

Bridge Replacement - CCSB
Project: BROS-C079(73)--8J-79

POWESHIEK COUNTY
Letting Date: June 16, 2026

Drawing Approval

All shop drawings and falsework drawings that require approval shall be submitted to and approved by the Contractor, who shall stamp, certify or provide other such evidence on the drawings that they have received contractor approval. The approved drawings shall then be submitted to the Poweshiek County Engineer for review and approval.

Address: 102 S 3rd St.
PO Box 306
Montezuma, IA 50171
Telephone: (641) 623-5435

Shop drawings shall be independent drawings with adequate dimensioning for fabrication of individual pieces of each component. Photocopies of plan drawings and non-contractor approved plans will be rejected.

These drawings shall NOT be sent to Iowa D.O.T. Office of Bridges and Structures.



2022 Traffic Count = 45 vpd

POWESHIEK COUNTY

IOWA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLANS OF PROPOSED IMPROVEMENT ON THE
SECONDARY ROADS SYSTEM

POWESHIEK COUNTY

BRIDGE REPLACEMENT - CCSB
On 100th Street, Over N English River, Sec. 15-T79N-R15W
Refer to the Proposal Form for list of applicable specifications.

TRAFFIC CONTROL PLAN

This road will be closed to thru traffic during construction. Access shall be maintained as provided for in Article 1107.08 of the current Standard Specifications and Standard Road Plan TC-252. Contractor is to furnish and maintain all signs and barricades required for this project. Detour to be established by Poweshiek County.

US ARMY CORPS OF ENGINEERS 404 PERMIT

Construct this project according to the requirements of US Army Corps of Engineers Nationwide Permit 14. A copy of this permit is available from the Iowa DOT website (<http://envpermits.iowadot.gov/CMEPortal/ENV/Home.aspx>). The US Army of Corps of Engineers reserves the right to visit the site without prior notice.

POLLUTION PREVENTION PLAN

This project is covered by the Iowa Department of Natural Resources NPDES General Permit No. 2. The Contractor shall carry out the terms and conditions of General Permit No. 2 and the Storm Water Pollution Prevention Plan which is a part of these contract documents. Refer to Section 2602 of the Standard Specifications for additional information.

Sta. 23+98
Proposed 150' x 30'-6" PPCB
0° Skew
FHWA# 292640
Local ID 7915150050



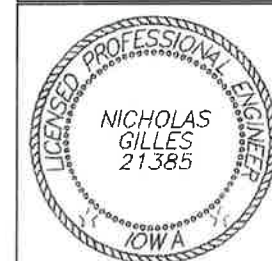
BROS-C079(73)--86-79		Total Sheets - 20
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15	BORING LOG (N ABUTMENT/S ABUTMENT)	
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17	BORING LOG (NORTH PIER)	
18	BORING LOG (N PIER/S PIER)	
19	BORING LOG (SOUTH PIER)	
20	POLLUTION PREVENTION PLAN	



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Lyle W. Brehm 3/19/2026
LYLE W. BREHM, P.E. DATE

MY LICENSE RENEWAL IS DECEMBER 31, 2027.
PAGES OR SHEETS COVERED BY THIS SEAL, 1-13 & 20 OF 20 SHEETS.



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Nicholas Gilles 3-19-26
NICHOLAS GILLES, P.E. DATE

MY LICENSE RENEWAL IS DECEMBER 31, 2027.
PAGES OR SHEETS COVERED BY THIS SEAL, 14-19 OF 20 SHEETS.

