

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/\$YEAR2
mvandervelden - 8/26/2025 1:52:27 PM
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\\corp.baxwood.com\project\Azure\WCCDH\190663-Allendale Bridge\CAD\Sheets_Phase 2\190663_PH2_SHT-50Q.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				BRIDGE
				0010
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	555	555
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	255	255
42000060	WELDED WIRE REINFORCEMENT	SQ YD	190	190
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	190	190
44000100	PAVEMENT REMOVAL	SQ YD	678	678
48203024	HOT-MIX ASPHALT SHOULDERS, 6 ¾"	SQ YD	732	732
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50102400	CONCRETE REMOVAL	CU YD	10	10
50105220	PIPE CULVERT REMOVAL	FOOT	74	74
50200100	STRUCTURE EXCAVATION	CU YD	348	348
50200300	COFFERDAM EXCAVATION	CU YD	778	778
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1	1
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1	1
50201123	COFFERDAM (TYPE 2) (LOCATION - 3)	EACH	1	1
50300225	CONCRETE STRUCTURES	CU YD	253.1	253.1

* INDICATES SPECIALTY ITEM
\$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				BRIDGE
				0010
50300255	CONCRETE SUPERSTRUCTURE	CU YD	828.2	828.2
50300260	BRIDGE DECK GROOVING	SQ YD	691	691
50300300	PROTECTIVE COAT	SQ YD	820	820
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	95.8	95.8
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	269,750	269,750
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	1,999 1,679	1,999 1,679
51202305	DRIVING PILES	FOOT	1,999 1,679	1,999 1,679
51203200	TEST PILE METAL SHELLS	EACH	5	5
51204650	PILE SHOES	EACH	38	38
51500100	NAME PLATES	EACH	1	1
54260715	SLOPED METAL END SECTION WITH GRATE, STANDARD 542411, 15", 1:6	EACH	6	6
542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	192	192
550B0360	STORM SEWERS, CLASS B, TYPE 2 15"	FOOT	252	252
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	83	83
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	43	43

* INDICATES SPECIALTY ITEM
\$ INDICATES CONSTRUCTION CODE 0042 TRAINEES



USER NAME	= miakowski	DESIGNED	- MAL	REVISED	-  10/13/2025 BLB
		DRAWN	- MJO	REVISED	-
PLOT SCALE	= 20.0000 ' / in.	CHECKED	- JSH	REVISED	-
PLOT DATE	= 8/27/2025	DATE	- 07/28/2025	FILE	- 190663_PH2_SHT-SOQ.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 4 OF 4 SHEETS STA. TO STA.

RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 73	19-00507-00-BR	MCHENRY	92	7
CONTRACT NO. 61L88				
		ILLINOIS	FED. AID PROJECT	SOOV(023)

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				BRIDGE 0010 URBAN
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	3	3
X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	1	1
 X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SY	678	678
* X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	25	25
X6640104	FENCE REMOVAL	FOOT	1,058	1,058
X6700405	ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED)	CAL MO	9	9
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
X7200061	TEMPORARY INFORMATION SIGNING	SQ FT	55	55
* X7280105	TELESCOPING STEEL SIGN SUPPORT (SPECIAL)	FOOT	23	23
* Z0007124	STEEL RAILING (SPECIAL)	FOOT	430	430
Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	100	100
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
Z0038700	PERMANENT BENCH MARKS	EACH	3	3
\$ Z0076600	TRAINEES	HOOR	500	0
\$ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOOR	500	0

* INDICATES SPECIALTY ITEM
\$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

GENERAL NOTES

1. Approximately three timber pile stubs exist within the bridge opening as remnants of a previous structure foundation. These shall be removed in accordance with Section 501 of the Standard Specifications. Cost included with Removal of Existing Structures.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. The Contractor's falsework submittal shall include calculations addressing these issues. Forms for deck slab shall be removed prior to placement of bridge approach slab.
4. Protective Coat to be applied to the top surface of the slab and the top and front faces of curbs.
5. Layout of the Articulated Block Revetment Mat may be varied to suit ground conditions in the field as directed by the Engineer. Revetment mat within two feet north or south of the bridge superstructure (40' width) shall be closed-cell. All other revetment mat shall be open-cell.
6. The Concrete Removal pay item is provided for the partial or full removal of an old concrete structure located immediately east of the existing west abutment. Removal and disposal shall be done in accordance with Article 501 of the Standard Specifications.

