORING NO. RWB-08	P	O	S	I	Groundwater Elev.:	P	O	S	I
Station 13+7.7753	T	S	Qu	T	First Encounter Dry ft	T	S	Qu	T
Offset 72.61ft LT	H	S			Upon Completion N/A ft	H	S		
Ground Surface Elev. 618.60 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft	(ft)	(/6")	(tsf)	(%)
3 inches of Asphalt 618.35									
Very Stiff to Hard									
Gray, Moist	3								
SILTY CLAY, trace sand and	4	2.3	18						
gravel (CL/ML)	5	B							
	2								
	4	2.9	21						
	4	B							
	-5								
	2								
	3	3.1	20						
	7	B							
	2								
	3	2.7	22						
	3	B							
	-10								
	3								
	4	2.5	18						
	5	B							
	3								
	4	2.9	19						
	5	B							
	-15								
	4								
	7	5.0	20						
	7	B							
	4								
	5	4.0	21						
	8	B							
	-20								

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W123-RW1099W123-62R22-5C-23-Boring_Logs_3



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 3 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-24 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	727
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 4/29/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO. 099-W123 Station	D E P T H (ft)	B L O W S (/6")	U C S (tsf)	M O I S T (%)	Surface Water Elev. N/A ft Stream Bed Elev. N/A ft Groundwater Elev.: First Encounter 615.0 ft ▼ Upon Completion N/A ft After Hrs. N/A ft
BORING NO. RWB-09 Station 13+85.3092 Offset 63.93ft LT Ground Surface Elev. 618.48 ft					
12 inches of Asphalt	617.48				
Brown, Moist FILL: SILTY CLAY, with gravel		6			
		5	2.9	13	
		6	B		
615.48					
Brown, Moist to Wet FILL: SAND, trace gravel		11			
		14		14	
		-5			
		6			
		13		20	
		17			
		6			
608.98		11	4.5	15	
Very Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)	-10	10	P		
607.48		4			
Very Stiff to Hard Gray, Moist SILTY CLAY (CL/ML)		5	2.5	14	
		8	B		
		3			
		7	3.8	22	
		-15	B		
		2			
		5	2.5	23	
		7	B		
		3			
		7	4.2	22	
598.48	-20	10	B		

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 6/21/23

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO. 099-W123 Station	D E P T H (ft)	B L O W S (/6")	U C S (tsf)	M O I S T (%)	Surface Water Elev. N/A ft Stream Bed Elev. N/A ft Groundwater Elev.: First Encounter Dry ft Upon Completion N/A ft After Hrs. N/A ft
BORING NO. RWB-09A Station 13+85.3092 Offset 63.93ft LT Ground Surface Elev. 618.26 ft					
12 inches of Asphalt	617.26				
Hard		4			
Brown, Moist		5	4.4		
SILTY CLAY, trace gravel (CL/ML)		5	B		
		5			
		7	5.0		
		-5	B		
		5			
		7	7.3		
		11	B		
		7			
		7	6.5		
		-10	B		
		5			
		8	5.2		
		111	B		
604.76		3			
Hard		6	5.4		
Gray, Moist		8	B		
SILTY CLAY, trace gravel (CL/ML)		-15			
		4			
		7	5.6		
		11	B		
		4			
		7	4.6		
598.76	-20	16	B		

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along @ I-80.



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 4 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-25 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	728
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude
Diedrich D-50
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 98

STRUCT. NO. 099-W123
Station
BORING NO. RWB-10
Station 14+63.5688
Offset 59.79ft LT
Ground Surface Elev. 618.19 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

D E P T H	B L O W S	U C S Qu	M O I S T	(ft)	(/6")	(tsf)	(%)
				3		2.5	14
				5		B	
				4		6.5	19
				5		B	
				6			
				4			
				6		4.6	15
				7		B	
				4			
				5		3.5	15
				6		B	
				4			
				6		4.2	22
				8		B	
				3			
				7		4.6	24
				7		B	
				4			
				7		4.8	22
				11		B	
				3			
				6		3.1	20
				7		B	

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude
CME-75
DRILLING METHOD HSA HAMMER TYPE Auto
HAMMER EFF (%) 91

STRUCT. NO. 099-W123
Station
BORING NO. RWB-11
Station 15+41.2328
Offset 59.21ft LT
Ground Surface Elev. 617.48 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

D E P T H	B L O W S	U C S Qu	M O I S T	(ft)	(/6")	(tsf)	(%)
				6			
				3		2.9	19
				6		B	
				6			
				7		5.4	17
				9		B	
				4			
				7		5.4	20
				8		B	
				4			
				6		4.2	21
				7		B	
				3			
				5		4.2	21
				6		B	
				4			
				6		7.9	21
				11		B	
				3			
				6		5.0	20
				9		B	
				4			
				6		3.1	22
				8		B	

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along I-80.



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 5 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-26 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	729
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 11/8/22

COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	CME-75		HAMMER EFF (%)	79.8
			HSA			

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

NOTE:
1. The stations are measured along B I-80.

Page 1 of 1

Date 6/20/23

COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	Mobile B-57		HAMMER EFF (%)	89
			HSA			

12 inches of Asphalt	615.70			Auger refusal at 21 feet	595.70				
Hard		2		Gray		50/1"			
Brown, Moist		3	4.8	LIMESTONE, heavily weathered,					
SILTY CLAY, trace gravel		3	B	heavily fractured					
(CL/ML)									
				Run 1: 22.5' - 32.5'					
		6		Recovery: 100%					
		6	6.3	RQD: 15% (Very poor)					
		8	B						
	-5					-25			
		6							
		7	7.1						
		10	B						
		4							
		6	5.6						
		9	B						
	-10					-30			
		3							
		5	4.8						
		8	B						
					584.20				
				End of Boring					
		3							
		5	4.4						
		8	B						
	-15					-35			
		3							
		6	6.3						
		10	B						
		5							
		20	4.4						
		19	B						
	-20					-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

MODEL: Default
FILE NAME: pw://transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W123-RW1/099W123-62R22-SC-26-Boring Logs 6

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - JMI	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (SHEET 6 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-27 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	730
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

4/22/2025 4:16:52 PM

Page 1 of 1Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 **LOCATION** SEC. 17, TWP. 35 N, RNG. 10 E,

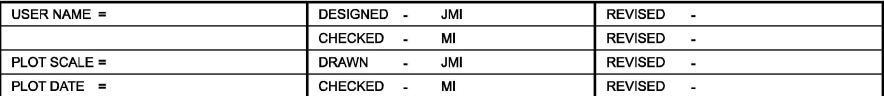
COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	Diedrich	D-50	HAMMER EFF (%)	98
				HSA		

STRUCT. NO. 099-W123	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. N/A ft	D E P T H	B L O W S	U C S	M O I S T
Station					Stream Bed Elev. N/A ft				
BORING NO. RWB-12					Groundwater Elev.:				
Station 16+21.5354					First Encounter Dry ft				
Offset 60.96ft LT					Upon Completion N/A ft				
Ground Surface Elev. 616.14 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft	(ft)	(/6")	(tsf)	(%)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

1. The stations are measured along ~~B~~ I-80.



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (SHEET 7 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-28 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	731
		CONTRACT NO. 62R22		
ILLINOIS		FED. AID PROJECT		

BBS, form 137 (Rev. 8-99)

Page 1 of 1Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 **LOCATION** , SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude CME-75	Longitude HSA	HAMMER TYPE	Auto
					HAMMER EFF (%)	91

STRUCT. NO. 099-W123	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. N/A ft
Station					Stream Bed Elev. N/A ft
BORING NO. RWB-13					Groundwater Elev.:
Station 17+2.5114					First Encounter Dry ft
Offset 62.49 ft LT					Upon Completion N/A ft
Ground Surface Elev. 614.34 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 6/20/23

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY EH

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Mobile B-57 HSA HAMMER TYPE Auto 89
DRILLING METHOD HSA HAMMER EFF (%)

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev. N/A ft	E	L	C	O
	P	O	S	I		P	O	S	I
BORING NO. RWB-13A	T	W	S	S	Groundwater Elev.:	T	W	S	S
Station 17+2.5114	H	S	Qu	T	First Encounter Dry ft	H	S	Qu	T
Offset 62.49ft LT					Upon Completion N/A ft				
Ground Surface Elev. 614.34 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft	(ft)	(/6")	(tsf)	(%)
12 inches of Asphalt					Light Gray Limestone, slightly weathered, moderately fractured				
613.34		3							
Very Stiff to Hard		4	3.8		Run 1: 19.5' - 29.5'				
Brown and Gray, Moist		6	B		Recovery: 100%				
SILTY CLAY (CL/ML)					RQD: 16% (Very poor) (continued)				
		4							
		6	5.2						
	-5	10	B			-25			
		3							
		6	7.1						
		9	B						
		4							
		7	7.1						
	-10	11	B		End of Boring	-30			
		3							
		7	9.6						
		11	B						
		4							
		8	6.5						
	-15	12	B			-35			
		17							
597.84		50/2"	4.5						
Very Dense			P						
Brown, Moist									
GRAVEL, with sand (GPS)									
		50/2"							
Auger refusal at 19.5 feet									
594.84									
	-20					-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along R I-80.



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 8 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-29 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	732
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Page 1 of 1

Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Diedrich D-50 HSA HAMMER TYPE Auto 98
DRILLING METHOD HSA HAMMER EFF (%)

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev. N/A ft	E	L	C	O
	P	O	S	I		P	O	S	I
BORING NO. RWB-14	T	W	S	S	Groundwater Elev.:	T	W	S	S
Station 17+81.1885	H	S	Qu	T	First Encounter Dry ft	H	S	Qu	T
Offset 71.19ft LT					Upon Completion N/A ft				
Ground Surface Elev. 612.69 ft	(ft)	(/6")	(tsf)	(%)	After Hrs. N/A ft	(ft)	(/6")	(tsf)	(%)
3 inches of Asphalt					Light Gray Limestone, slightly weathered, moderately fractured				
612.44		3							
Brown, Moist		5	4.5		Run 1: 19.5' - 29.5'				
FILL: SILTY CLAY, trace sand and gravel		7	P		Recovery: 100%				
		4			RQD: 16% (Very poor) (continued)				
		7	6.5						
		10	B						
	-5					-25			
		4							
		6	7.1						
		9	B						
		4							
		7	7.1						
	-10	11	B		End of Boring	-30			
		3							
		7	9.6						
		11	B						
		4							
		8	6.5						
	-15	12	B			-35			
		17							
597.84		50/2"	4.5						
Very Dense			P						
Brown, Moist									
GRAVEL, with sand (GPS)									
		50/2"							
Auger refusal at 19.5 feet									
594.84									
	-20					-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Page 1 of 1

Date 4/28/22

[illegible]

BBS, form 137 (Rev. 8-99)

1. The stations are measured along ~~B~~ I-80.



Page 1 of 1

Date 4/28/22

3 inches of Asphalt	609.27			
Brown, Moist				
FILL: SILTY CLAY, trace sand and gravel		4		
		4	3.1	10
		6	B	
		4		
		8	5.4	21
		12	B	
	-5			
		7		
		10	5.8	21
		15	B	
	601.52			
Hard				
Brown, Moist		3		
SILTY CLAY, with sand and gravel (CL/ML)		6	6.5	23
		10	B	
	-10			
		11		
	597.52	18	4.5	21
		19	P	
Very Dense				
Light Gray, Moist				
WEATHERED LIMESTONE				
	595.52	50/1"		
Auger refusal at 14 feet				NR
End of Boring	-15			
	-20			

BBS, form 137 (Rev. 8-99)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	733
		CONTRACT NO. 62R22		
ILLINOIS		FED. AID PROJECT		

Page 1 of 1

Date 4/28/22

COUNTY	Will	DRILLING RIG	CME-75	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER SIZE (in)	24

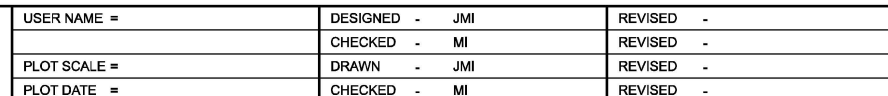
STRUCT. NO. <u>099-W123</u>	D	B	U	M	Surface Water Elev. <u>N/A</u> ft	D	B	U	M
Station _____	E	L	C	O	Stream Bed Elev. <u>N/A</u> ft	E	L	C	O
	P	O	S	I		P	O	S	I
BORING NO. <u>RWB-17</u>	T	W		S	Groundwater Elev.:	T	W		S
Station <u>19+90.1585</u>	H	S	Qu	T	First Encounter <u>Dry</u> ft	H	S	Qu	T
Offset <u>120.55ft LT</u>					Upon Completion <u>N/A</u> ft				
Ground Surface Elev. <u>608.27</u> ft	(ft)	(/6")	(tsf)	(%)	After <u>N/A</u> ft	(ft)	(/6")	(tsf)	(%)
					Hrs. <u>N/A</u> ft				

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

1. The stations are measured along ~~B~~ I-80.



BORING LOGS (SHEET 10 OF 10)
STRUCTURE NO. 099-W123

SHEET SC-31 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	734
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

Benchmark: Chiseled "x" on top of SE bolt of Fire Hydrant at south ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

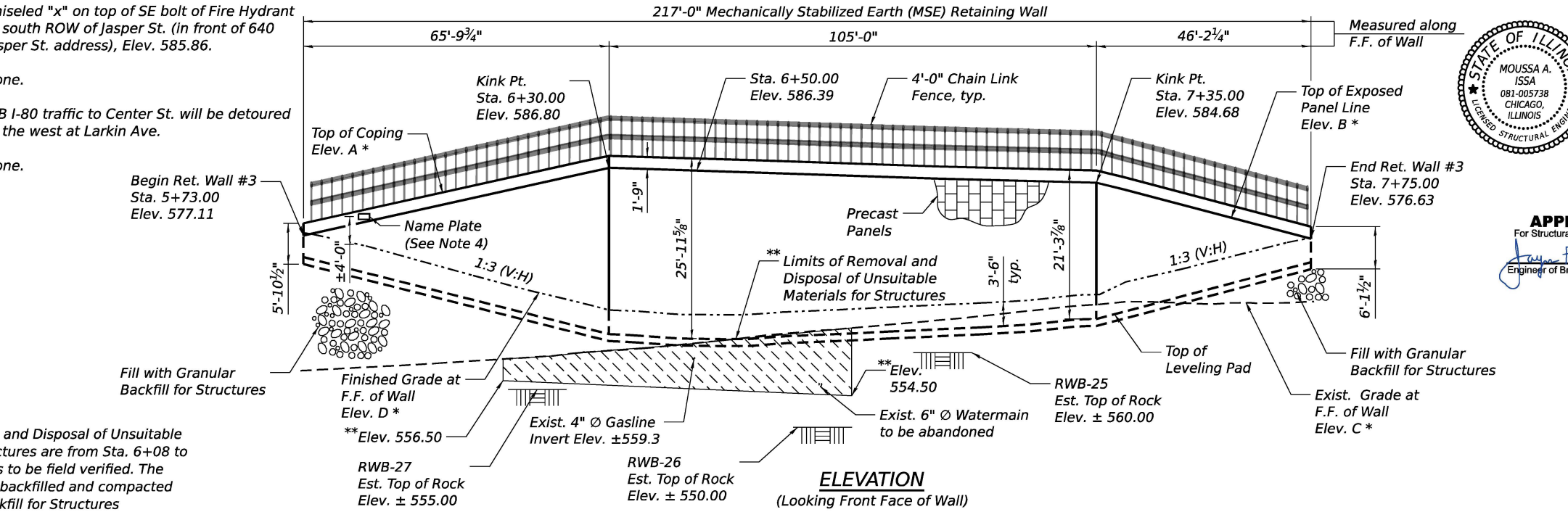
Existing Structure: None.

Traffic Control: WB I-80 traffic to Center St. will be detoured to the west at Larkin Ave.

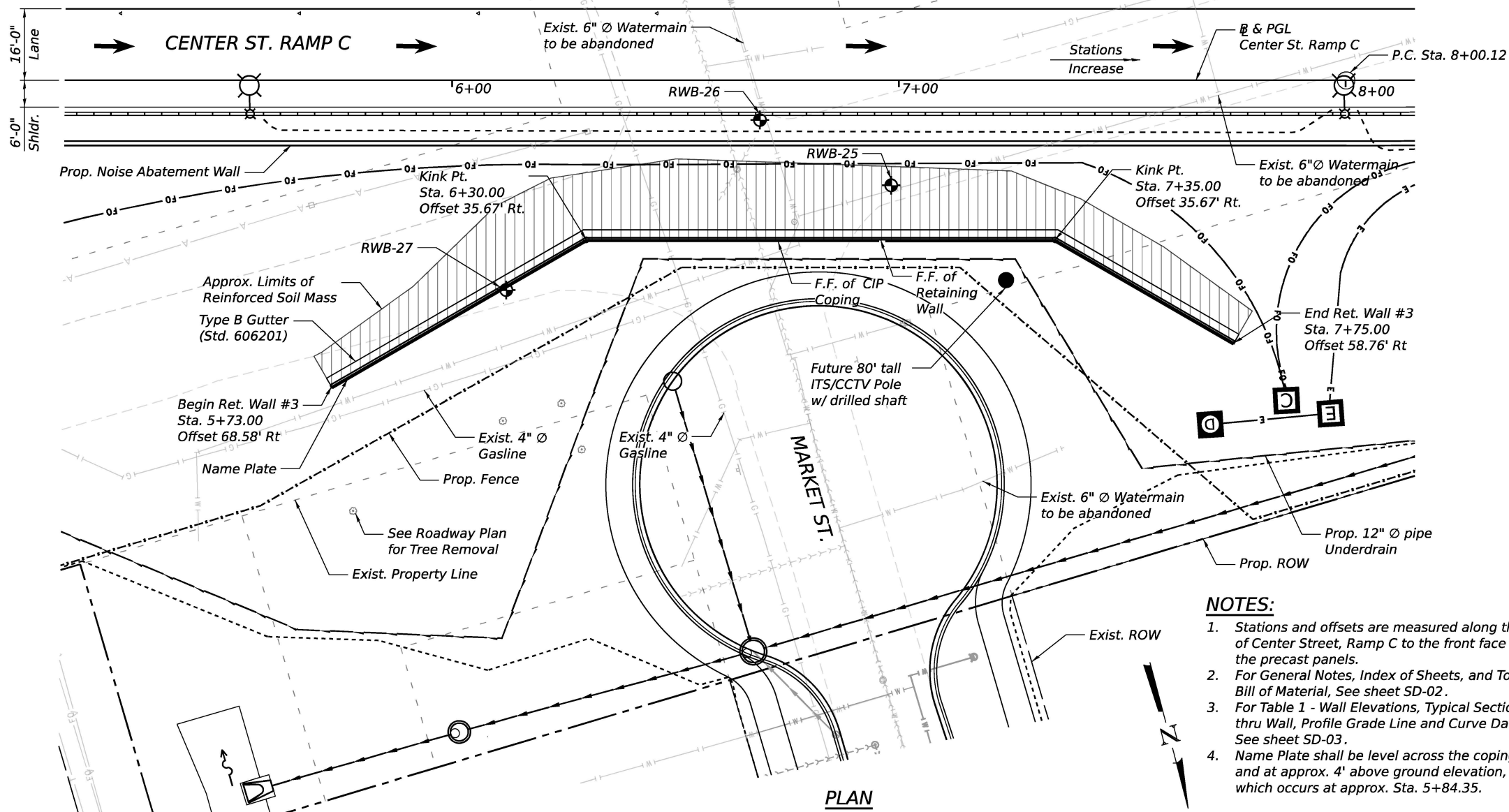
Salvage: None.

* See Note 3

** Limits of Removal and Disposal of Unsuitable Materials for Structures are from Sta. 6+08 to 6+85 and depth is to be field verified. The undercut shall be backfilled and compacted with Granular Backfill for Structures



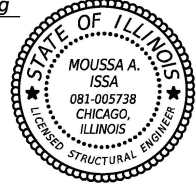
ELEVATION
(Looking Front Face of Wall)



PLAN

NOTES:

- Stations and offsets are measured along the center of Center Street, Ramp C to the front face of the precast panels.
- For General Notes, Index of Sheets, and Total Bill of Material, See sheet SD-02.
- For Table 1 - Wall Elevations, Typical Sections thru Wall, Profile Grade Line and Curve Data, See sheet SD-03.
- Name Plate shall be level across the coping and at approx. 4' above ground elevation, which occurs at approx. Sta. 5+84.35.



Signed Moussa A. Issa
Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
Expires 11-30-2026
Date 4/22/2025 For Sheets SD-01 Thru SD-06.

APPROVED
For Structural Adequacy Only
James F. [Signature]
Engineer of Bridges & Structures

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

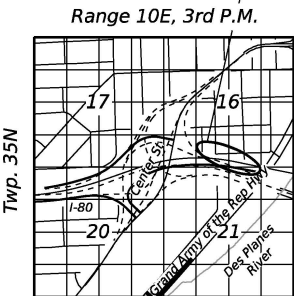
DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS
 $f_c = 4,500$ psi

LEGEND

- Exist. Fence
- Exist. Storm Sewer
- Exist. Light Pole
- Exist. Underground Gasline
- Exist. Underground Waterline
- Tree
- Soil Boring
- Approx. Limits of Reinforced Soil Mass
- Limits of Removal and Disposal of Unsuitable Materials for Structures
- Prop. ROW
- Prop. Pipe Underdrain
- Prop. Storm Sewer
- Prop. Conduit for Electrical Cable
- Prop. Microduct or Innerduct for Fiber Optic Cable
- F.F. Front Face
- B.F. Back Face
- Proposed Structure



LOCATION SKETCH

GENERAL PLAN & ELEVATION

RETAINING WALL 3

ALONG CENTER STREET RAMP C

F.A.I. ROUTE 80

SECTION FAI 80 21 INTERCHANGE

WILL COUNTY

STA. 5+73.00 TO STA. 7+75.00

STRUCTURE NO. 099-W124



USER NAME =	DESIGNED - PG, AMI	REVISD -
	CHECKED - MI, KJD	REVISD -
PLOT SCALE =	DRAWN - PG, AMI	REVISD -
PLOT DATE =	CHECKED - MI, KJD	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W124
SHEET SD-01 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	735
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

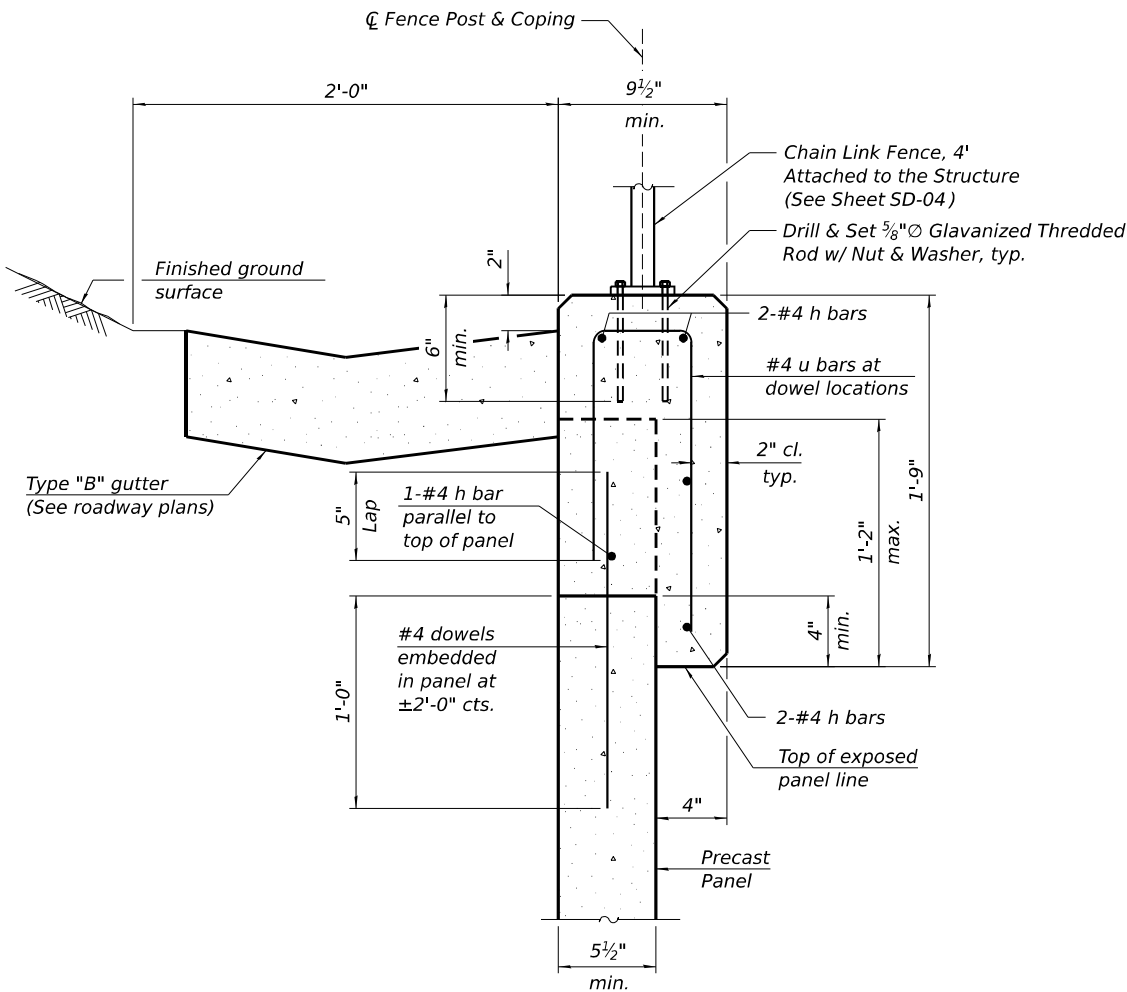
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Protective Coat shall be applied to the exposed faces of the cast-in-place coping.
3. The Contractor shall field verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
4. Any storage of construction equipment and material behind the wall is not allowed.
5. Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
6. The cost of the concrete and the reinforcing steel required for the coping shall be included in the cost of "Mechanically Stabilized Earth Retaining Wall".
7. All Exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.
8. The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed 9,700 psf.

INDEX OF SHEETS

SD-01	General Plan & Elevation
SD-02	General Notes, Index of Sheets and Total Bill of Material
SD-03	MSE Wall Cross Sections and Details
SD-04	Chain Link Fence Attached to Structure
SD-05	Boring Logs (Sheet 1 of 2)
SD-06	Boring Logs (Sheet 2 of 2)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	121	121
Removal And Disposal Of Unsuitable Material For Structures	Cu Yd	-	340	340
Protective Coat	Sq Yd	-	82	82
Name Plates	Each	1	-	1
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	3,778	3,778
Granular Backfill For Structures	Cu Yd	-	771	771
Chain Link Fence, 4' Attached To Structure	Foot	218	-	218



C.I.P. COPING DETAILS

STA. 5+73.00 TO 7+75.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. RTE. 80
SEC. FAI 80 21 INTERCHANGE
LOADING HL-93
STR. NO. 099-W124

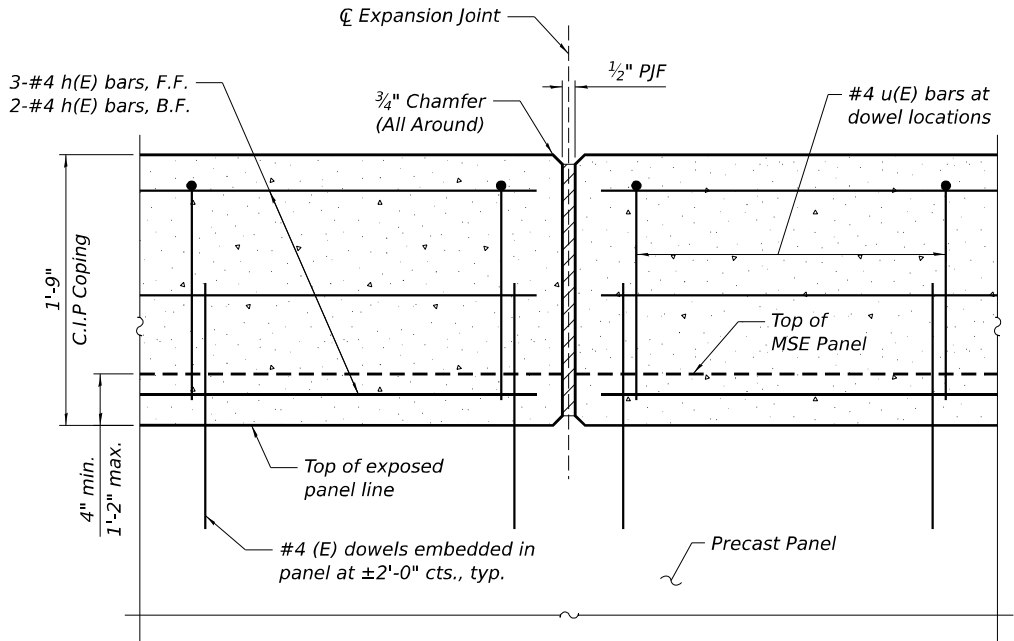
NAME PLATE
See Std. 515001

NOTE:

1. Coping Reinforcement bars may be adjusted to miss fence base plate threaded rods.

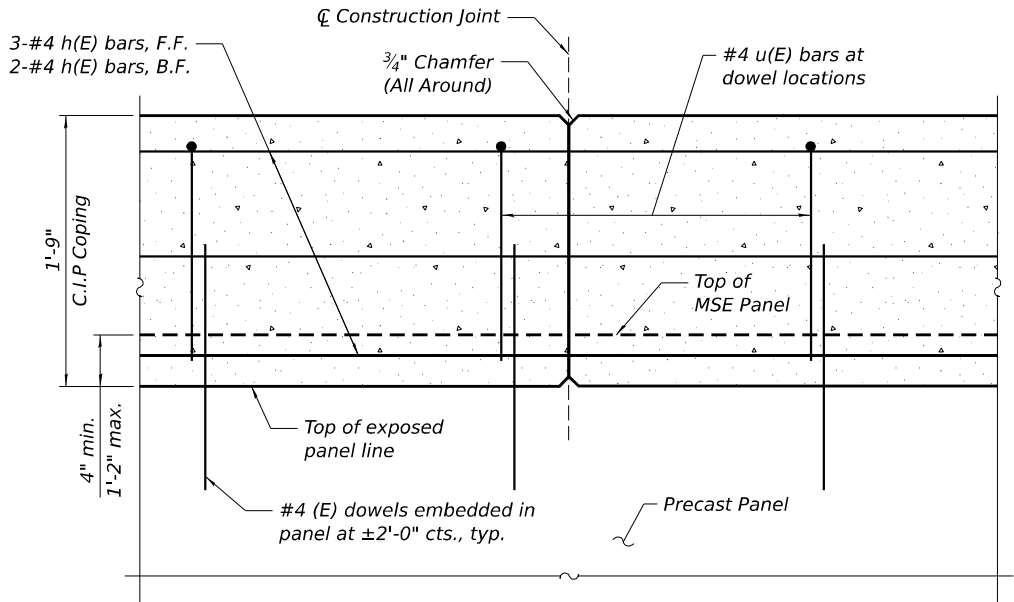
MINIMUM BAR LAP

(Coping)
#4 bar = 2'-11"



COPING EXPANSION JOINT - ELEVATION

(Provide expansion joints at a max. spacing of 90'-0")



COPING CONSTRUCTION JOINT - ELEVATION

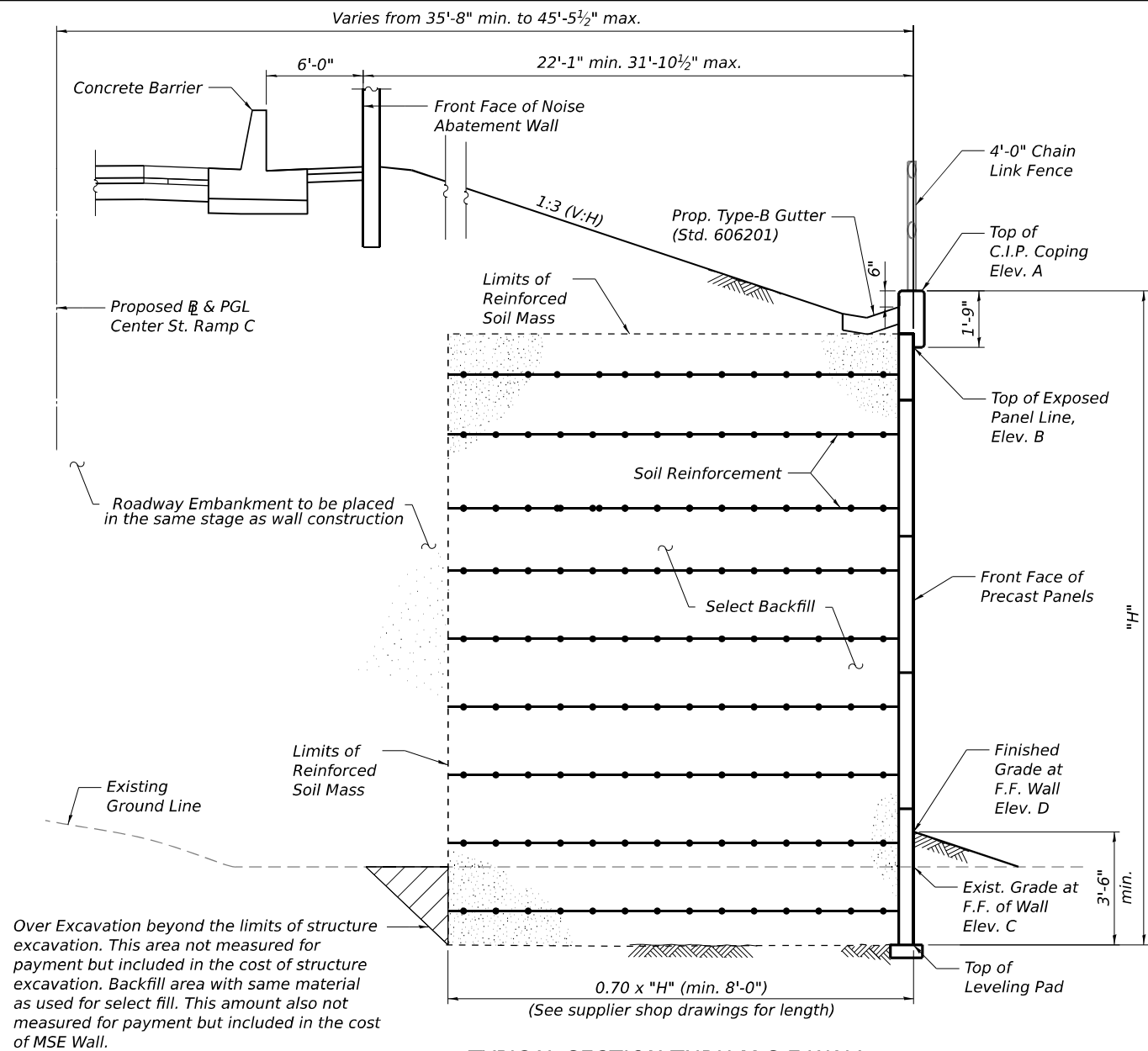
(Provide construction joints at a max. spacing of 30'-0")

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FILE NAME: pw://transsystems-pw1-hosted/Documents/Projects_2018/CH40 /401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/5N-099-W124-RV3/099W124-62R22-5D-02-General Notes and BOM

USER NAME =	DESIGNED - PG, AMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - PG, AMI	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	736
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

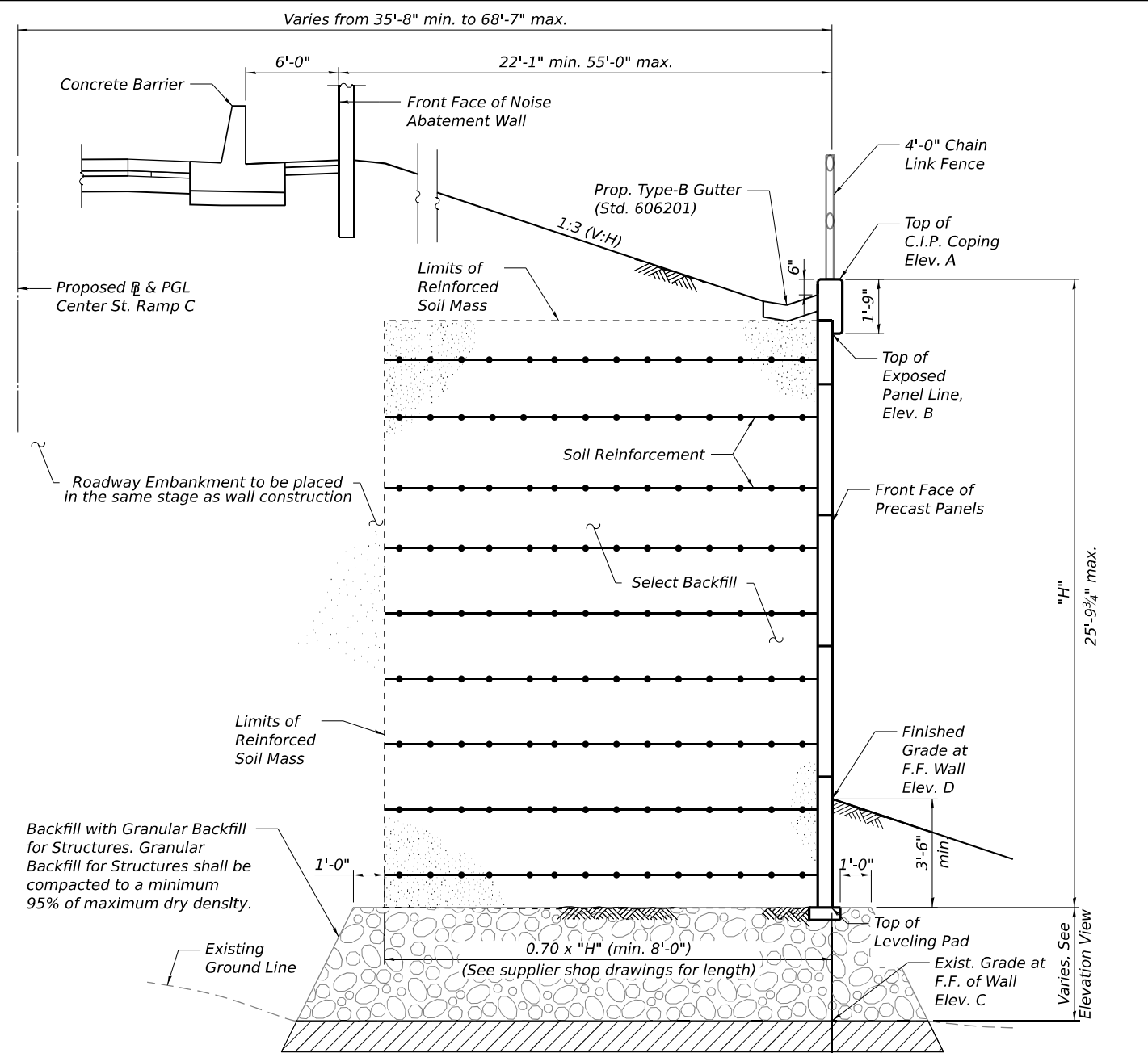
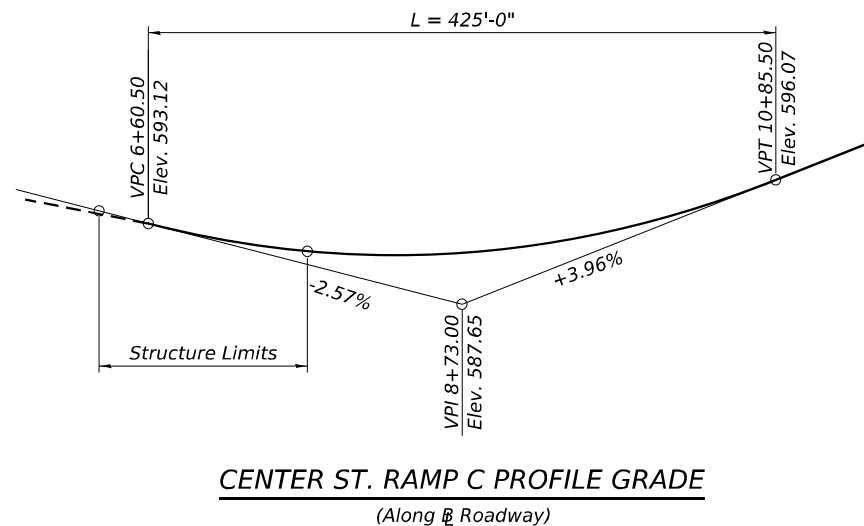
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TYPICAL SECTION THRU M.S.E WALL
Sta. 6+55.60 to Sta. 7+40.77
(Looking West)

**PR CURVE CENTER
RAMP C (CENTER C1)**

PI Sta. = 9+07.47
 $\Delta = 03^\circ 49' 25"$ (LT)
 $D = 01^\circ 46' 54"$
 $R = 3,216.00'$
 $T = 107.35'$
 $L = 214.63'$
 $E = 1.79'$
 $e = 3.20\%$
 $T.R. = 64.0'$
 $S.E. RUN = 102.4'$
 $P.C. STA. = 8+00.12$
 $P.T. STA. = 10+14.75$



TYPICAL SECTION THRU M.S.E WALL
Sta. 5+73.00 to Sta. 6+55.60
Sta. 7+40.77 to Sta. 7+75.00
(Looking West)

TABLE 1- WALL ELEVATIONS

Station	A Top of C.I.P. Coping	B Top of Exposed Panel Line	C Exist. Grade at FF Wall	D T/Prop Ground FF Wall
05+73.00	578.86	577.11	557.70	577.55
05+75.00	579.20	577.45	557.82	577.23
06+00.00	583.49	581.74	558.87	572.31
06+25.00	587.76	586.01	560.33	567.37
06+30.00	588.55	586.80	560.53	566.42
06+50.00	588.14	586.39	561.72	565.74
06+75.00	587.57	585.82	563.43	566.32
07+00.00	587.02	585.27	564.86	567.07
07+25.00	586.58	584.83	566.59	568.12
07+35.00	586.43	584.68	567.18	568.61
07+50.00	583.44	581.69	567.42	572.10
07+75.00	578.38	576.63	567.61	576.84

HBM
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USER NAME =	DESIGNED - PG, AMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - PG, AMI	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

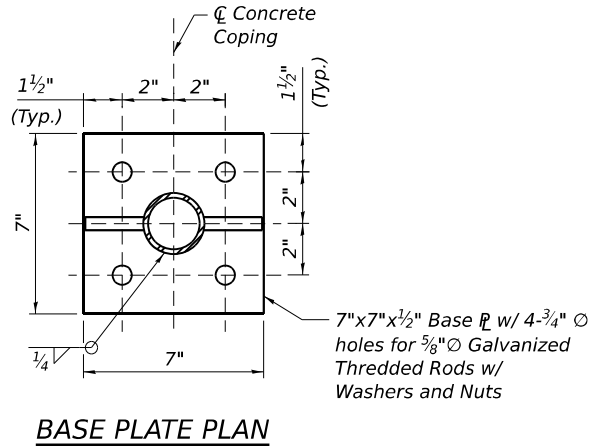
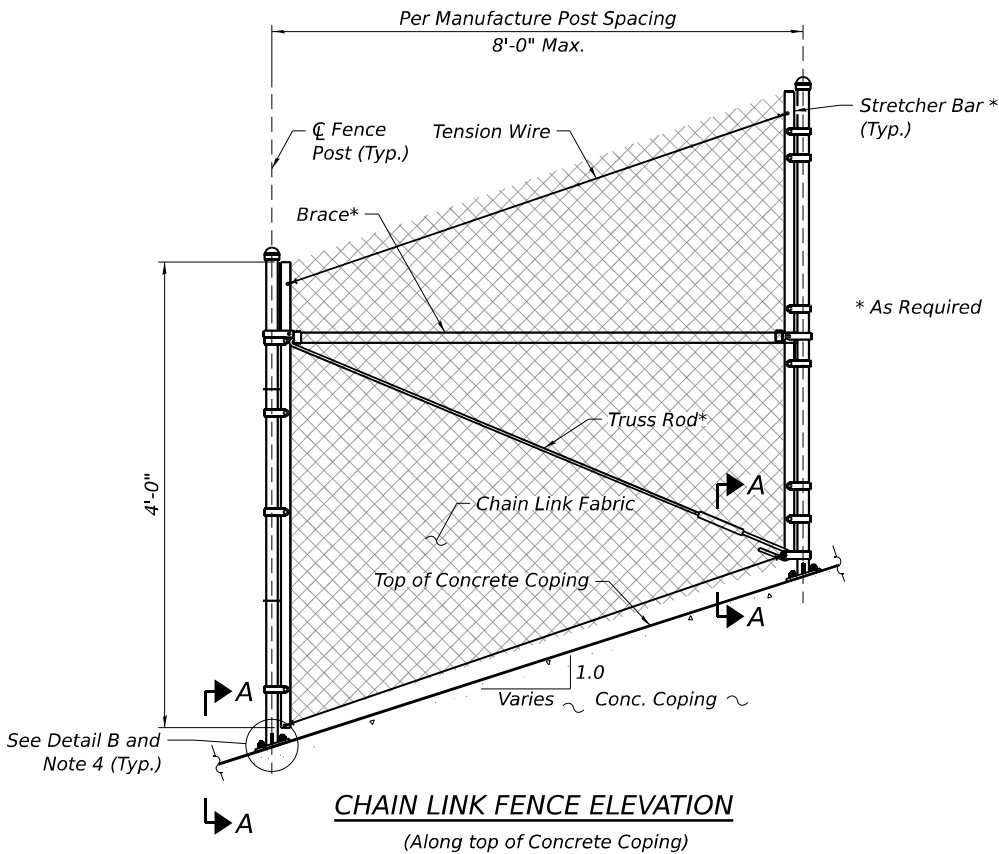
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS
STRUCTURE NO. 099-W124

SHEET SD-03 OF SD-06 SHEETS

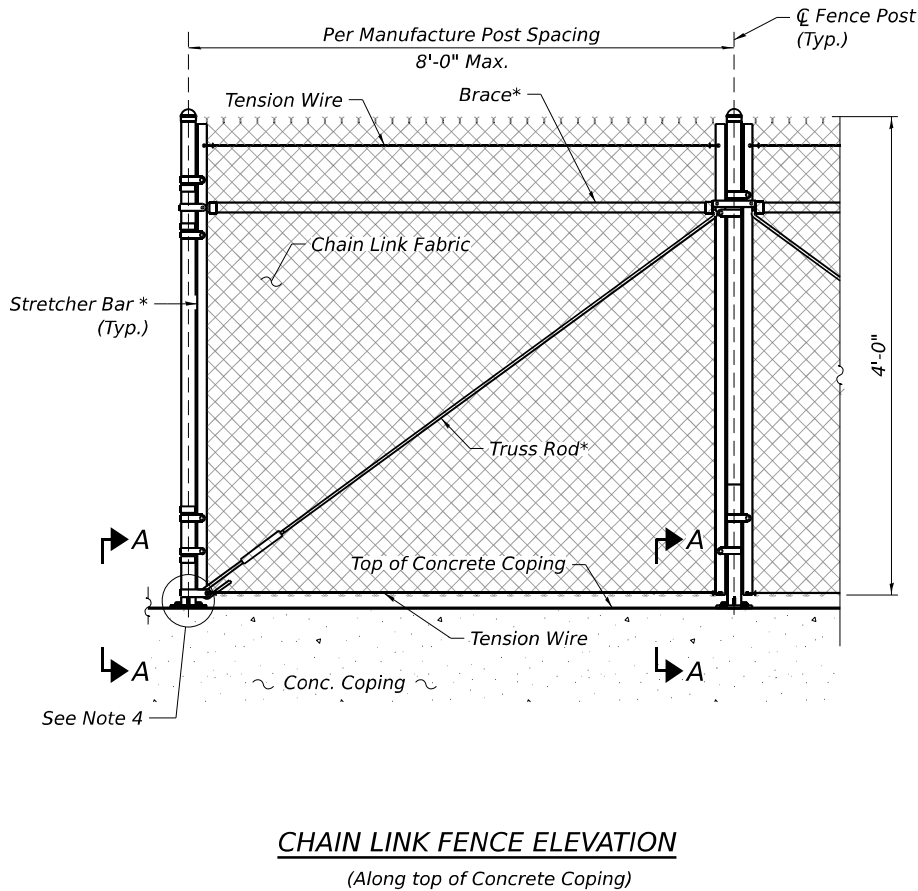
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	737
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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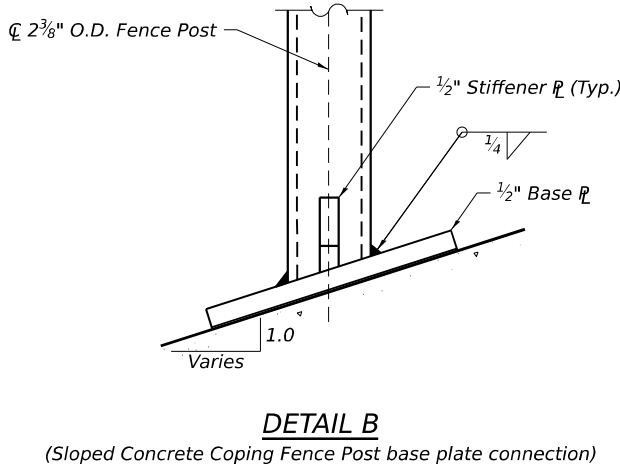
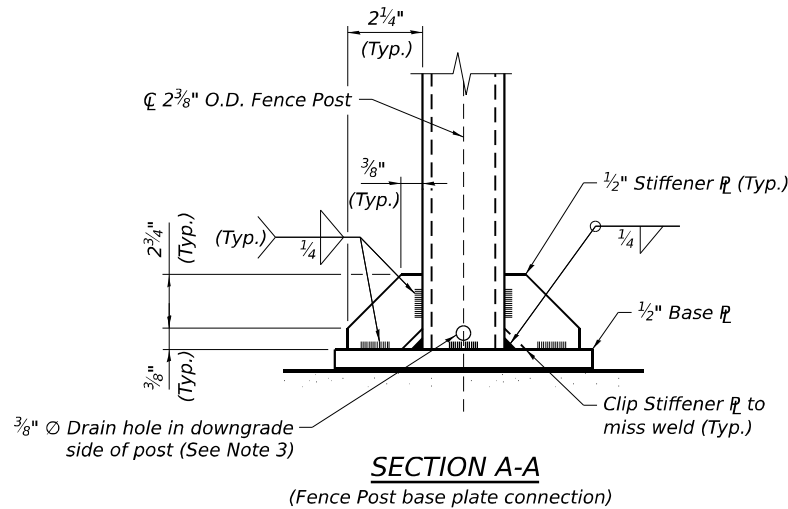
BASE PLATE NOTES:

- If necessary the size of the base plate and location of the expansion anchors may be adjusted to miss the concrete coping reinforcement.
- Base Plates and Stiffeners shall be fabricated from material meeting the requirements of AASHTO M270 Grade 36.
- Base Plates, Stiffeners and Posts shall be Hot Dipped Galvanized after fabrication in accordance with AASHTO.
- Threaded Rods shall have a minimum embedment of 6 inches and meet the requirements of ASTM F1554, Grade 36. The threaded rods shall be installed per section 584 of the Standard Specification.
- Threaded rods, nuts and washers shall be Hot Dipped Galvanized in accordance with AASHTO M232.