BOARD OF SUPERVISORS

Jason Roudabush
Chair, Jason Roudabush

Jacki Bolen
Jacki Bolen

Jeff Tindle
Jeff Tindle



Poweshiek
County
Secondary Roads

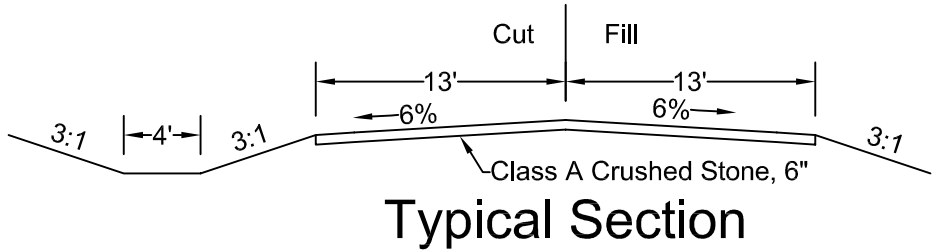
ACCEPTED FOR LETTING
Lyle W. Brehm 3/19/2026
POWESHIEK COUNTY ENGINEER DATE

STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	2026	1	20

ESTIMATED PROJECT QUANTITIES					
REF	CODE NO.	DESCRIPTION	UNIT	TOTAL	As Built
0010	2101-0850001	CLEARING AND GRUBBING	ACRE	0.380	
0020	2102-2625000	EMBANKMENT-IN-PLACE	CY	2,297.800	
0030	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	3,954.600	
0040	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	7,874.200	
0050	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	1,266.400	
0060	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	1,056.200	
0070	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON	90.000	
0080	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1.000	
0090	2402-2720000	EXCAVATION, CLASS 20	CY	137.000	
0100	2403-0100010	STRUCTURAL CONCRETE (BRIDGE)	CY	415.000	
0110	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	94,968.000	
0120	2414-6424124	CONCRETE OPEN RAILING, TL-4	LF	322.000	
0130	2417-0225024	APRONS, METAL, 24 IN. DIA.	EACH	4.000	
0140	2417-0225060	APRONS, METAL, 60 IN. DIA.	EACH	2.000	
0150	2417-1040024	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 24 IN. DIA.	LF	170.000	
0160	2417-1040060	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 60 IN. DIA.	LF	126.000	
0170	2501-0201042	PILES, STEEL, HP 10 X 42	LF	910.000	
0180	2501-0201473	PILES, STEEL, HP 14 X 73	LF	1,520.000	
0190	2501-5478073	CONCRETE ENCASEMENT OF STEEL H PILES, HP 14 X 73 (P10L TYPE 3)	LF	383.200	
0200	2501-6335010	PREBORED HOLES	LF	140.000	
0210	2502-8215806	SUBDRAIN, TILE, 6 IN. DIA.	LF	10.000	
0220	2502-8215812	SUBDRAIN, TILE, 12 IN. DIA.	LF	10.000	
0230	2502-8221305	SUBDRAIN OUTLET, DR-305	EACH	2.000	
0240	2507-3250005	ENGINEERING FABRIC	SY	1,914.800	
0250	2507-6800061	REVTMENT, CLASS E	TON	2,068.000	
0260	2519-3280000	FENCE, FIELD	LF	24.000	
0270	2519-3300400	FIELD FENCE BRACE PANELS	EACH	3.000	
0280	2519-4200110	REMOVAL OF FENCE, BARBED WIRE	LF	24.000	
0290	2524-9100030	OBJECT MARKER, TYPE 3	EACH	4.000	
0300	2526-8285010	CONSTRUCTION SURVEY, MONUMENT PRESERVATION	LS	1.000	
0310	2526-8285020	CONSTRUCTION SURVEY, CONTROL POINT SURVEY	LS	1.000	
0320	2526-8285030	CONSTRUCTION SURVEY, ROW	LS	1.000	
0330	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1.000	
0340	2528-2518000	SAFETY CLOSURE	EACH	4.000	
0350	2528-8445110	TRAFFIC CONTROL	LS	1.000	
0360	2533-4980005	MOBILIZATION	LS	1.000	
0370	2601-2634100	MULCHING	ACRE	2.590	
0380	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	2.590	
0390	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	2.590	
0400	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	480.000	
0410	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	480.000	
0420	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	2.000	
0430	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1.000	

Scrape samples of paint were taken to get an indication of the existence of and level of total chromium and total lead. The analysis of total chromium in the sample was 6,460 ppm. The analysis of total lead in the sample was 676 ppm. The analysis shows the existence of these two toxic constituents. The levels indicated by these tests could create conditions above regulatory limits for health safety requirements. No other substances were analyzed. The bidder should not rely on the LPA's testing and analysis for any purpose other than an indication of the existence of these two constituents.