2-Yr Q = 1008 CFS

WATERWAY INFORMATION

Drainage Area = 25.4 sq. mi. Proposed Overtopping Elev. = 856.84 @ Sta. 23+00									
Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	3724	263	800	856.4	1.3	1.0	857.7	857.4
Base	20	4651	263	866	856.9	1.2	1.3	858.1	858.2
Scour Design Check	100	7438	263	1027	858.1	0.9	0.8	859.0	858.9
Overtopping	200	8533	263	1079	858.5	0.8	0.9	859.3	859.4
Max. Calc.	~20	4651	263	866	856.9	1.2	1.3	858.1	858.2
	-	-	-	-	-	-	-	-	-

10-yr Velocity through Exist. Bridge = 7.83 ft/s 10-yr Velocity through Prop. Bridge = 4.33 ft/s

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)					
	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.	Item 113
Q100	845.3	829.1	829.1	834.0	847.3	5
Q200	842.4	828.6	828.6	833.5	844.4	5
Design	855.3	829.1	829.1	834.0	853.3	5
Check	855.3	828.6	828.6	833.5	853.3	5

NIPPERSINK CREEK
BUILT 20__ BY
MCHENRY COUNTY
SEC. 19-00507-00-BR
TR 73 STA. 20+21.50
STRUCTURE NO. 056-9104
LOADING HL-93

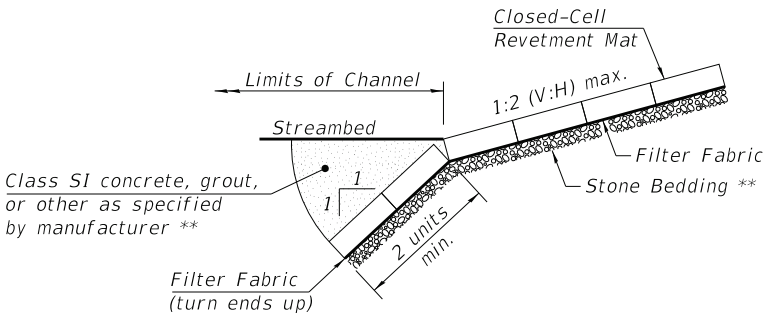
NAME PLATE
See Std. 515001

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- S-2 General Data
- S-3 Top of Slab Elevations
- S-4 Top of West Approach Slab Elevations
- S-5 Top of East Approach Slab Elevations
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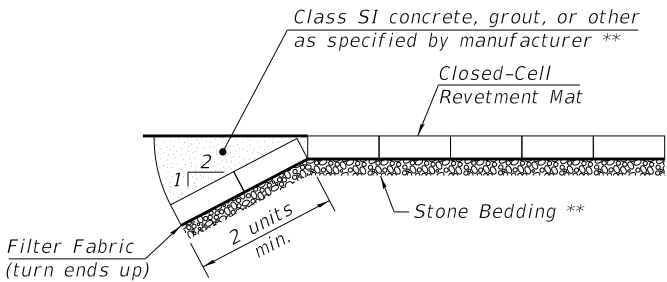
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Filter Fabric	Sq Yd		2,762	2,762
Articulated Block Revetment Mat	Sq Yd		2,762	2,762
Removal of Existing Structures	Each		1	1
Concrete Removal	Cu Yd		10.0	10.0
Structure Excavation	Cu Yd		348	348
Cofferdam Excavation	Cu Yd		778	778
Cofferdam (Type 2) (Location - 1)	Each		1	1
Cofferdam (Type 2) (Location - 2)	Each		1	1
Cofferdam (Type 2) (Location - 3)	Each		1	1
Concrete Structures	Cu Yd		253.1	253.1
Concrete Superstructure	Cu Yd	828.2		828.2
Bridge Deck Grooving	Sq Yd	691		691
Protective Coat	Sq Yd	820		820
Concrete Superstructure (Approach Slab)	Cu Yd	95.8		95.8
Reinforcement Bars, Epoxy Coated	Pound	240,990	28,760	269,750
Furnishing Metal Shell Piles 14" x 0.312"	Foot		1,679	1,679
Driving Piles	Foot		1,679	1,679
Test Pile Metal Shells	Each		5	5
Pile Shoes	Each		38	38
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq Yd		43	43
Granular Backfill For Structures	Cu Yd		83	83
Pipe Underdrains For Structures 4"	Foot		97	97
Steel Railing (Special)	Foot	430		430
Bridge Deck Grooving (Longitudinal)	Sq Yd	678		678