NOTES:

- See IDOT Highway Standard Drawing 664001-02 for additional fence details.
- Fence shall be continuous over concrete coping expansion joints.
- Drill Drain hole to miss fillet weld and prior to galvanizing. Hole shall be drilled as close to the weld as possible.
- Edge distance from a construction or expansion joint in the existing and proposed copings to an expansion anchor shall be per manufacturer's specifications.



BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 4' Attached to Structure	Foot	218

USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	738
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 10/26/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 3 LOGGED BY AA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 HAMMER TYPE Auto

DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. Station

BORING NO. RWB-25 Station 6+98.2745 Offset 23.50ft RT Ground Surface Elev. 564.79 ft

DPTH (ft) BLOW (6") UCS (tsf) MOIST (%)

3 inches of Asphalt 564.54

9 inches of Aggregate Subbase 563.79

Very Dense Light Brown, Dry SAND, with gravel, some silt, trace clay (SPG) 9 17 50/4" 3

561.29

Very Dense Brown and Gray, Dry WEATHERED LIMESTONE 560.29 -5 2

Light Brown and Light Gray LIMESTONE, Slightly Weathered, Moderately to Heavily Fractured, Some Vertical Fractures, Trace Sand, Trace Vugs

Run 1: 4.5' - 14.5' Recovery: 100% RQD: 37.1% (Poor)

-10

550.29

End of Boring -15 -20

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter Dry ft Upon Completion N/A ft After Hrs. N/A ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 10/19/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 3 LOGGED BY AA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Diedrich D-50 HAMMER TYPE Auto

DRILLING METHOD HSA HAMMER EFF (%) 96

STRUCT. NO. Station

BORING NO. RWB-26 Station 6+68.5434 Offset 8.90ft RT Ground Surface Elev. 562.55 ft

DPTH (ft) BLOW (6") UCS (tsf) MOIST (%)

9 inches of Asphalt 561.80

3 inches of Aggregate Subbase 561.55

Gray, Dry to Moist FILL: SAND, fine to medium grained, with gravel 11 10 9 4

8 8 28 5

-5

6 3 5 9

554.55

Very Dense Gray, Moist GRAVEL, with sand (GPS) 4 5 50/3" 7

-10

552.05

Gray, Dry WEATHERED LIMESTONE 50/2" 1

549.55

Auger refusal at 13 feet End of Boring -15 -20

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter Dry ft Upon Completion N/A ft After Hrs. N/A ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 1 OF 2)
STRUCTURE NO. 099-W124

SHEET SD-05 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	739
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 10/26/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 3 LOGGED BY AA

SECTION C-91-109-22 LOCATION , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Mobile B-57	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	89

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____	N/A	ft
Station _____	E	L	C	O	Stream Bed Elev. _____	N/A	ft
	P	O	S	I			
BORING NO. _____	T	W		S	Groundwater Elev.: _____		
Station _____	H	S	Qu	T	First Encounter _____	Dry	ft
Offset _____					Upon Completion _____	N/A	ft
Ground Surface Elev. _____					After _____ Hrs. _____	N/A	ft
_____ ft	(ft)	(/6")	(tsf)	(%)			

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (SHEET 2 OF 2)
STRUCTURE NO. 099-W124

SHEET SD-06 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	740
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

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4/24/2025 2:13:14 PM

GENERAL NOTES:

1.

Reinforcement bars designated (E) shall be epoxy coated.
2.

Protective Coat shall be applied to the designated area of the anchorage slabs and parapets and to the exposed faces of the coping.
3.

Slipforming of the parapets is not allowed.
4.

The Contractor shall field verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
5.

Any storage of construction equipment and material behind the wall is not allowed.
6.

Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
7.

The MSE wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.
8.

The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed:
Sta. 09+25 to 10+00 : 8,800 psf
Sta. 10+00 to 11+00 : 5,700 psf
Sta. 11+00 to 12+50 : 11,800 psf
Sta. 12+50 to 13+75 : 14,100 psf
Sta. 13+75 to 14+45 : 7,600 psf

INDEX OF SHEETS

SE-01	General Plan & Elevation
SE-02	General Notes, Index of Sheets and Total Bill of Material
SE-03	MSE Wall Cross Sections and Details
SE-04	Anchorage Slab Plan and Elevation (Sheet 1 of 6)
SE-05	Anchorage Slab Plan and Elevation (Sheet 2 of 6)
SE-06	Anchorage Slab Plan and Elevation (Sheet 3 of 6)
SE-07	Anchorage Slab Plan and Elevation (Sheet 4 of 6)
SE-08	Anchorage Slab Plan and Elevation (Sheet 5 of 6)
SE-09	Anchorage Slab Plan and Elevation (Sheet 6 of 6)
SE-10	Anchorage Slab Details and Bill of Material
SE-11	Soil Borings (Sheet 1 of 7)
SE-12	Soil Borings (Sheet 2 of 7)
SE-13	Soil Borings (Sheet 3 of 7)
SE-14	Soil Borings (Sheet 4 of 7)
SE-15	Soil Borings (Sheet 5 of 7)
SE-16	Soil Borings (Sheet 6 of 7)
SE-17	Soil Borings (Sheet 7 of 7)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal And Disposal Of Unsuitable Material For Structures	Cu Yd	-	464	464
Concrete Superstructure	Cu Yd	334.4	-	334.4
Bridge Deck Grooving	Sq Yd	485	-	485
Protective Coat	Sq Yd	1124	-	1,124
Reinforcement Bars, Epoxy Coated	Pound	55,920	-	55,920
Name Plates	Each	1	-	1
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	5,546	5,546
Granular Backfill For Structures	Cu Yd	-	3,012	3,012

STA. 9+25.00 TO 14+45.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. Rt. 80
Sec. FAI 80 21 INTERCHANGE
LOADING HL-93
STR. NO. 099-W125

NAME PLATE
See Std. 515001

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USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
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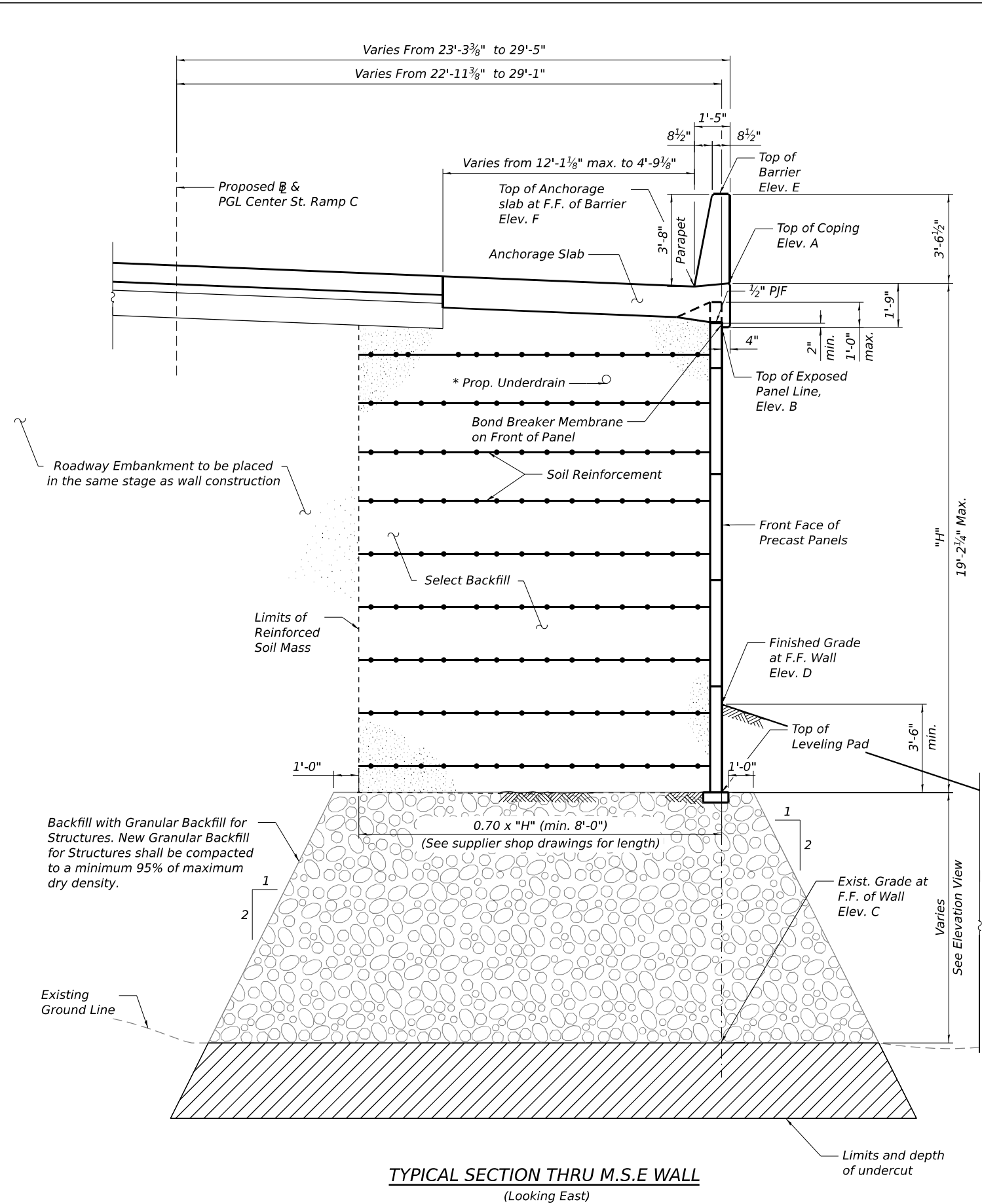
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 099-W125

SHEET SE-02 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

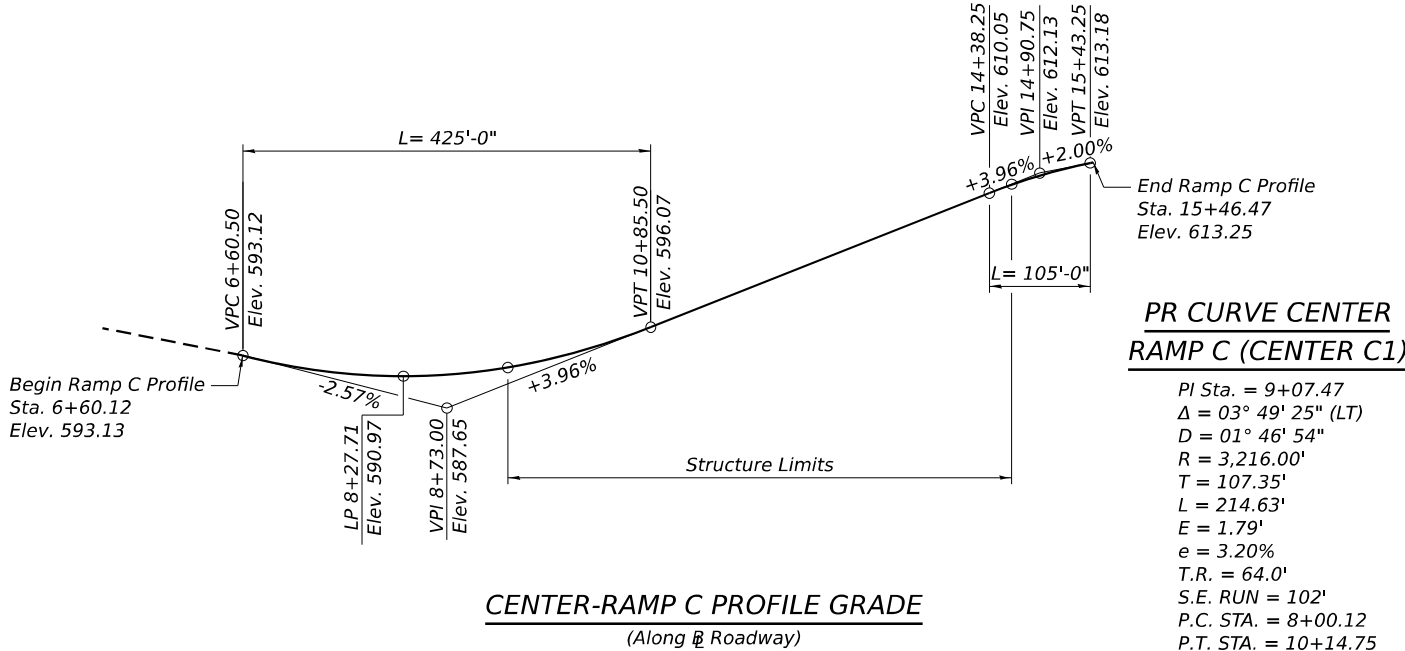
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TYPICAL SECTION THRU M.S.E WALL
(Looking East)

TABLE 1- WALL ELEVATIONS

Station	Offset	A	B	C	D	E	F
		Top of Coping	Top of Exposed Panel Line	Exist. Grade at FF Wall	Finished Grade at FF Wall	Top of Barrier	Top of Anchorage Slab at FF of Barrier
09+25.00	22.95' LT	591.09	589.34	569.45	590.70	594.63	590.96
09+50.00	23.58' LT	591.50	589.75	569.78	589.37	595.04	591.37
09+75.00	24.20' LT	592.00	590.25	571.39	588.34	595.54	591.88
10+00.00	24.83' LT	592.75	591.00	571.35	587.81	596.29	592.62
10+14.62	25.19' LT	593.23	591.48	571.56	587.51	596.77	593.10
10+25.00	25.45' LT	593.60	591.85	571.80	587.29	597.14	593.47
10+50.00	26.07' LT	594.50	592.75	572.46	586.81	598.04	594.37
10+75.00	26.70' LT	595.48	593.73	576.18	586.38	599.02	595.36
11+00.00	27.32' LT	596.54	594.79	576.50	586.01	600.08	596.42
11+25.00	27.95' LT	597.62	595.87	574.89	585.70	601.16	597.49
11+50.00	28.57' LT	598.61	596.86	576.14	585.44	602.15	598.49
11+70.40	29.08' LT	599.40	597.65	577.47	585.28	602.95	599.28
11+75.00	29.08' LT	599.59	597.84	577.63	585.28	603.13	599.46
12+00.00	29.08' LT	600.58	598.83	578.25	585.36	604.12	600.45
12+25.00	29.08' LT	601.57	599.82	579.65	586.16	605.11	601.44
12+50.00	29.08' LT	602.56	600.81	580.76	588.55	606.10	602.43
12+75.00	29.08' LT	603.55	601.80	582.54	590.99	607.09	603.42
13+00.00	29.08' LT	604.54	602.79	586.86	593.48	608.08	604.41
13+25.00	29.08' LT	605.53	603.78	589.51	595.77	609.07	605.40
13+50.00	29.08' LT	606.52	604.77	591.53	598.05	610.06	606.39
13+75.00	29.08' LT	607.51	605.76	591.52	600.69	611.05	607.38
14+00.00	29.08' LT	608.50	606.75	587.17	603.37	612.04	608.38
14+25.00	29.08' LT	609.49	607.74	587.68	606.43	613.03	609.37
14+45.00	29.08' LT	610.27	608.52	588.50	609.52	613.82	610.15



* The pipe underdrain terminates at STA. 9+00 of Ramp C where it outfalls into a ditch. The underdrain is paid for as "PIPE UNDERDRAIN, TYPE 2, 6".



USER NAME =	DESIGNED - PG, ADJ	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - PG	REVISED -
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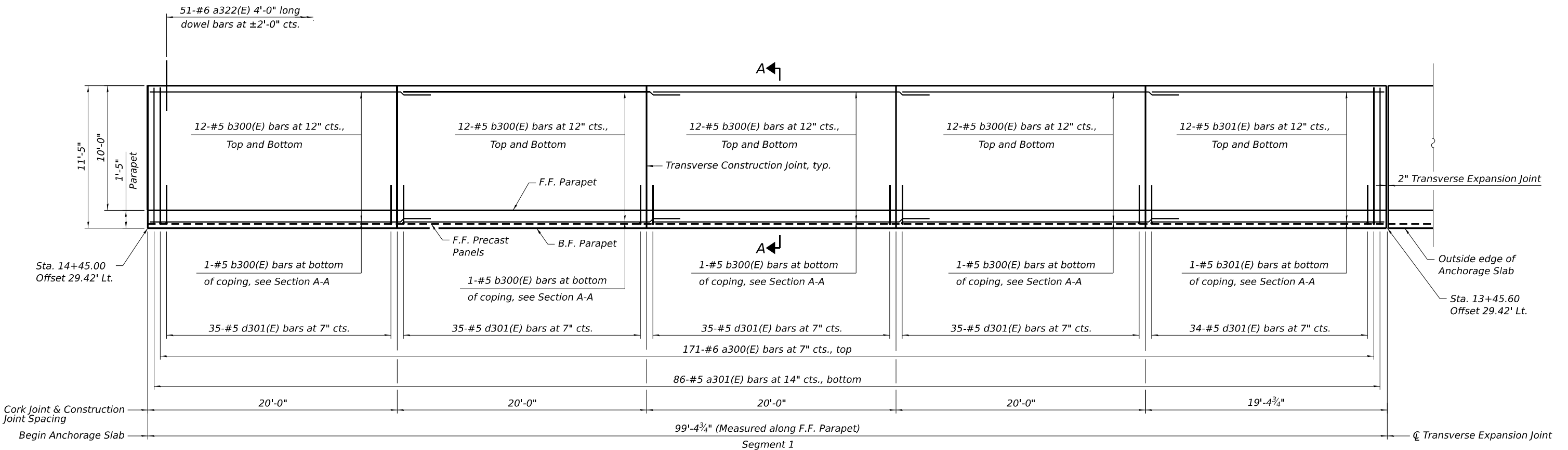
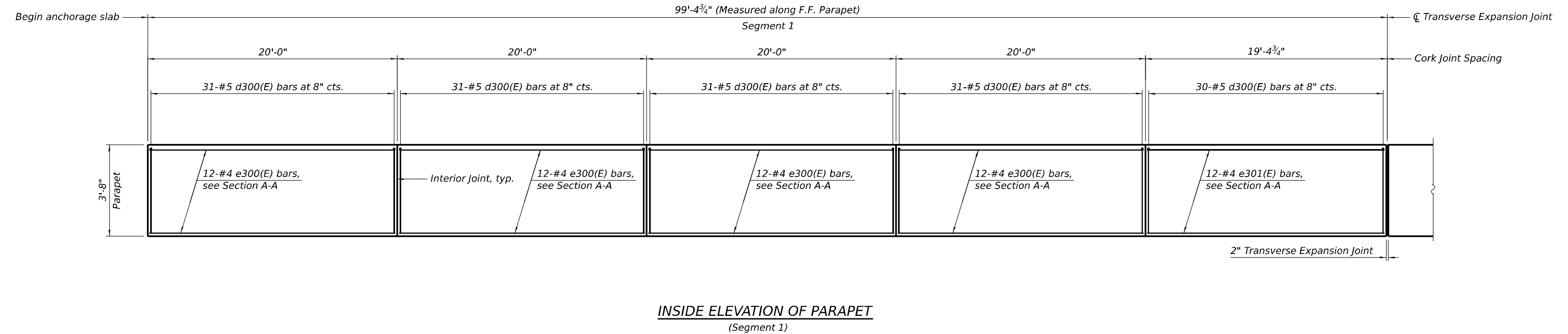
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS
STRUCTURE NO. 099-W125

SHEET SE-03 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

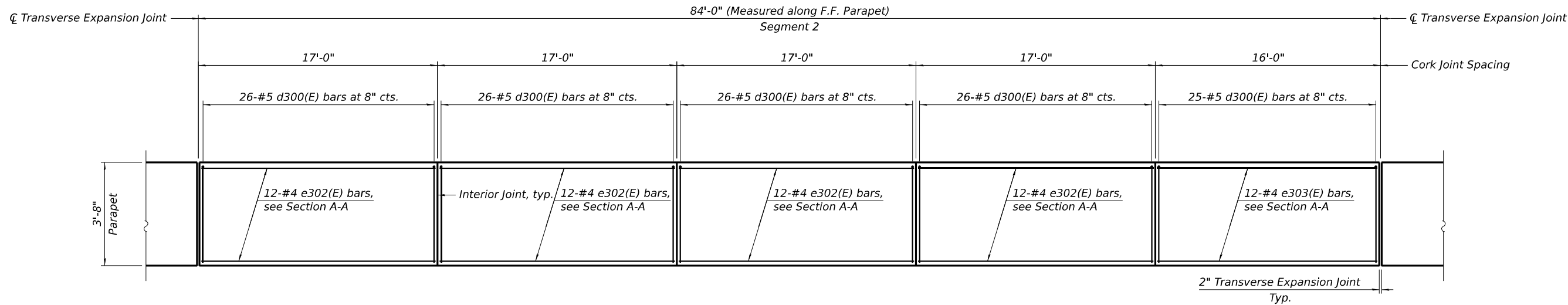
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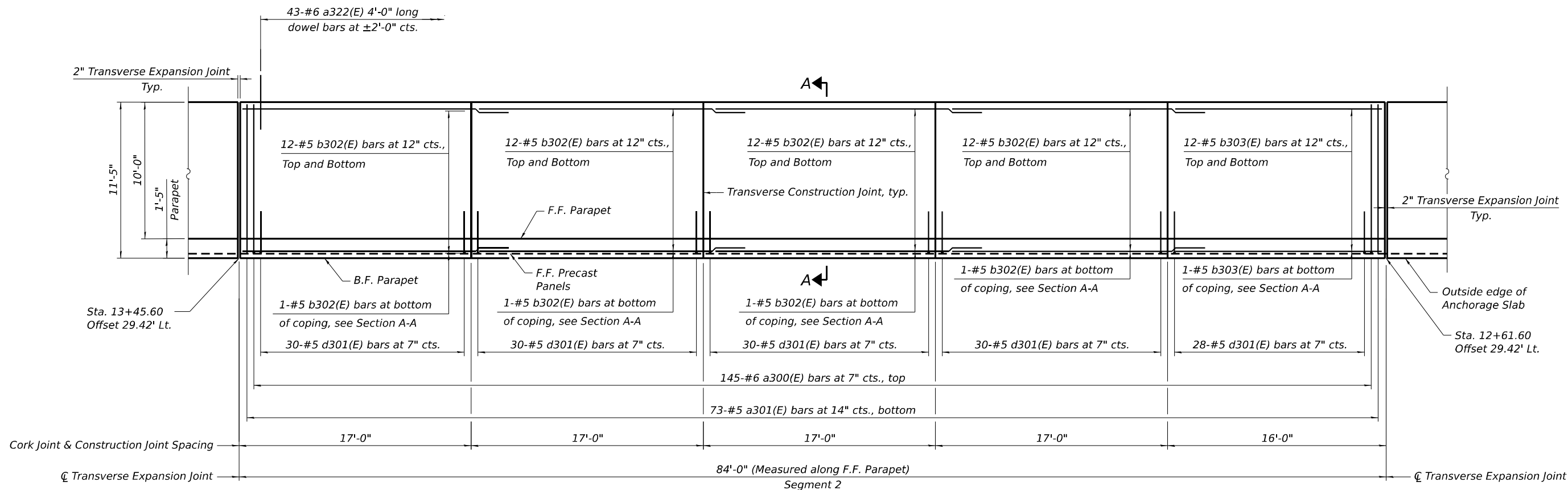
- NOTES**
- For Seciton A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
 - Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
 - Stations and offsets are measured from  & PGL Center St. Ramp C.
- PLAN**
(Segment 1)
- 

 ENGINEERING GROUP, LLC	USER NAME =	DESIGNED - PG, ADJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 1 OF 6) STRUCTURE NO. 099-W125	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	SHEET SE-04 OF SE-17 SHEETS									

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INSIDE ELEVATION OF PARAPET
(Segment 2)



NOTES

1. For Seciton A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from & PGL Center St. Ramp C.

PLAN
(Segment 2)



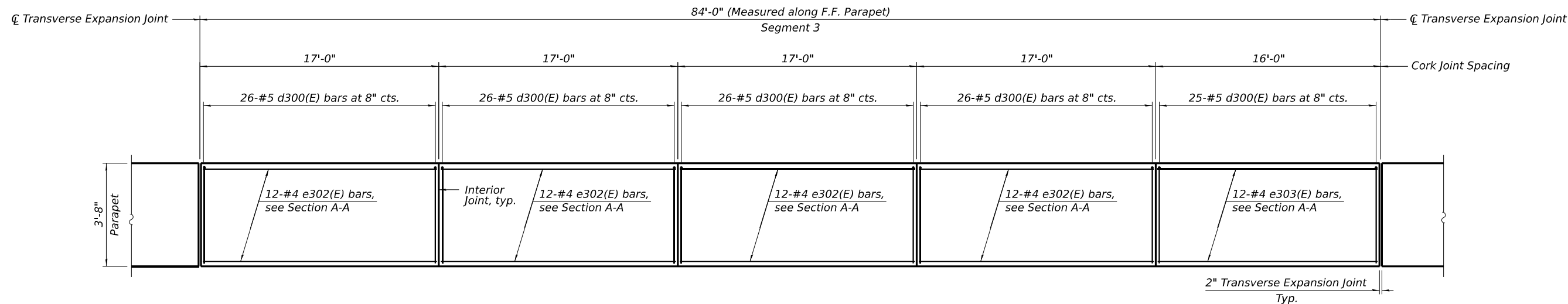
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

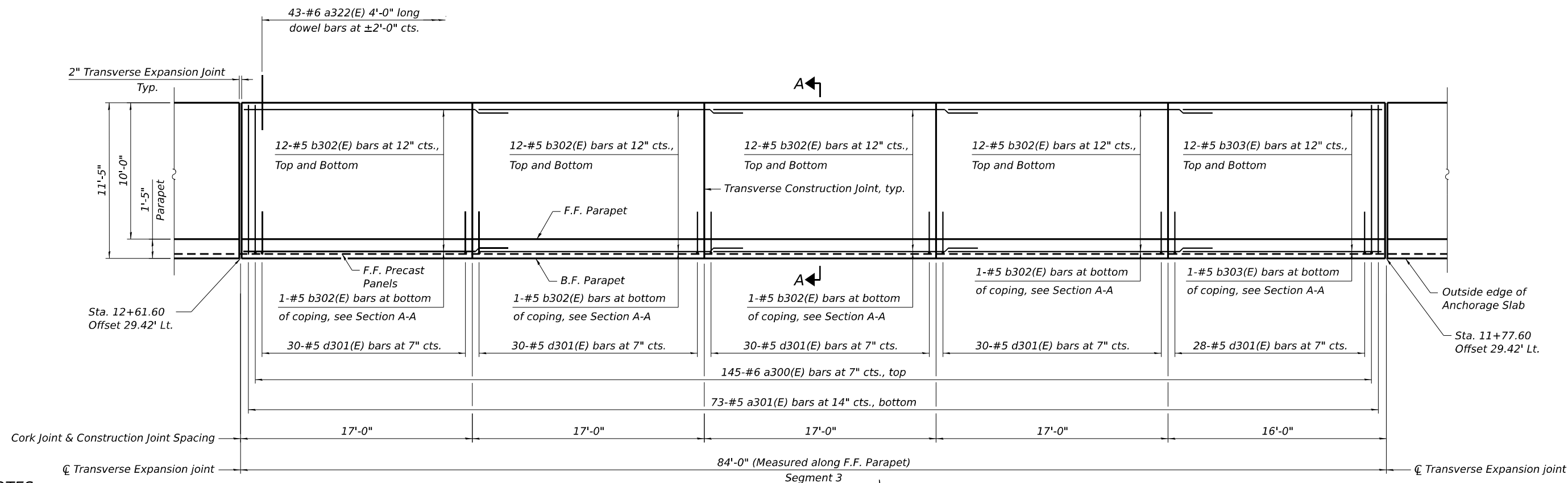
ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 2 OF 6)
STRUCTURE NO. 099-W125

SHEET SE-05 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET
(Segment 3)



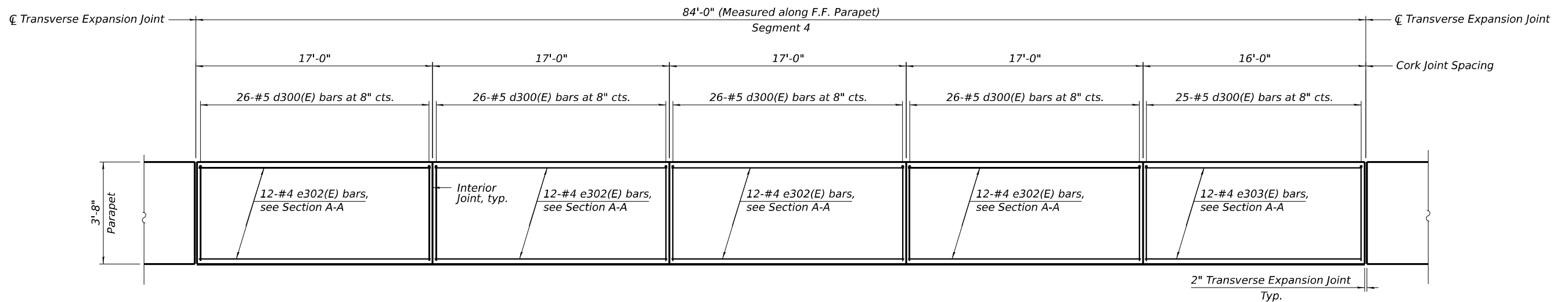
NOTES

1. For Section A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from B & PGL Center St. Ramp C.

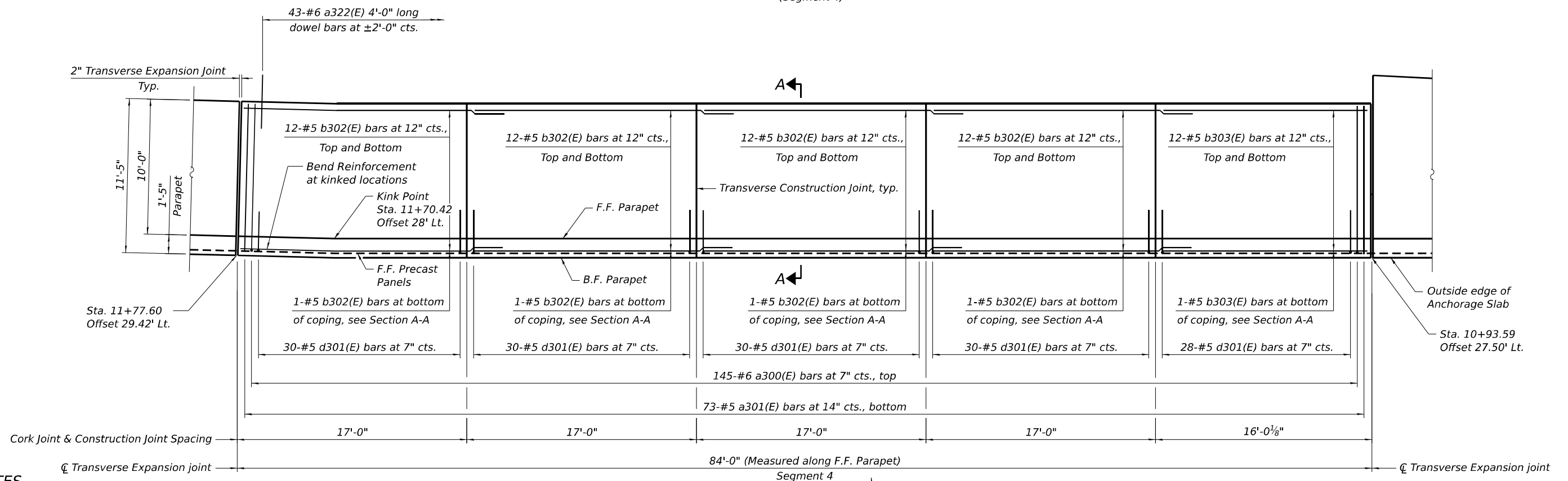
PLAN
(Segment 3)

HBM ENGINEERING GROUP, LLC	USER NAME =	DESIGNED - PG, ADJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 3 OF 6) STRUCTURE NO. 099-W125	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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										ILLINOIS	FED. AID PROJECT

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INSIDE ELEVATION OF PARAPET
(Segment 4)



NOTES

- For Seciton A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
- Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
- Stations and offsets are measured from $\mathbb{B}$ & PGL Center St. Ramp C.

PLAN
(Segment 4)



HBM
ENGINEERING GROUP, LLC

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	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

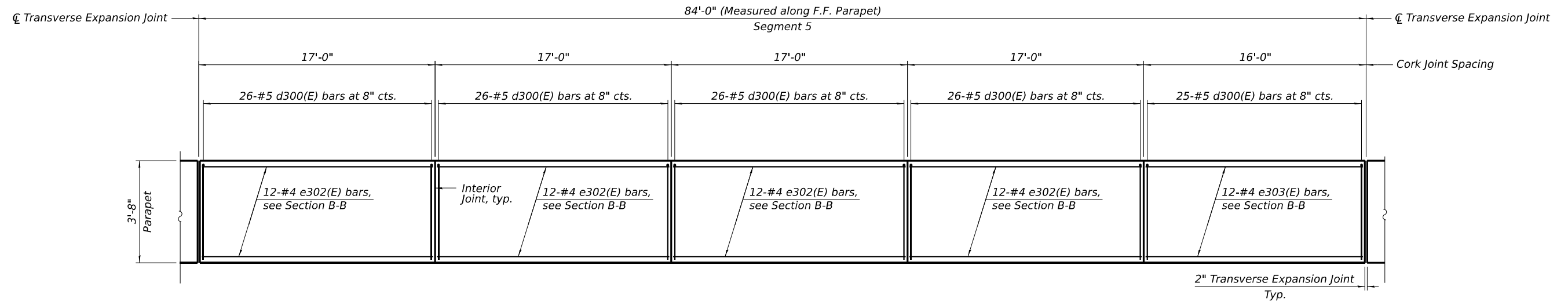
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 4 OF 6)
STRUCTURE NO. 099-W125

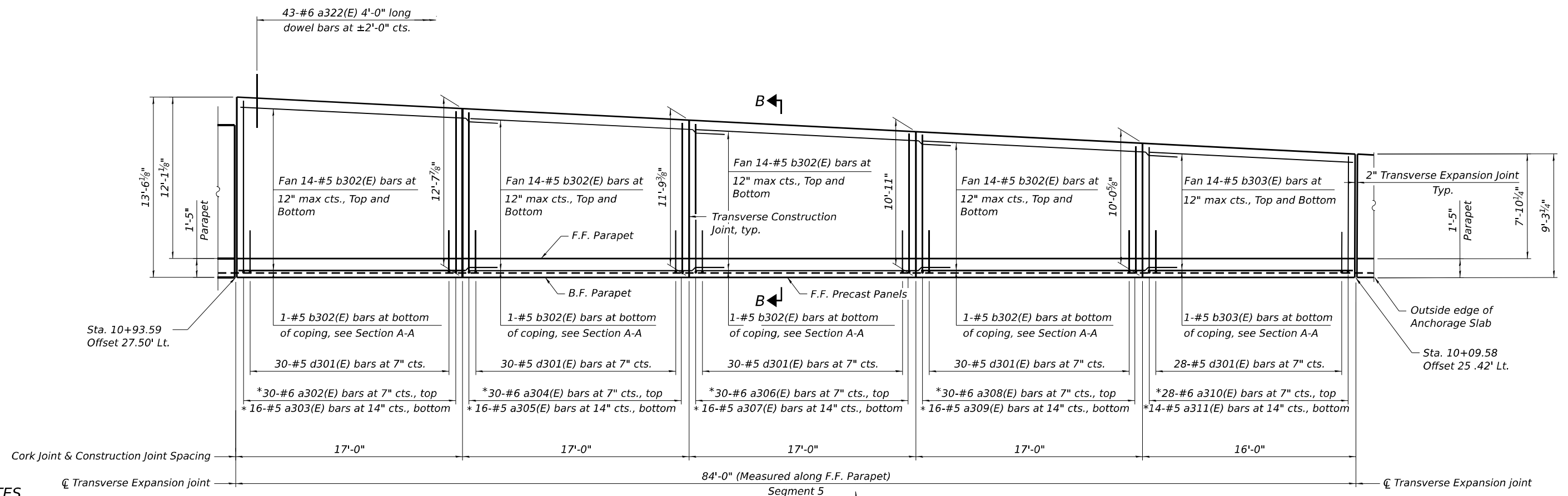
SHEET SE-07 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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INSIDE ELEVATION OF PARAPET
(Segment 5)



NOTES

- For Seciton B-B, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
- Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
- Stations and offsets are measured from & PGL Center St. Ramp C.

PLAN
(Segment 5)

* See field cutting diagrams
on Sheet SE-10 .

HBM
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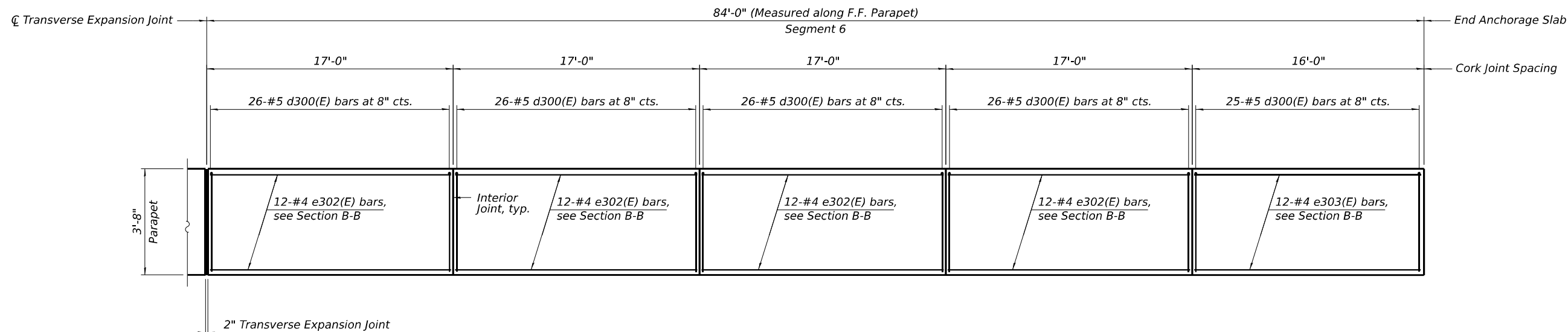
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 5 OF 6)
STRUCTURE NO. 099-W125

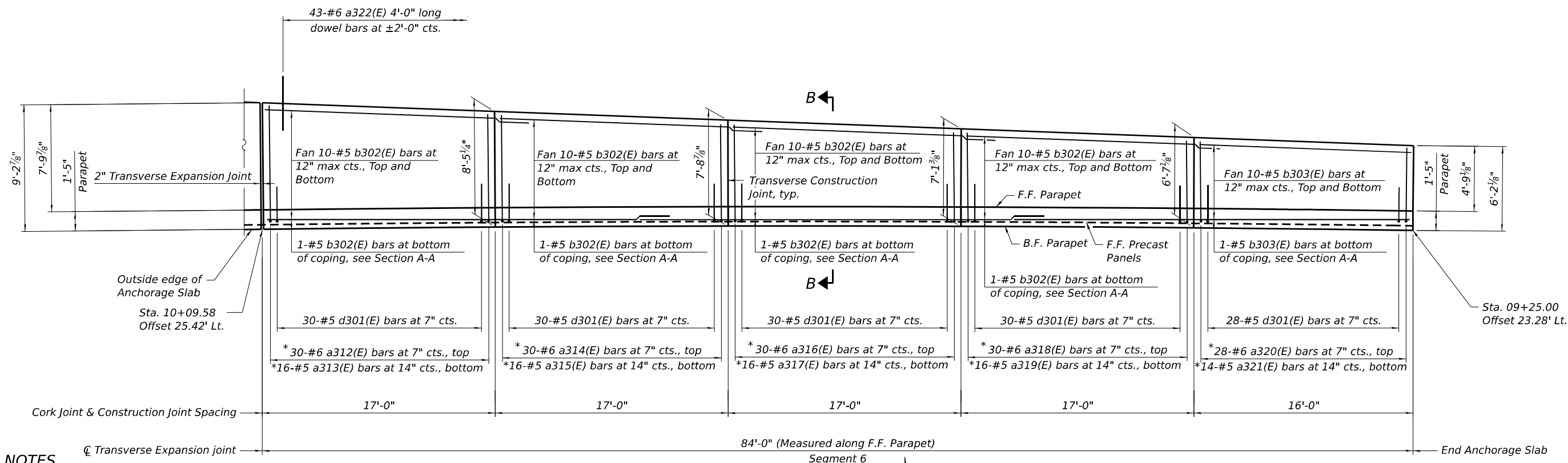
SHEET SE-08 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

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INSIDE ELEVATION OF PARAPET
(Segment 6)



NOTES

- For Section B-B, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
- Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
- Stations and offsets are measured from PGL & PGL Center St. Ramp C.