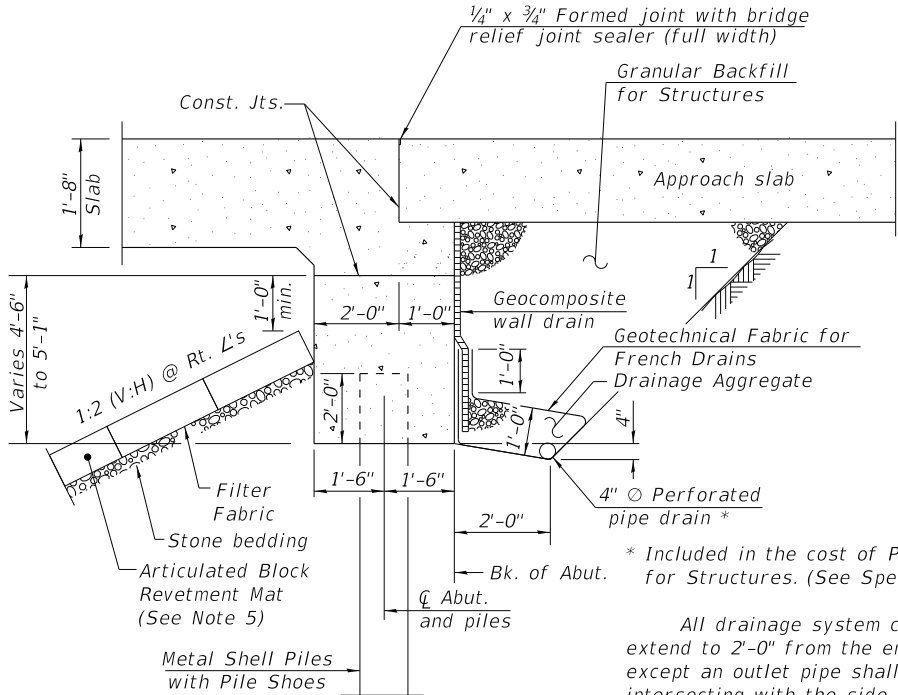
SECTION A-A

Revetment Mat End Treatment Detail
(Closed cell shown, open cell similar)



SECTION B-B

** Included with the cost of Articulated Block Revetment Mat and installed according to manufacturer's specifications



SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

MODEL: Default
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	DRAWN -	SMA	REVISED -	
	PLOT SCALE = 0.0833' / in.	CHECKED -	BLB	REVISED -
	PLOT DATE = 10/16/2025	DATE -	07/28/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 056-9104