* See field cutting diagrams on Sheet SE-10.

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - PG, ADJ	REVISED -
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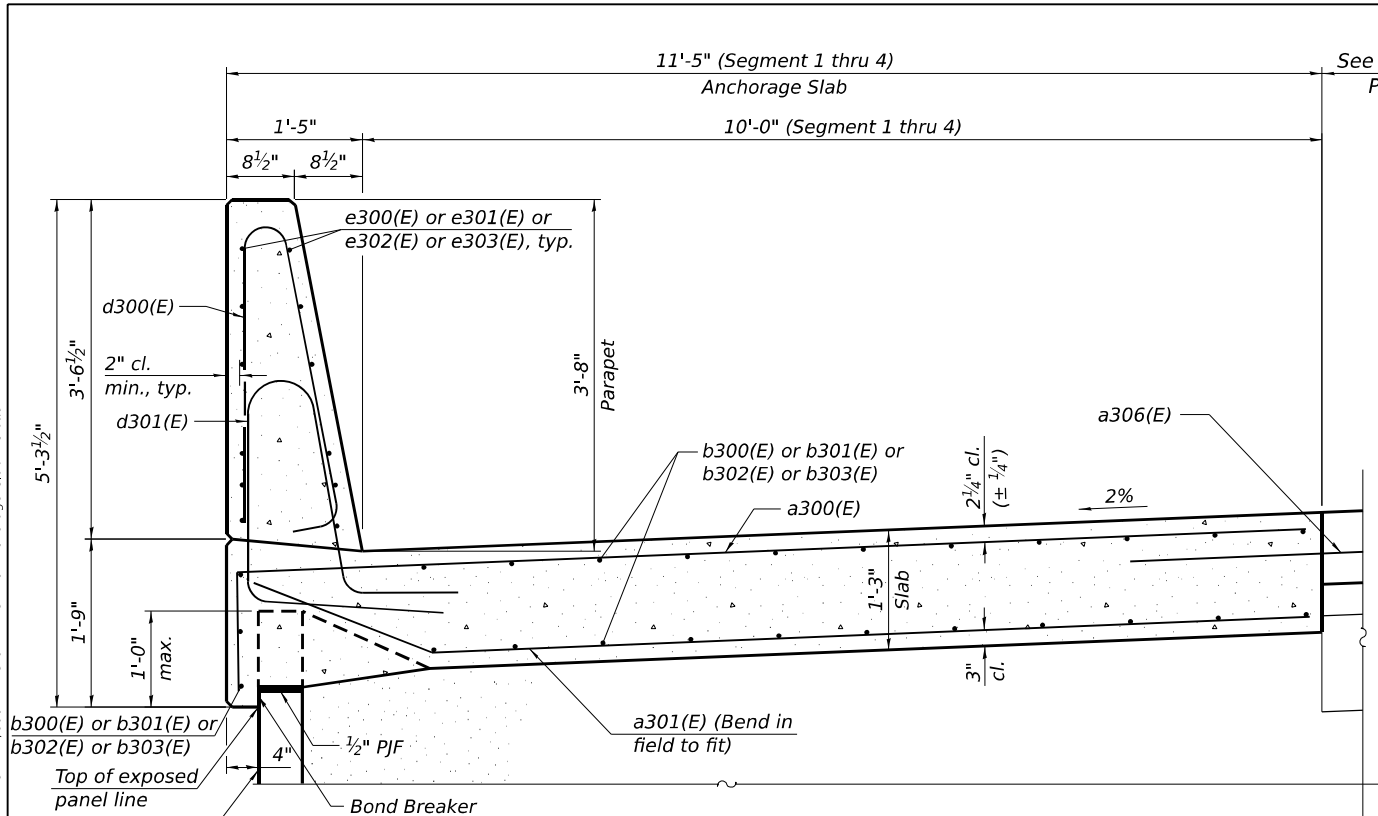
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 6 OF 6)
STRUCTURE NO. 099-W125

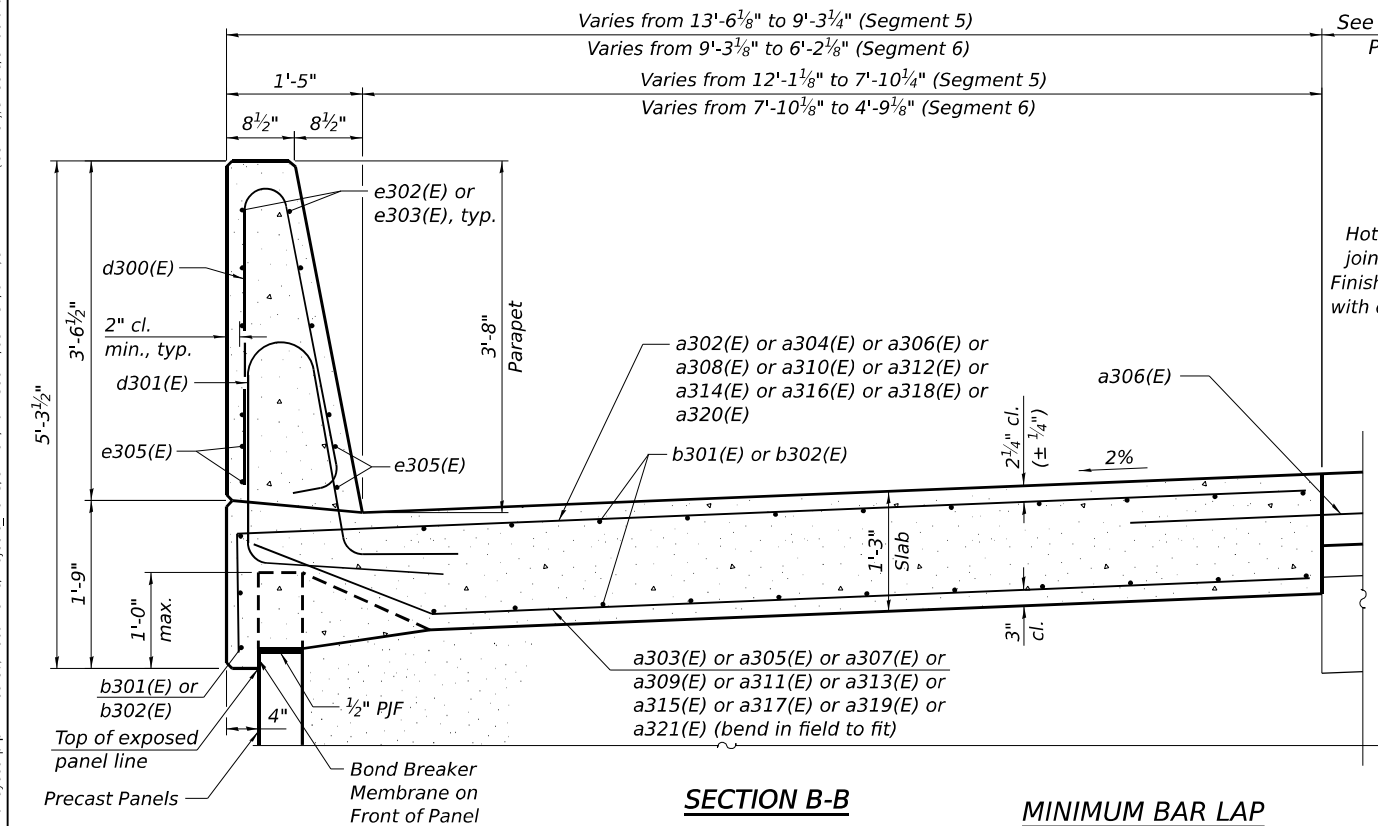
SHEET SE-09 OF SE-17 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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6/9/2025 11:45:53 AM



SECTION A-A



SECTION B-B

NOTES:

- The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.
- The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.

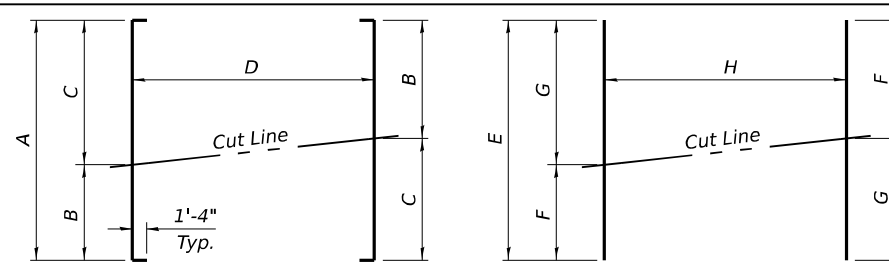
*Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.

**Cost included with Concrete Superstructure

MINIMUM BAR LAP

#4 bar = 2'-5"
#5 bar = 3'-4"

See Roadway Plans



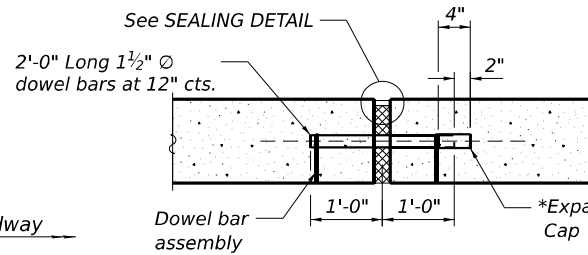
FIELD CUTTING DIAGRAMS

Order a302(E) thru a321(E) bars full length. Cut as shown and use remainder of bars in opposite end of anchorage slab at construction joint/expansion joint

BAR DIMENSIONS TABLES

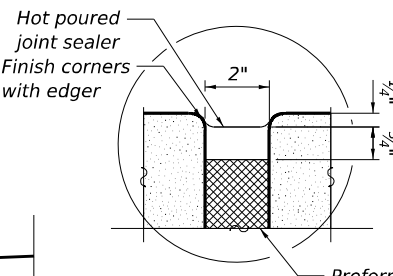
Bar	A	B	C	D
a302(E)	25'-6"	12'-4"	13'-2"	15-#6 a302(E) bars
a304(E)	23'-9"	11'-5"	12'-4"	15-#6 a304(E) bars
a306(E)	22'-0"	10'-7"	11'-5"	15-#6 a306(E) bars
a308(E)	20'-3"	9'-8"	10'-7"	15-#6 a308(E) bars
a310(E)	18'-7"	8'-11"	9'-8"	14-#6 a310(E) bars
a312(E)	17'-0"	8'-1"	8'-11"	15-#6 a312(E) bars
a314(E)	15'-6"	7'-5"	8'-1"	15-#6 a314(E) bars
a316(E)	14'-2"	6'-9"	7'-5"	15-#6 a316(E) bars
a318(E)	13'-0"	6'-3"	6'-9"	15-#6 a318(E) bars
a320(E)	12'-1"	5'-10"	6'-3"	14-#6 a320(E) bars

Bar	E	F	G	H
a303(E)	25'-6"	12'-4"	13'-2"	8-#5 a303(E) bars
a305(E)	23'-9"	11'-5"	12'-4"	8-#5 a305(E) bars
a307(E)	22'-0"	10'-7"	11'-5"	8-#5 a307(E) bars
a309(E)	20'-3"	9'-8"	10'-7"	8-#5 a309(E) bars
a311(E)	18'-7"	8'-11"	9'-8"	7-#5 a311(E) bars
a313(E)	17'-0"	8'-1"	8'-11"	8-#5 a313(E) bars
a315(E)	15'-6"	7'-5"	8'-1"	8-#5 a315(E) bars
a317(E)	14'-2"	6'-9"	7'-5"	8-#5 a317(E) bars
a319(E)	13'-0"	6'-3"	6'-9"	8-#5 a319(E) bars
a321(E)	12'-1"	5'-10"	6'-3"	7-#5 a321(E) bars

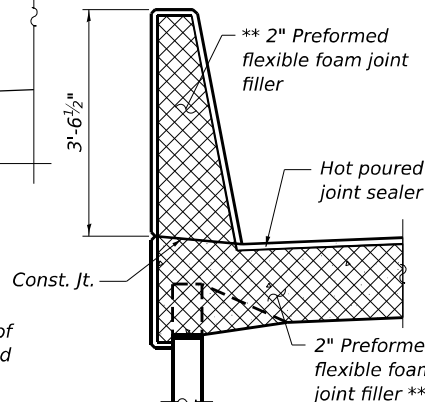


TRANSVERSE EXPANSION JOINT

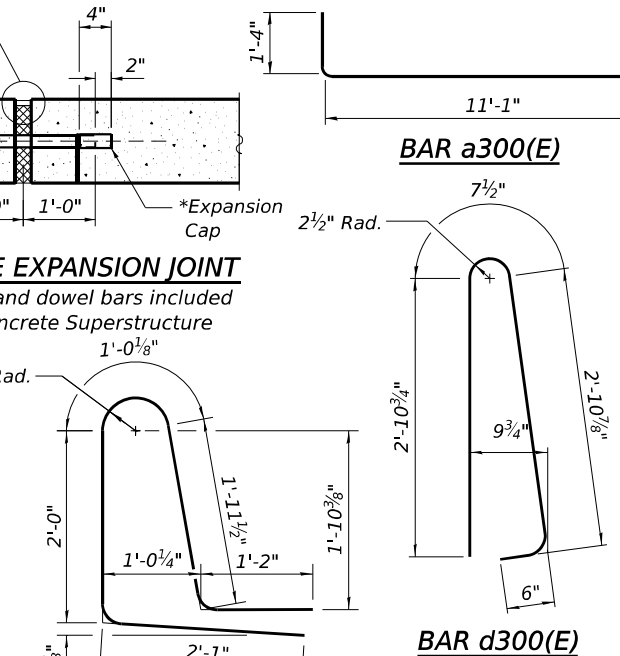
Expansion joint and dowel bars included in the cost of Concrete Superstructure



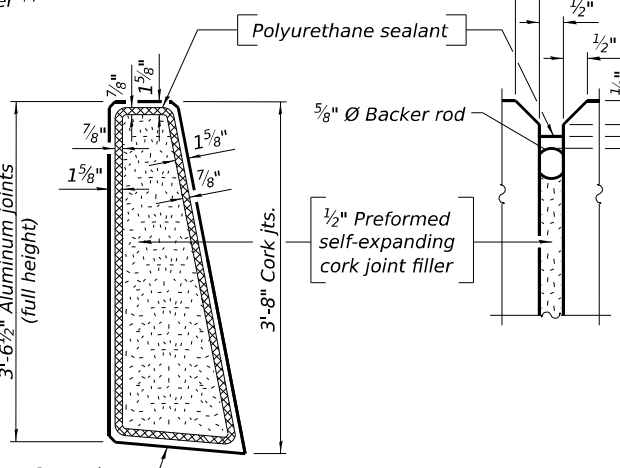
SEALING DETAIL



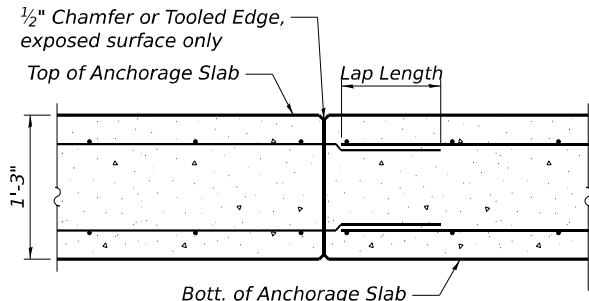
EXPANSION JOINT DETAILS



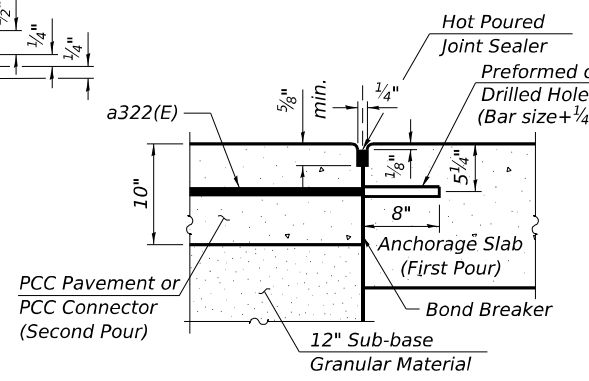
BAR d301(E)



PARAPET CORK JOINT DETAILS



TRANSVERSE CONSTRUCTION JOINT DETAIL



LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300(E)	606	#6	12'-5"	
a301(E)	305	#5	11'-1"	
a302(E)	15	#6	28'-2"	
a303(E)	8	#5	25'-6"	
a304(E)	15	#6	26'-5"	
a305(E)	8	#5	23'-9"	
a306(E)	15	#6	24'-8"	
a307(E)	8	#5	22'-0"	
a308(E)	15	#6	22'-11"	
a309(E)	8	#5	20'-3"	
a310(E)	14	#6	21'-3"	
a311(E)	7	#5	18'-7"	
a312(E)	15	#6	19'-8"	
a313(E)	8	#5	17'-0"	
a314(E)	15	#6	18'-2"	
a315(E)	8	#5	15'-6"	
a316(E)	15	#6	16'-10"	
a317(E)	8	#5	14'-2"	
a318(E)	15	#6	15'-8"	
a319(E)	8	#5	13'-0"	
a320(E)	14	#6	14'-9"	
a321(E)	7	#5	12'-1"	
a322(E)	266	#6	4'-0"	
b300(E)	100	#5	23'-4"	
b301(E)	25	#5	19'-2"	
b302(E)	500	#5	20'-4"	
b303(E)	125	#5	15'-8"	
d300(E)	799	#5	7'-0"	
d301(E)	914	#5	8'-3"	
e300(E)	48	#4	19'-8"	
e301(E)	12	#4	19'-0"	
e302(E)	240	#4	16'-8"	
e303(E)	60	#4	15'-8"	
Concrete Superstructure			Cu Yd	334.4
Bridge Deck Grooving			Sq Yd	485
Protective Coat			Sq Yd	1124
Reinforcement Bars, Epoxy Coated			Pound	55,920



USER NAME =	DESIGNED - PG, ADJ	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - CJS, GFA	REVISED -
	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 099-W125

SHEET SE-10 OF SE-17 SHEETS

FA.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	750
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 10/27/22

COUNTY	Will	DRILLING RIG	Latitude , Longitude Mobile B-57	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	89

STRUCT. NO. _____	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. _____	N/A	ft		
Station _____					Stream Bed Elev. _____	N/A	ft		
BORING NO. _____									
Station _____					10+12.0163				
Offset _____					14.41ft RT				
Ground Surface Elev. _____	571.45	ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.:		
							First Encounter _____	Dry	ft
							Upon Completion _____	N/A	ft
							After _____ Hrs.	N/A	ft

[illegible]

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along B & PGL Center St. Ramp C.

Page 1 of 1

Date 10/19/22

COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	Diedrich D-50		HAMMER EFF (%)	96
				HSA		

STRUCT. NO. _____ Station _____ BORING NO. _____ Station _____ Offset _____ Ground Surface Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft
	(ft)	(/6")	(tsf)	(%)	

[illegible]

BBS, form 137 (Rev. 8-99)

HB
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SOIL BORINGS (SHEET 1 OF 7)
STRUCTURE NO. 099-W125

SHEET SE-11 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	751
		CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://transyscorp-pw.bentley.com/transyscorp-pw1-hosted/Documents/Projects_2018/C14011401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W125-RW4/099-W125-62R22-5E-12-Boring_Logs_1

6/9/2025 11:45:56 AM

Page 1 of 1

Date 10/27/22

ROUTE	I-80	DESCRIPTION	Retaining Wall No. 4	LOGGED BY	AA
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SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	Mobile B-57		HAMMER EFF (%)	89
			HSA			

STRUCT. NO. _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____	N/A	ft	
Station _____					Stream Bed Elev. _____	N/A	ft	
BORING NO. _____								
Station _____					RWB-30			
Offset _____					9+23.3189			
Ground Surface Elev. _____	570.69	ft	(ft)	(/6")	(tsf)	(%)		
					Groundwater Elev.:			
					First Encounter _____	Dry	ft	
					Upon Completion _____	N/A	ft	
					After _____ Hrs. _____	N/A	ft	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along B & PGL Center St. Ramp C.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

Page 1 of 1

Date 8/19/22

ROUTE	I-80	DESCRIPTION	Retaining Wall No. 4	LOGGED BY	KA
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SECTION C-91-109-22 **LOCATION** , SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Latitude	Longitude	HAMMER TYPE	Auto
		DRILLING METHOD	Diedrich D-50 ATV		HAMMER EFF (%)	91
			HSA			

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T (%)	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-32					Groundwater Elev.: _____
Station _____ 14+73.3173					First Encounter _____ Dry ft
Offset _____ 32.94ft LT					Upon Completion _____ N/A ft
Ground Surface Elev. _____ 589.06 ft	(ft)	(/6")	(tsf)		After _____ Hrs. _____ N/A ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

HBM
ENGINEERING GROUP, LLC

Page 1 of 1Date 8/19/22

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	91

STRUCT. NO. _____	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. _____	N/A	ft
Station _____					Stream Bed Elev. _____	N/A	ft
BORING NO. _____							
Station _____							
Offset _____							
Ground Surface Elev. _____	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: _____		
					First Encounter _____	Dry	ft
					Upon Completion _____	N/A	ft
					After _____ Hrs.	N/A	ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along B & PGL Center St. Ramp C.

Page 1 of 1

Date 8/25/22

SECTION C-91-109-22 LOCATION , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	91

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____	N/A	ft
Station _____	E	L	C	O	Stream Bed Elev. _____	N/A	ft
	P	O	S	I			
BORING NO. _____	T	W		S	Groundwater Elev.: _____		
Station _____	H	S	Qu	T	First Encounter _____	Dry	ft
Offset _____					Upon Completion _____	N/A	ft
Ground Surface Elev. _____					After _____ Hrs. _____	N/A	ft
_____ ft	(ft)	(/6")	(tsf)	(%)			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORINGS (SHEET 3 OF 7)
STRUCTURE NO. 099-W125

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	753
		CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		

SHEET SE-13 OF SE-17 SHEETS

		CONTRACT
ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw:\fransystems-pw.bentley.com\transycorp-pw-1-hosted\Documents\Projects_2018\C\401\401180022\03-WSP\CAD\62R22-INT-4 (Center)\Sheets\Structural\5N-099-W\25-RW\4099-W\25-62R22-5E-14-Boring Logs 3

HBM
ENGINEERING GROUP, LLC

6/9/2025 11:46:02 AM



SOIL BORING LOG

Date 8/18/22

ROUTEI-80DESCRIPTIONRetaining Wall No. 4LOGGED BYDD

SECTIONC-91-109-22LOCATIONSEC. 16, TWP. 35 N, RNG. 10 E,

COUNTYWillDRILLING RIGDRILLING METHODMobile B-57HSAHAMMER TYPEAutoHAMMER EFF (%)89

STRUCT. NO. Station

BORING NO. RWB-35Station13+17.6762Offset33.11ft LTGround Surface Elev.589.01ft

DEP

TH

BL

OW

US

Qu

MO

IST

(ft)

(/6")

(tsf)

(%)

Surface Water Elev. N/AftStream Bed Elev. N/Aft

Groundwater Elev.:First EncounterDryftUpon CompletionN/AftAfter Hrs. N/Aft

5 inches of Asphalt588.51

Brown and Gray, Moist FILL: SILTY CLAY, trace gravel, sand, brick

3

4

8

3.3

B

14

4

4

6

3.5

P

18

584.01

-5

Very Dense Light Brown, Wet SAND, trace gravel, trace organics (SP)

4

27

50/4"

28

581.01

Auger Refusal @ 8 feet End of Boring

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along & PGL Center St. Ramp C.



SOIL BORING LOG

Date 3/27/25

ROUTEI-80DESCRIPTIONRetaining Wall No. 4 - Ramp CLOGGED BYDV

SECTIONC-91-109-22LOCATIONSEC. 16, TWP. 35 N, RNG. 10 E,

COUNTYWillDRILLING RIGDRILLING METHODCME-75HSAHAMMER TYPEAutoHAMMER EFF (%)78.8

STRUCT. NO. 099-W125Station

BORING NO. RWB-48 (Wall 4)Station11+96.23Offset39.70ft LTGround Surface Elev.579.53ft

DEP

TH

BL

OW

US

Qu

MO

IST

(ft)

(/6")

(tsf)

(%)

Surface Water Elev. N/AftStream Bed Elev. N/Aft

Groundwater Elev.:First EncounterDryftUpon CompletionN/AftAfter Hrs. N/Aft

Brown, Wet FILL: SAND, with gravel

8

50/3"

91

576.53

WEATHERED LIMESTONE

575.53

50/2"

Auger refusal at 4 feet Gray and Brown LIMESTONE, moderately weathered, slightly to moderately fractured, trace shale

-5

Run 1: 4' - 14' Recovery: 95.0% RQD: 55.0% (Fair)

565.53

End of Boring

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw:///transsystems-pw.bentley.com/transsyscorp-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W125-RW4/099-W125-62R22-SE-15-Boring_Logs 4



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (SHEET 4 OF 7)
STRUCTURE NO. 099-W125

SHEET SE-14 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	754
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 3/21/25

ROUTEI-80DESCRIPTIONRetaining Wall No. 4 - Ramp CLOGGED BYAK

SECTIONC-91-109-22LOCATIONSEC. 16, TWP. 35 N, RNG. 10 E,

Latitude LongitudeDiedrich D-50

COUNTYWillDRILLING RIGDRILLING METHODHSAHAMMER TYPEAutoHAMMER EFF (%)97.7

STRUCT. NO.099-W125Station

BORING NO.RWB-49 (Wall 4)Station11+65.05Offset31.80ft LTGround Surface Elev.577.90ft

DEPTH(ft)

BLOW(S)

UCS(Qu)

MOIST(%)

Surface Water Elev. N/A ftStream Bed Elev. N/A ft

Groundwater Elev.:First EncounterDry ftUpon CompletionN/A ftAfterHrs.N/A ft

12 inches of Topsoil576.90

Dark Brown, Moist FILL: SILTY CLAY, little gravel, trace roots574.90

Auger refusal at 3 feetEnd of Boring

-5

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along & PGL Center St. Ramp C.



SOIL BORING LOG

Date 3/21/25

ROUTEI-80DESCRIPTIONRetaining Wall No. 4 - Ramp CLOGGED BYAK

SECTIONC-91-109-22LOCATIONSEC. 16, TWP. 35 N, RNG. 10 E,

Latitude LongitudeDiedrich D-50

COUNTYWillDRILLING RIGDRILLING METHODHSAHAMMER TYPEAutoHAMMER EFF (%)97.7

STRUCT. NO.099-W125Station

BORING NO.RWB-50 (Wall 4)Station11+23.60Offset20.20ft LTGround Surface Elev.576.22ft

DEPTH(ft)

BLOW(S)

UCS(Qu)

MOIST(%)

Surface Water Elev. N/A ftStream Bed Elev. N/A ft

Groundwater Elev.:First EncounterDry ftUpon CompletionN/A ftAfterHrs.N/A ft

12 inches of Topsoil575.22

Dark Brown, Very Moist FILL: SILTY CLAY, with sand, little gravel, trace concrete571.22

Auger refusal at 5 feetEnd of Boring

-5

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw://transys/pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W125-RW4/099-W125-62R22-SE-16-Boring_Logs 5



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (SHEET 5 OF 7)
STRUCTURE NO. 099-W125

SHEET SE-15 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	754A
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 3/21/25

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 4 - Ramp C</u>	LOGGED BY	<u>AK</u>
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SECTION C-91-109-22 **LOCATION** SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude	Longitude	HAMMER TYPE	Auto
			Diedrich D-50			
			HSA		HAMMER EFF (%)	97.7

STRUCT. NO. 099-W125
Station

BORING NO. RWB-51
Station 10+72.47
Offset 46.04ft LT
Ground Surface Elev. 574.74

D E P T H	B L O W S	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

Surface Water Elev.	N/A	ft
Stream Bed Elev.	N/A	ft
Groundwater Elev.:		
First Encounter	Dry	ft
Upon Completion	N/A	ft
After _____ Hrs.	N/A	ft

1 inch of Asphalt and Gravel	574.66
Brown, Gray, and Black, Moist FILL: SANDY LOAM, some gravel, trace concrete	

	50/5"		
			7

**Groundwater Elev.:
First Encounter
Upon Completion
After _____ Hrs.**

Auger refusal at 7 feet
Brown and Gray
LIMESTONE, slightly weathered
moderately to heavily fractured,
some vugs

50/5"		
		11
-5		

Run 1: 7' to 17'
Recovery: 96.7%
RQD: 58.3% (Fair)

-10			

End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along B & PGL Center St. Ramp C.

Page 1 of 1

Date 3/20/25

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 4 - Ramp C</u>	LOGGED BY	<u>SB</u>
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SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude	Longitude	HAMMER TYPE	Auto
			Mobile B-57			
			HSA		HAMMER EFF (%)	89

STRUCT. NO. 099-W125
Station

BORING NO. RWB-52
Station 10+28.75
Offset 29.50ft LT
Ground Surface Elev. 573.43

D E P T H	B L O W S	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

Surface Water Elev.	N/A	ft
Stream Bed Elev.	N/A	ft
Groundwater Elev.:		
First Encounter	Dry	ft
Upon Completion	N/A	ft
After _____ Hrs.	N/A	ft

5 inches of Topsoil	573.01
Very Dense	
Light Brown, Moist	
GRAVEL, with sand (GP)	571.93
WEATHERED LIMESTONE	571.43
Auger refusal at 2 feet	
End of Boring	

[illegible]

**Groundwater Elev.:
First Encounter
Upon Completion
After _____ Hrs.**

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 3/20/25

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 - Ramp C LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Mobile B-57 HAMMER TYPE Auto

DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. 099-W125 Station

BORING NO. RWB-53 Station 9+75.76 Offset 39.37ft LT

Ground Surface Elev. 572.70 ft

D	B	U	M	Surface Water Elev.	N/A	ft
E	L	C	O	Stream Bed Elev.	N/A	ft
P	O	S	I	Groundwater Elev.:		
T	W	Qu	S	First Encounter	Dry	ft
H	S		T	Upon Completion	N/A	ft
				After Hrs.	N/A	ft

3 inches of Topsoil 572.45

Very Dense

Light Brown, Moist

GRAVEL, with sand, trace clay (GP) 571.20 50/5" 7

WEATHERED LIMESTONE 570.70

Auger refusal at 2 feet

Gray

LIMESTONE, slightly to moderately weathered, moderately to heavily fractured, some vugs -5

Run 1: 2' - 12'

Recovery: 100%

RQD: 26.3% (Poor)

-10

560.70

End of Boring

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

NOTE:

1. The Stations and offsets are measured along & PGL Center St. Ramp C.



SOIL BORING LOG

Date 3/20/25

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 - Ramp C LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Latitude Longitude Mobile B-57 HAMMER TYPE Auto

DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. 099-W125 Station

BORING NO. RWB-54 Station 9+22.71 Offset 25.49ft LT

Ground Surface Elev. 572.26 ft

D	B	U	M	Surface Water Elev.	N/A	ft
E	L	C	O	Stream Bed Elev.	N/A	ft
P	O	S	I	Groundwater Elev.:		
T	W	Qu	S	First Encounter	Dry	ft
H	S		T	Upon Completion	N/A	ft
				After Hrs.	N/A	ft

4 inches of Topsoil 571.93

Very Dense

Brown, Wet

GRAVEL, trace clay, trace roots (GP) 570.76 50/3" 22

WEATHERED LIMESTONE 570.26

Auger refusal at 2 feet

End of Boring

-5

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W125-RW4/099-W125-62R22-SE-18-Boring_Logs_7



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (SHEET 7 OF 7)
STRUCTURE NO. 099-W125

SHEET SE-17 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	754C
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at South ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: Entrance ramp traffic from NB Center St. to EB I-80 and exit ramp traffic from WB I-80 to SB Center St. will be detoured to the west at Larkin Ave.

Salvage: None.

DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS
 $f_c = 4,500$ psi

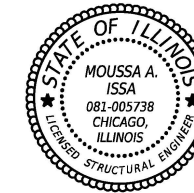
DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

APPROVED

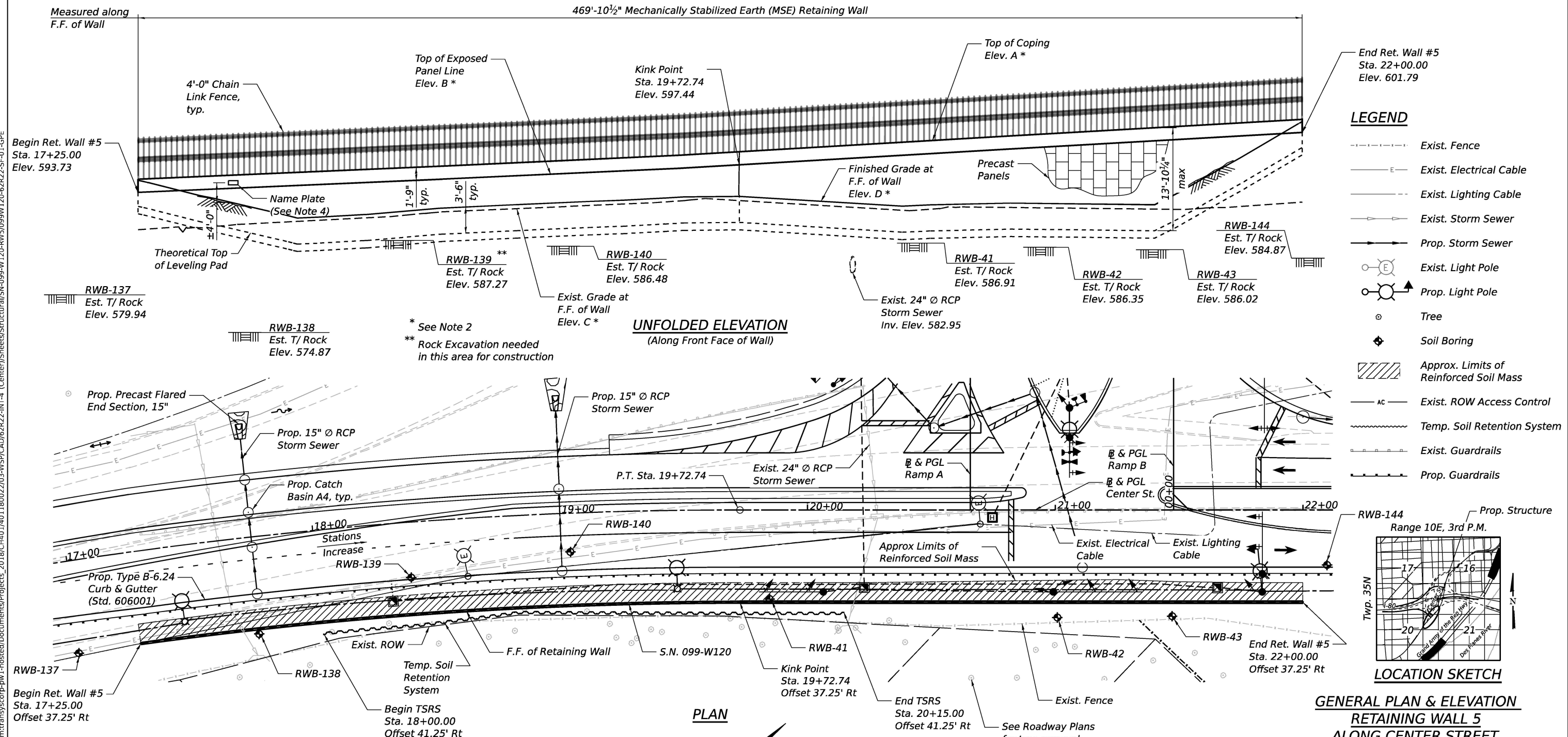
For Structural Adequacy Only

Engineer of Bridges & Structures

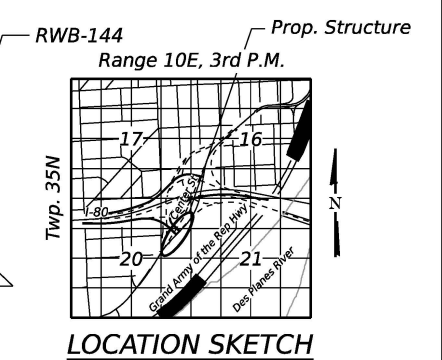


Signed Moussa A. Issa
Dr. Moussa A. Issa, S.E. IL. Lic. No. 081-005738
Expires 11-30-2026

Date 4/22/2025 For Sheets SF-01 Thru SF-09



- ### LEGEND
- Exist. Fence
 - Exist. Electrical Cable
 - Exist. Lighting Cable
 - Exist. Storm Sewer
 - Prop. Storm Sewer
 - Exist. Light Pole
 - Prop. Light Pole
 - Tree
 - ◆ Soil Boring
 - ▨ Approx. Limits of Reinforced Soil Mass
 - AC Exist. ROW Access Control
 - Temp. Soil Retention System
 - Exist. Guardrails
 - Prop. Guardrails



- ### NOTES:
- Stations and offsets are measured along the $\mathcal{C}$ of Center Street to the front face of the precast panels.
 - For General Notes, Index of Sheets and Total Bill of Material, See Sheet SF-02.
 - For Table 1- Wall Elevations, Typical Section thru MSE Wall, Profile Grade Lines and Curve Data, See Sheet SF-03.
 - Name Plate shall be level across the coping and at approx. 4' above the ground elevation, which occurs at approx. Sta 17+75.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W120

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	755
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



USER NAME =	DESIGNED - PG, KJD	REVISED -
PLOT SCALE =	CHECKED - MI, AMI	REVISED -
PLOT DATE =	DRAWN - PG, KJD	REVISED -
	CHECKED - MI, KJD	REVISED -

MODEL: Default
FILE NAME: pw://transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP(CAD)/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W120-RW5/099W120-62R22-SF-01-GPE

GENERAL NOTES:

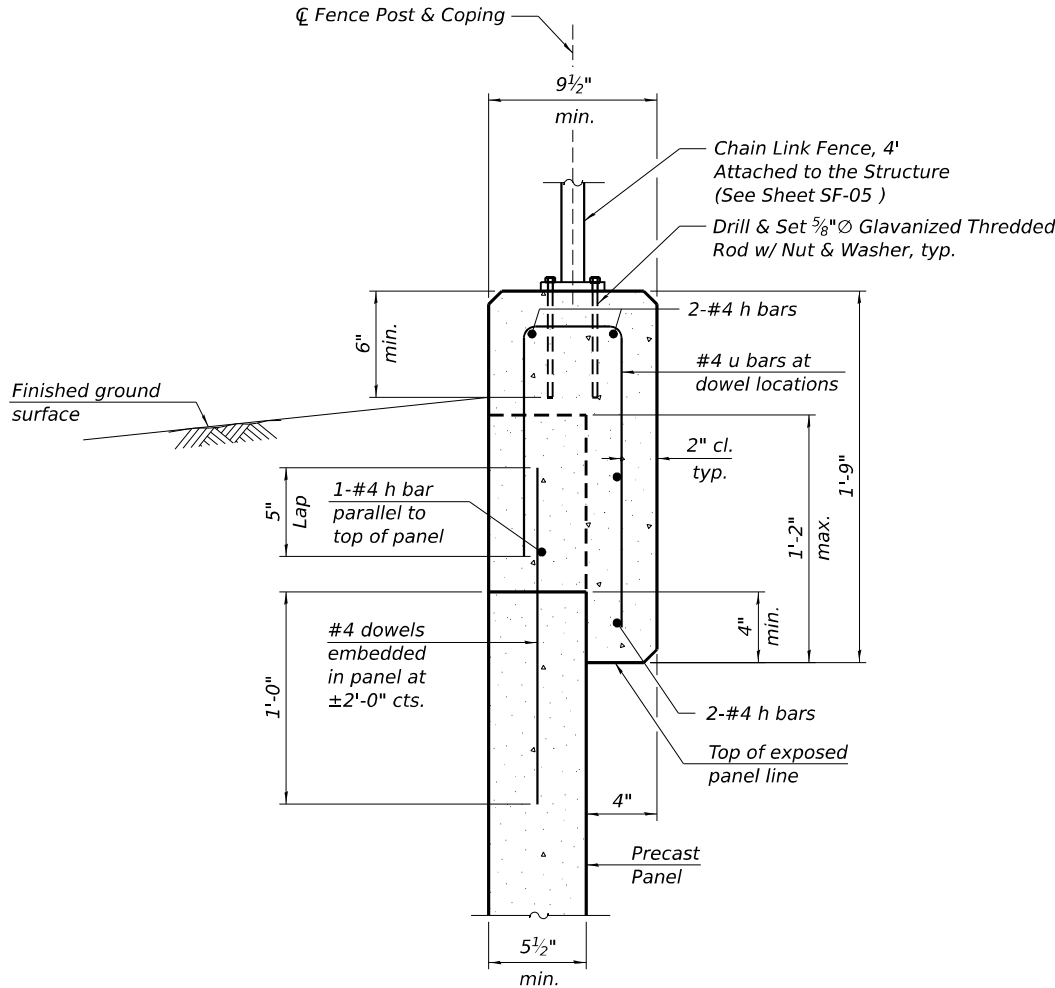
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Protective Coat shall be applied to the exposed faces of the cast-in-place coping.
3. The Contractor shall field verify locations of existing underground utilities prior to beginning work.Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
4. Any storage of construction equipment and material behind the wall is not allowed.
5. Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
6. The cost of the concrete and the reinforcing steel required for the coping shall be included in the cost of "Mechanically Stabilized Earth Retaining Wall".
7. All Exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.
8. The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed:
Sta. 17+25 to Sta. 21+50 = 10,000 psf
Sta. 21+50 to Sta. 22+00.17 = 3,400 psf

INDEX OF SHEETS

SF-01	General Plan & Elevation
SF-02	General Notes, Index of Sheets and Total Bill of Material
SF-03	MSE Wall Cross Sections and Details
SF-04	Temporary Soil Retention System Details
SF-05	Chain Link Fence Attached to Structure Details
SF-06	Boring Logs (Sheet 1 of 4)
SF-07	Boring Logs (Sheet 2 of 4)
SF-08	Boring Logs (Sheet 3 of 4)
SF-09	Boring Logs (Sheet 4 of 4)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	419	419
Rock Excavation For Structures	Cu Yd	-	2	2
Protective Coat	Sq Yd	-	177	177
Name Plates	Each	1	-	1
Temporary Soil Retention System	Sq Ft	-	810	810
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	3806	3,806
Granular Backfill For Structures	Cu Yd	-	298	298
Chain Link Fence, 4' Attached To Structure	Foot	470	-	470



C.I.P. COPING DETAILS

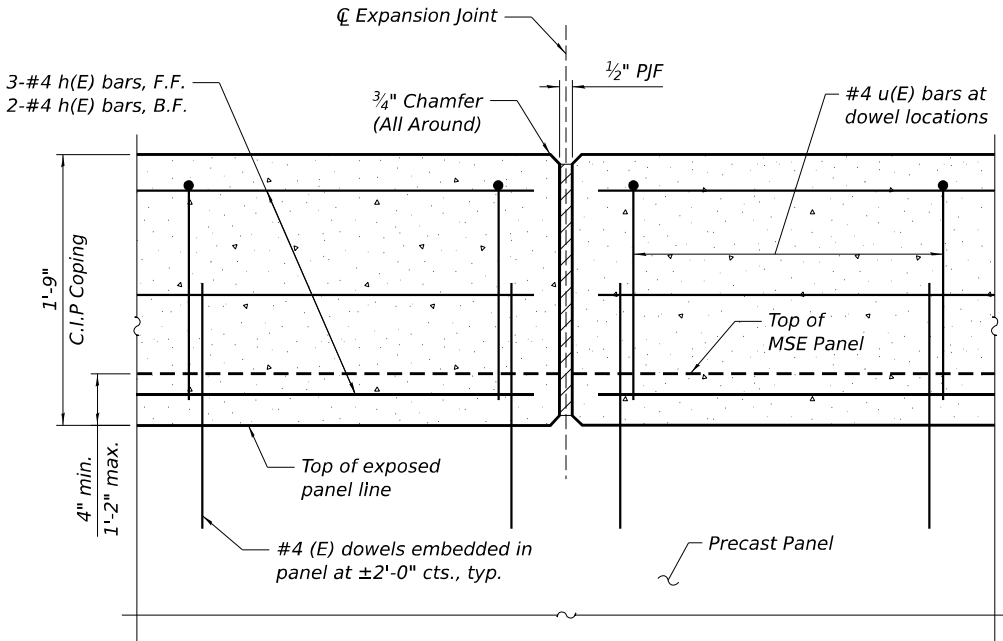
STA. 17+25.00 TO 22+00.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. RT. 80
SEC. FAI 80 21 INTERCHANGE
LOADING HL-93
STR. NO. 099-W120

NAME PLATE
See Std. 515001

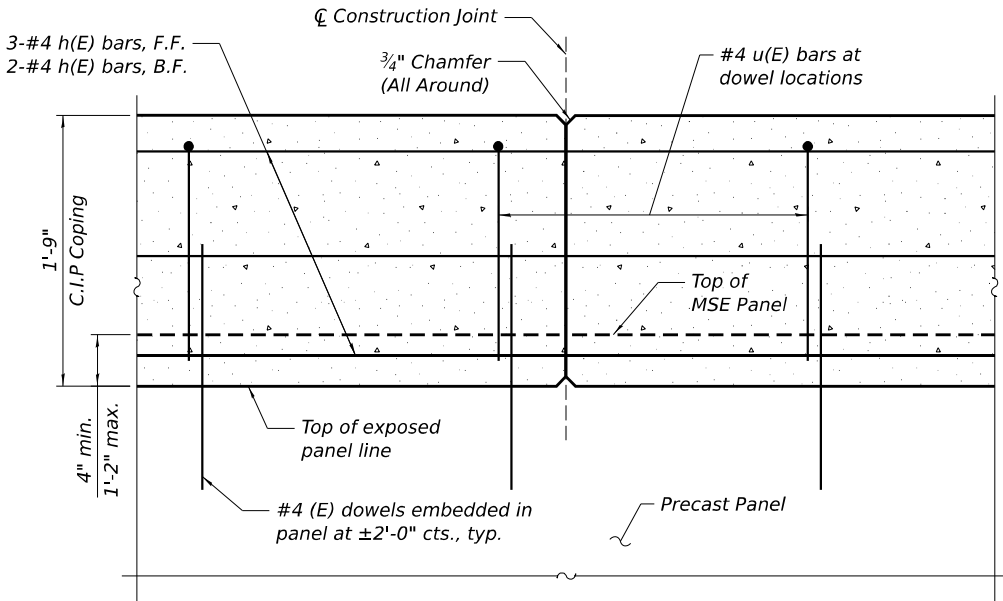
NOTE:

1. Coping Reinforcement bars may be adjusted to miss fence base plate threaded rods.

MINIMUM BAR LAP
(Coping)
#4 bar = 2'-11"



COPING EXPANSION JOINT - ELEVATION
(Provide expansion joints at a max. spacing of 90'-0")



COPING CONSTRUCTION JOINT - ELEVATION
(Provide construction joints at a max. spacing of 30'-0")

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 099-W120

SHEET SF-02 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	756
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

HBM
ENGINEERING GROUP, LLC

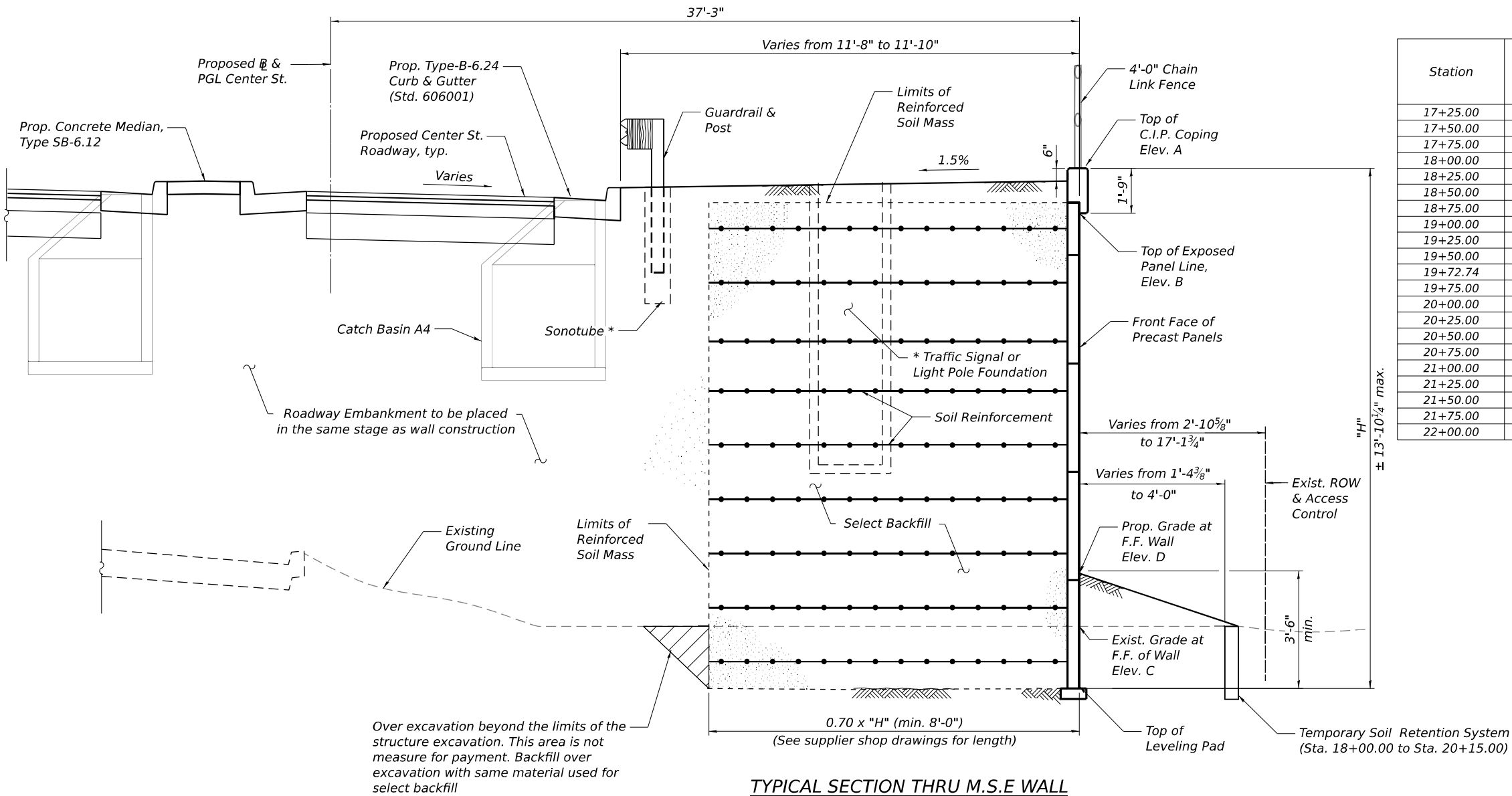
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PLOT DATE =	CHECKED - MI, KJD	REVISED -

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MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH40 /401.180022/03-WSP(CAD)/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W120-RW5/099W120-62R22-5-F-03-Wall Section & Details

TABLE 1- WALL ELEVATIONS

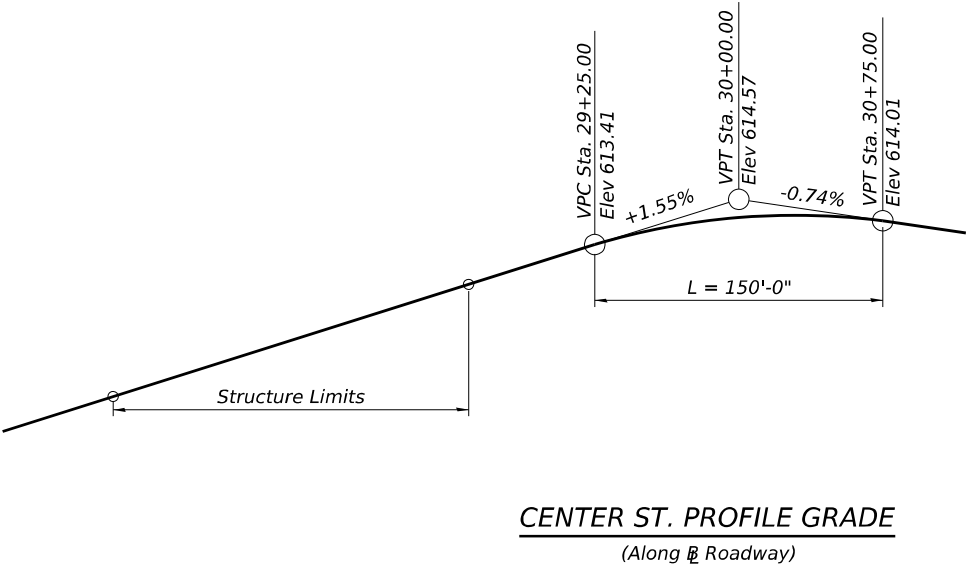
Station	Offset	A	B	C	D
		Top of Coping	Top of Exposed Panel Line	Exist. Grade at FF Wall	T/Prop. Ground FF Wall
17+25.00	37.25' RT	595.48	593.73	588.70	595.34
17+50.00	37.25' RT	595.83	594.08	588.99	593.33
17+75.00	37.25' RT	596.19	594.44	589.55	591.49
18+00.00	37.25' RT	596.54	594.79	589.96	590.42
18+25.00	37.25' RT	596.89	595.14	590.39	590.92
18+50.00	37.25' RT	597.24	595.49	591.11	591.60
18+75.00	37.25' RT	597.59	595.84	591.48	591.99
19+00.00	37.25' RT	597.97	596.22	591.84	592.33
19+25.00	37.25' RT	598.36	596.61	592.18	592.67
19+50.00	37.25' RT	598.75	597.00	592.63	593.12
19+72.74	37.25' RT	599.19	597.44	592.63	593.18
19+75.00	37.25' RT	599.23	597.48	592.59	593.14
20+00.00	37.25' RT	599.72	597.97	592.09	592.64
20+25.00	37.25' RT	600.20	598.45	591.59	592.15
20+50.00	37.25' RT	600.68	598.93	591.46	592.04
20+75.00	37.25' RT	601.17	599.42	591.72	592.23
21+00.00	37.25' RT	601.65	599.90	591.63	592.22
21+25.00	37.25' RT	602.12	600.37	591.53	592.13
21+50.00	37.25' RT	602.60	600.85	591.44	593.68
21+75.00	37.25' RT	603.07	601.32	591.83	598.38
22+00.00	37.25' RT	603.54	601.79	591.47	603.27



* Sonotubes and traffic signals foundations shall be placed during the backfilling of the reinforced soil zone to allow for the installation of the guardrail and the traffic signals without damaging the soil reinforcement. Coordinate with Roadway plans for the location of the guardrail posts and traffic signals.

PR CURVE CENTER-3

PI Sta. = 25+64.87
Δ = 33° 44' 53" (LT)
D = 5° 43' 46"
R = 1,000.00'
T = 303.33'
L = 589.01'
E = 44.99'
e = 3.00%
T.R. = 80.00'
S.E. RUN = 160'
P.C. STA. = 22+61.54
P.T. STA. = 28+50.55



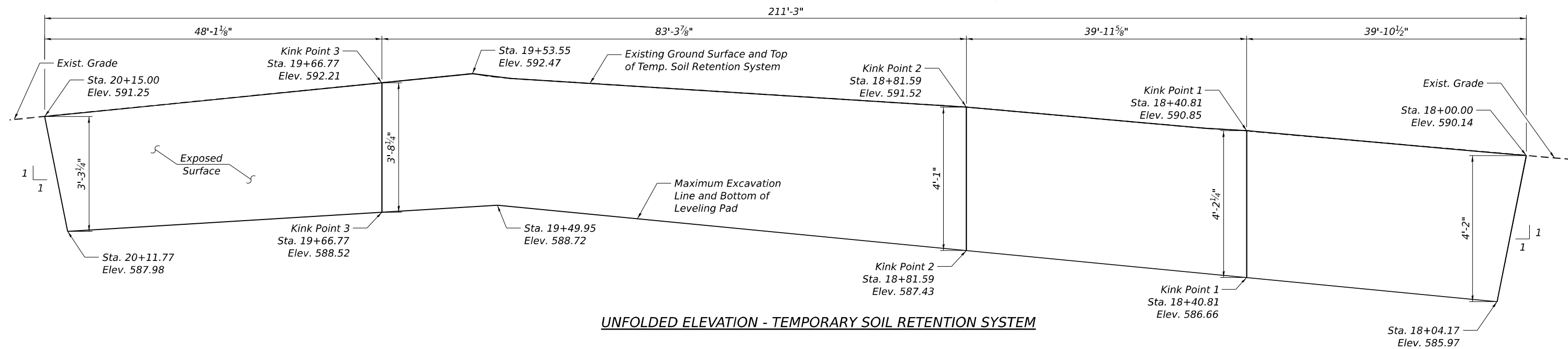
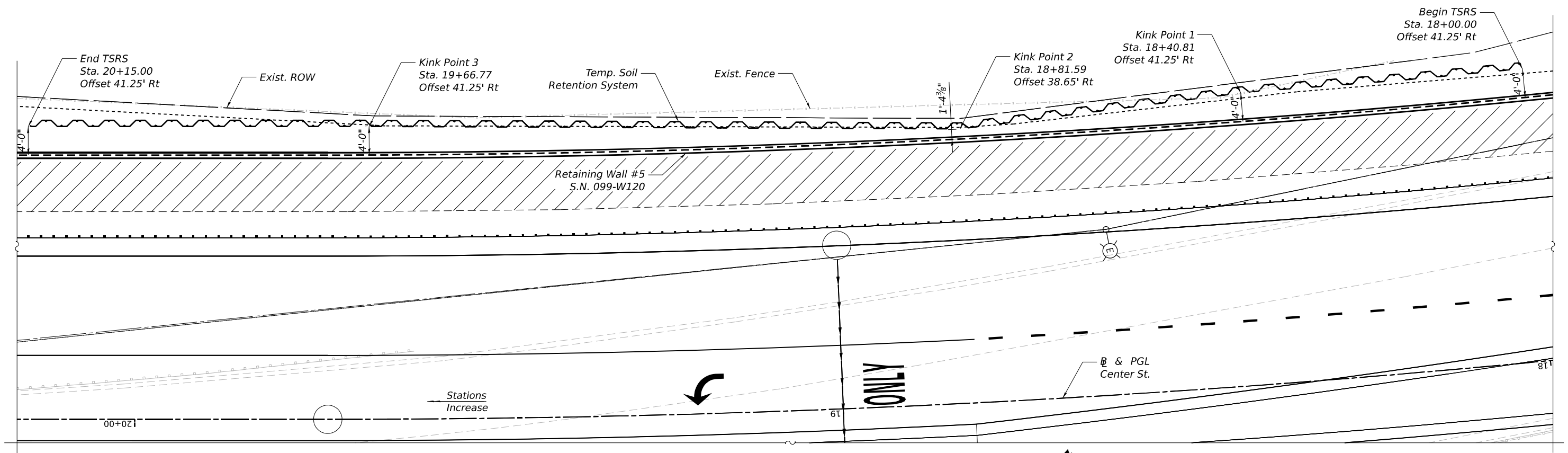
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PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS
STRUCTURE NO. 099-W120

SHEET SF-03 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	757
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



LEGEND

 Temporary Soil Retention System

 Exist. Light Pole

 Prop. Guardrails

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq Ft	810

HBMI
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - GFA, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - GFA, KJD	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

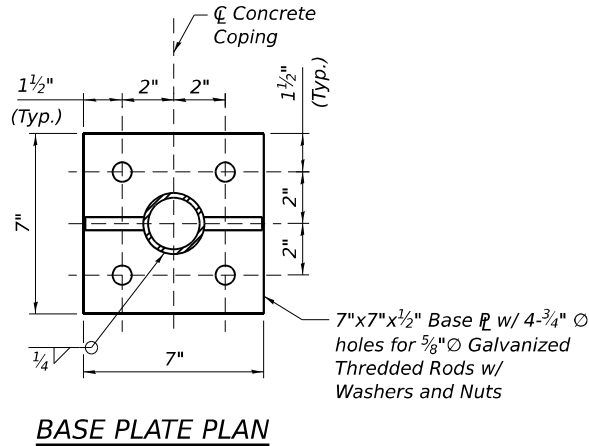
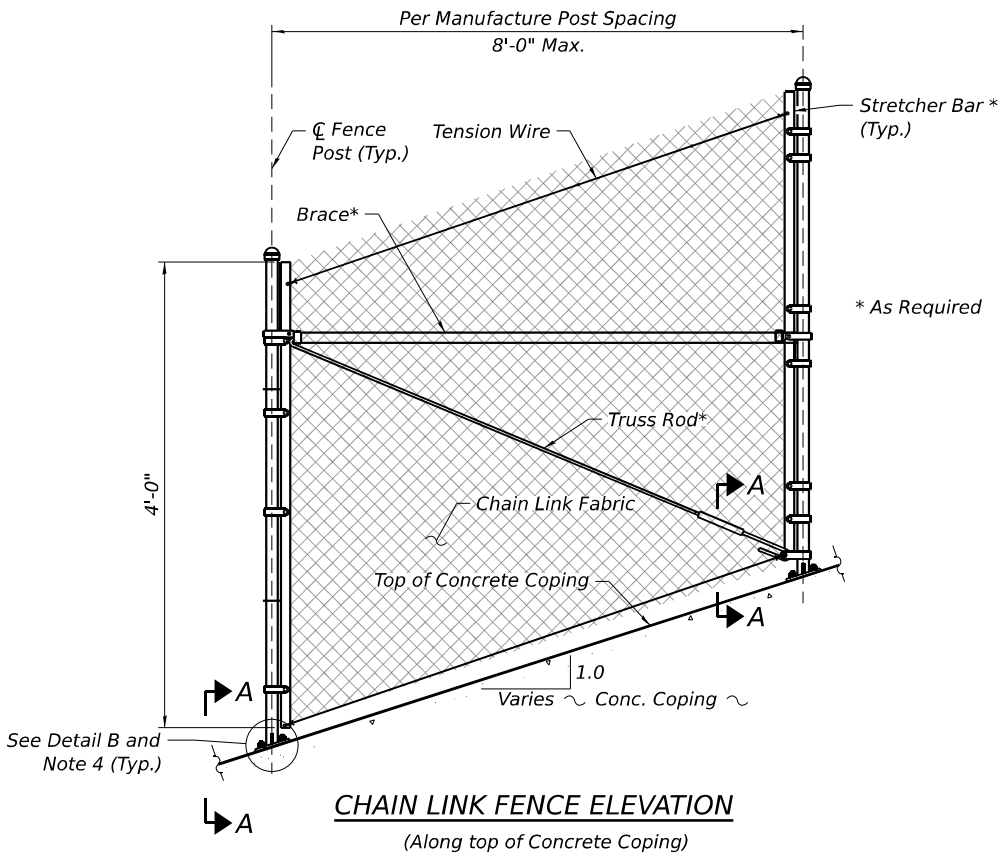
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 099-W120

SHEET SF-04 OF SF-09 SHEETS

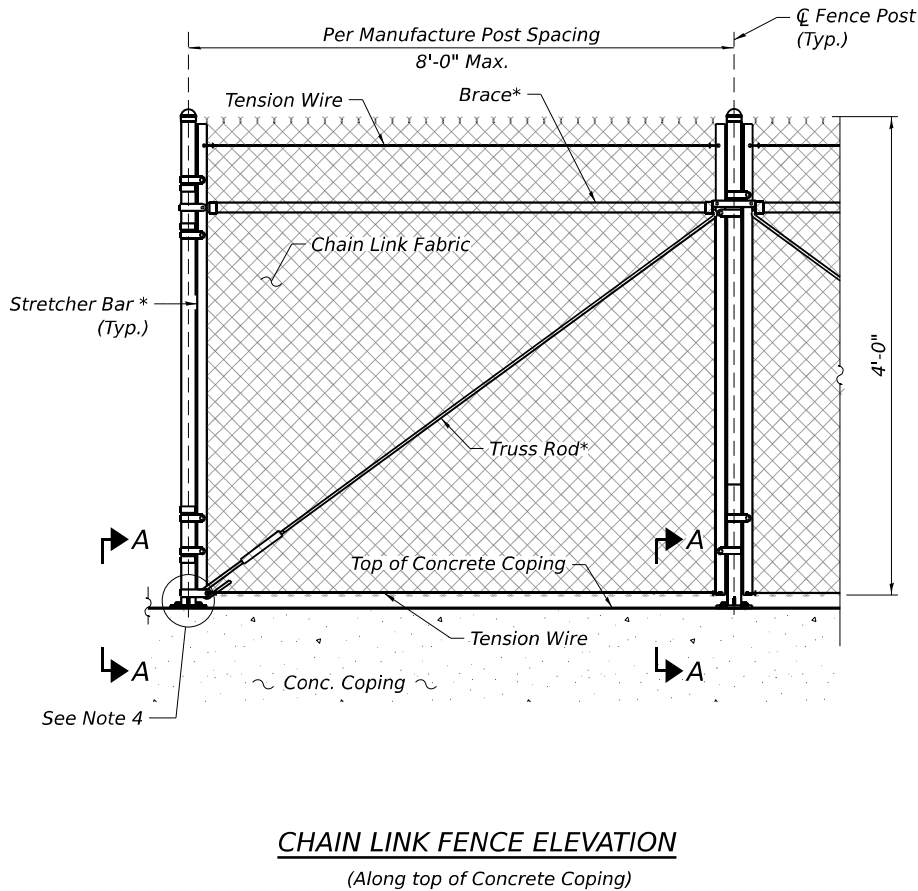
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	758
		CONTRACT NO. 62R22		
		ILLINOIS FED. AID PROJECT		

MODEL: Default
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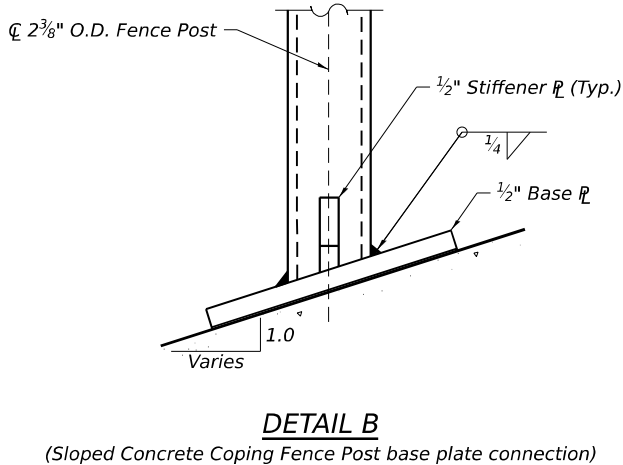
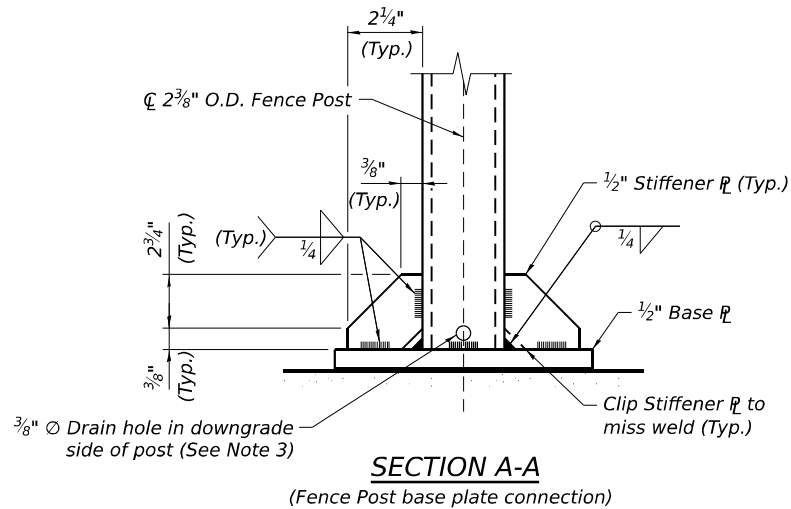
BASE PLATE NOTES:

- If necessary the size of the base plate and location of the expansion anchors may be adjusted to miss the concrete coping reinforcement.
- Base Plates and Stiffeners shall be fabricated from material meeting the requirements of AASHTO M270 Grade 36.
- Base Plates, Stiffeners and Posts shall be Hot Dipped Galvanized after fabrication in accordance with AASHTO.
- Threaded Rods shall have a minimum embedment of 6 inches and meet the requirements of ASTM F1554, Grade 36. The threaded rods shall be installed per section 584 of the Standard Specification.
- Threaded rods, nuts and washers shall be Hot Dipped Galvanized in accordance with AASHTO M232.



NOTES:

- See IDOT Highway Standard Drawing 664001-02 for additional fence details.
- Fence shall be continuous over concrete coping expansion joints.
- Drill Drain hole to miss fillet weld and prior to galvanizing. Hole shall be drilled as close to the weld as possible.
- Edge distance from a construction or expansion joint in the existing and proposed copings to an expansion anchor shall be per manufacturer's specifications.



BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 4' Attached to Structure	Foot	470

USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG, GFA	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	759
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 8/18/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 5 - Center Street Sta 20+60</u>	LOGGED BY	<u>KA</u>
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SECTION	C-91-109-22	LOCATION	SEC.	TWP.	RNG.
---------	-------------	----------	------	------	------

COUNTY		Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
			DRILLING METHOD	HSA	HAMMER EFF (%)	102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-137 Station _____ 16+99.2138 Offset _____ 37.42ft RT Ground Surface Elev. _____ 587.94 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: _____ First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/18/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 5 - Center Street Sta 20+60</u>	LOGGED BY	<u>KA</u>
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SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude 41.5104047, Longitude -88.1001338	
			Diedrich D-50 ATV	HAMMER TYPE
			HSA	Auto
				HAMMER EFF (%)
				102

STRUCT. NO.		D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
Station		E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O
		P	L	S	I				P	L	S	I
BORING NO.	RWB-138	T	W		S	Groundwater Elev.:			H	S	Qu	T
Station	17+74.5358	H	S	Qu	T	First Encounter	582.9	ft ▼				
Offset	39.27 ft RT					Upon Completion	N/A	ft				
Ground Surface Elev.	588.87 ft	(ft)	(/6")	(tsf)	(%)	After Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/17/22

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY	Will	DRILLING RIG	Latitude 41.5105692, Longitude -88.0999901	Auto
		DRILLING METHOD	Diedrich D-50 ATV	HAMMER TYPE
			HSA	HAMMER EFF (%)
				102

STRUCT. NO. _____ Station _____	D E P T H (ft)	B L O W S (/6")	U C S (tsf)	M O I S T (%)	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-139					Groundwater Elev.: _____
Station _____ 18+47.2425					First Encounter _____ Dry ft
Offset _____ 31.37ft RT					Upon Completion _____ N/A ft
Ground Surface Elev. _____ 591.27 ft					After _____ Hrs. _____ N/A ft

[illegible]

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/17/22

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY	Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	102

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____	N/A	ft
Station _____	E	L	C	O	Stream Bed Elev. _____	N/A	ft
	P	O	S	I			
BORING NO. _____	T	W		S	Groundwater Elev.: _____		
Station _____	H	S	Qu	T	First Encounter _____	Dry	ft
Offset _____					Upon Completion _____	N/A	ft
Ground Surface Elev. _____					After _____ Hrs. _____	N/A	ft
ft	(ft)	(/6")	(tsf)	(%)			

3 inches of Topsoil	592.23			
Hard				
Brown, Moist		8		
SILTY CLAY, trace sand, gravel		7	4.5	17
(CL/ML)		9	P	
589.98				
Medium Dense				
Light Brown, Moist				
GRAVEL, with sand (GPS)		11		
		13		2
		10		
-5				
Auger refusal at 6.0 feet	586.48			
Gray				
LIMESTONE, moderately weathered, heavily fractured, vertical fractures				
Run 1: 6' - 16'				
Recovery: 100%				
RQD: 3.33% (Very poor)				
-10				
-15				
576.48				
End of Boring				
-20				

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/15/22

SECTION C-91-109-22 LOCATION , SEC. , TWP. , RNG. ,

COUNTY	Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-144 Station _____ 22+13.2791 Offset _____ 48.11ft RT Ground Surface Elev. _____ 589.37 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/12/22

SECTION C-91-109-22 LOCATION , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	102

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____	N/A	ft
Station _____	E	L	C	O	Stream Bed Elev. _____	N/A	ft
	P	O	S	I			
BORING NO. _____	T	W		S	Groundwater Elev.: _____		
Station _____	H	S	Qu	T	First Encounter _____	Dry	ft
Offset _____					Upon Completion _____	N/A	ft
Ground Surface Elev. _____					After _____ Hrs. _____	N/A	ft
_____ ft	(ft)	(/6")	(tsf)	(%)			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/7/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 5 - Center Street Sta 20+60</u>	LOGGED BY	<u>KA</u>
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SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude 41.511043, Longitude -88.0993262		
			Diedrich D-50 ATV	HAMMER TYPE	Auto
			HSA	HAMMER EFF (%)	102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-42 Station _____ 21+0.1523 Offset _____ 43.21ft RT Ground Surface Elev. _____ 589.35 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: _____ First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/12/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 5 - Center Street Sta 20+60</u>	LOGGED BY	<u>KA</u>
--------------	-------------	--------------------	---	------------------	-----------

SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY		Will	DRILLING RIG	Latitude 41.5111354, Longitude -88.0992063	
			DRILLING METHOD	Diedrich D-50 ATV	HAMMER TYPE
				HSA	Auto
					HAMMER EFF (%)
					102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-43 Station _____ 21+47.1894 Offset _____ 42.82ft RT Ground Surface Elev. _____ 590.02 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: _____ First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

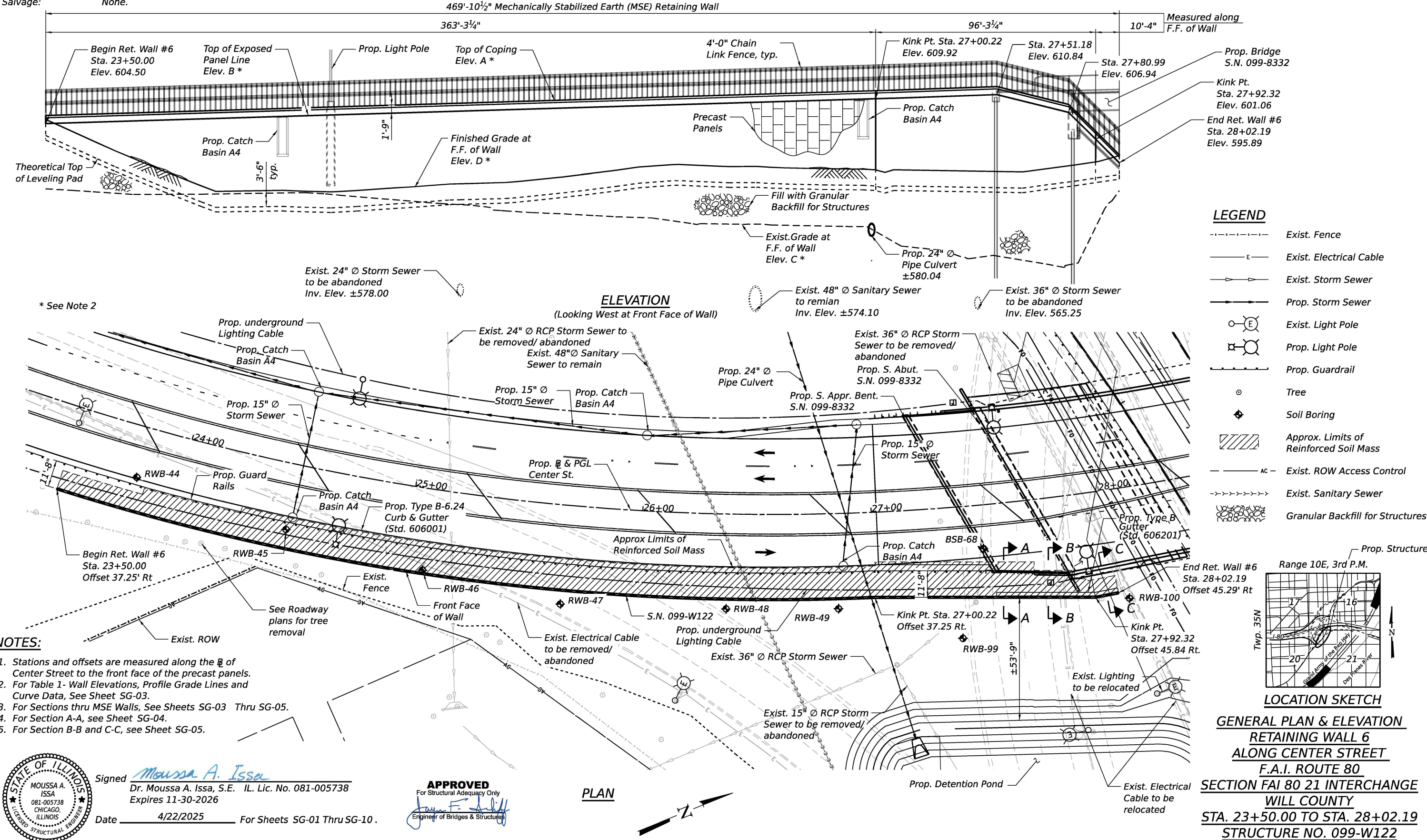
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at South ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.
Existing Structure: None.
Traffic Control: Entrance ramp traffic from NB Center St. to EB I-80 and exit ramp traffic from WB I-80 to SB Center St. will be detoured to the west at Larkin Ave.
Salvage: None.

DESIGN STRESSES
PRECAST UNITS
 $f_c = 4,500 \text{ psi}$
FIELD UNITS
 $f_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition



Signed Moussa A. Issa
Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
Expires 11-30-2026
Date 4/22/2025 For Sheets SG-01 Thru SG-10.

APPROVED
For Structural Adequacy Only
James F. Smith
Engineer of Bridges & Structures

PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W122

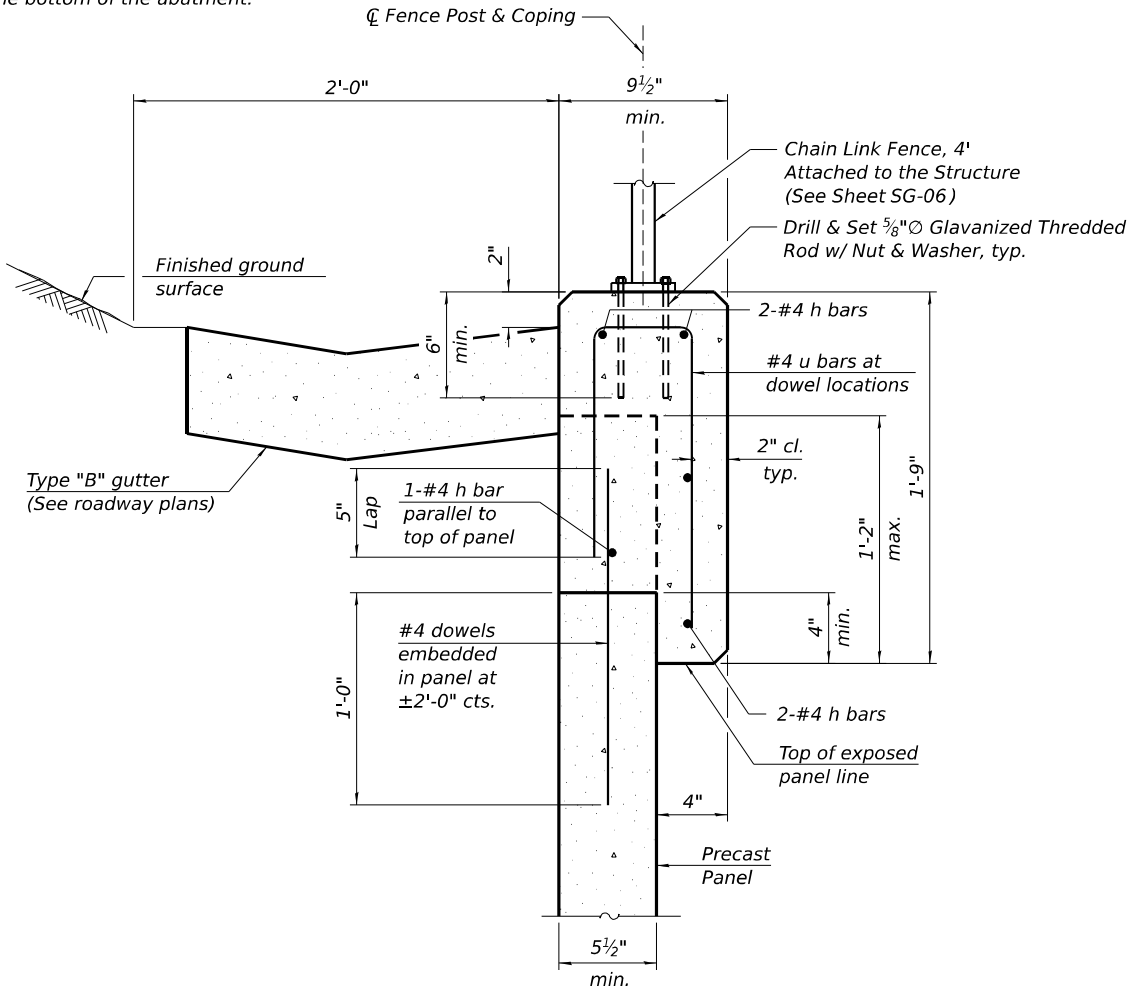
SHEET SG-01 OF SG-10 SHEETS

LOCATION SKETCH
GENERAL PLAN & ELEVATION
RETAINING WALL 6
ALONG CENTER STREET
F.A.I. ROUTE 80
SECTION FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 23+50.00 TO STA. 28+02.19
STRUCTURE NO. 099-W122

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	764
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Protective Coat shall be applied to the exposed faces of the cast-in-place coping.
3. The Contractor shall field verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
4. Any storage of construction equipment and material behind the wall is not allowed.
5. Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
6. The cost of the concrete and the reinforcing steel required for the coping shall be included in the cost of "Mechanically Stabilized Earth Retaining Wall".
7. All Exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.
8. The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed 6,000 psf.
9. Any storage of construction equipment and material behind the wall is not allowed.
10. Construction of Retaining Wall 6 shall be coordinated with construction of the adjacent Center Street Bridge over EB/WB I-80 (SN 099-8332) South Abutment and South Approach Bent. Namely, South Abutment and south Approach Bent piles within the limits of the adjacent Retaining Wall 6 Reinforced soil mass shall be driven first and sleeves (extending to the top of leveling pad elevation) shall be utilities for these piles. The remaining abutment and approach bent piles shall be driven after Retaining Wall 6 has been constructed and embankment has been backfilled to the bottom of the abutment.



C.I.P. COPING DETAILS

INDEX OF SHEETS

SG-01	General Plan & Elevation
SG-02	General Notes, Index of Sheets and Total Bill of Material
SG-03	MSE Wall Cross Sections and Details (Sheet 1 of 3)
SG-04	MSE Wall Cross Sections and Details (Sheet 2 of 3)
SG-05	MSE Wall Cross Sections and Details (Sheet 3 of 3)
SG-06	Chain Link Fence Details
SG-07	Boring Logs (Sheet 1 of 4)
SG-08	Boring Logs (Sheet 2 of 4)
SG-09	Boring Logs (Sheet 3 of 4)
SG-10	Boring Logs (Sheet 4 of 4)

STA. 23+50.00 TO 28+00.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. Rt. 80
Sec. FAI 80 21 INTERCHANGE
LOADING HL-93
STR. NO. 099-W122

NAME PLATE

See Std. 515001

NOTE:

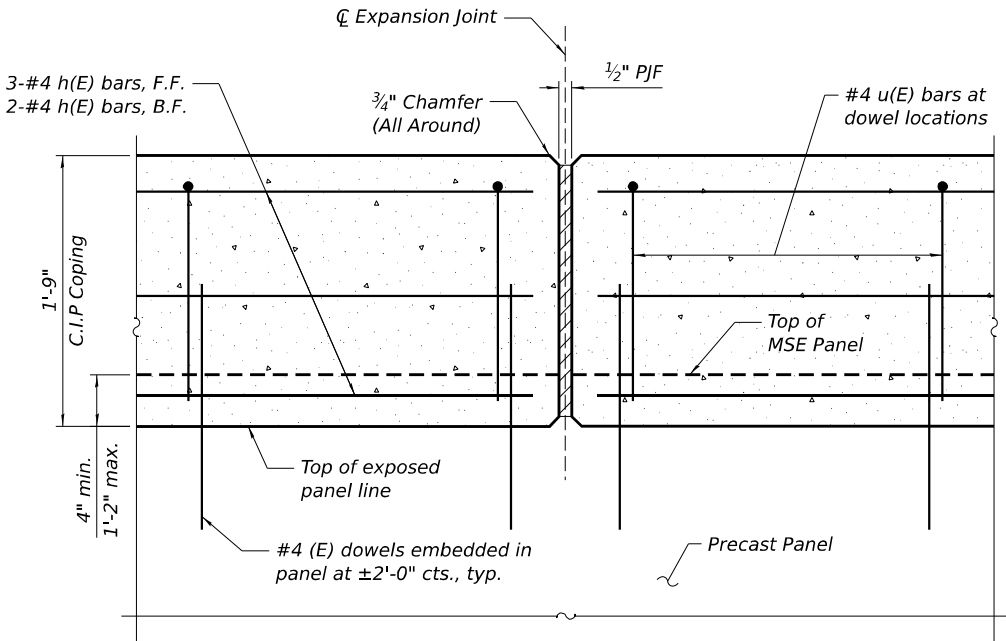
1. Coping Reinforcement bars may be adjusted to miss fence base plate threaded rods.