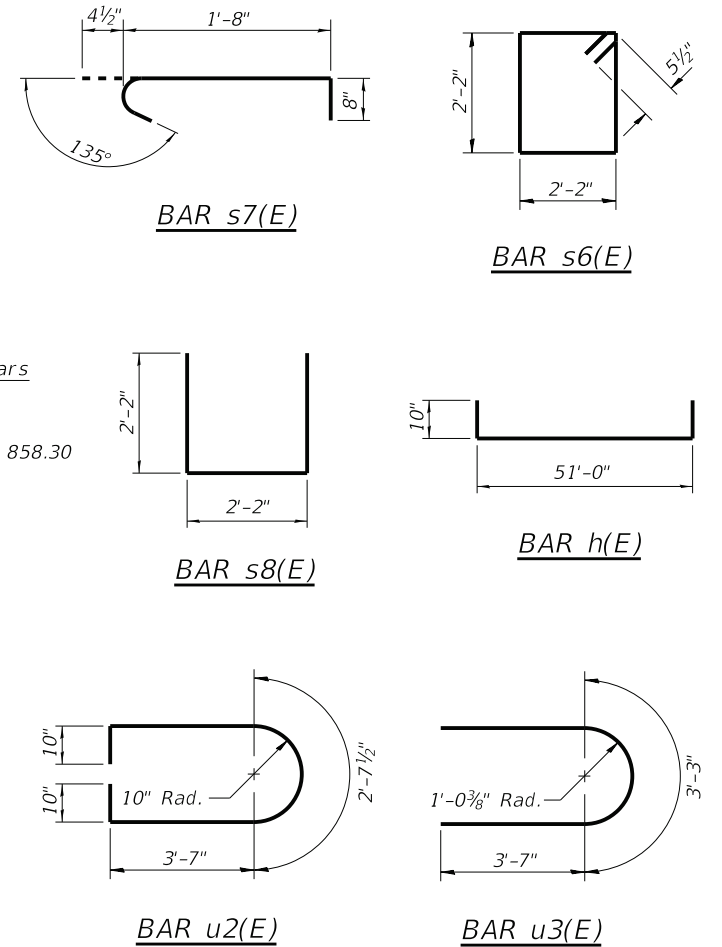
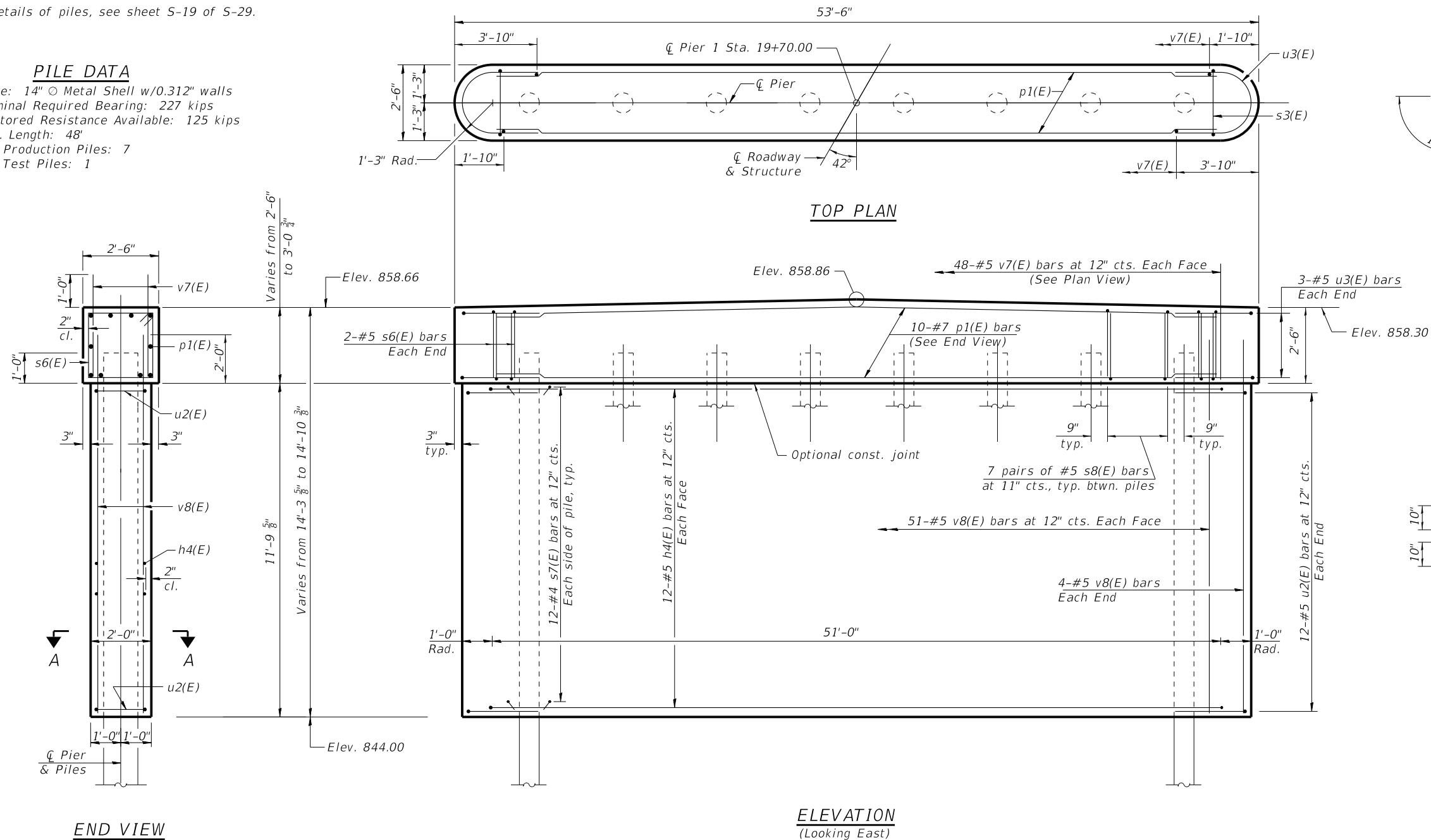
SHEET 5-2 OF 5-29 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 73	19-00507-00-BR	MCHENRY	92	42
CONTRACT NO. 61L88				
ILLINOIS FED. AID PROJECT SOOV(023)				

Notes:
For details of piles, see sheet S-19 of S-29.