MINIMUM BAR LAP

(Coping)
#4 bar = 2'-11"

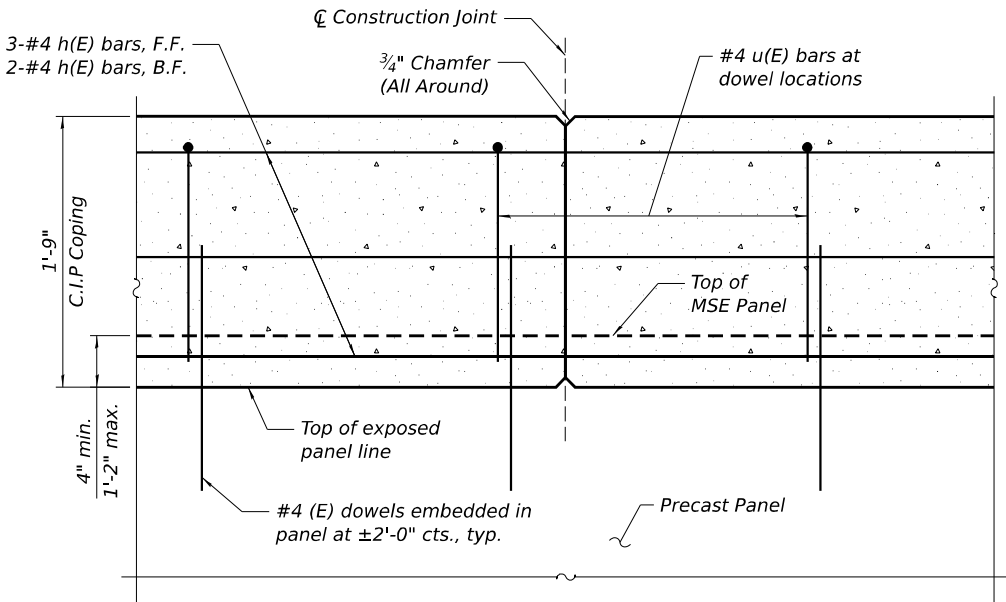
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	218	218
Protective Coat	Sq Yd	-	177	177
Name Plates	Each	1	-	1
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	8,047	8,047
Granular Backfill For Structures	Cu Yd	-	2,282	2,282
Chain Link Fence, 4' Attached To Structure	Foot	473	-	473



COPING EXPANSION JOINT - ELEVATION

(Provide expansion joints at a max. spacing of 90'-0")



COPING CONSTRUCTION JOINT - ELEVATION

(Provide construction joints at a max. spacing of 30'-0")

USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	765
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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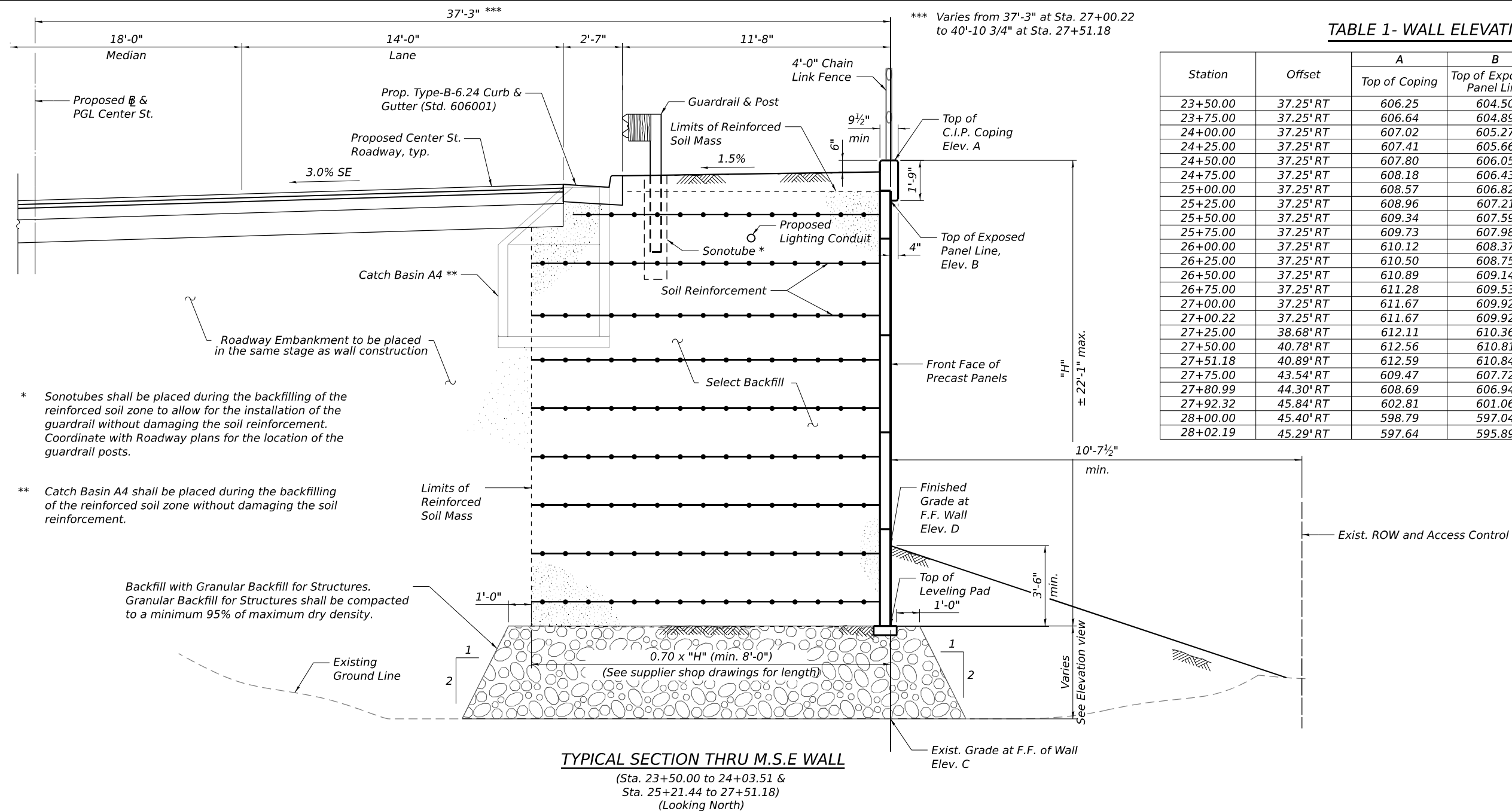
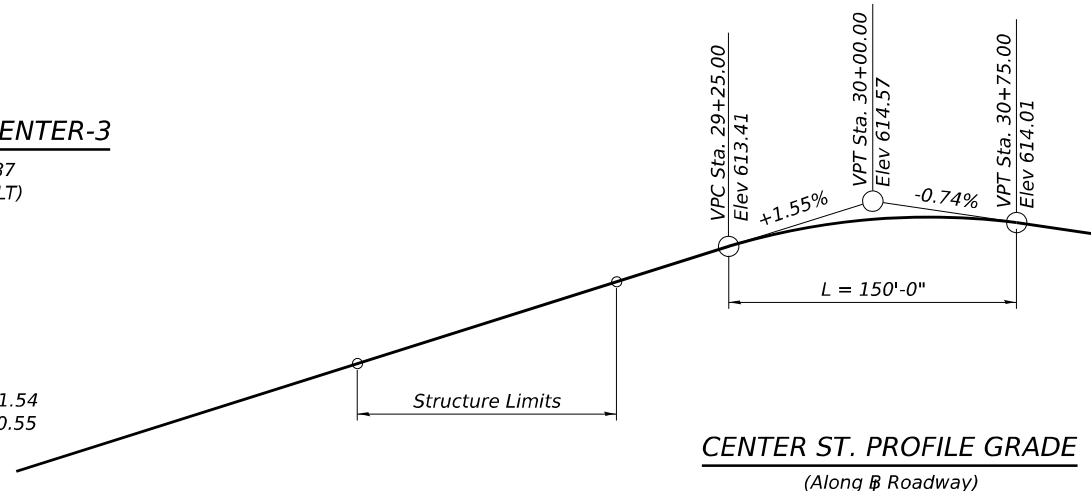


TABLE 1- WALL ELEVATIONS

Station	Offset	A	B	C	D
		Top of Coping	Top of Exposed Panel Line	Exist. Grade at FF Wall	T/Prop Grade at FF Wall
23+50.00	37.25' RT	606.25	604.50	590.25	605.38
23+75.00	37.25' RT	606.64	604.89	589.43	599.53
24+00.00	37.25' RT	607.02	605.27	589.03	594.05
24+25.00	37.25' RT	607.41	605.66	589.12	589.71
24+50.00	37.25' RT	607.80	606.05	589.31	589.90
24+75.00	37.25' RT	608.18	606.43	588.78	589.71
25+00.00	37.25' RT	608.57	606.82	587.72	590.53
25+25.00	37.25' RT	608.96	607.21	586.79	591.34
25+50.00	37.25' RT	609.34	607.59	585.22	591.88
25+75.00	37.25' RT	609.73	607.98	584.60	593.26
26+00.00	37.25' RT	610.12	608.37	583.97	594.97
26+25.00	37.25' RT	610.50	608.75	582.48	595.37
26+50.00	37.25' RT	610.89	609.14	582.54	595.10
26+75.00	37.25' RT	611.28	609.53	582.13	594.65
27+00.00	37.25' RT	611.67	609.92	580.99	594.38
27+00.22	37.25' RT	611.67	609.92	580.92	594.35
27+25.00	38.68' RT	612.11	610.36	576.96	594.24
27+50.00	40.78' RT	612.56	610.81	575.66	594.01
27+51.18	40.89' RT	612.59	610.84	575.56	594.00
27+75.00	43.54' RT	609.47	607.72	573.46	594.83
27+80.99	44.30' RT	608.69	606.94	573.58	595.24
27+92.32	45.84' RT	602.81	601.06	581.83	596.10
28+00.00	45.40' RT	598.79	597.04	588.22	597.14
28+02.19	45.29' RT	597.64	595.89	589.82	597.46

PR CURVE CENTER-3

PI Sta. = 25+64.87
Δ = 33° 44' 53" (LT)
D = 5° 43' 46"
R = 1,000.00'
T = 303.33'
L = 589.01'
E = 44.99'
e =
T.R. =
S.E. RUN =
P.C. STA. = 22+61.54
P.T. STA. = 28+50.55



USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

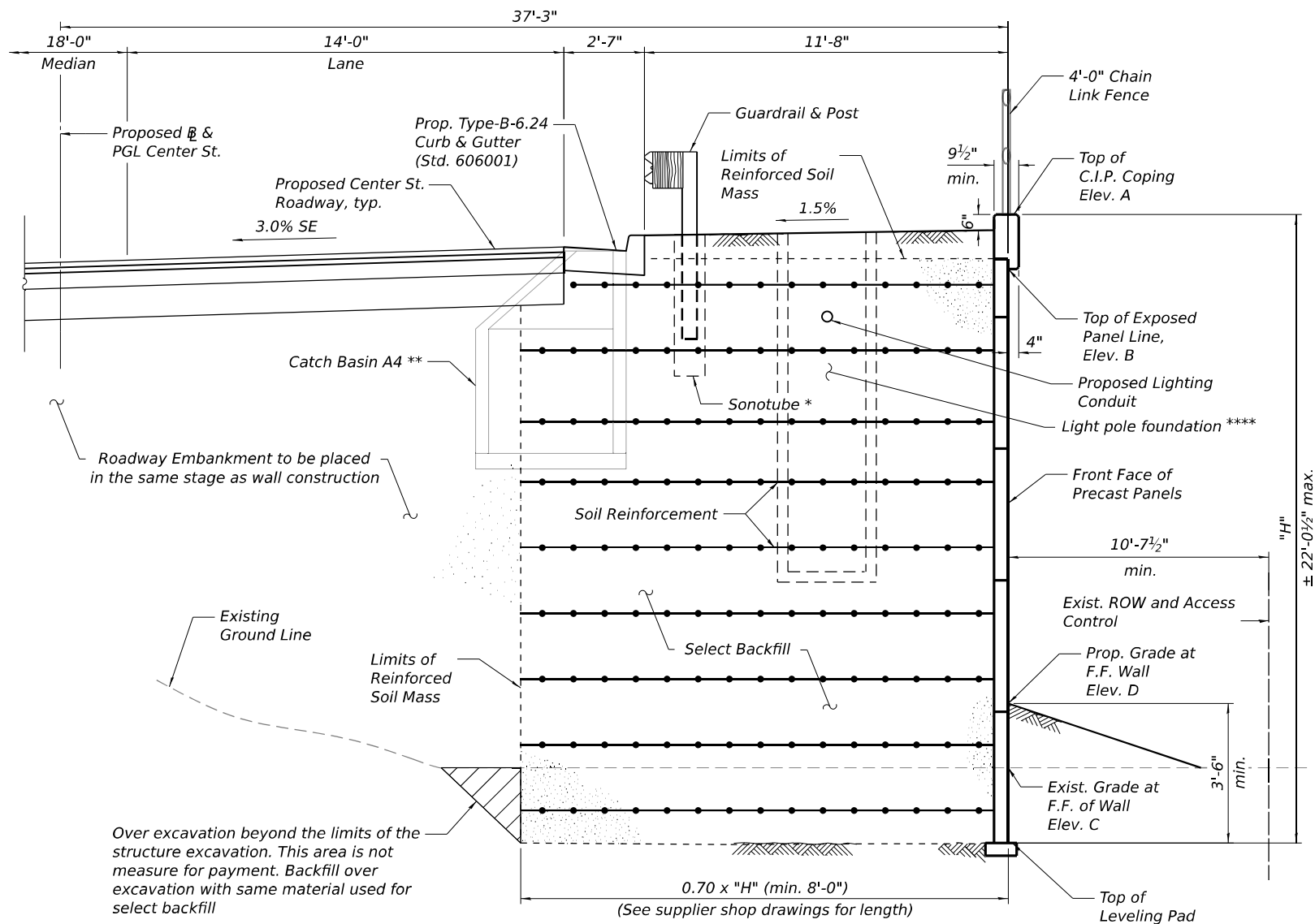
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS (SHEET 1 OF 3)
STRUCTURE NO. 099-W122

SHEET SG-03 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	766
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw://transsystems-pvw/bentley.com/transsystems-pvw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP(CAD)/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W122-RW6/099W122-62R22-5G-04-Wall Cross Section & Details II

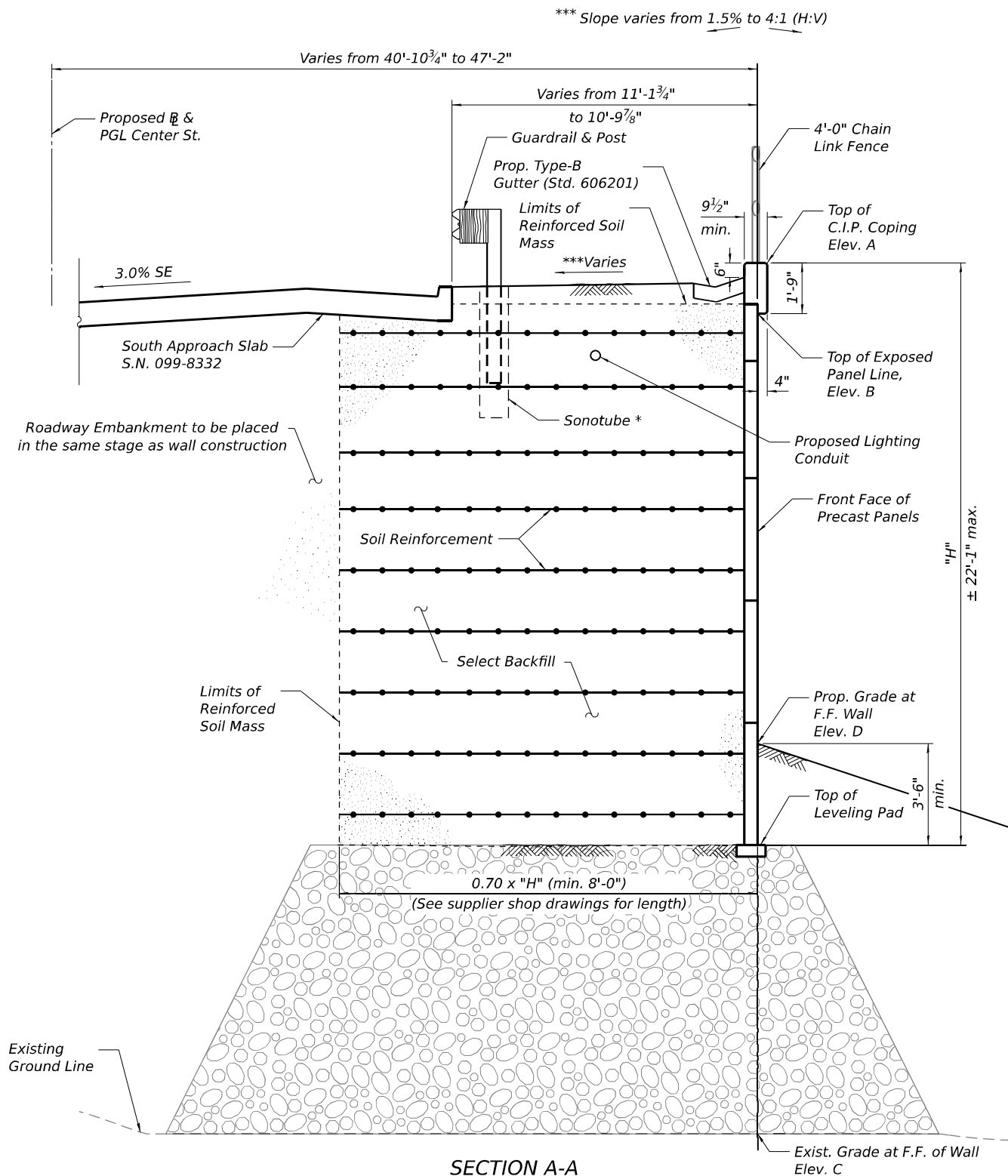


TYPICAL SECTION THRU M.S.E WALL
(Sta. 24+03.51 to 25+21.44)
(Looking North)

* Sonotubes shall be placed during the backfilling of the reinforced soil zone to allow for the installation of the guardrail without damaging the soil reinforcement. Coordinate with Roadway plans for the location of the guardrail posts.

** Catch Basin A4 shall be placed during the backfilling of the reinforced soil zone without damaging the soil reinforcement.

**** The Contractor shall install a pile sleeve around the light pole foundation prior to select fill placement for the wall. The pile sleeve shall be provided within the proposed wall reinforced soil limits. The annulus between the sleeve and light pole foundation shall be filled with loose dry sand. Cost of pipe sleeve and filling annulus with dry loose sand shall be included with Mechanically Stabilized Earth Retaining Wall.



SECTION A-A
(Sta. 27+51.18 to 27+67.01)
(Looking North)

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

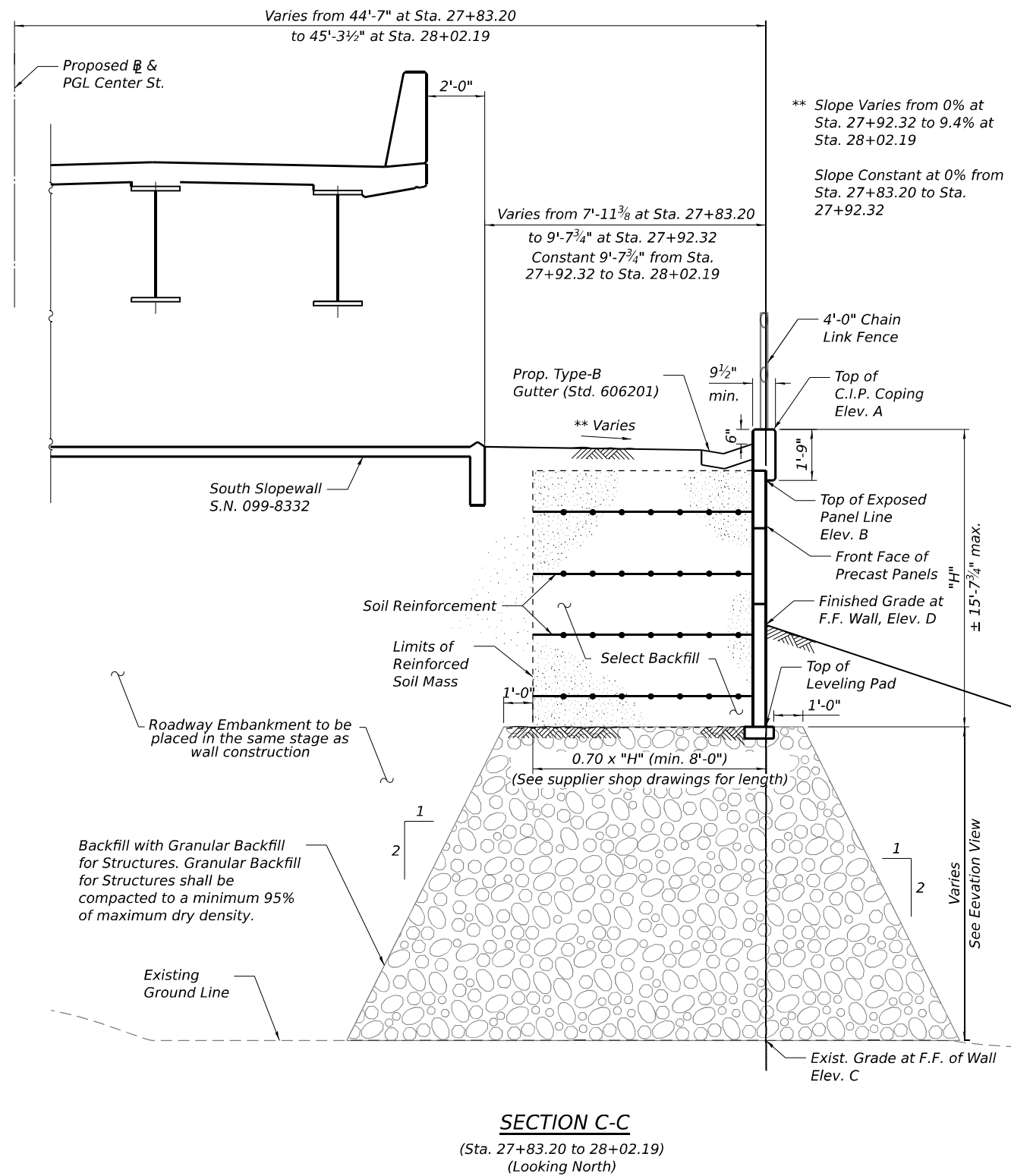
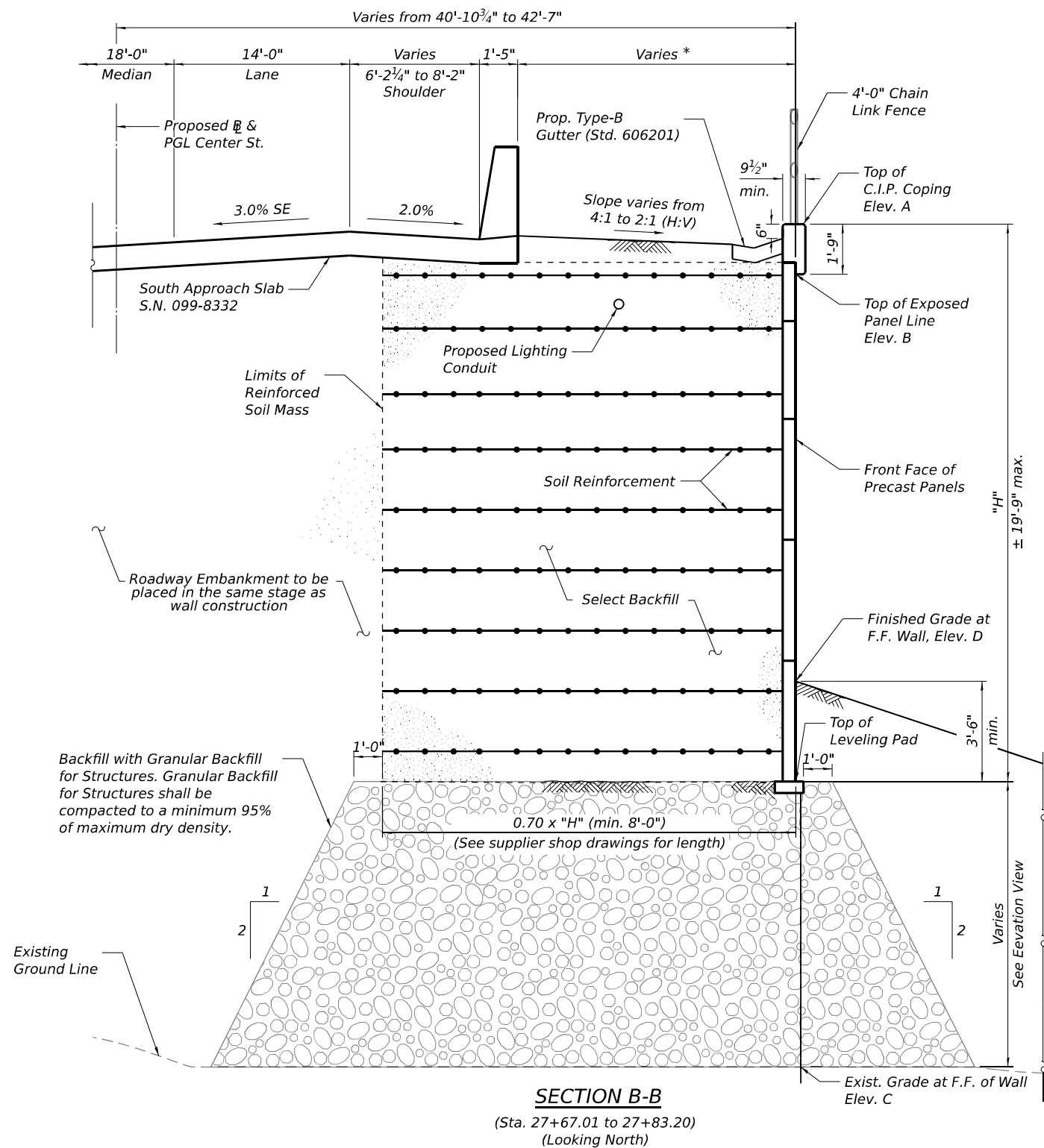
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS (SHEET 2 OF 3)
STRUCTURE NO. 099-W122

SHEET SG-04 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	767
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw:///transsystems-pw/bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH40 /401.180022/03-WSP(CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W122-RW6/099W122-62R22-5G-05-Wall Cross Section & Details III



USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALL CROSS SECTIONS AND DETAILS (SHEET 3 OF 3)
STRUCTURE NO. 099-W122

SHEET SG-05 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	768
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Page 1 of 1

Date 7/7/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 6 - Center Street Sta 23+50</u>	LOGGED BY	<u>KA</u>
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SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY		Will	DRILLING RIG	Latitude 41.5116499, Longitude -88.098671	HAMMER TYPE	Auto
			DRILLING METHOD	Diedrich D-50 ATV	HAMMER EFF (%)	102
				HSA		

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-44 Station _____ 23+81.1439 Offset _____ 22.21ft RT Ground Surface Elev. _____ 592.90 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/7/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 6 - Center Street Sta 23+50 LOGGED BY KA

SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY		Will	DRILLING RIG	Diedrich D-50 ATV	HAMMER TYPE	Auto
			DRILLING METHOD	HSA	HAMMER EFF (%)	102

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____	N/A	ft
Station _____	E	L	C	O	Stream Bed Elev. _____	N/A	ft
	P	O	S	I			
BORING NO. _____	T	W		S	Groundwater Elev.: _____		
Station _____	H	S	Qu	T	First Encounter _____	Dry	ft
Offset _____					Upon Completion _____	N/A	ft
Ground Surface Elev. _____					After _____	N/A	ft
					Hrs. _____		

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/7/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 6 - Center Street Sta 23+50</u>	LOGGED BY	<u>KA</u>
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SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude 41.5119256, Longitude -88.0983616	
			Diedrich D-50 ATV	HAMMER TYPE
			HSA	HAMMER EFF (%)
				102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-46 Station _____ 25+8.3101 Offset _____ 35.69ft RT Ground Surface Elev. _____ 587.65 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 7/11/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 6 - Center Street Sta 23+50</u>	LOGGED BY	<u>KA</u>
--------------	-------------	--------------------	---	------------------	-----------

SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude 41.5120638, Longitude -88.0982287	
			Diedrich D-50 ATV	HAMMER TYPE
			HSA	Auto
				HAMMER EFF (%)
				102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-47 Station _____ 25+67.6210 Offset _____ 43.22ft RT Ground Surface Elev. _____ 584.25 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: _____ First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/16/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 6 - Center Street Sta 23+50</u>	LOGGED BY	<u>KA</u>
--------------	-------------	--------------------	---	------------------	-----------

SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude 41.5122464, Longitude -88.0981218	
			Diedrich D-50 ATV	HAMMER TYPE
			HSA	HAMMER EFF (%)
				102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-48 Station _____ 26+37.3684 Offset _____ 41.35ft RT Ground Surface Elev. _____ 582.13 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ N/A ft After _____ Hrs. _____ N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 8/16/22

ROUTE	<u>I-80</u>	DESCRIPTION	<u>Retaining Wall No. 6 - Center Street Sta 23+50</u>	LOGGED BY	<u>KA</u>
--------------	-------------	--------------------	---	------------------	-----------

SECTION C-91-109-22 **LOCATION** , SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY		Will	DRILLING RIG	Latitude 41.5123717, Longitude -88.098055	
			DRILLING METHOD	Diedrich D-50 ATV	HAMMER TYPE
				HSA	HAMMER EFF (%)
					Auto
					102

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. _____ RWB-49					Groundwater Elev.: _____
Station _____ 26+84.6061					First Encounter _____ Dry ft
Offset _____ 41.31ft RT					Upon Completion _____ N/A ft
Ground Surface Elev. 582.13 ft	(ft)	(/6")	(tsf)	(%)	After _____ Hrs. N/A ft

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 8/31/22

ROUTEI-80DESCRIPTIONRetaining Wall No. 6 - Center Street Sta 23+50LOGGED BYEH

SECTIONC-91-109-22LOCATIONSEC. TWP. RNG. Latitude 41.5124964, Longitude -88.0979354

COUNTYWillDRILLING RIGCME-75HSAHAMMER TYPEAutoHAMMER EFF (%)91

STRUCT. NO. Station

BORING NO. RWB-99Station 27+35.7341Offset 57.43ft RTGround Surface Elev. 575.54 ft

DEPTH (ft)

BLOW (6")

UNCS (tsf)

MOIST (%)

Surface Water Elev. N/A ft

Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter Dry ftUpon Completion N/A ftAfter Hrs. N/A ft

4 inches of Topsoil 575.21

Very Stiff

Dark Gray, Moist

SILTY CLAY, trace sand and gravel (CL/ML)

572.04

50/6"

570.54 -5

Light Gray

LIMESTONE, slightly weathered, moderately fractured

Run 1: 5' - 15'

Recovery: 100%

RQD: 76% (Good)

-10

-15

Run 2: 15' - 20'

Recovery: 100%

RQD: 93% (Excellent)

555.54 -20

End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



SOIL BORING LOG

Date 8/31/22

ROUTEI-80DESCRIPTIONRetaining Wall No. 6 - Center Street Sta 23+50LOGGED BYDD

SECTIONC-91-109-22LOCATIONSEC. TWP. RNG. Latitude 41.5126998, Longitude -88.0978951

COUNTYWillDRILLING RIGDiedrich D-50HSAHAMMER TYPEAutoHAMMER EFF (%)98

STRUCT. NO. Station

BORING NO. RWB-100Station 28+6.3942Offset 48.17ft RTGround Surface Elev. 591.27 ft

DEPTH (ft)

BLOW (6")

UNCS (tsf)

MOIST (%)

Surface Water Elev. N/A ft

Stream Bed Elev. N/A ft

Groundwater Elev.: First Encounter Dry ftUpon Completion N/A ftAfter Hrs. N/A ft

12 inches of Asphalt 590.27

Brown, Moist

FILL: SILTY CLAY, trace sand and gravel

587.77

50/2"

586.27 -5

Stiff

Brown, Moist

SILTY CLAY LOAM, trace gravel (CL/ML)

Very Dense

Light Brown, Wet

SAND, with limestone fragments (SP)

Auger refusal at 7.0 feet

Light Gray

LIMESTONE, moderately weathered, heavily fractured

Run 1: 7' - 17'

Recovery: 98.3%

RQD: 6.7% (Very Poor)

-10

-15

574.27

End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

MODEL: Default
FILE NAME: pw:///transys/pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/SN-099-W/122-RWB/122-62R22-5G-10-Boring_Logs_4



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 4 OF 4)
STRUCTURE NO. 099-W122

SHEET SG-10 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	773
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Sheet View
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2020 AASHTO LRFD Bridge
Design Specifications, 9th Edition

FIELD UNITS (New Construction)

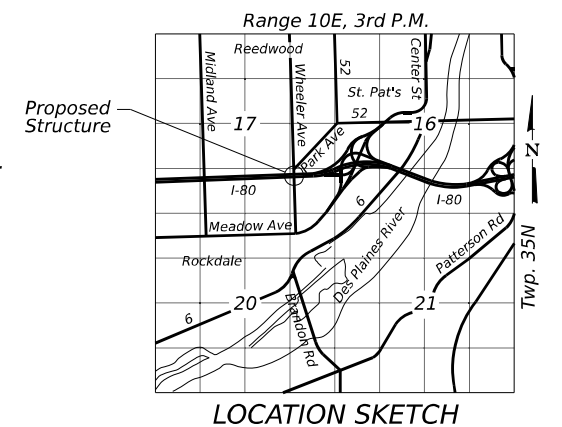
$f'_c = 3,500 \text{ psi}$ (Substructure)
 $f'_c = 4,000 \text{ psi}$ (Superstructure)
 $f_y = 60,000 \text{ psi}$ (Reinforcement)
 $f_y = 50,000 \text{ psi}$ (M270 Grade 50)

SH-1 General plan and Elevation
SH-2 General Data



 Exist. Water Main
 Exist. Aerial Electric
 Exist. Electric (Lighting)

PLAN



WHEELER AVENUE OVER I-80

STRUCTURE NO. 099-8324

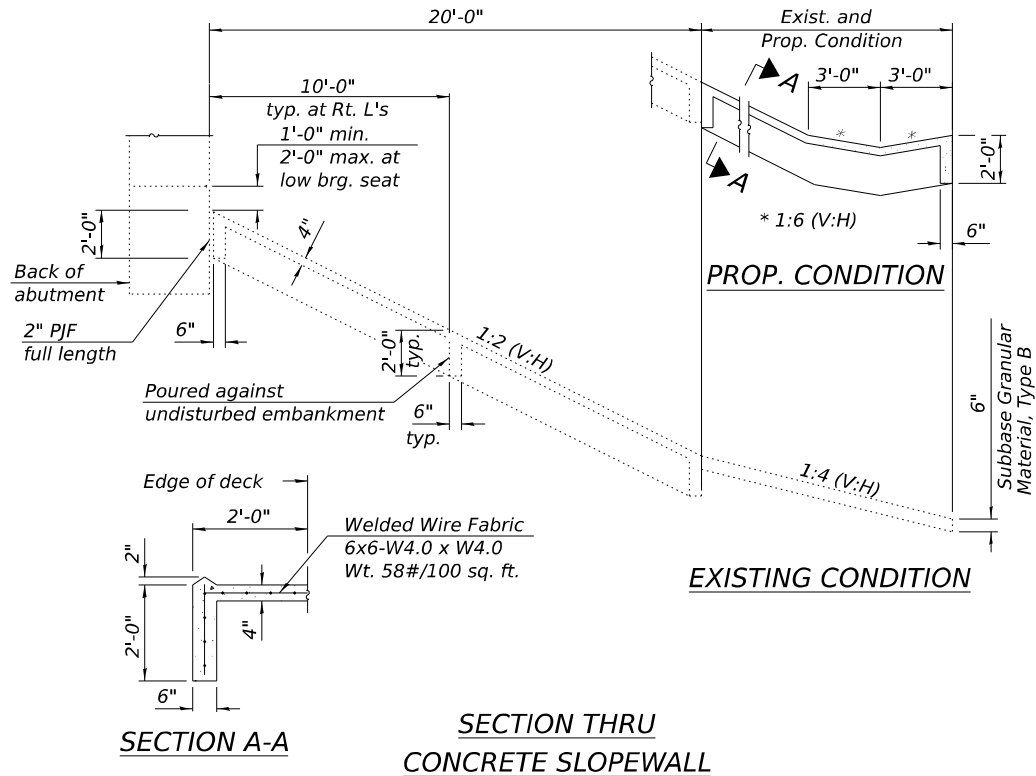
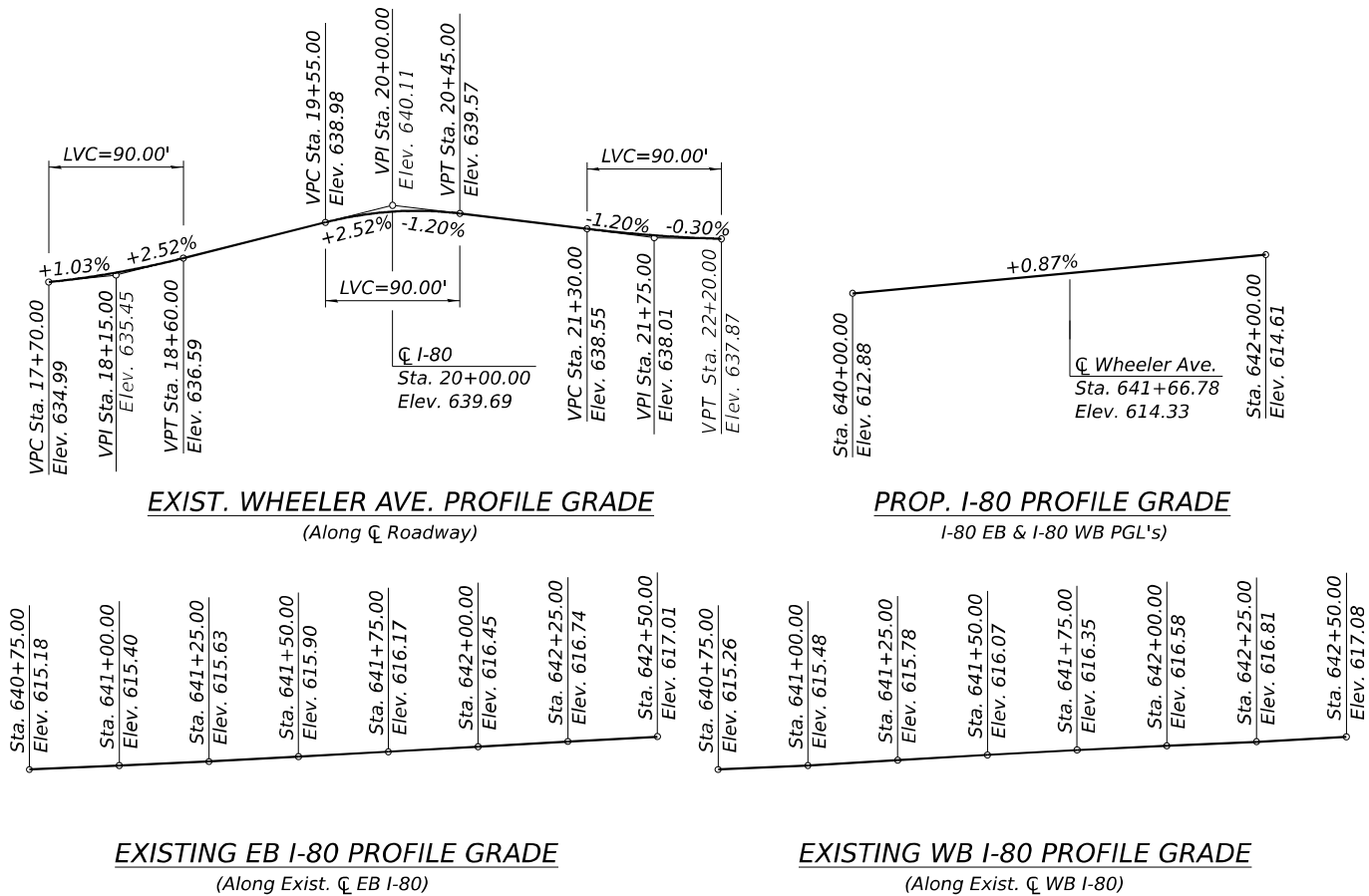
WSP WSP USA Inc. 30 N. LASALLE STREET SUITE 4200 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USSJ696614	DESIGNED - PJL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET SH-1 OF SH-2 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BK	REVISED -			80	FAI 80 21 INTERCHANGE	WILL	1209	774
	PLOT SCALE = 0:2 " = 1 in.	CHECKED - JIG	REVISED -			CONTRACT NO. 62R22				
	PLOT DATE = 4/22/2025	DATE - 10/19/2022	REVISED -							
						ILLINOIS		FED. AID PROJECT		

GENERAL NOTES

1. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Slope Wall 4 Inch	Sq Yd	-	267	267



MODEL: Sheet
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WSP USA Inc.
30 N. LASALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME	= USSJ696614
PLOT SCALE	= 0:1.9999 " = 1' / in.
PLOT DATE	= 4/22/2025

DESIGNED -	PJL
DRAWN -	BK
CHECKED -	JIG
DATE -	10/19/2022

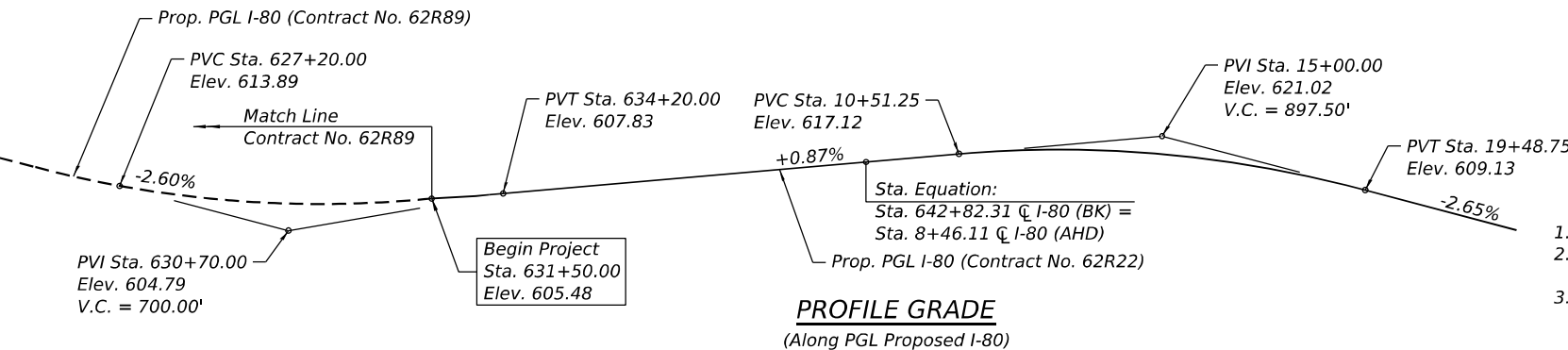
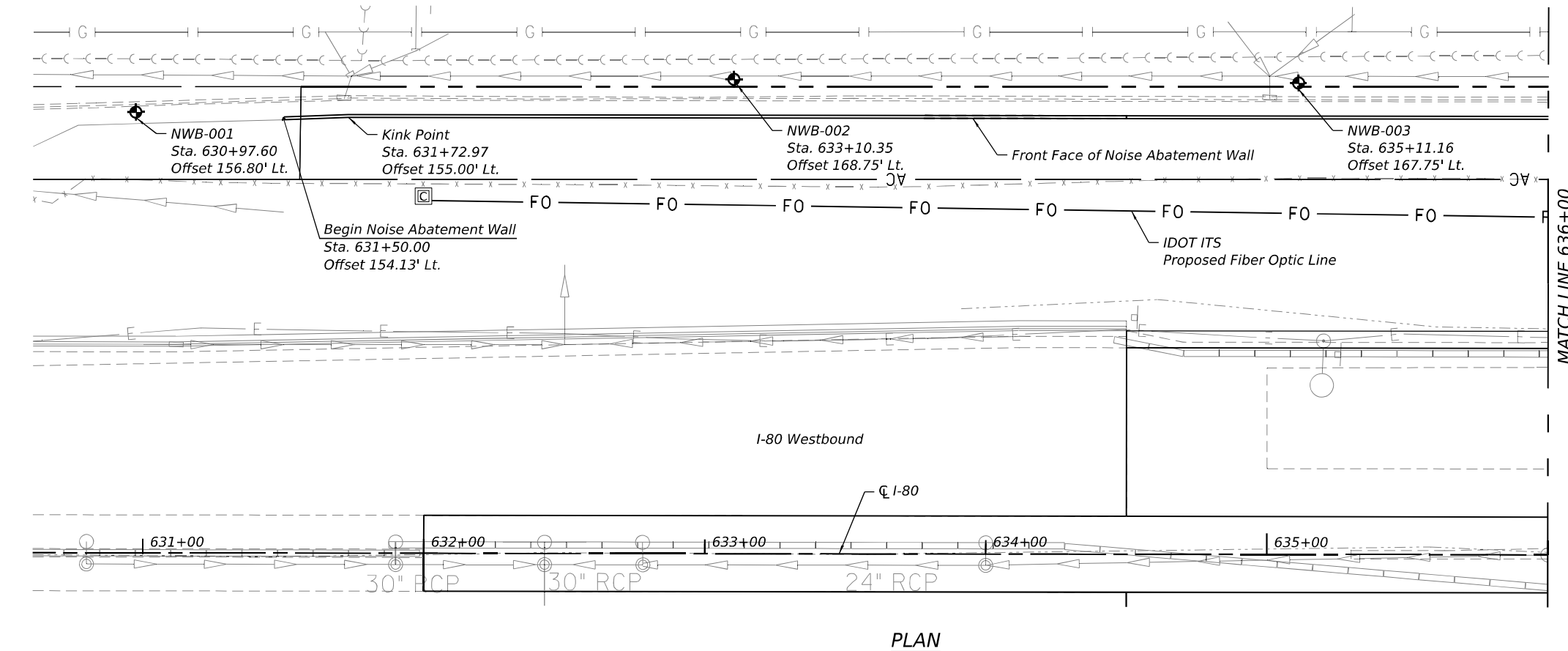
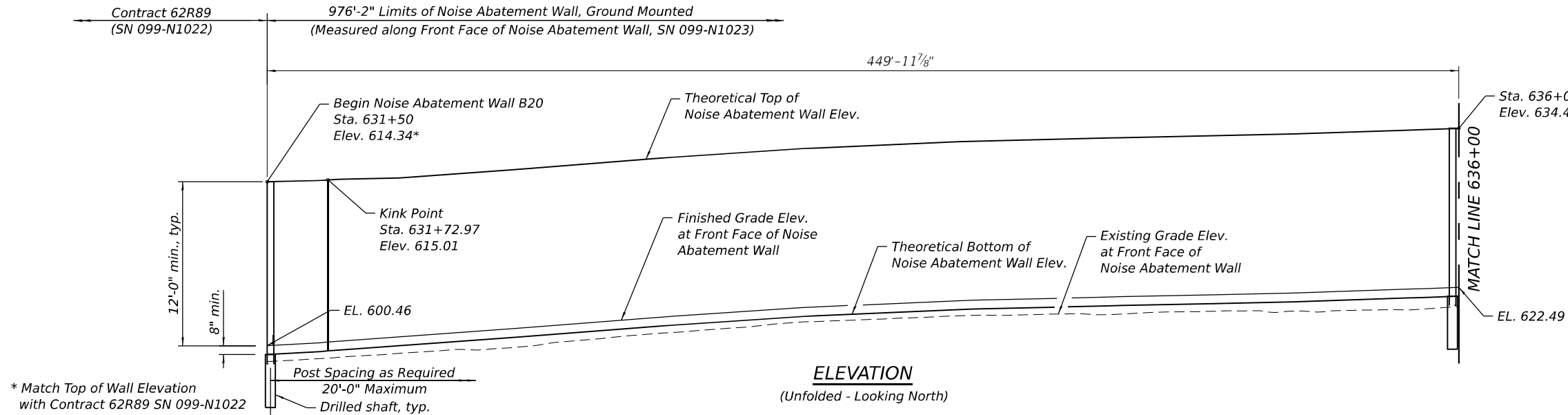
REVISED -	
REVISED -	
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA STRUCTURE NO. 099-8324
SHEET SH-2 OF SH-2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	775
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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- NOTES:**
- For General Notes and Total Bill of Material, see Sheet SI-03.
 - Stations are measured along and Offsets are measured to Prop. $\bar{C}$ I-80.
 - Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

INDEX OF SHEETS

- SI-01 General Plan and Elevation 1
SI-02 General Plan and Elevation 2
SI-03 General Notes and Total Bill of Material
SI-04 Wall Details
SI-05 Soil Boring Logs 1
SI-06 Soil Boring Logs 2

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 4,000 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (Struct. Steel, M270 Grade 50, posts)
 f_y = 36,000 psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

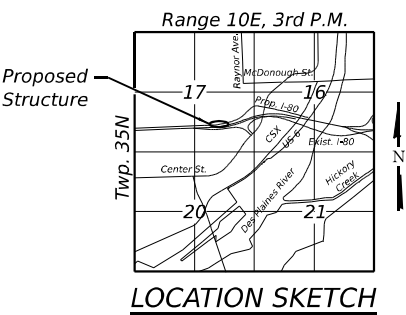
f'_c = 4,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADS

Strength III or V Wind : 35 psf
Service I Wind : 15 psf

LEGEND

---	Proposed ROW line
—F0—	Proposed Fiber Optic line
—T—	Existing Telephone line
—A—	Existing Aerial line
—E—	Existing Electric line
---	Existing ROW line
—G—	Existing Gas line
—C—C—C—C—C—	Existing Sanitary Sewer
—>—>—>—>—>—	Existing Storm Sewer
—W—	Existing Water main
—CTV—	Existing Cable TV line
◆	Soil Boring location



GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG I-80
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 631+50.00 TO STA. 641+25.88
STRUCTURE NO. 099-N1023 (NOISE WALL B20)



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USG717780
DESIGNED - MS
CHECKED - NBR/PJL
PLOT SCALE = 50,000' / in.
DRAWN - BK/GM
PLOT DATE = 4/23/2025
CHECKED - MS

DESIGNED - MS
CHECKED - NBR/PJL
DRAWN - BK/GM
CHECKED - MS

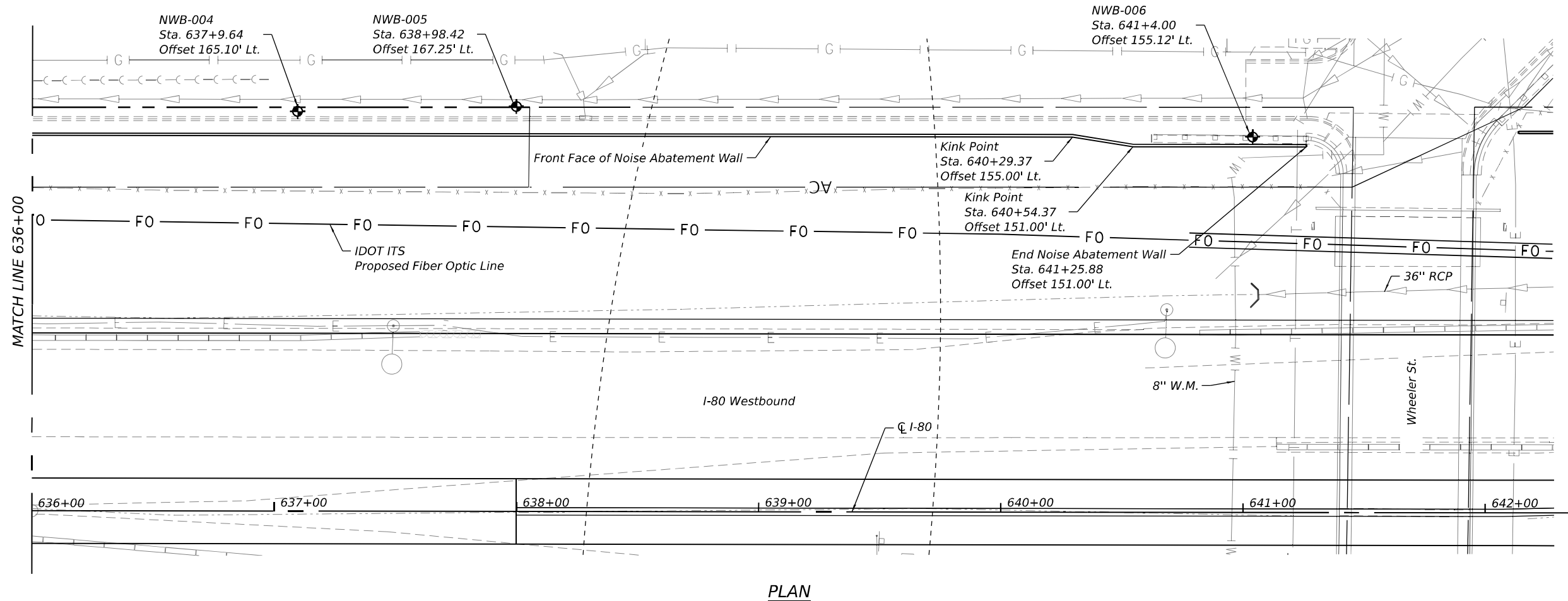
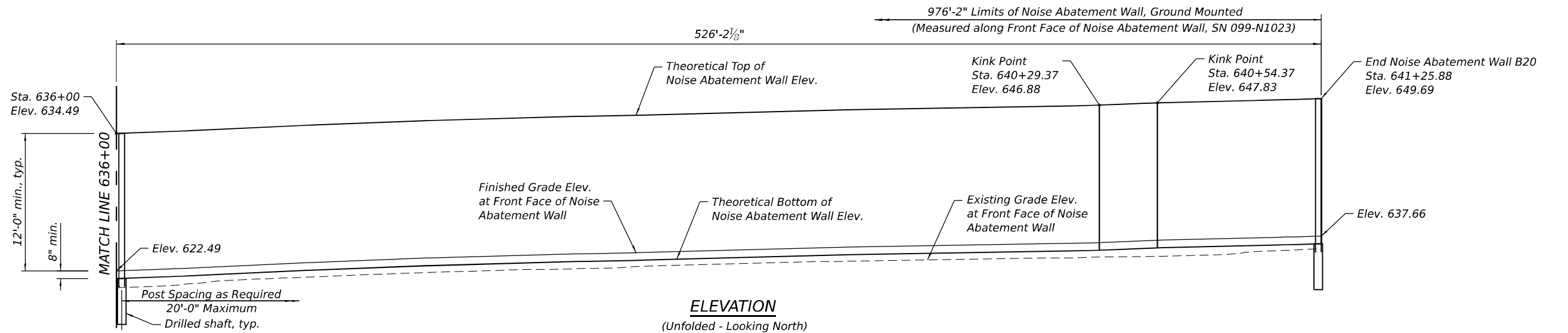
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SI-01 OF SI-06 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	776
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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 WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USGM717780		DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION 2 NOISE ABATEMENT WALL B20 - SN 099-N1023		F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = 50,000' / in.		DRAWN - BK/GM	REVISED -				CONTRACT NO. 62R22				
	PLOT DATE = 4/23/2025		CHECKED - MS	REVISED -				ILLINOIS FED. AID PROJECT				
								SHEET SI-02 OF SI-06 SHEETS				

GENERAL NOTES:

1.

Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
2.

See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
3.

The existing utilities will be adjusted. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
4.

Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
5.

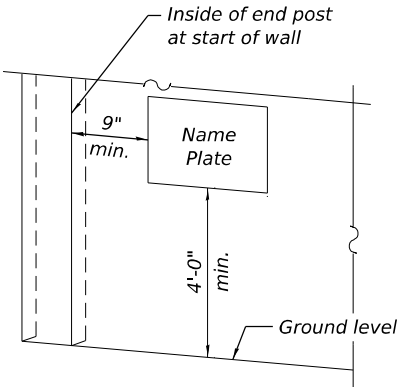
Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
6.

The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.

NOISE ABATEMENT WALL
BUILT 202_BY
STATE OF ILLINOIS
F.A.I. RTE. I-80
SECTION FAI 80 21 INTERCHANGE
FROM STA. 631+50.00 TO STA. 641+25.88
STRUCTURE NO. 099-N1023

NAME PLATE

See Std. 515001



FOR NOISE ABATEMENT WALL
GROUND MOUNTED

NOISE ABATEMENT WALL B20 (DATA TABLE)

Station	Offset (Lt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	I-80 PGL Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)
631+50.00	154.13	614.34	607.29	600.46	600.46	599.46	599.79	12.67
631+72.97	155.00	615.01	607.20	601.84	601.84	600.81	601.17	12.67
632+00.00	155.00	615.79	607.12	603.79	603.79	602.59	603.12	12.67
632+50.00	155.00	619.44	607.07	607.44	607.44	605.39	606.77	12.67
633+00.00	155.00	623.33	607.14	611.33	611.33	610.26	610.66	12.67
633+50.00	155.00	626.68	607.34	614.68	614.68	614.24	614.01	12.67
634+00.00	155.00	628.98	607.67	616.98	616.98	616.28	616.31	12.67
634+50.00	155.00	630.40	608.09	618.40	618.40	617.41	617.73	12.67
635+00.00	155.00	631.53	608.52	619.53	619.53	618.32	618.86	12.67
635+50.00	155.00	632.79	608.96	620.79	620.79	618.33	620.12	12.67
636+00.00	155.00	634.49	609.39	622.49	622.49	620.05	621.82	12.67
636+50.00	155.00	636.53	609.83	624.53	624.53	623.35	623.86	12.67
637+00.00	155.00	638.73	610.26	626.73	626.73	625.50	626.06	12.67
637+50.00	155.00	640.51	610.70	628.51	628.51	627.24	627.84	12.67
638+00.00	155.00	641.92	611.14	629.92	629.92	628.40	629.25	12.67
638+50.00	155.00	643.03	611.57	631.03	631.03	630.13	630.36	12.67
639+00.00	155.00	644.37	612.00	632.37	632.37	631.46	631.70	12.67
639+50.00	155.00	645.41	612.44	633.41	633.41	632.25	632.74	12.67
640+00.00	155.00	646.26	612.88	634.26	634.26	633.10	633.59	12.67
640+29.37	155.00	646.88	613.13	634.88	634.88	633.58	634.21	12.67
640+50.00	151.63	647.67	613.31	635.67	635.67	633.75	635.00	12.67
640+54.37	151.00	647.83	613.35	635.83	635.83	633.79	635.16	12.67
641+00.00	151.00	648.99	613.74	636.99	636.99	636.02	636.32	12.67
641+25.88	151.00	649.69	613.97	637.66	637.66	637.19	636.99	12.67

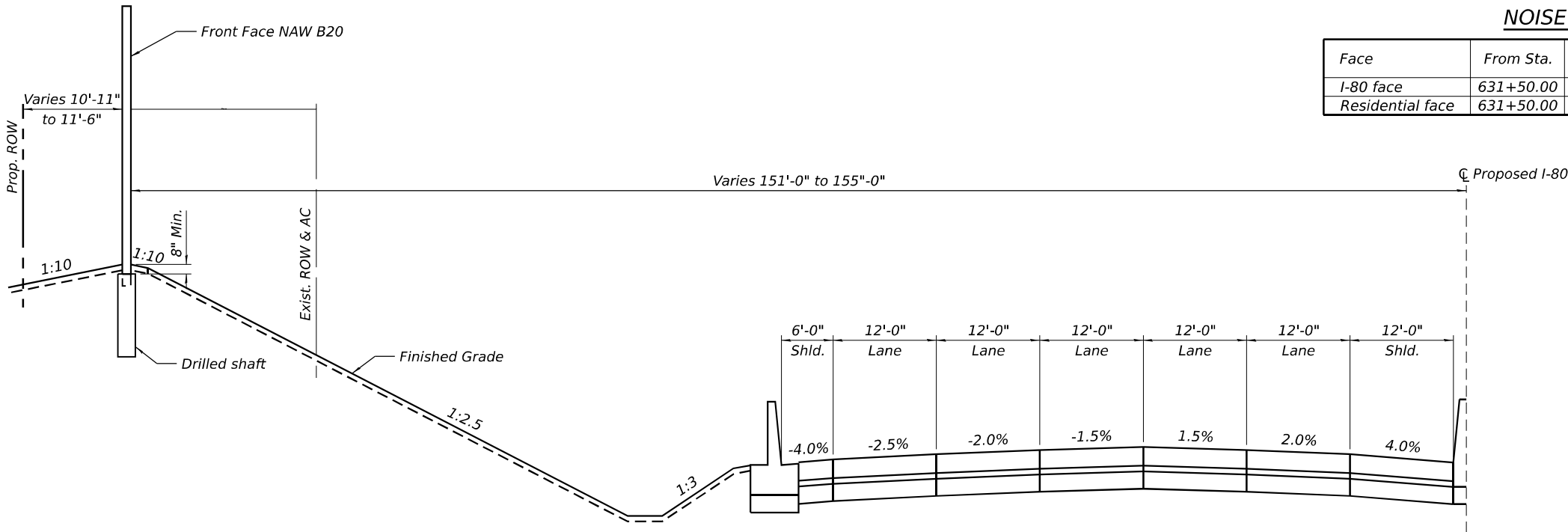
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	12,365

Name Plates

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	631+50.00	641+25.88	Reflective	-
Residential face	631+50.00	641+25.88	Reflective	-



WESTBOUND I-80
TYPICAL SECTION THROUGH NAW B20

Sta. 631+50.00 to Sta. 641+25.86
(Looking East)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND TOTAL BILL OF MATERIAL
NOISE ABATEMENT WALL B20 - SN 099-N1023

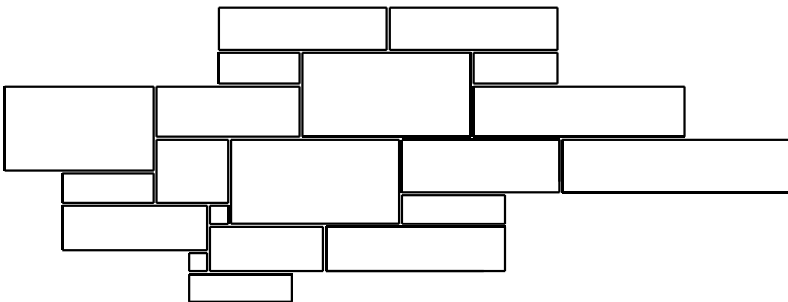
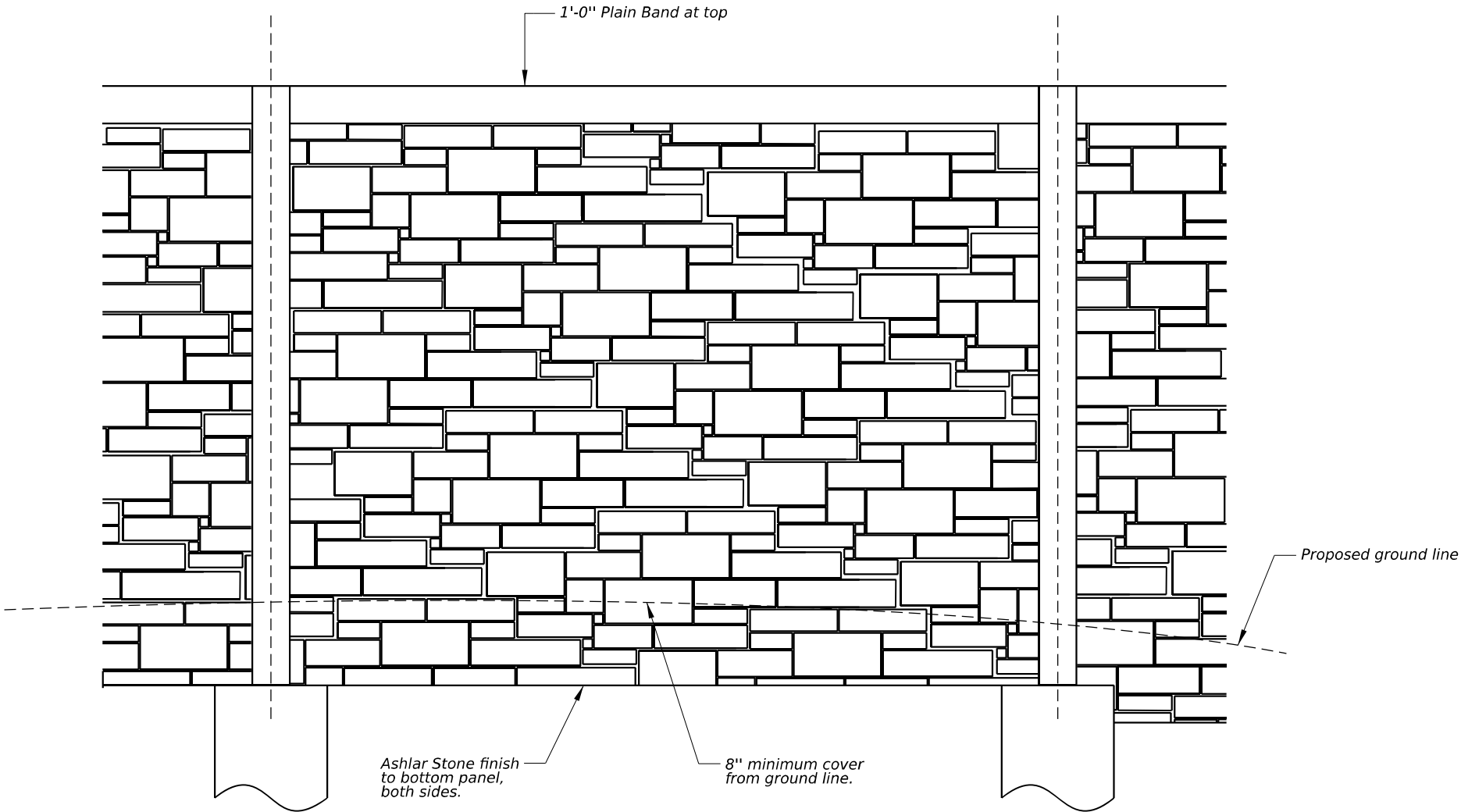
SHEET SI-03 OF SI-06 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

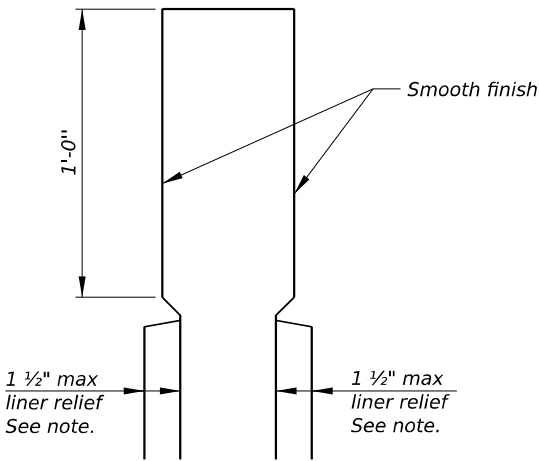
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Notes:
Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 ½" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



Stone Pattern Sizes:
3" x 3" - 14" x 28"

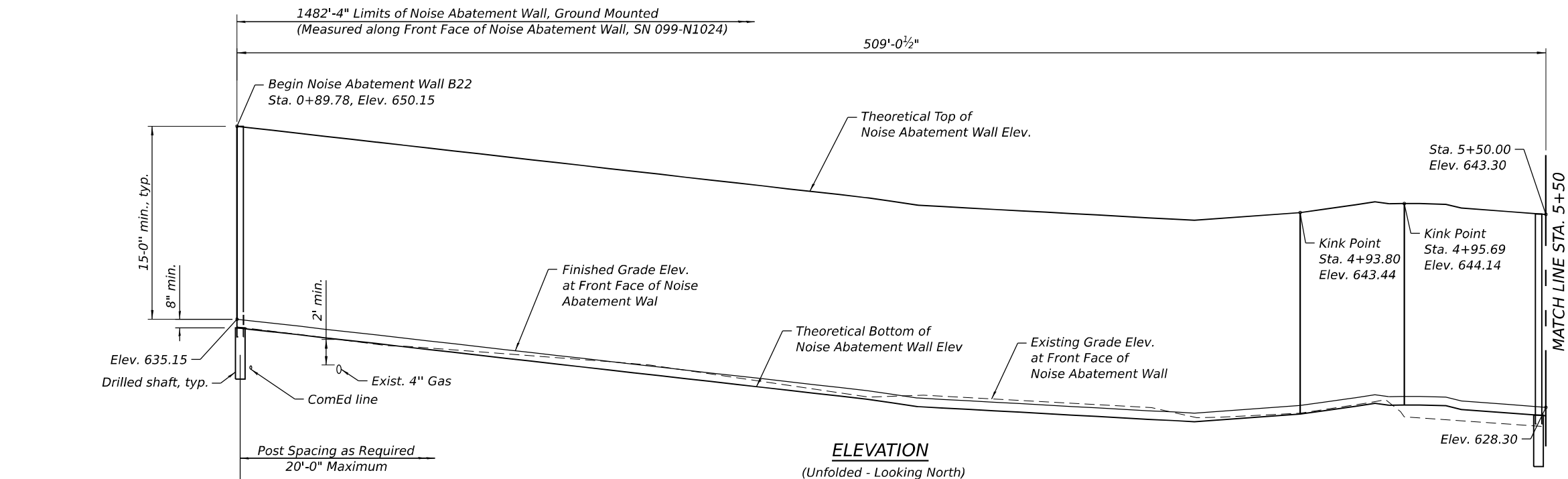
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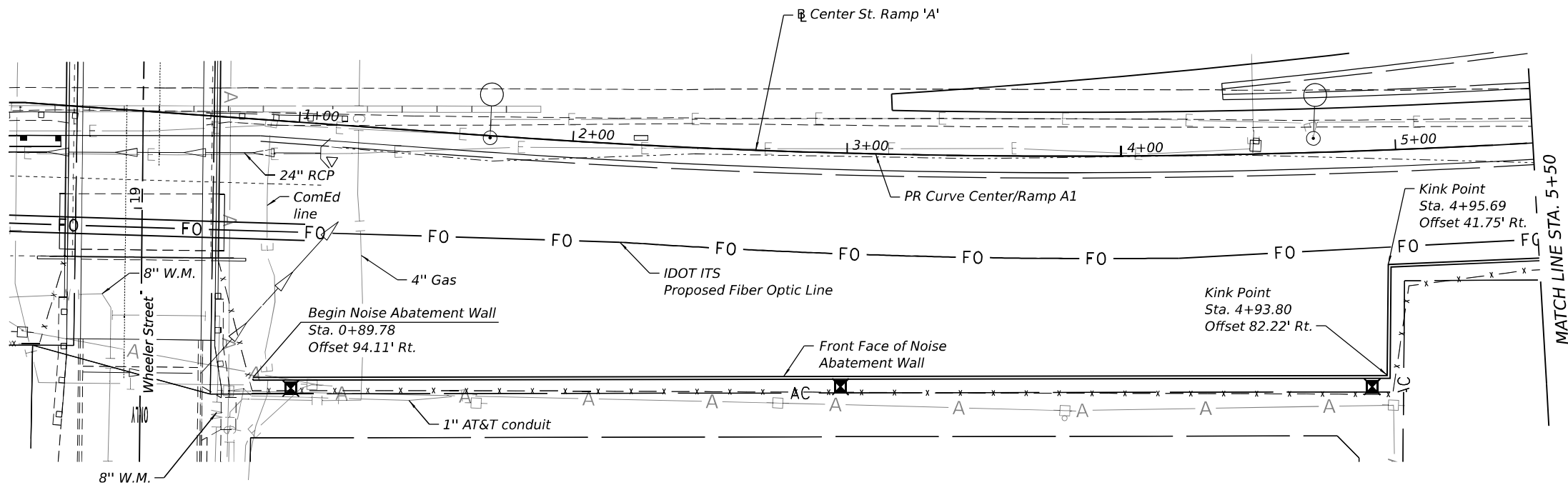
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 WSP USA Inc. 30 N. LA SALLE STREET SUITE 400 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USGM717780		DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WALL DETAILS NOISE ABATEMENT WALL B20 - SN 099-N1023		FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 4/23/2025		CHECKED - MS	REVISED -								
	SHEET SI-04 OF SI-06 SHEETS						ILLINOIS FED. AID PROJECT					

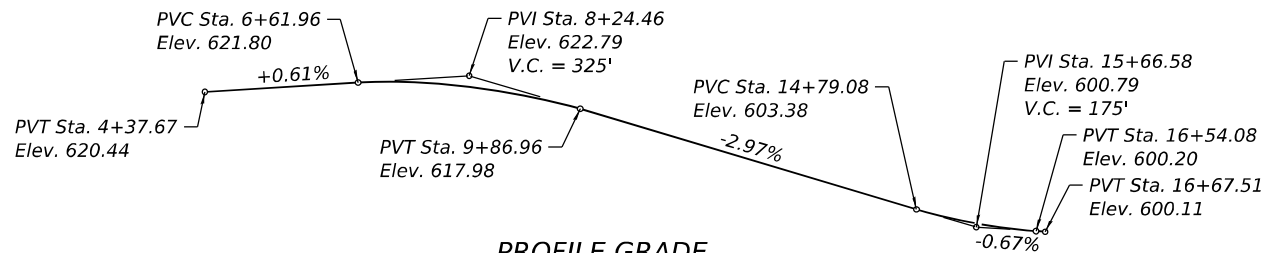
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ELEVATION
(Unfolded - Looking North)



PLAN



PROFILE GRADE
(Along Proposed Ramp 'A')

NOTES:

- For General Notes and Total Bill of Material, see Sheet SJ-04.
- Stations are measured along and Offsets are measured to BL Prop. Ramp A.
- Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

Contractor shall perform soil borings in the area of Noise Abatement Wall B22 where soil borings could not be drilled due to inaccessibility and heavy tree growth, see Special Provision.

INDEX OF SHEETS

- SJ-01 General Plan and Elevation 1
- SJ-02 General Plan and Elevation 2
- SJ-03 General Plan and Elevation 3
- SJ-04 General Notes and Total Bill of Material
- SJ-05 Wall Details
- SJ-06 Soil Boring Logs 1
- SJ-07 Soil Boring Logs 2

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 4,000 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (Struct. Steel, M270 Grade 50, posts)
 f_y = 36,000 psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

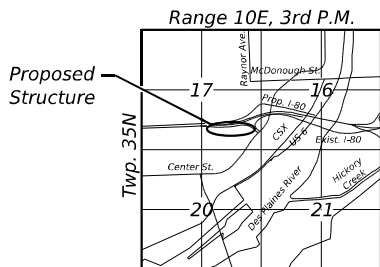
f'_c = 4,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADS

Strength III or V Wind : 35 psf
Service I Wind : 15 psf
Unfactored Design Active Earth Pressure:
55 pcf equivalent fluid pressure
Minimum Live load Surcharge Pressure:
2 ft. additional earth pressure

LEGEND

---	Proposed ROW line
FO	Proposed Fiber Optic line
E	Proposed Electric line
T	Existing Telephone line
A	Existing Aerial line
E	Existing Electric line
---	Existing ROW line
G	Existing Gas line
---C---C---C---	Existing Sanitary Sewer
--->---	Existing Storm Sewer
W	Existing Water main
CTV	Existing Cable TV line
⊕	Indicates Soil Boring location
⊕	Indicates Soil Borings by the Contractor



LOCATION SKETCH

GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG RAMP-A
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 0+89.78 TO STA. 14+94.13
STRUCTURE NO. 099-N1024 (NOISE WALL B22)



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

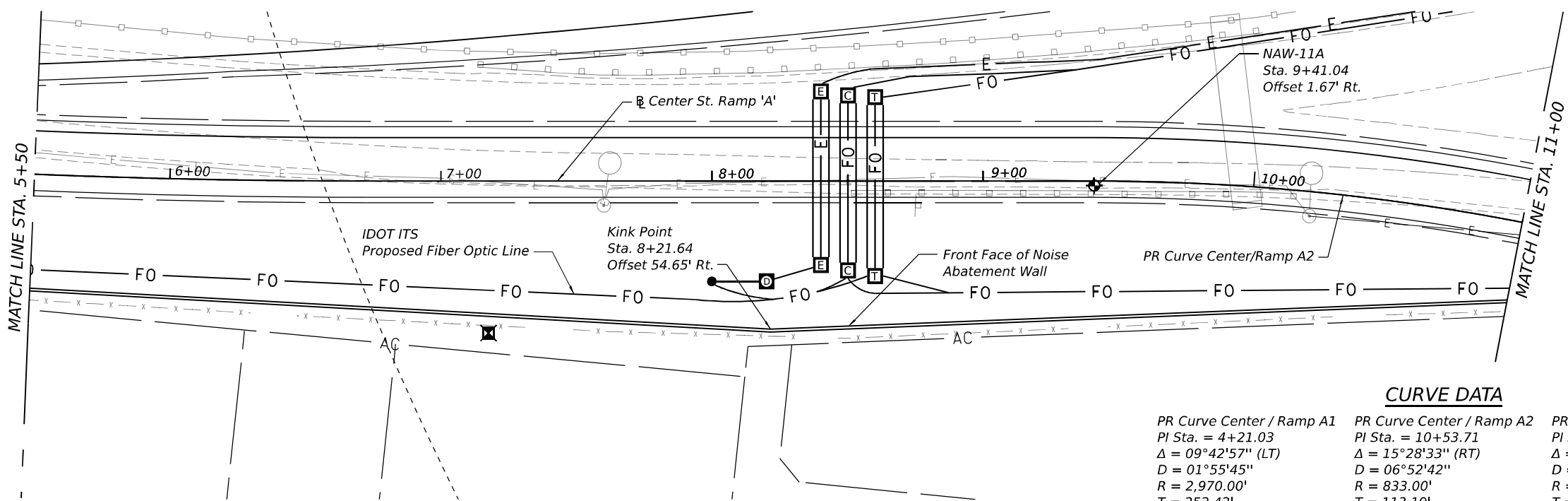
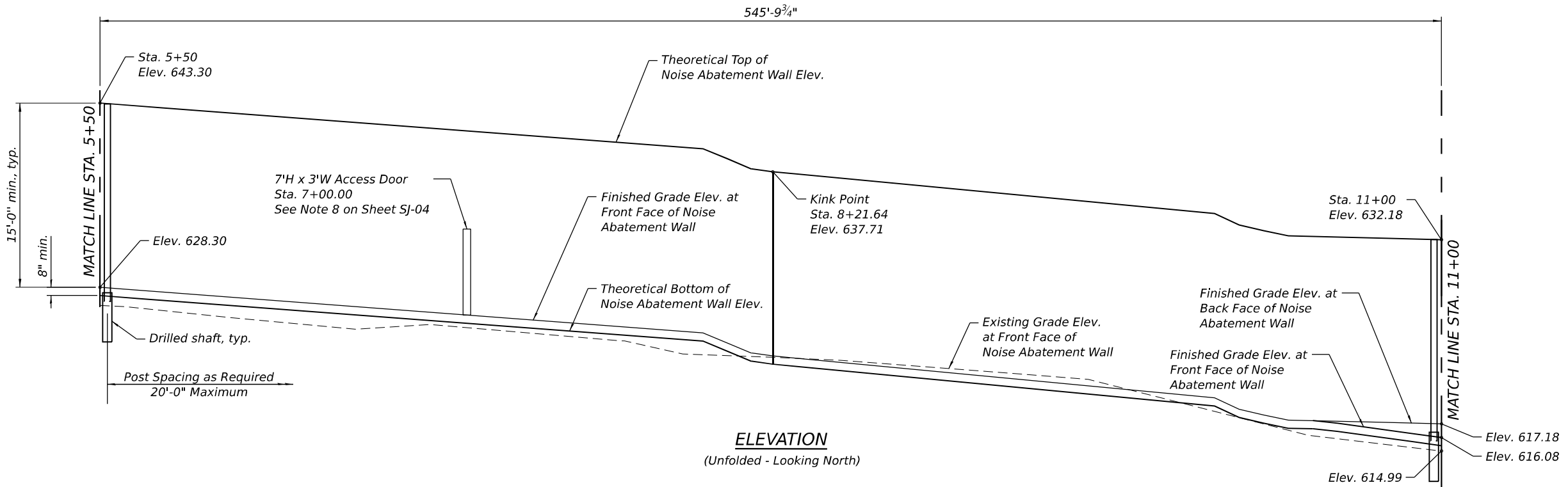
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CHECKED -	NBR/PJL	REVISIONS -			
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SJ-01 OF SJ-07 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	782
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

1482'-4" Limits of Noise Abatement Wall, Ground Mounted
(Measured along Front Face of Noise Abatement Wall, SN 099-N1024)



CURVE DATA

PR Curve Center / Ramp A1	PR Curve Center / Ramp A2	PR Curve Center / Ramp A3
PI Sta. = 4+21.03	PI Sta. = 10+53.71	PI Sta. = 13+33.45
Δ = 09°42'57" (LT)	Δ = 15°28'33" (RT)	Δ = 37°07'54" (RT)
D = 01°55'45"	D = 06°52'42"	D = 11°27'33"
R = 2,970.00'	R = 833.00'	R = 500.00'
T = 252.42'	T = 113.19'	T = 167.94'
L = 503.63'	L = 225.00'	L = 324.03'
E = 10.71'	E = 7.65'	E = 27.45'
e = 3.40%	e = 6.00%	e = 6.00%
TR = 48.0'	TR = N/A	TR = N/A
SE Run = 108.8'	SE Run = 144.0'	SE Run = 124.1'
PC Sta. = 1+68.61	PC Sta. = 9+40.52	PC Sta. = 11+65.52
PT Sta. = 6+72.25	PT Sta. = 11+65.52	PT Sta. = 14+89.55

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B22 - SN 099-N1024

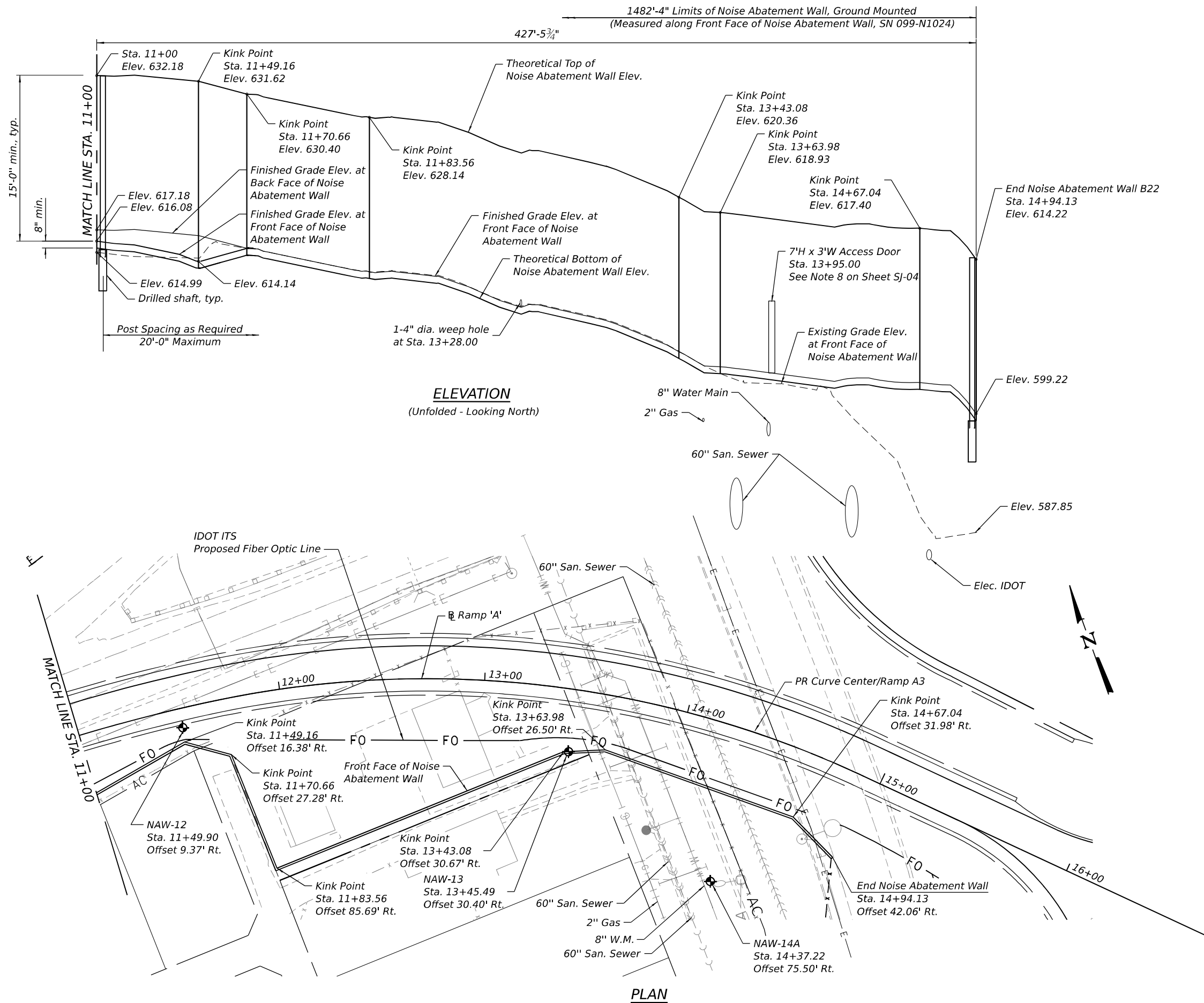
SHEET SJ-02 OF SJ-07 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	783
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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6/9/2025 2:41:13 PM

 WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
	CHECKED -	NBR/PJL	REVIS		REVISED -	
	PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
	PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsyscorp/pw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP(CAD)62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAW B22/D162R22-GPE_B22-03.dgn



 WSP USA Inc. 30 N. LA SALLE STREET SUITE 400 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USG717780			DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION 3 NOISE ABATEMENT WALL B22 - SN 099-N1024			FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / in.			CHECKED - NBR/PJL	REVISED -		SHEET SJ-03 OF SJ-07 SHEETS			316	FAI 80 21 INTERCHANGE	WILL	1209	784
	PLOT DATE = 6/9/2025			DRAWN - BK/GM	REVISED -					CONTRACT NO. 62R22				
				CHECKED - MS	REVISED -					ILLINOIS FED. AID PROJECT				

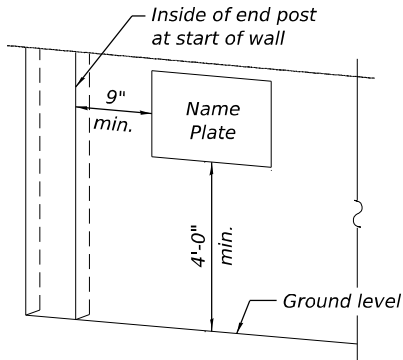
GENERAL NOTES:

- Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
- See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
- The existing utilities will be adjusted. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
- Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
- Contractor shall provide 4" Ø weep hole at finished grade level in the bottom of the wall at Sta. 13+28.00. Cost shall be included with Noise Abatement Wall, Ground Mounted.
- Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
- The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.
- Access door location shown in the plans is approximate and may be adjusted to accommodate final fire hydrant locations provided by the City of Joliet. This work shall be included as part of the respective Noise Abatement Wall costs.