PILE DATA

Type: 14" $\odot$ Metal Shell w/0.312" walls
Nominal Required Bearing: 227 kips
Factored Resistance Available: 125 kips
Est. Length: 48'
No. Production Piles: 7
No. Test Piles: 1



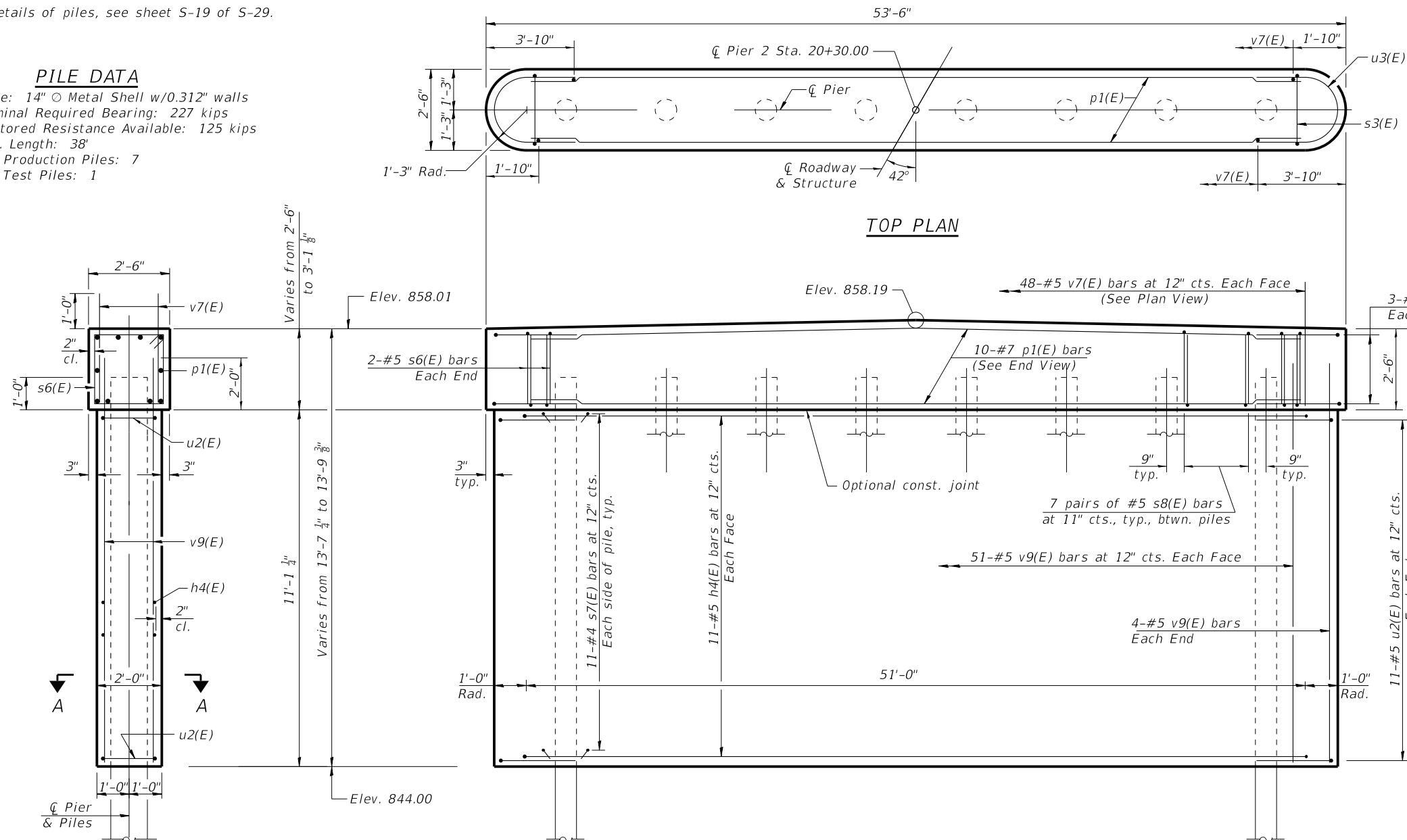
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h4(E)	24	#5	52'-8"	
p1(E)	10	#7	51'-0"	
s6(E)	4	#5	9'-7"	
s7(E)	192	#4	2'-9"	
s8(E)	98	#5	6'-6"	
u2(E)	24	#5	11'-6"	
u3(E)	6	#5	10'-5"	
v7(E)	96	#5	3'-4"	
v8(E)	110	#5	13'-6"	
Cofferdam Excavation			Cu. Yd.	274.6
Concrete Structures			Cu. Yd.	62.2
Reinforcement Bars, Epoxy Coated			Pound	5,550
Furnishing Metal Shell Pile 14"x0.312"			Foot	336
Driving Piles			Foot	336
Pile Shoes			Each	8
Test Pile Metal Shells			Each	1
Cofferdam (Type 2) (Location 1)			Each	1