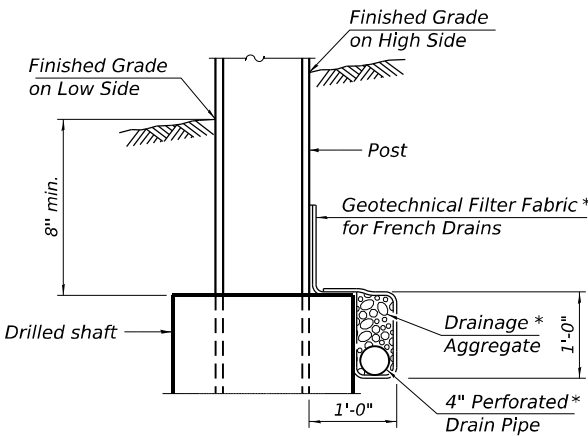
NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-80
SECTION FAI 80 21 INTERCHANGE
FROM STA. 0+89.78 TO STA. 14+94.13
STRUCTURE NO. 099-N1024

NAME PLATE

See Std. 515001

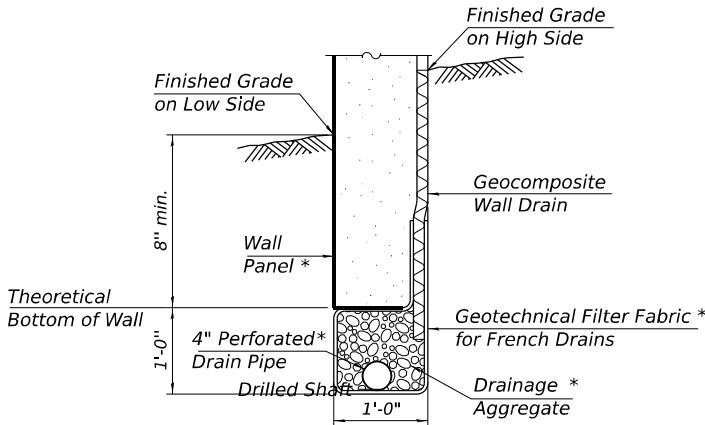


FOR NOISE ABATEMENT WALL
GROUND MOUNTED



PIPE UNDERDRAIN DETAIL
AT DRILLED SHAFTS

*Included in the cost of Pipe Underdrains for Structures 4"



PIPE UNDERDRAIN DETAIL
BETWEEN DRILLED SHAFTS

NOISE ABATEMENT WALL B22 (DATA TABLE)

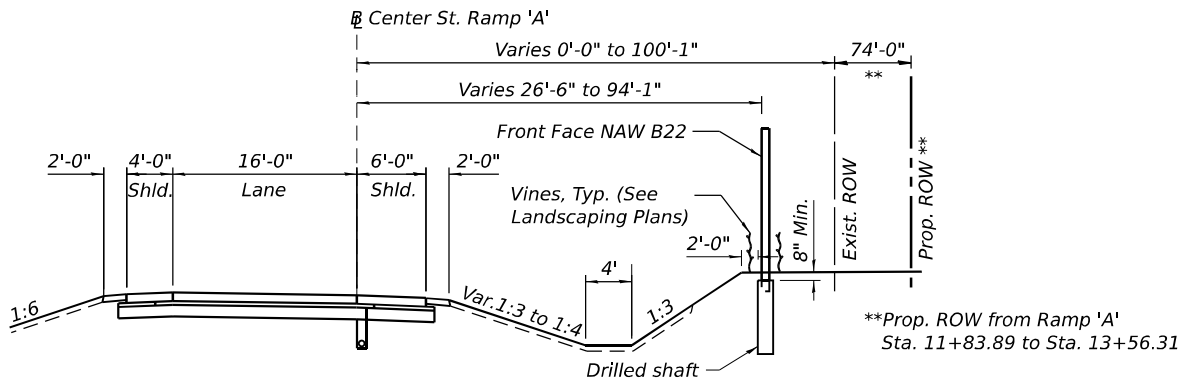
Station	Offset (Rt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	BL Center St. Ramp 'A' Elev	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)	Final Retained Height (ft)
0+89.78	94.11	650.15	616.33	635.15	635.15	634.58	634.48	15.67	0.00
1+00.00	93.36	649.92	616.50	634.92	634.92	634.50	634.25	15.67	0.00
1+50.00	89.70	648.78	617.32	633.78	633.78	633.08	633.11	15.67	0.00
2+00.00	86.15	647.62	618.15	632.62	632.62	632.36	631.95	15.67	0.00
2+50.00	83.37	646.49	618.97	631.49	631.49	631.56	630.82	15.67	0.00
3+00.00	81.45	645.23	619.62	630.23	630.23	630.01	629.56	15.67	0.00
3+50.00	80.41	644.03	620.03	629.03	629.03	629.23	628.36	15.67	0.00
4+00.00	80.22	643.44	620.27	628.44	628.44	628.69	627.77	15.67	0.00
4+50.00	80.91	642.90	620.51	627.90	627.90	627.76	627.23	15.67	0.00
4+93.80	82.22	643.44	620.78	628.44	628.44	627.83	627.77	15.67	0.00
4+95.69	41.75	644.14	620.79	629.14	629.14	627.56	628.47	15.67	0.00
5+00.00	41.74	644.14	620.82	629.14	629.14	627.50	628.47	15.67	0.00
5+50.00	42.03	643.30	621.12	628.30	628.30	626.82	627.63	15.67	0.00
6+00.00	43.18	642.53	621.43	627.53	627.53	625.89	626.86	15.67	0.00
6+50.00	45.19	641.77	621.73	626.77	626.77	624.94	626.10	15.67	0.00
7+00.00	47.90	641.00	621.96	626.00	626.00	624.97	625.33	15.67	0.00
7+50.00	50.67	640.24	621.91	625.24	625.24	624.11	624.57	15.67	0.00
8+00.00	53.45	639.04	621.60	624.04	624.04	622.76	623.37	15.67	0.00
8+21.64	54.65	637.71	621.37	622.71	622.71	622.60	622.04	15.67	0.00
8+50.00	53.52	637.17	621.01	622.17	622.17	622.35	621.50	15.67	0.00
9+00.00	51.53	636.22	620.14	621.22	621.22	621.59	620.55	15.67	0.00
9+50.00	49.49	635.29	619.00	620.29	620.29	620.82	619.62	15.67	0.00
10+00.00	45.68	634.40	617.59	619.40	619.40	618.45	618.73	15.67	0.00
10+50.00	38.93	632.43	616.11	617.38	617.43	616.13	616.71	15.72	0.05
11+00.00	29.14	632.18	614.62	616.08	617.18	614.99	615.41	16.77	1.10
11+49.16	16.38	631.62	613.17	614.14	616.62	614.44	613.47	18.15	2.48
11+70.66	27.28	630.40	612.53	615.40	615.40	615.50	614.73	15.67	0.00
11+83.56	85.69	628.14	612.15	613.07	613.14	613.09	612.40	15.74	0.07
12+00.00	82.54	628.10	611.66	613.10	613.10	613.17	612.43	15.67	0.00
12+50.00	69.77	625.58	610.18	610.58	610.58	610.60	609.91	15.67	0.00
13+00.00	51.56	623.90	608.69	608.90	608.90	608.99	608.23	15.67	0.00
13+43.08	30.67	620.36	607.42	605.36	605.34	605.38	604.67	15.69	0.02
13+50.00	29.39	618.94	607.21	603.94	603.94	604.61	603.27	15.67	0.00
13+63.98	26.50	618.93	606.80	603.93	603.93	603.23	603.26	15.67	0.00
14+00.00	30.71	618.08	605.73	603.08	603.08	602.12	602.41	15.67	0.00
14+50.00	32.46	617.53	604.25	602.53	602.53	595.67	601.86	15.67	0.00
14+67.04	31.98	617.40	603.74	602.40	602.40	589.30	601.73	15.67	0.00
14+94.13	42.06	614.22	602.95	599.22	599.22	587.85	598.55	15.67	0.00

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	23,225
Geocomposite Wall Drain	Sq. Yd.	53
Pipe Underdrains for Structures 4"	Foot	130
Boring Drilling for Noise Abatement Wall Foundation	Each	4

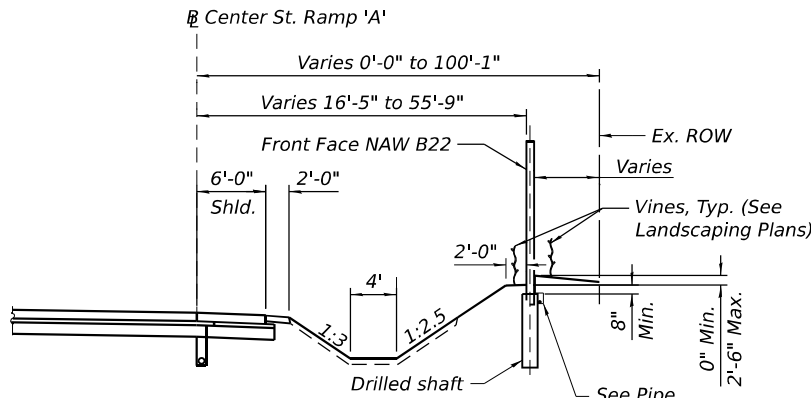
NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	0+89.78	14+94.13	Reflective	-
Residential face	0+89.78	14+94.13	Reflective	-



RAMP 'A'
TYPICAL SECTION THROUGH NAW B22

Sta. 0+89.78 to Sta. 10+46.77
Sta. 11+76.51 to Sta. 14+94.13
(Looking East)



RAMP 'A'
TYPICAL SECTION THROUGH NAW B22

Sta. 10+46.77 to Sta. 11+76.51
(Looking East)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

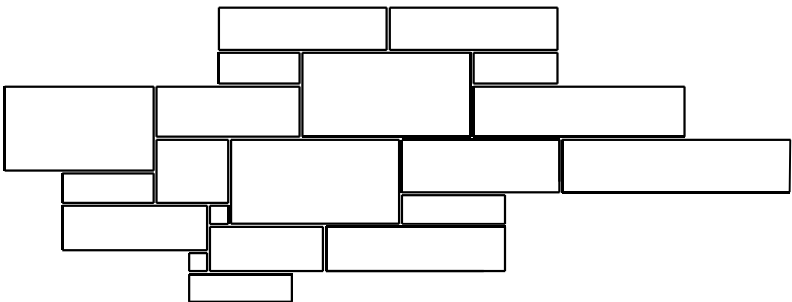
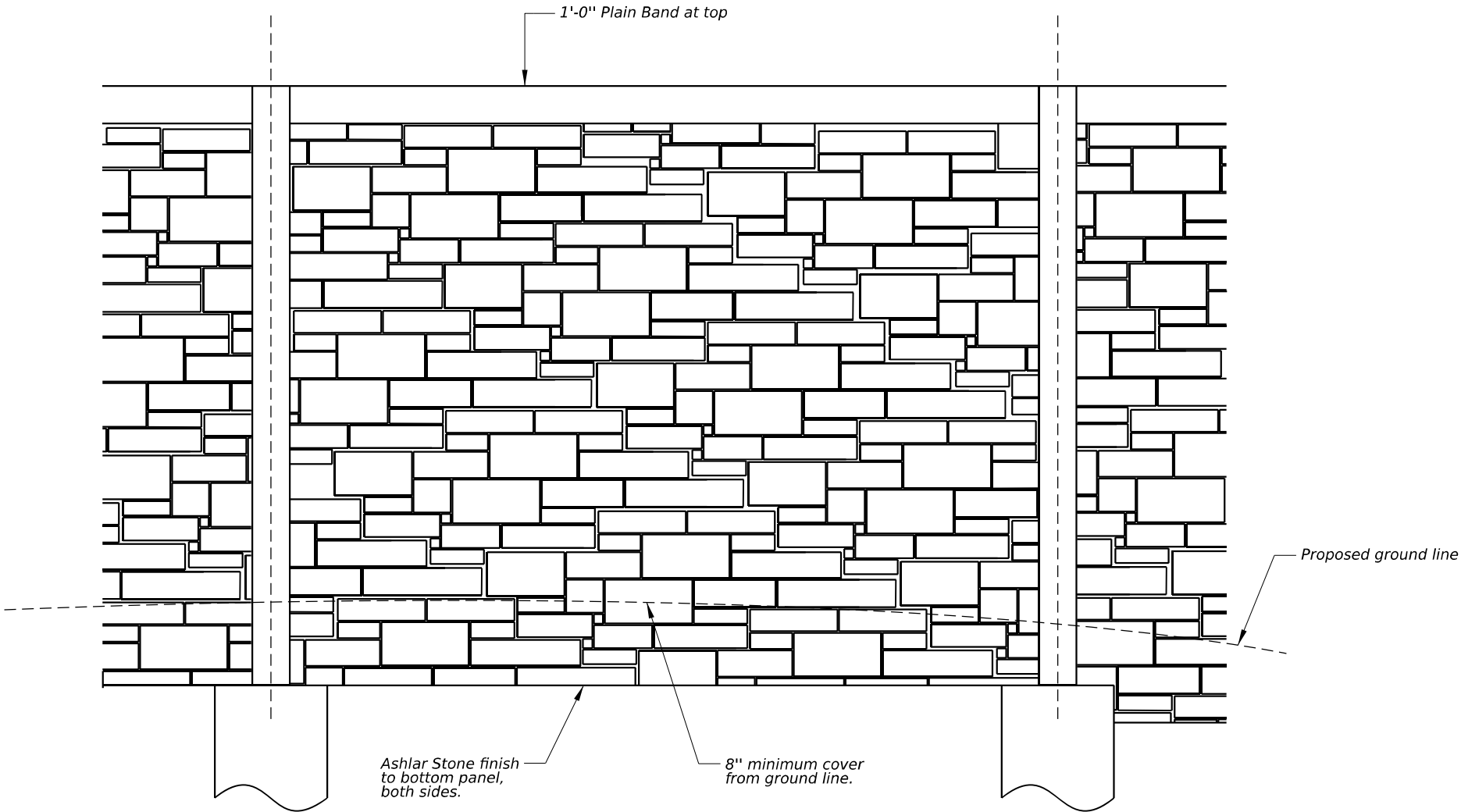
GENERAL NOTES AND TOTAL BILL OF MATERIAL
NOISE ABATEMENT WALL B22 - SN 099-N1024

SHEET SJ-04 OF SJ-07 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	785
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

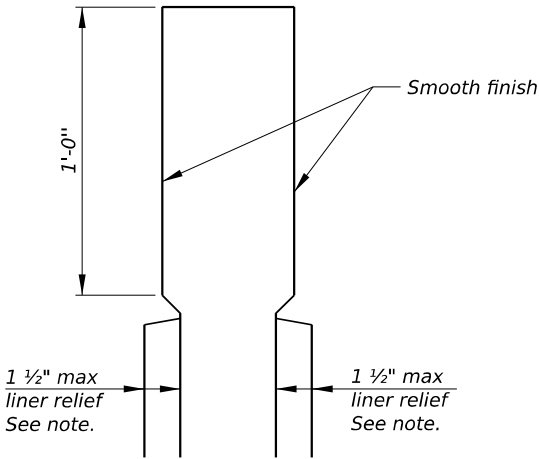
MODEL: NOISE WALLS DETAILS
FILE NAME: pw:///transystems-pw1-hosted/Documents/Projects_2018/CH40 /401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Fina/NAV B22/D162R22>DET_B22-05.dgn

Notes:
Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 ½" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



ENLARGED PATTERN DETAIL

Stone Pattern Sizes:
3" x 3" - 14" x 28"



ENLARGED CAP DETAIL

 WSP USA Inc. 30 N. LA SALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USGM717780		DESIGNED - MS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WALL DETAILS NOISE ABATEMENT WALL B22 - SN 099-N1024		FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			CHECKED - NBR/PJL	REVISED -				316	FAI 80 21 INTERCHANGE	WILL	1209	786
	PLOT SCALE = 0.16666667' / in.		DRAWN - BK/GM	REVISED -				CONTRACT NO. 62R22				
	PLOT DATE = 4/23/2025		CHECKED - MS	REVISED -								
	SHEET S.J-05 OF S.J-07 SHEETS						ILLINOIS FED. AID PROJECT					



SOIL BORING LOG

Date 4/30/25

Date 4/30/25

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/8/25

Date 4/8/25

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
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Illinois Department of Transportation

Division of Highways

GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/8/25

ROUTE I-80DESCRIPTIONNoise Wall B22LOGGED BYDV

SECTIONC-91-109-22LOCATIONSEC. TWP. RNG. Latitude LongitudeDiedrich D-50

COUNTYWillDRILLING RIGDRILLING METHODHSAHAMMER TYPEAutoHAMMER EFF (%)97.7

STRUCT. NO. N/AStation N/A

BORING NO. NAW-13Station 13+45.49Offset 30.40ft RTGround Surface Elev. 606.74 ft

D
E
P
T
H

B
L
O
W
S

U
C
S

M
O
I
S
T

Qu

T

Surface Water Elev. N/A ftStream Bed Elev. N/A ftGroundwater Elev.:First Encounter Dry ftUpon Completion N/A ftAfter Hrs. N/A ft

2 inches of Asphalt606.57

10 inches of Gravel Aggregate Subbase605.74

Brown, Moist FILL: SILTY CLAY, trace asphalt, trace gravel603.24

Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)598.24

Very Dense Brown, Moist GRAVEL, with sand (GP) Auger refusal at 9.5 feet597.24

End of Boring

ft

(ft)

(/6")

(tsf)

(%)

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways

GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/8/25

ROUTE I-80DESCRIPTIONNoise Wall B22LOGGED BYDV

SECTIONC-91-109-22LOCATIONSEC. TWP. RNG. Latitude LongitudeDiedrich D-50

COUNTYWillDRILLING RIGDRILLING METHODHSAHAMMER TYPEAutoHAMMER EFF (%)97.7

STRUCT. NO. N/AStation N/A

BORING NO. NAW-14AStation 14+37.22Offset 75.50ft RTGround Surface Elev. 602.39 ft

D
E
P
T
H

B
L
O
W
S

U
C
S

M
O
I
S
T

Qu

T

Surface Water Elev. N/A ftStream Bed Elev. N/A ftGroundwater Elev.:First Encounter Dry ftUpon Completion N/A ftAfter Hrs. N/A ft

6 inches of Asphalt601.89

Dark Brown, Moist FILL: SILTY CLAY, with sand, trace asphalt, trace gravel598.89

Very Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)597.39

Auger refusal at 5 feet

End of Boring

ft

(ft)

(/6")

(tsf)

(%)

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

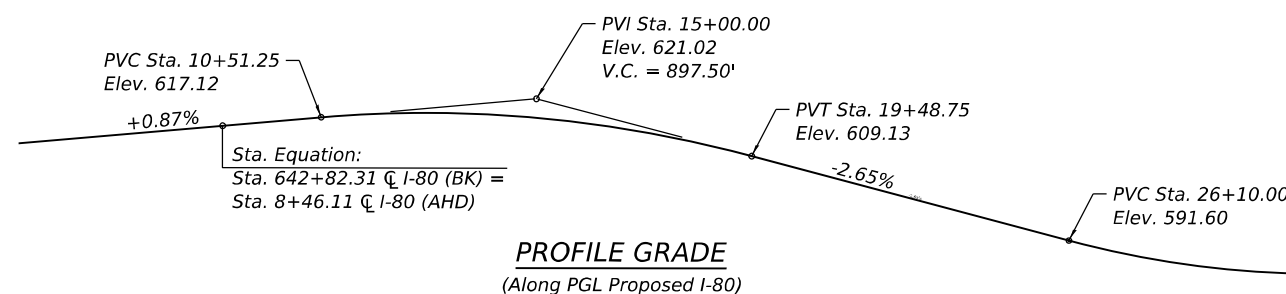
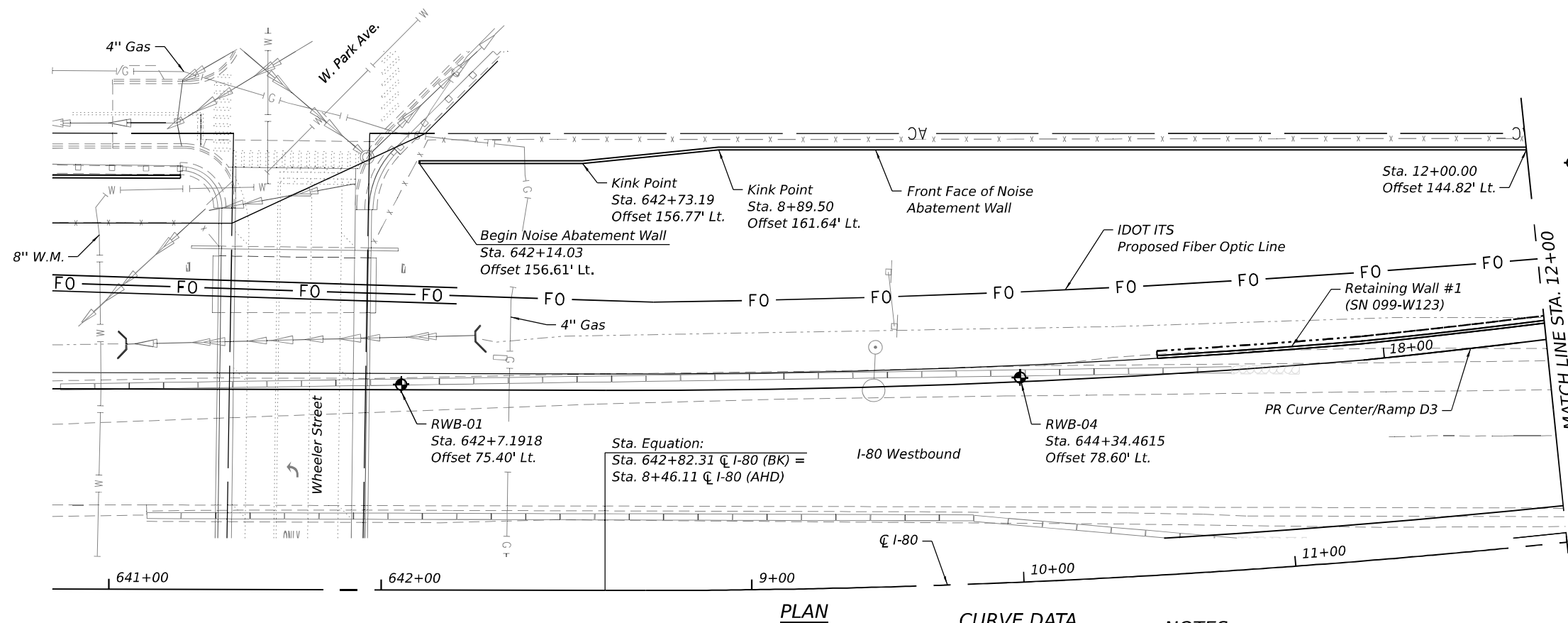
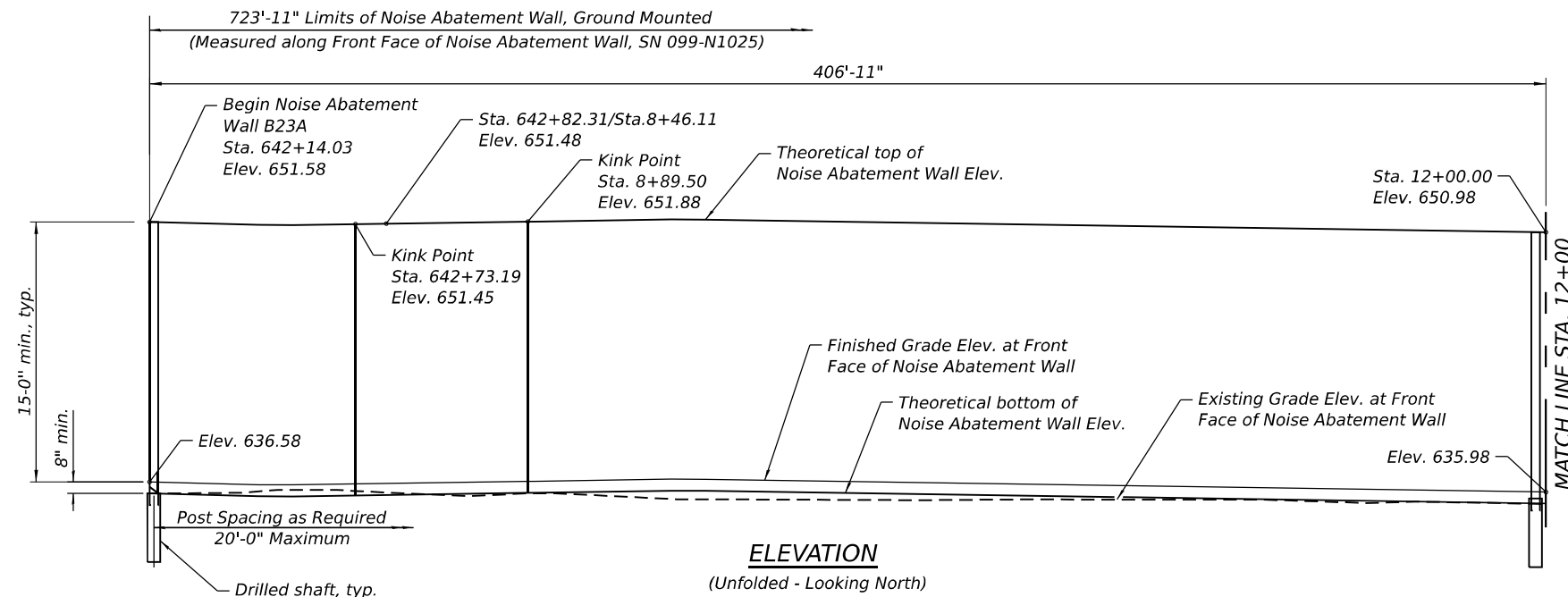
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CHECKED -	NBR/PJL	REVISED -			
PLOT SCALE =	0:2,000' = 1" / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
NOISE ABATEMENT WALL B22 - SN 099-N1024

SHEET SJ-07 OF SJ-07 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	788
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



CURVE DATA

PR Curve PR-180-North-1
PI Sta. = 13+44.34
 $\Delta = 16^{\circ}55'07''$ (LT)
 $D = 01^{\circ}42'37''$
 $R = 3,350.00'$
 $T = 498.23'$
 $L = 989.20'$
 $E = 36.85'$
 $e = 5.00\%$
 $TR = 92.3'$
 $SE Run = 375.0'$
 $PC Sta. = 8+46.11$
 $PT Sta. = 18+35.31$

NOTES:

1. *For General Notes and Total Bill of Material, see Sheet SK-03.*
2. *Stations are measured along and Offsets are measured to Prop. CL I-80.*
3. *Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.*

INDEX OF SHEETS

- SK-01 General Plan and Elevation 1
SK-02 General Plan and Elevation 2
SK-03 General Notes and Total Bill of Material
SK-04 Wall Details
SK-05 Soil Boring Logs 1
SK-06 Soil Boring Logs 2

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 4,000 \text{ psi}$
 $f_y = 60,000 \text{ psi}$ (Reinforcement)
 $f_y = 50,000 \text{ psi}$ (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000 \text{ psi}$ (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

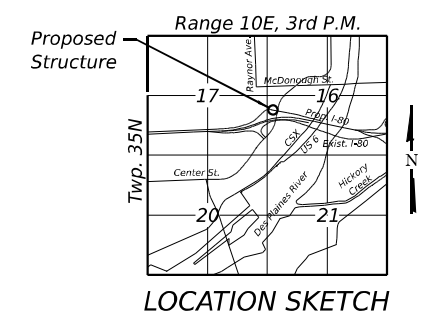
$f'_c = 4,500 \text{ psi}$
 $f_y = 60,000 \text{ psi}$ (Reinforcement)
 $f_y = 65,000 \text{ psi}$ (Welded Wire Reinforcement)

DESIGN LOADS

Strength III or V Wind : 35 psf
Service I Wind : 15 psf

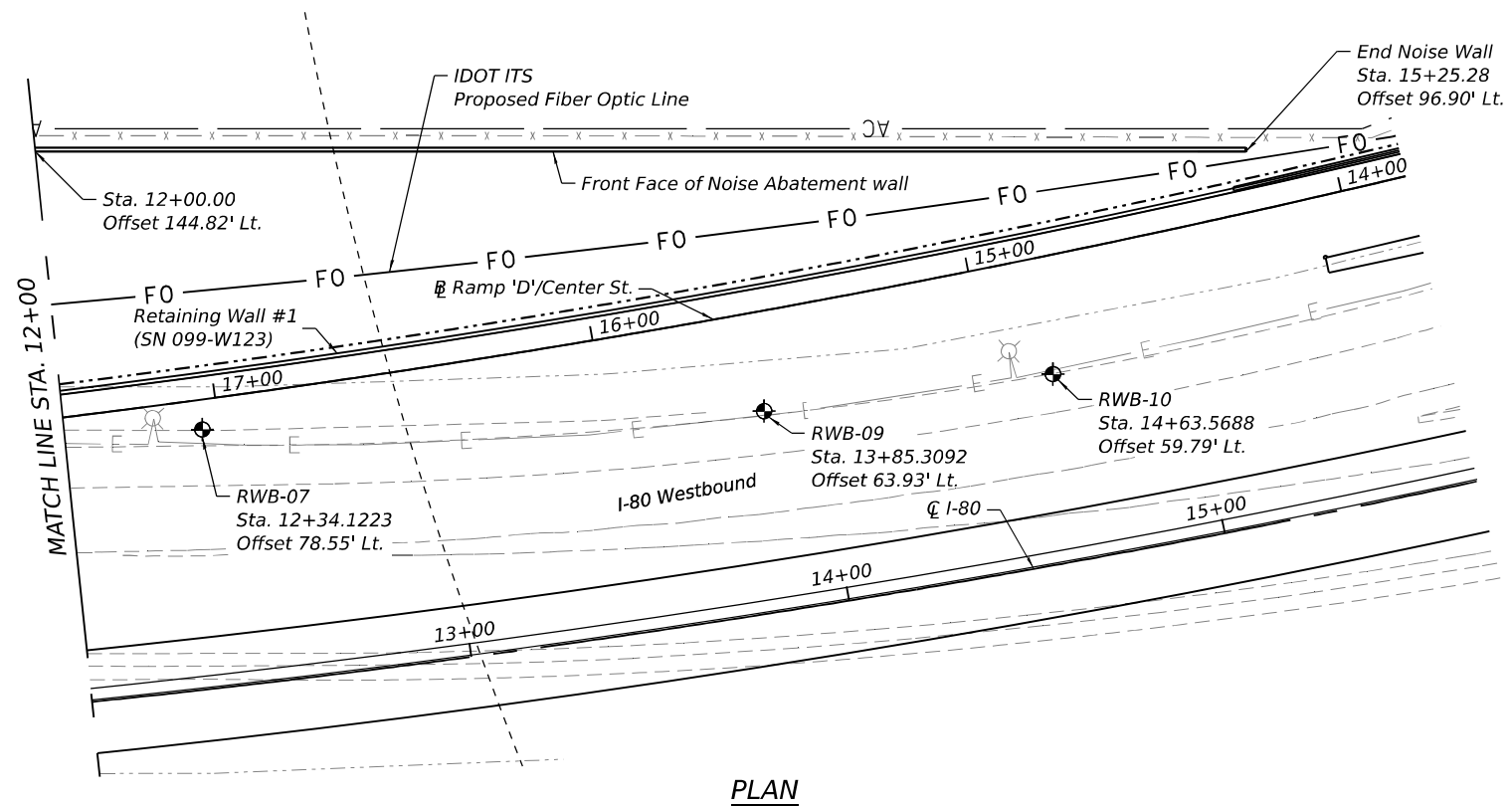
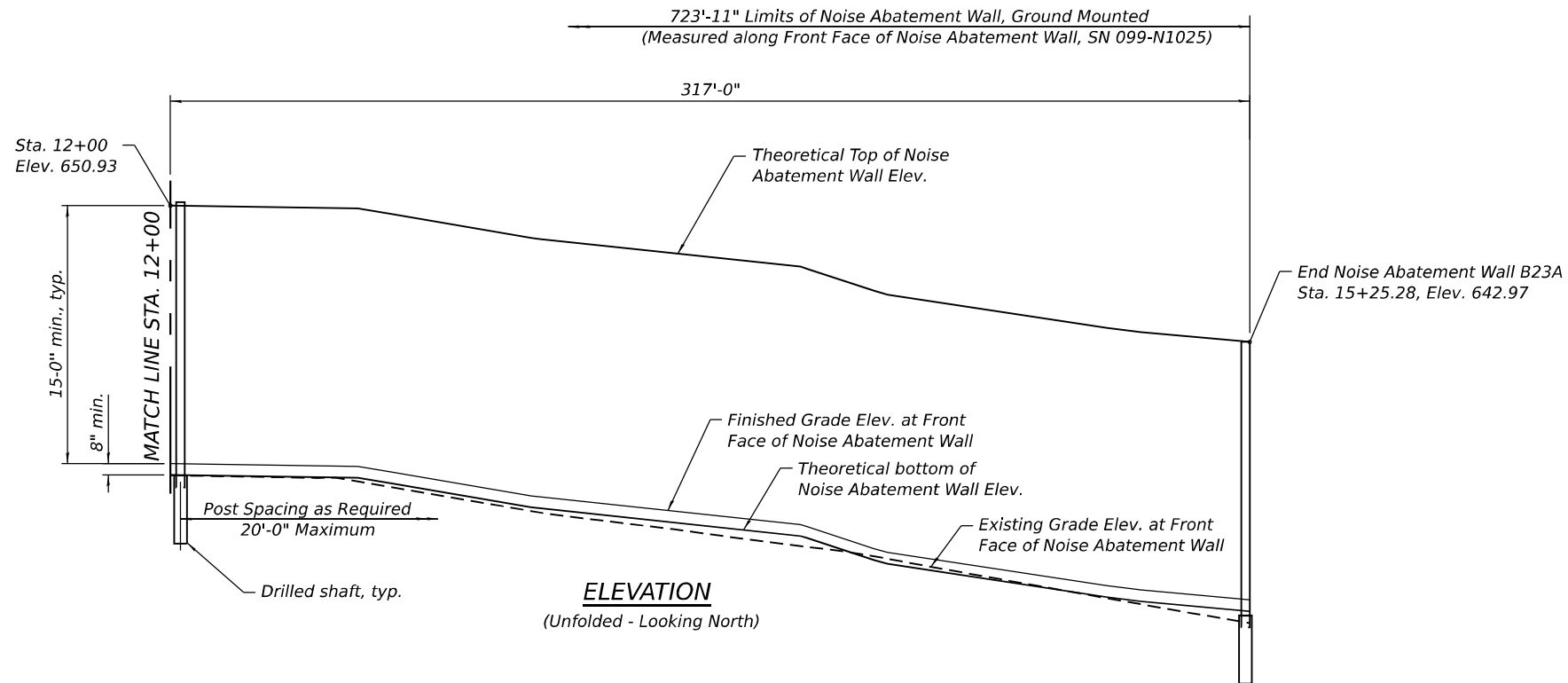
LEGEND

	<i>Proposed ROW line</i>
	<i>Proposed Fiber Optic line</i>
	<i>Existing Telephone line</i>
	<i>Existing Aerial line</i>
	<i>Existing Electric line</i>
	<i>Existing ROW line</i>
	<i>Existing Gas line</i>
	<i>Existing Sanitary Sewer</i>
	<i>Existing Storm Sewer</i>
	<i>Existing Water main</i>
	<i>Existing Cable TV line</i>
	<i>Indicates Soil Boring location</i>



GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG I-80
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 642+14.03 TO STA. 15+25.28
STRUCTURE NO. 099-N1025 (NOISE WALL B23A)

MODEL: Default
FILE NAME: pw:///transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP(CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAV B23/D162R22-GPE_B23A-02.dgn



GENERAL NOTES:

1.

Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall between the stations shown in the Noise Wall Data Table.
2.

See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
3.

The existing utilities will be adjusted. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
4.

Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
5.

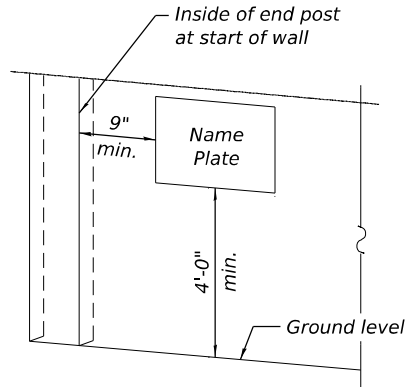
Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
6.

The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.

NOISE ABATEMENT WALL
BUILT 202_BY
STATE OF ILLINOIS
F.A.I. RTE. I-80
SECTION FAI 80 21 INTERCHANGE
FROM STA. 642+14.03 TO STA. 15+25.28
STRUCTURE NO. 099-N1025

NAME PLATE

See Std. 515001



FOR NOISE ABATEMENT WALL
GROUND MOUNTED

NOISE ABATEMENT WALL B23A (DATA TABLE)

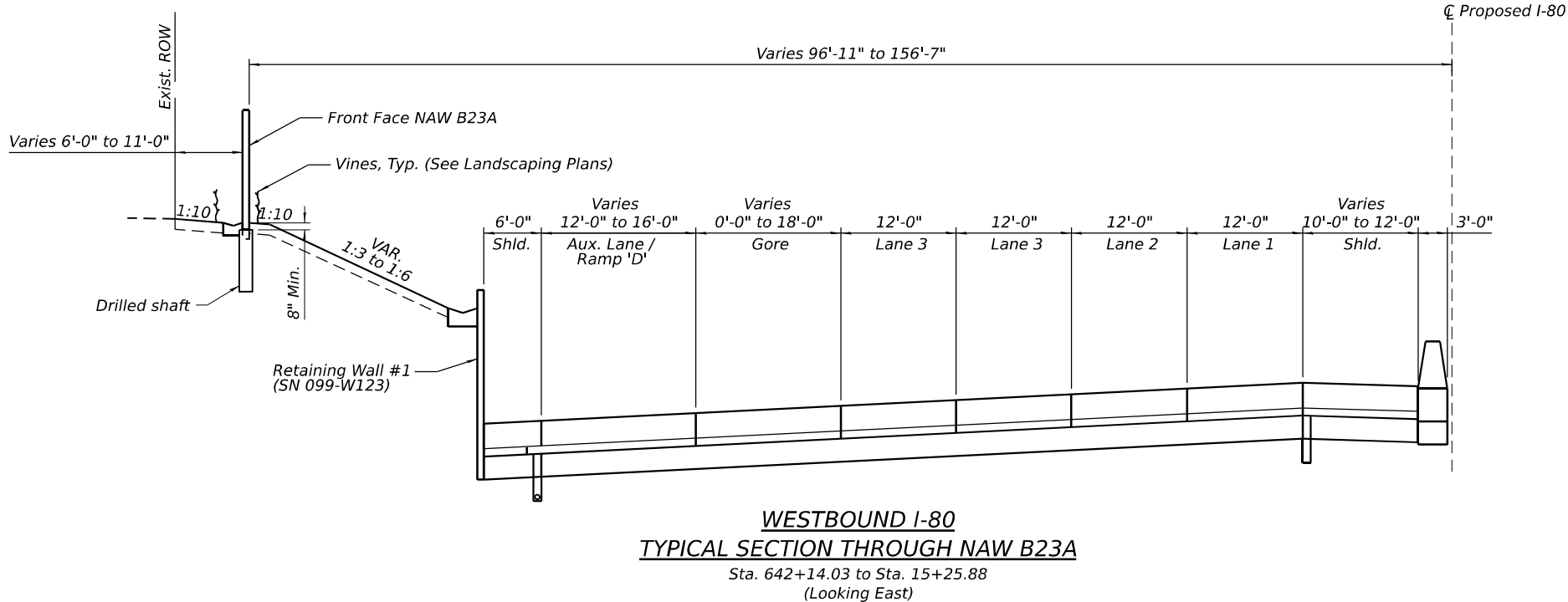
Station	Offset (Lt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	I-80 PGL Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)
642+14.03	156.61	651.58	614.74	636.58	636.58	636.95	635.91	15.67
642+73.19	156.77	651.45	615.25	636.45	636.45	636.71	635.78	15.67
642+82.31/8+46.11	157.66	651.48	615.33	636.48	636.48	636.63	635.81	15.67
8+89.50	161.64	651.60	615.71	636.60	636.60	636.58	635.93	15.67
9+00.00	161.52	651.64	615.80	636.64	636.64	636.54	635.97	15.67
9+50.00	160.52	651.70	616.23	636.70	636.70	636.22	636.03	15.67
10+00.00	158.82	651.56	616.67	636.56	636.56	636.18	635.89	15.67
10+50.00	156.40	651.41	617.10	636.41	636.41	636.22	635.74	15.67
11+00.00	153.26	651.27	617.49	636.27	636.27	636.21	635.60	15.67
11+50.00	149.40	651.12	617.78	636.12	636.12	636.04	635.45	15.67
12+00.00	144.82	650.98	617.98	635.98	635.98	635.96	635.31	15.67
12+50.00	139.51	650.83	618.07	635.83	635.83	635.82	635.16	15.67
13+00.00	133.47	649.41	618.07	634.41	634.41	634.18	633.74	15.67
13+50.00	126.68	648.24	617.96	633.24	633.24	632.85	632.57	15.67
14+00.00	119.14	646.83	617.76	631.83	631.83	631.59	631.16	15.67
14+50.00	110.84	644.78	617.47	629.78	629.78	629.89	629.11	15.67
15+00.00	101.78	643.42	617.07	628.42	628.42	628.13	627.75	15.67
15+25.28	96.90	642.97	616.83	627.97	627.97	627.27	627.30	15.67

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	11,343

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	642+14.03	15+25.28	Reflective	-
Residential face	642+14.03	15+25.28	Reflective	-



WESTBOUND I-80
TYPICAL SECTION THROUGH NAW B23A
Sta. 642+14.03 to Sta. 15+25.88
(Looking East)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND TOTAL BILL OF MATERIAL
NOISE ABATEMENT WALL B23A - SN 099-N1025

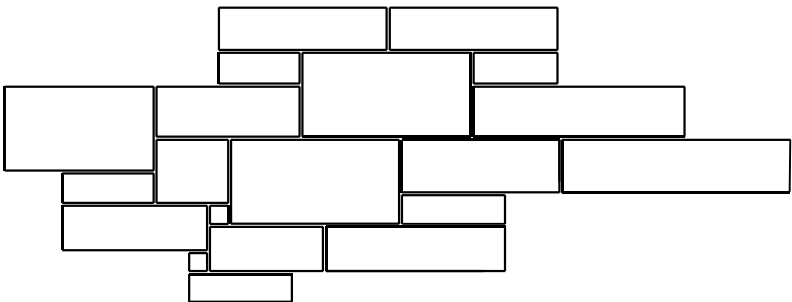
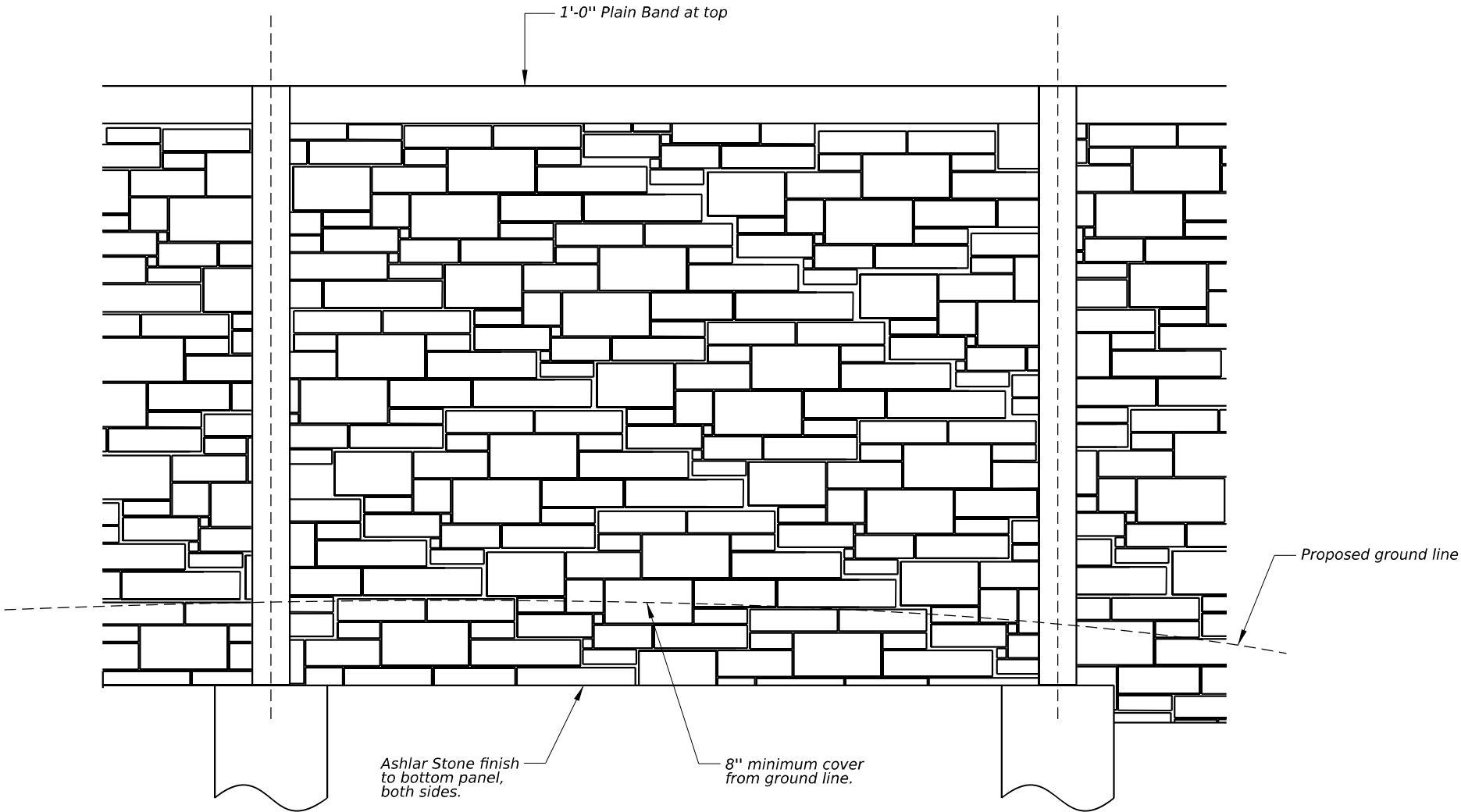
SHEET SK-03 OF SK-06 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	791
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

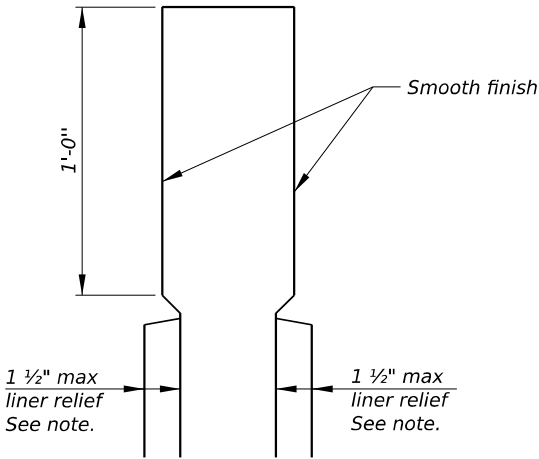
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Notes:
Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 ½" relief for noise abatement wall, ground mounted The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



Stone Pattern Sizes:
3" x 3" - 14" x 28"

ENLARGED PATTERN DETAIL



ENLARGED CAP DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
NOISE ABATEMENT WALL B23A - SN 099-N1025

SHEET SK-04 OF SK-06 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	792
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

wsp
WSP USA Inc.
30 N. LA SALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVIS	ED -		
PLOT SCALE =	0.16666667' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

Page 1 of 1

Date 5/2/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION , SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	CME-75	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	91

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A ft	D	B	U	M
Station	E	L	O	O	Stream Bed Elev. N/A ft	E	L	O	O
	P	E	S	I		P	E	S	I
BORING NO. R/WB-01	H	S	Qu	T	Groundwater Elev.: Dry ft	H	S	Qu	T
Station 642+7.1918					Upon Completion N/A ft				
Offset 75.40ft LT					After Hrs. N/A ft				
Ground Surface Elev. 616.04 ft	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)

Brown, Moist
SAND, with gravel (SPG)
End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 5/2/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	Mobile B-57	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	89

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A	ft
Station	E	L	O	S	Stream Bed Elev. N/A	ft
	P	L	S			
BORING NO. RWB-04	T	W	I		Groundwater Elev.: Dry	ft
Station 644+34.4615	H	S	Qu	T	First Encounter	ft
Offset 78.60ft LT					Upon Completion	ft
Ground Surface Elev. 618.10	ft	(ft)	(/6")	(tsf)	After Hrs. N/A	ft

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 1 of 1

Date 4/29/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY	Will	DRILLING RIG	CME-75	HAMMER TYPE	Auto
		DRILLING METHOD	HSA	HAMMER EFF (%)	91

STRUCT. NO. 099-W123	D	B	U	M	Surface Water Elev. N/A	ft
Station	E	L	C	O	Stream Bed Elev. N/A	ft
	P	L	S	I		
BORING NO. RWB-07	T	W		S	Groundwater Elev.:	
Station 12+34.1223	H	S	Qu	T	First Encounter Dry	ft
Offset 78.55ft LT					Upon Completion N/A	ft
Ground Surface Elev. 618.53	ft	(ft)	(/6")	(tsf)	After Hrs. N/A	ft

--	--

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw:///transsystems-pw.bentley.com/transscorp-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAW B23/D162R22-SBL_B23A-06.dgn



Illinois Department of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 4/29/22

ROUTE	I-80	DESCRIPTION	Retaining Wall No. 1 - Ramp D	LOGGED BY	DD
SECTION	C-91-109-22	LOCATION	SEC. 17, TWP. 35 N, RNG. 10 E,		
COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude CME-75 HSA	Longitude Auto HAMMER TYPE HAMMER EFF (%)	91
STRUCT. NO.	099-W123	D E P T H	B L O W S	U C S	M O I S T
Station					
BORING NO.	RWB-09				
Station	13+85.3092				
Offset	63.93ft LT				
Ground Surface Elev.	618.48	ft	(ft)	(/6")	(tsf) (%)
12 inches of Asphalt	617.48				
Brown, Moist			6		
FILL: SILTY CLAY, with gravel			5	2.9	13
			6	B	
Brown, Moist to Wet	615.48				
FILL: SAND, trace gravel			11		
			14		14
			14		
			6		
			13		20
			17		
			6		
	608.98		11	4.5	15
Very Stiff			10	P	
Brown, Moist					
SILTY CLAY, trace gravel	607.48		4		
(CL/ML)					
Very Stiff to Hard			5	2.5	14
Gray, Moist			8	B	
SILTY CLAY (CL/ML)					
			3		
			7	3.8	22
			8	B	
			2		
			5	2.5	23
			7	B	
			3		
			7	4.2	22
			10	B	
End of Boring	598.48		-20		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

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Illinois Department of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 4/28/22

ROUTE	I-80	DESCRIPTION	Retaining Wall No. 1 - Ramp D	LOGGED BY	DM
SECTION	C-91-109-22	LOCATION	SEC. 17, TWP. 35 N, RNG. 10 E,		
COUNTY	Will	DRILLING RIG DRILLING METHOD	Latitude Diedrich D-50 HSA	Longitude Auto HAMMER TYPE HAMMER EFF (%)	98
STRUCT. NO.	099-W123	D E P T H	B L O W S	U C S	M O I S T
Station					
BORING NO.	RWB-10				
Station	14+63.5688				
Offset	59.79ft LT				
Ground Surface Elev.	618.19	ft	(ft)	(/6")	(tsf) (%)
3 inches of Asphalt	617.94				
Brown, Moist			3		
FILL: SILTY CLAY, trace sand and gravel			4	2.5	14
			5	B	
Very Stiff to Hard	615.19				
Brown, Moist			4		
SILTY CLAY, trace sand and gravel (CL/ML)			5	6.5	19
			6	B	
			4		
			6	4.6	15
			7	B	
			4		
			5	3.5	15
			6	B	
			4		
			6	4.2	22
			8	B	
			3		
Very Stiff to Hard	604.19		7	4.6	24
Gray, Moist			7	B	
SILTY CLAY, trace gravel (CL/ML)			4		
			7	4.8	22
			11	B	
			3		
			6	3.1	20
			7	B	
End of Boring	598.19		-20		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