Notes:
For details of piles, see sheet S-19 of S-29.

PILE DATA

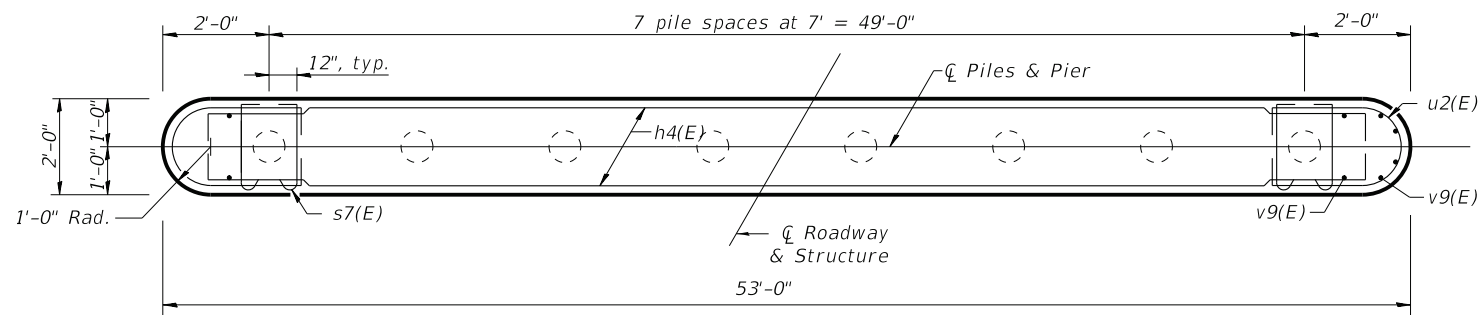
Type: 14" $\odot$ Metal Shell w/0.312" walls
Nominal Required Bearing: 227 kips
Factored Resistance Available: 125 kips
Est. Length: 38'
No. Production Piles: 7
No. Test Piles: 1



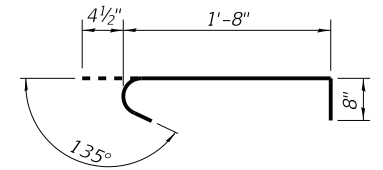
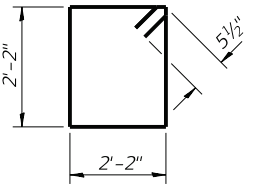
END VIEW

TOP PLAN

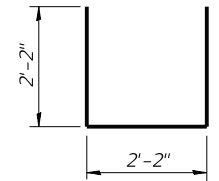
ELEVATION
(Looking East)



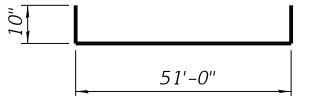
SECTION A-A

BAR s7(E)

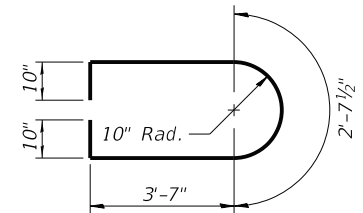
BAR s6(E)



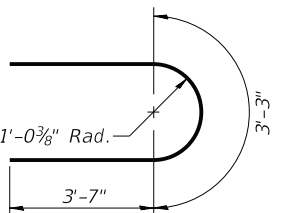
BAR s8(E)



BAR $h(E)$



BAR u2(E)