WSP USA Inc.
30 N. LA SALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVISED -			
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PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

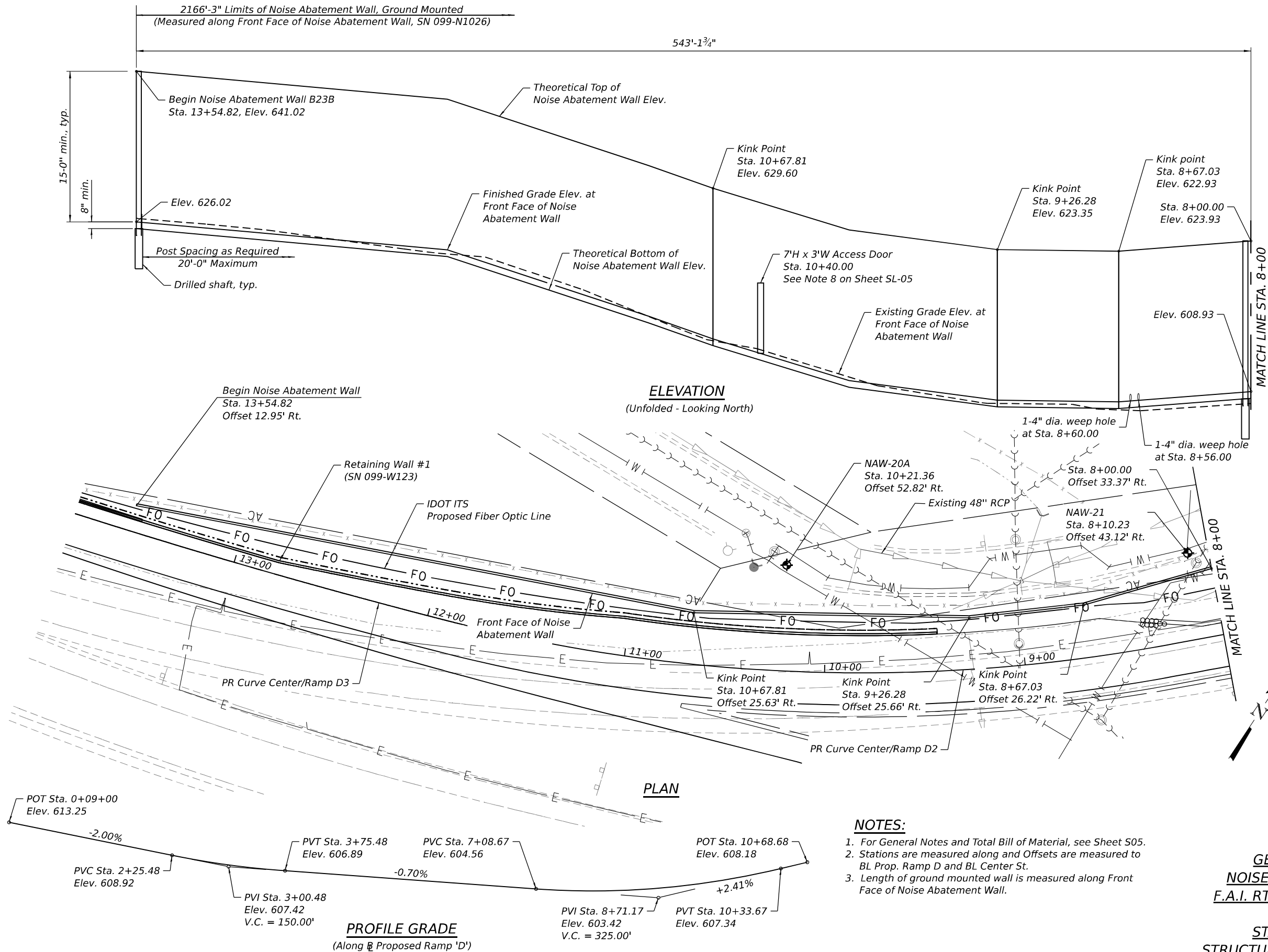
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
NOISE ABATEMENT WALL B23A - SN 099-N1025

SHEET SK-06 OF SK-06 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	794
		CONTRACT NO. 62R22		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw://transsystems-pw1-hosted/Documents/Projects_2018/CH401/401.180022/03-WSP(CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAV B23/D162R22-GPE_B23B-01.dgn



INDEX OF SHEETS

SL-01 General Plan and Elevation 1
SL-02 General Plan and Elevation 2
SL-03 General Plan and Elevation 3
SL-04 General Plan and Elevation 4
SL-05 General Notes and Total Bill of Material
SL-06 Wall Details
SL-07 Soil Boring Logs 1
SL-08 Soil Boring Logs 2
SL-09 Soil Boring Logs 3

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

$f_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000$ psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

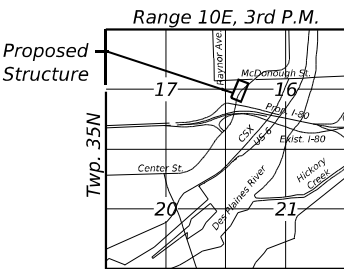
$f_c = 4,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

DESIGN LOADS

Strength III or V Wind : 35 psf
Service I Wind : 15 psf
Unfactored Design Active Earth Pressure:
55 pcf equivalent fluid pressure
Minimum Live load Surcharge Pressure:
2 ft. additional earth pressure

LEGEND

---	Proposed ROW line
FO	Proposed Fiber Optic line
T	Existing Telephone line
A	Existing Aerial line
E	Existing Electric line
---	Existing ROW line
IG	Existing Gas line
CS	Existing Sanitary Sewer
SS	Existing Storm Sewer
WM	Existing Water main
CTV	Existing Cable TV line
SB	Indicates Soil Boring location



LOCATION SKETCH

GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG RAMP-D
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 13+54.82 TO STA. 41+00.00
STRUCTURE NO. 099-N1026 (NOISE WALL B23B)



WSP USA Inc.
30 N. LASALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

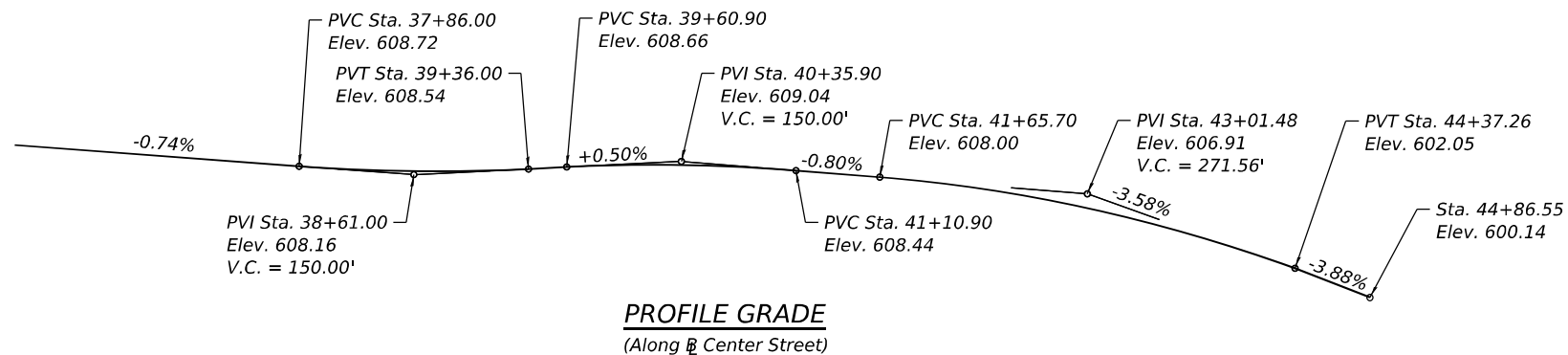
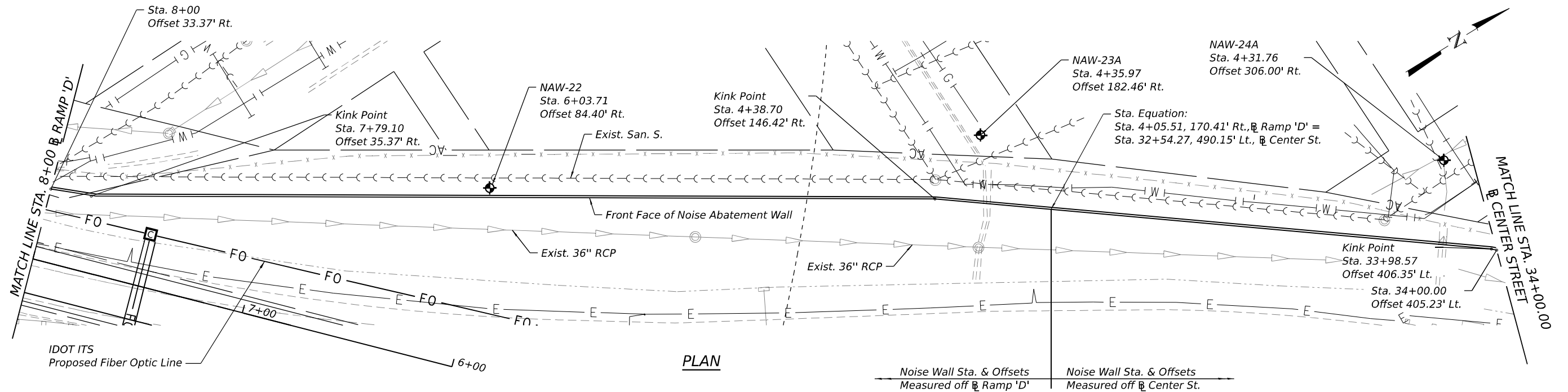
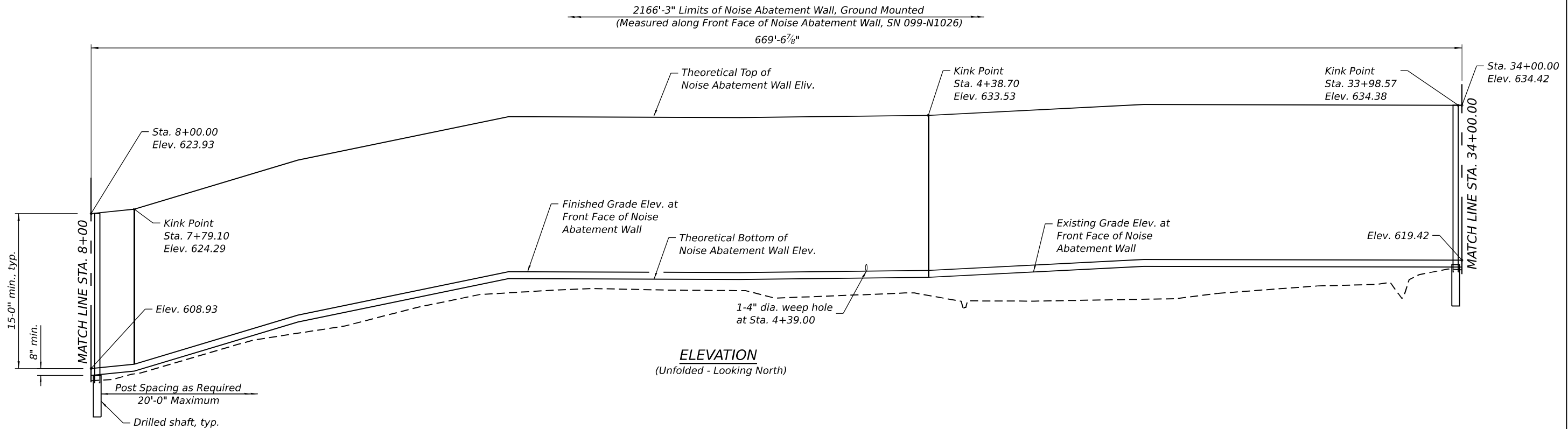
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PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SL-01 OF SL-09 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	795
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: pw://transsystemsppw.bentley.com/transsystemsppw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP(CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAV B23/D162R22-GPE_B23B-02.dgn



CURVE DATA

PR Curve Center St.
PI Sta. = 35+86.06
 $\Delta = 39^{\circ}03'29''$ (RT)
D = 07°50'55"
R = 730.00'
T = 258.92'
L = 497.63'
E = 44.56'
e = N/A
TR = N/A
SE Run = N/A
PC Sta. = 33+27.14
PT Sta. = 38+24.78

CURVE DATA

PR Curve Center / Ramp D3
PI Sta. = 15+00.20
 $\Delta = 10^{\circ}49'33''$ (RT)
D = 01°45'17"
R = 3,265.00'
T = 309.38'
L = 616.91'
E = 14.62'
e = N/A
TR = N/A
SE Run = N/A
PC Sta. = 11+90.83
PT Sta. = 18+07.74

CURVE DATA

PR Curve Center / Ramp D2
PI Sta. = 10+12.68
 $\Delta = 24^{\circ}50'39''$ (RT)
D = 06°51'42"
R = 835.00'
T = 183.92'
L = 362.07'
E = 20.02'
e = N/A
TR = N/A
SE Run = N/A
PC Sta. = 8+28.76
PT Sta. = 11+90.83



WSP USA Inc.
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USER NAME =	USGM717780
DESIGNED -	MS
CHECKED -	NBR/PJL
PLOT SCALE =	50,000' / in.
DRAWN -	BK/GM
PLOT DATE =	6/9/2025
CHECKED -	MS

DESIGNED -	MS
CHECKED -	NBR/PJL
DRAWN -	BK/GM
CHECKED -	MS

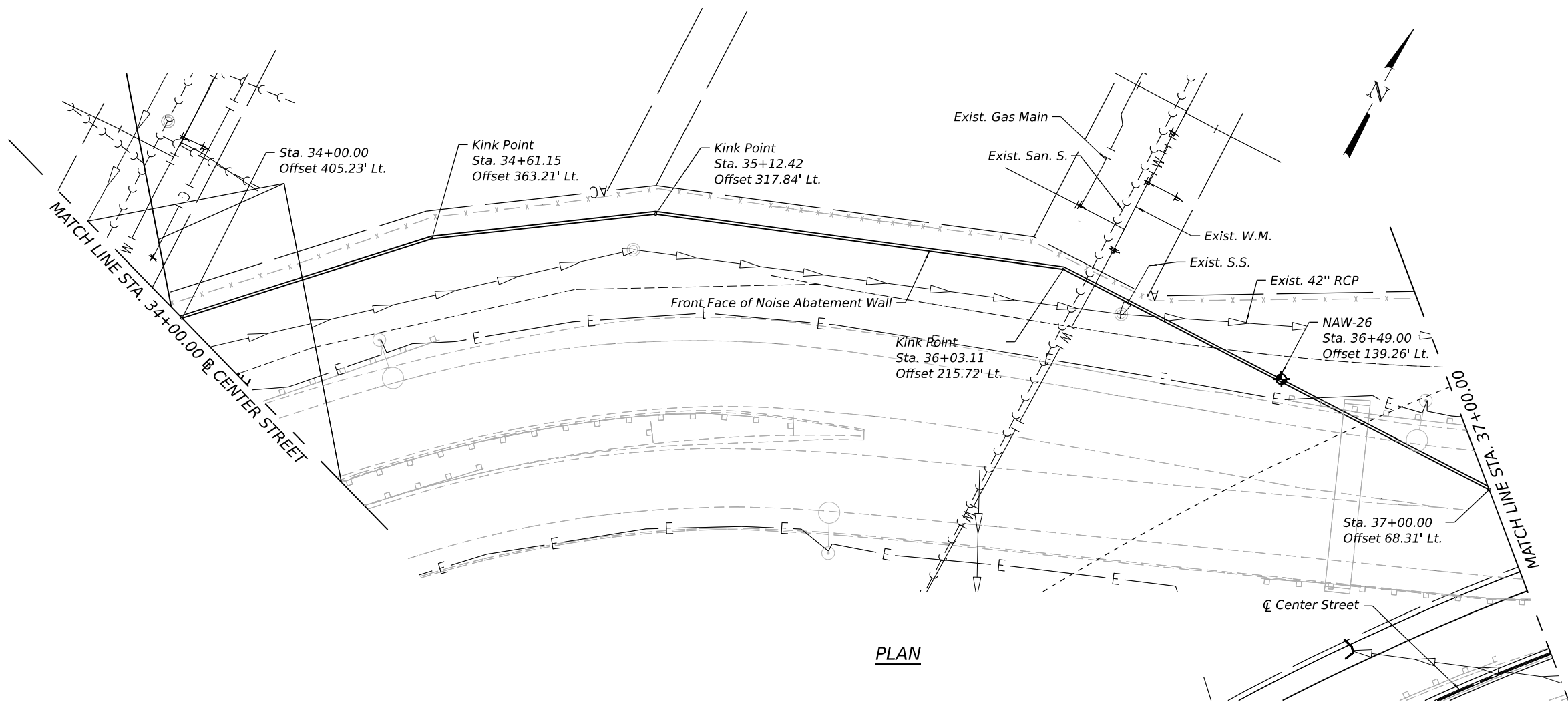
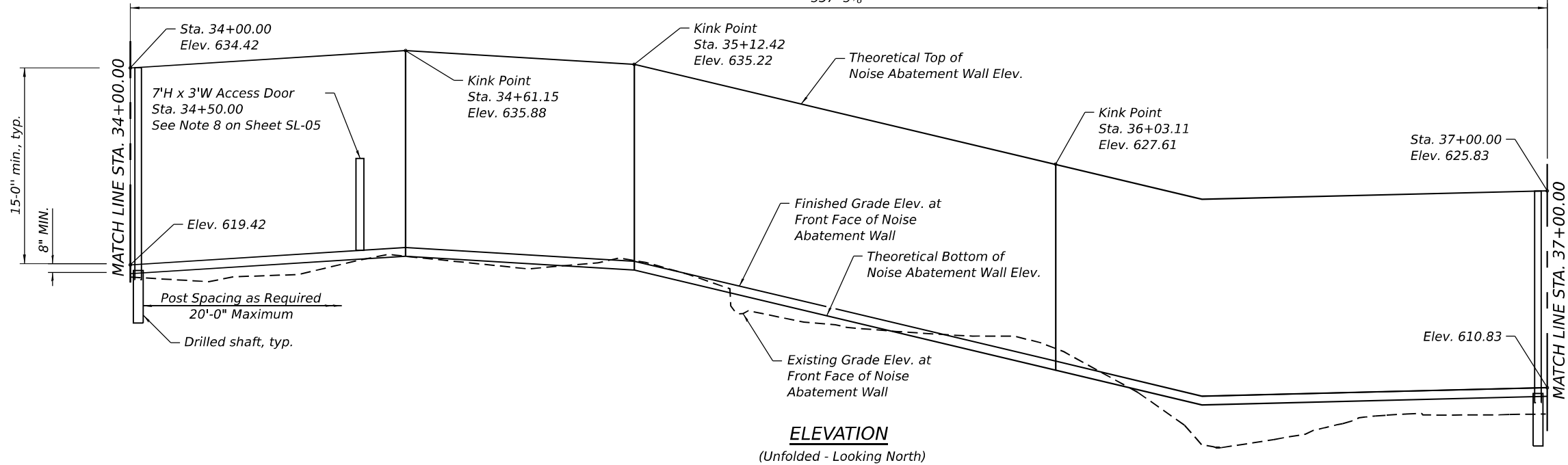
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B23B - SN 099-N1026

SHEET SL-02 OF SL-09 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	796
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

2166'-3" Limits of Noise Abatement Wall, Ground Mounted
(Measured along Front Face of Noise Abatement Wall, SN 099-N1026)
537'-5⁷/₈"



MODEL: Default
FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hosted/Documents/Projects_2018/CH40 /401.180022/03-WSP(CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAV B23/D162R22-GPE_B23B-03.dgn



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USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

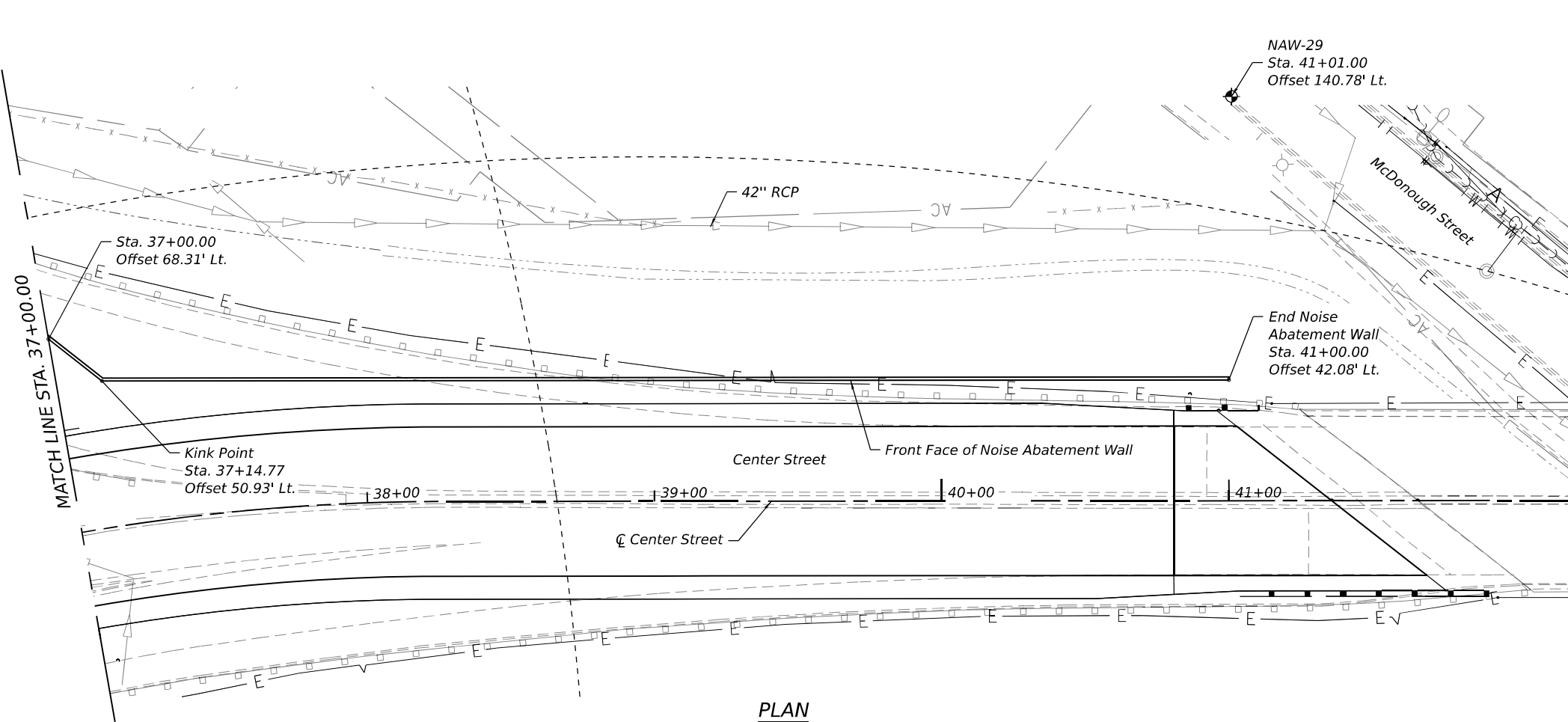
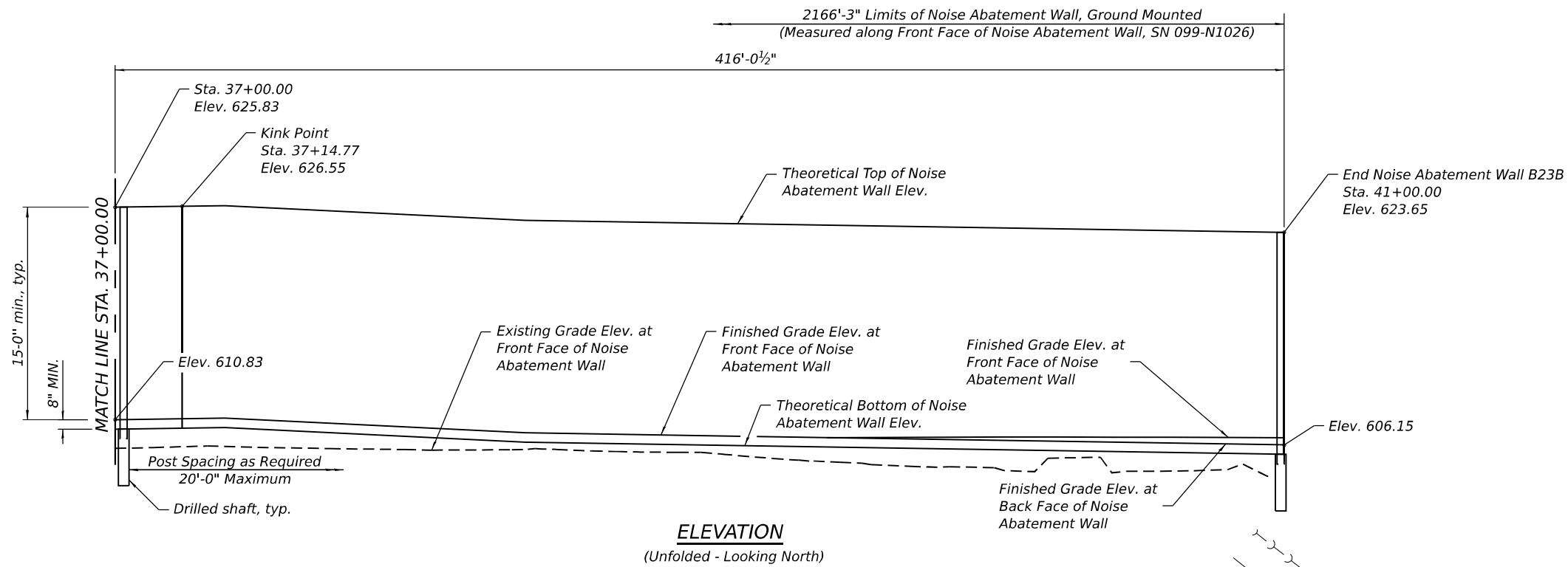
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 3
NOISE ABATEMENT WALL B23B - SN 099-N1026

SHEET SL-03 OF SL-09 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	797
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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wsp
WSP USA Inc.
30 N. LA SALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50:0' = 1" / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION 4
NOISE ABATEMENT WALL B23B - SN 099-N1026**

SHEET SL-04 OF SL-09 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	798
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1.

Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
2.

See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction and erection and other requirements for installation of the proposed Noise Abatement Wall.
3.

The existing utilities will be adjusted. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
4.

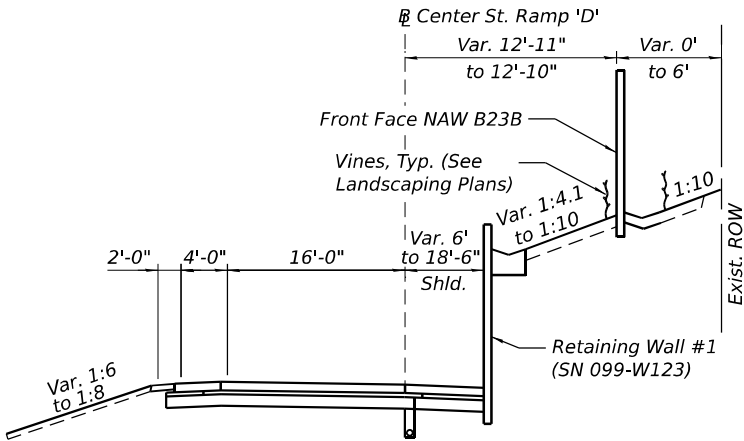
Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
5.

Contractor shall provide 4" Ø weep holes at ground level in the bottom of the wall at Sta. 4+39.00, 8+56.00, and 8+60.00. Cost shall be included with Noise Abatement Wall, Ground Mounted.
6.

Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
7.

The default color of both sides of the NAW panels, posts and other visible elements shall Federal Standard 30279 - Sand.
8.

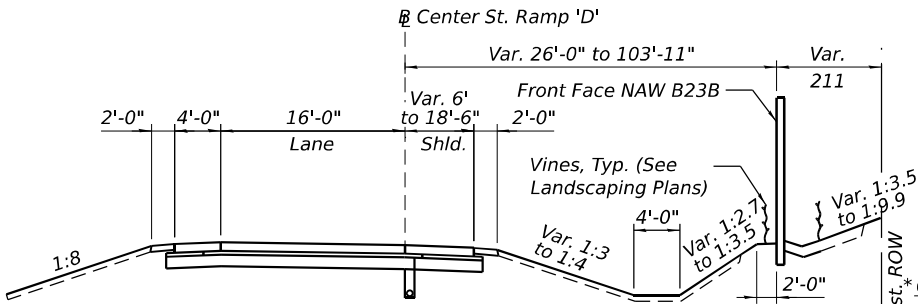
Access door location shown in the plans is approximate and may be adjusted to accommodate final fire hydrant locations provided by the City of Joliet. This work shall be included as part of the respective Noise Abatement Wall costs.



RAMP 'D'

TYPICAL SECTION THROUGH NAW B23B

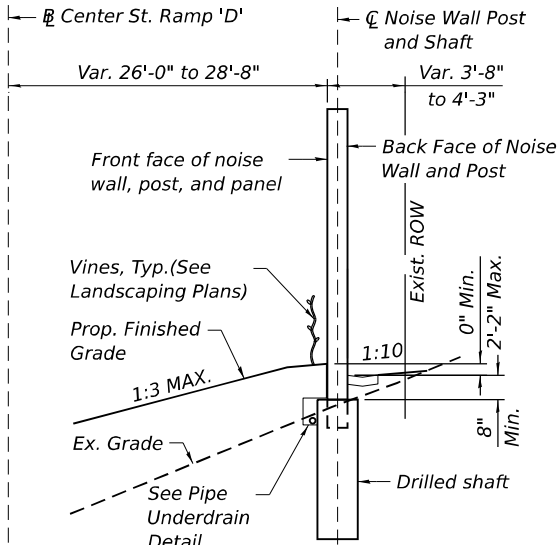
Sta. 9+25.00 to Sta. 13+54.82
(Looking West)



RAMP 'D'

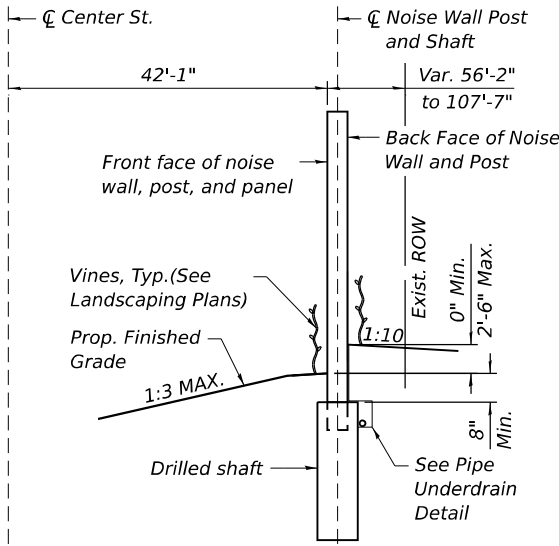
TYPICAL SECTION THROUGH NAW B23B

Sta. 5+00.00 to Sta. 9+25.00
(Looking West)



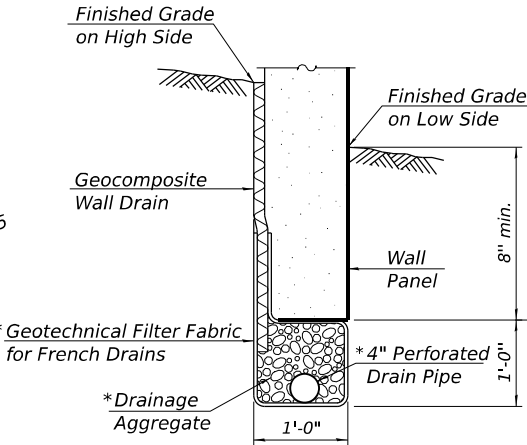
TYPICAL SECTION

Sta. 8+48.12 to Sta. 9+41.30



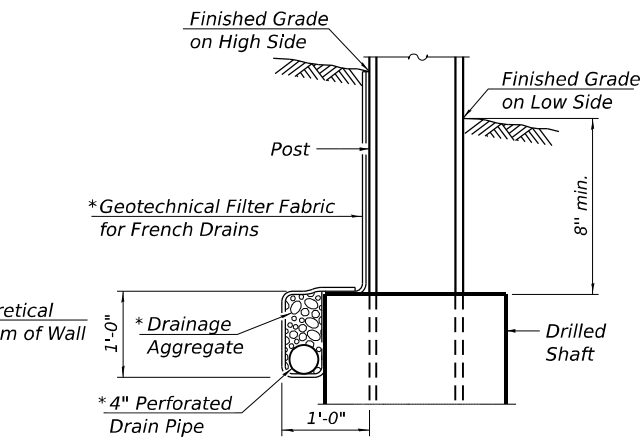
TYPICAL SECTION

Sta. 39+07.00 to Sta. 41+00.00



PIPE UNDERDRAIN DETAIL
BETWEEN DRILLED SHAFTS

* Cost included in Pipe Underdrains for Structures 4"



PIPE UNDERDRAIN DETAIL
AT DRILLED SHAFTS

NOISE ABATEMENT WALL B23B (DATA TABLE)

Station	Offset to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	Prop. Ramp D/ Center St. Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)	Final Retained Height (ft)
13+54.82	12.95 Rt.	641.02	612.59	626.02	626.02	625.51	625.35	15.67	0.00
13+00.00	18.61 Rt.	640.05	611.77	625.05	625.05	624.55	624.38	15.67	0.00
12+50.00	22.95 Rt.	639.03	611.09	624.03	624.03	623.25	623.36	15.67	0.00
12+00.00	26.52 Rt.	638.23	610.38	623.23	623.23	621.98	622.56	15.67	0.00
11+50.00	28.55 Rt.	635.08	609.38	620.08	620.08	619.65	619.41	15.67	0.00
11+00.00	27.71 Rt.	631.86	608.85	616.86	616.86	615.98	616.19	15.67	0.00
10+67.81	25.63 Rt.	629.60	608.16	614.60	614.60	613.48	613.93	15.67	0.00
10+50.00	26.92 Rt.	628.60	607.73	613.60	613.60	612.85	612.93	15.67	0.00
10+00.00	28.54 Rt.	625.62	606.58	610.62	610.62	610.08	609.95	15.67	0.00
9+50.00	27.28 Rt.	623.78	605.66	608.78	608.78	607.93	608.11	15.67	0.00
9+26.28	25.66 Rt.	623.35	605.30	607.82	608.35	607.18	607.15	16.20	0.53
9+00.00	26.41 Rt.	623.14	604.97	606.08	608.14	607.07	605.41	17.73	2.06
8+67.03	26.22 Rt.	622.93	604.65	605.78	607.93	606.55	605.11	17.82	2.15
8+50.00	28.39 Rt.	623.17	604.52	607.09	608.17	606.42	606.42	16.75	1.08
8+00.00	33.37 Rt.	623.93	604.32	608.93	608.93	606.96	608.26	15.67	0.00
7+79.10	35.37 Rt.	624.29	604.30	609.29	609.29	607.24	608.62	15.67	0.00
7+50.00	42.76 Rt.	625.87	604.35	610.87	610.87	608.81	610.20	15.67	0.00
7+00.00	55.45 Rt.	628.86	604.62	613.86	613.86	611.45	613.19	15.67	0.00
6+50.00	68.13 Rt.	630.97	604.97	615.97	615.97	613.47	615.30	15.67	0.00
6+00.00	80.82 Rt.	633.23	605.32	618.23	618.23	615.53	617.56	15.67	0.00
5+50.00	93.51 Rt.	633.71	605.67	618.71	618.71	616.01	618.04	15.67	0.00
5+00.00	109.67 Rt.	633.42	606.02	618.42	618.42	615.83	617.75	15.67	0.00
4+50.00	138.07 Rt.	633.35	606.37	618.35	618.35	615.48	617.68	15.67	0.00
4+38.70	146.42 Rt.	633.53	606.45	618.53	618.53	615.60	617.86	15.67	0.00
32+50.00	492.22 Lt.	634.08	612.71	619.08	619.08	614.81	618.41	15.67	0.00
33+00.00	467.96 Lt.	634.59	612.34	619.59	619.59	614.97	618.92	15.67	0.00
33+50.00	437.63 Lt.	635.25	611.96	620.25	620.25	615.99	619.58	15.67	0.00
33+98.57	406.35 Lt.	634.38	611.60	619.38	619.38	617.91	618.71	15.67	0.00
34+00.00	405.23 Lt.	634.42	611.59	619.42	619.42	617.88	618.75	15.67	0.00
34+50.00	370.07 Lt.	635.62	611.22	620.62	620.62	618.78	619.95	15.67	0.00
34+61.15	363.21 Lt.	635.88	611.14	620.88	620.88	619.56	620.21	15.67	0.00
35+00.00	328.10 Lt.	635.49	610.85	620.49	620.49	618.70	619.82	15.67	0.00
35+12.42	317.84 Lt.	635.22	610.76	620.22	620.22	619.28	619.55	15.67	0.00
35+50.00	270.98 Lt.	632.35	610.48	617.35	617.35	614.39	616.68	15.67	0.00
36+03.11	215.52 Lt.	627.61	610.08	612.61	612.61	612.85	611.94	15.67	0.00
36+50.00	136.14 Lt.	624.76	609.73	609.76	609.76	605.77	609.09	15.67	0.00
37+00.00	68.31 Lt.	625.83	609.36	610.83	610.83	607.38	610.16	15.67	0.00
37+14.77	50.93 Lt.	626.55	609.25	611.56	611.55	607.46	610.88	15.67	0.01
37+50.00	46.15 Lt.	625.83	608.99	610.83	610.83	607.33	610.16	15.67	0.00
38+00.00	42.53 Lt.	625.02	608.63	610.02	610.02	607.21	609.35	15.67	0.00
38+50.00	42.08 Lt.	624.31	608.42	609.31	609.31	607.03	608.64	15.67	0.00
39+00.00	42.08 Lt.	623.84	608.41	608.84	608.84	606.45	608.17	15.67	0.00
39+50.00	42.08 Lt.	623.74	608.61	608.74	606.58	605.72	605.91	17.81	2.16
40+00.00	42.08 Lt.	623.92	608.79	608.92	606.42	605.21	605.75	18.17	2.50
40+50.00	42.08 Lt.	623.89	608.76	608.89	606.39	605.52	605.72	18.17	2.50
41+00.00	42.08 Lt.	623.65	608.52	608.65	606.15	604.28	605.48	18.17	2.50

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	33,940
Geocomposite Wall Drain	Sq. Yd.	112
Pipe Underdrains for Structures 4"	Foot	291

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	13+54.82	41+00.00	Reflective	-
Residential face	13+54.82	41+00.00	Reflective	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

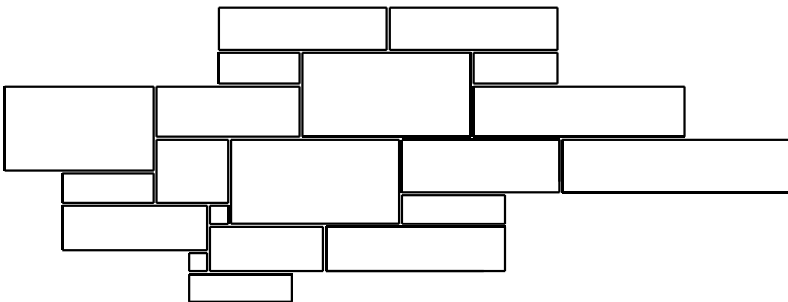
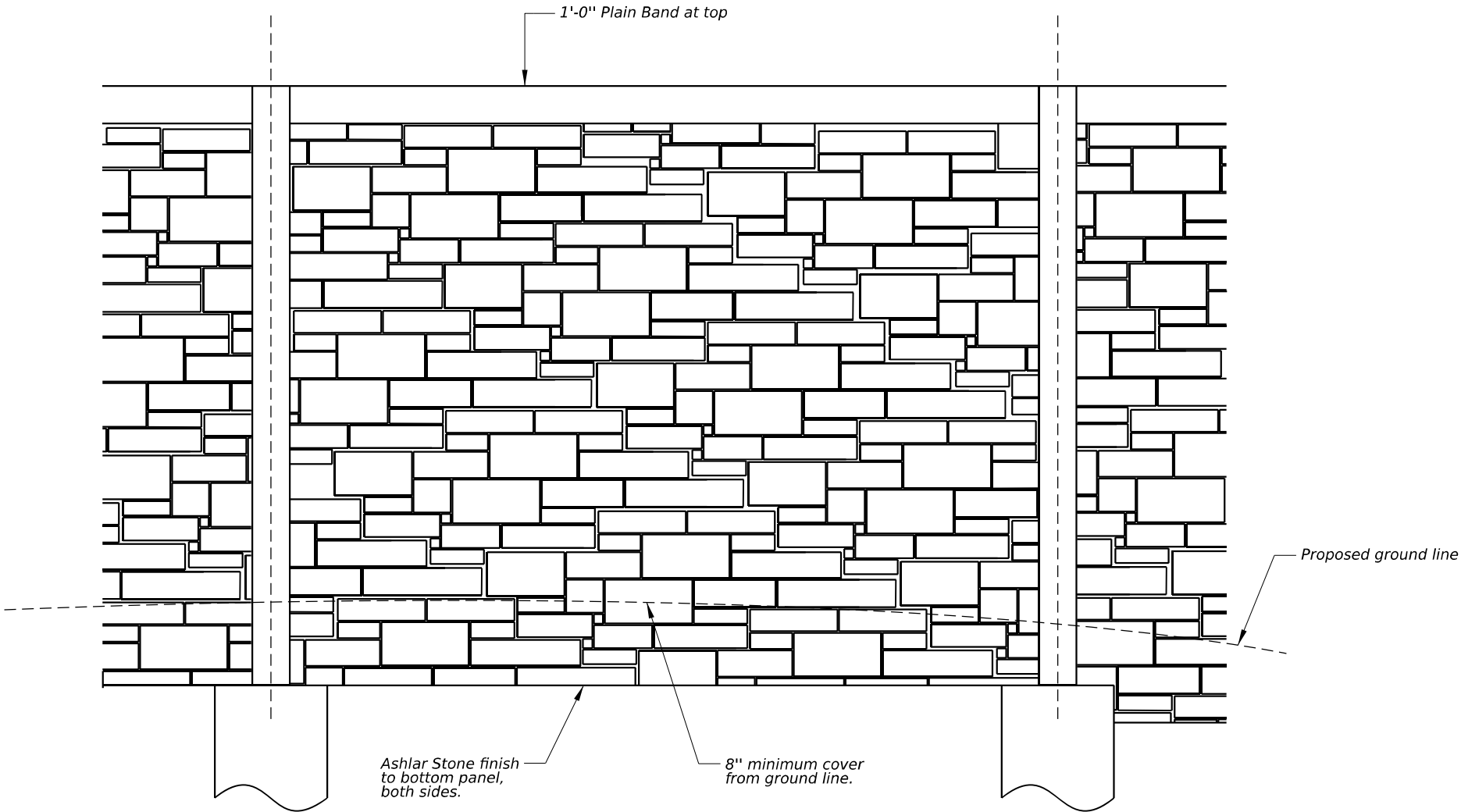
GENERAL NOTES AND TOTAL BILL OF MATERIAL
NOISE ABATEMENT WALL B23B - SN 099-N1026

SHEET SL-05 OF SL-09 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	799
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

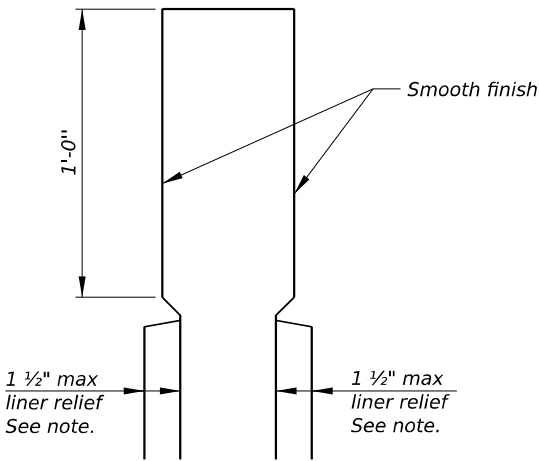
MODEL: NOISE WALLS DETAILS
FILE NAME: pw:///transystems-pw1-hosted/Documents/Projects_2018/CH40_1/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Fina/NAV B23/D162R22-GPE_B23B-06.dgn

Notes:
Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 ½" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



Stone Pattern Sizes:
3" x 3" - 14" x 28"

ENLARGED PATTERN DETAIL



ENLARGED CAP DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
NOISE ABATEMENT WALL B23B - SN 099-N1026

SHEET SL-06 OF SL-09 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	800
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	