BAR $u_3(E)$

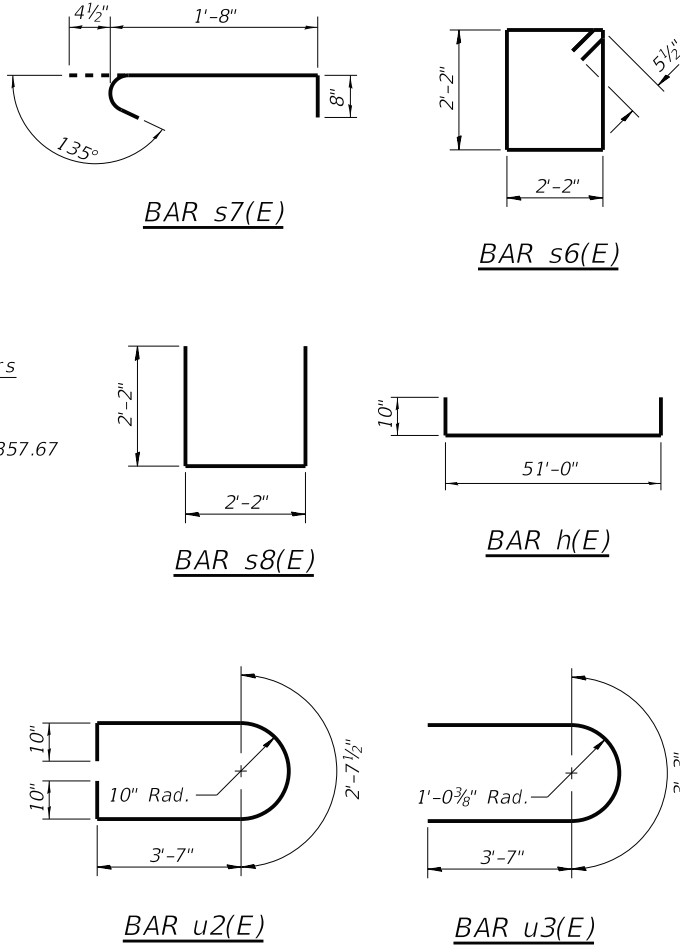
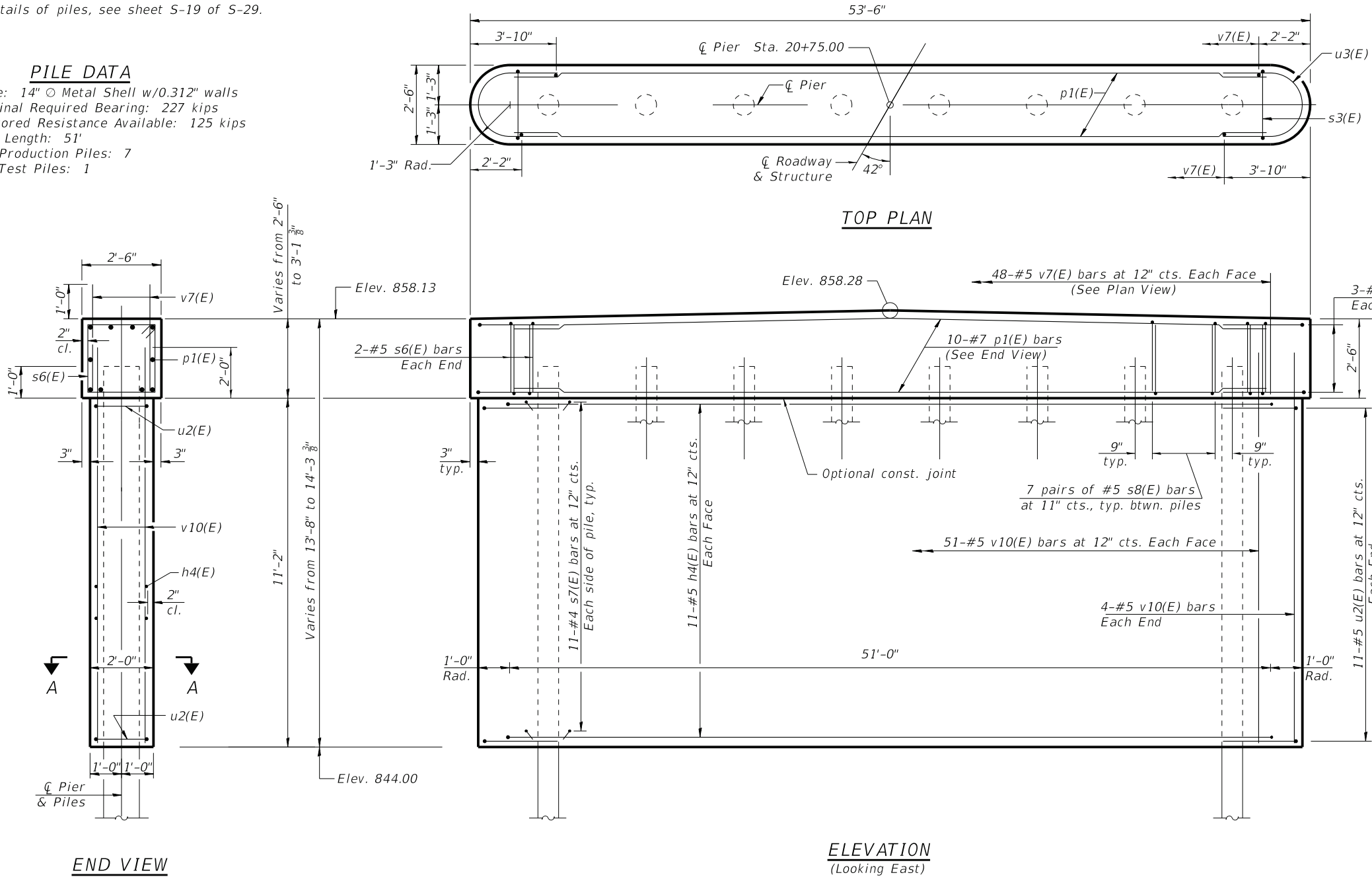
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h4(E)	22	#5	52'-8"	
p1(E)	10	#7	51'-0"	
s6(E)	4	#5	9'-7"	
s7(E)	176	#4	2'-9"	
s8(E)	98	#5	6'-6"	
u2(E)	22	#5	11'-6"	
u3(E)	6	#5	10'-5"	
v7(E)	96	#5	3'-4"	
v9(E)	110	#5	12'-11"	
Cofferdam Excavation			Cu. Yd.	251.0
Concrete Structures			Cu. Yd.	57.9
Reinforcement Bars, Epoxy Coated			Pound	5,430
Furnishing Metal Shell Pile 14"x0.312"			Foot	266
Driving Piles			Foot	266
Pile Shoes			Each	8
Test Pile Metal Shell			Each	1
Cofferdam (Type 2) (Location 2)			Each	1

Notes:
For details of piles, see sheet S-19 of S-29.

PILE DATA

Type: 14" $\odot$ Metal Shell w/0.312" walls
Nominal Required Bearing: 227 kips
Factored Resistance Available: 125 kips
Est. Length: 51'
No. Production Piles: 7
No. Test Piles: 1



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h4(E)	22	#5	52'-8"	U
p1(E)	10	#7	51'-0"	—
s6(E)	4	#5	9'-7"	U
s7(E)	176	#4	2'-9"	U
s8(E)	98	#5	6'-6"	U
u2(E)	22	#5	11'-6"	U
u3(E)	6	#5	10'-5"	U
v7(E)	96	#5	3'-4"	—
v10(E)	110	#5	13'-0"	—
Cofferdam Excavation				Cu. Yd. 252.4
Concrete Structures				Cu. Yd. 58.2
Reinforcement Bars, Epoxy Coated				Pound 5,440
Furnishing Metal Shell Pile 14"x0.312"				Foot 357
Driving Piles				Foot 357
Pile Shoes				Each 8
Test Pile Metal Shells				Each 1
Cofferdam (Type 2) (Location 3)				Each 1

MODEL: Pier3
FILE NAME: \\corp.baxwood.com\project\Azure\MCCDH\190663-Allendale Bridge\CAD\Sheets_Phase 2\Structural\190663_PH2_SHT-STR_Piers.dgn

USER NAME = bbuzzell	DESIGNED - BLB	REVISED - 10/16/2025 BLB
DRAWN - DZ	REVIS	
PLOT SCALE = 0.0833' / in.	CHECKED - BAB	REVIS
PLOT DATE = 10/16/2025	DATE - 07/28/2025	REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3
STRUCTURE NO. 056-9104

SHEET S-18 OF S-29 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 73	19-00507-00-BR	MCHENRY	92	58
CONTRACT NO. 61L88				
ILLINOIS FED. AID PROJECT SOOV(023)				