An investigation was made for the presence of asbestos by Scott Brown (License #17-8740I). Asbestos was not detected in the bridge elements.
If asbestos is discovered during removal Poweshiek County will contract with a licensed asbestos contractor. The Prime Contractor will be required to coordinate with the asbestos contractor.



STANDARD ROAD PLANS			105-4 10-18-11
The following Standard Road Plans apply to construction work on this project.			
Number	Date	Title	
EC-201	04-20-21	Silt Fence	
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices	
EC-502	04-21-15	Seeding in Rural Areas	
EW-101	10-17-17	Embankment & Rebuilding Embankments	
EW-102	10-20-15	Allowable Placement of Unsuitable Soil in Embankments	
EW-202	04-19-16	Bridge Berm Grading Without Recoverable Slope (Non-Barnroof Section)	
MI-101	10-20-15	Fencing Layout	
MI-103	10-20-15	Deer Fence and Field Fence Construction	
SI-173	04-19-16	Object Markers	
TC-252	10-21-25	Routes Closed to Traffic	


UTILITY CONTACT INFORMATION			
Company	Contact Name	Email Address	Phone Number
MidAmerican - Electric	Ashton Wagner	cdsmdesignlocates@midamerican.com	(515) 281-2989
MidAmerican - Wind	Wind Engineer	cdsmdesignlocates@midamerican.com	(800) 632-0999
Poweshiek Water Association	Rick Anderson	rick@poweshiekwater.com	(641) 522-7416
Windstream Communincations	Locate Desk	locate.desk@windstream.com	(800) 289-1901

ESTIMATE REFERENCE INFORMATION						100-4A 10-29-02	
Item No.	Item Code	Description					
0010	2101-0850001	<u>CLEARING AND GRUBBING</u> See Tabulation CLEARING AND GRUBBING on Sheet 5 and EROSION CONTROL PLAN VIEW on Sheet 11.					
0020	2102-2625000	<u>EMBANKMENT-IN-PLACE</u> To be provided by Contractor. See Tabulation EARTHWORK on Sheet 5.					
0030	2102-2710070	<u>EXCAVATION, CLASS 10, ROADWAY AND BORROW</u> Suitable material shall be used in construction of approach grading. No payment for Overhaul will be allowed. Unsuitable material may be wasted on site. See STANDARD ROAD PLAN EW-102 for placement. Excess material may be wasted on site. See Tabulation EARTHWORK on Sheet 5. Please note guardrail blisters are omitted (not to be constructed).					
0040	2104-2710020	<u>EXCAVATION, CLASS 10, CHANNEL</u> See Tabulation EARTHWORK on Sheet 5.					
0050	2105-8425015	<u>TOPSOIL, STRIP, SALVAGE AND SPREAD</u> This is required to meet NPDES permit requirements. Quantity pertains to work within project limits. Topsoil shall be stripped from within project limits and spread uniformly (min. 4 inch depth) over all areas not covered by pavement or granular material. Areas shall be undercut prior to placing topsoil. Contractor is to familiarize themselves with Iowa law as it pertains to removal and replacement of topsoil within project area. See Tabulation SPREADING TOPSOIL on Sheet 5.					
0060	2312-8260051	<u>GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE</u> See Tabulation GRANULAR SURFACING ON ROADWAY on Sheet 6. Rock is estimated at a density of 130 PCF.					
0070	2315-8275025	<u>SURFACING, DRIVEWAY, CLASS A CRUSHED STONE</u> See Tabulation ACCESS POINTS on Sheet 6.					
0080	2401-6745625	<u>REMOVAL OF EXISTING BRIDGE</u> Existing structure (94'x20' PPCB Bridge, Timber Abutments/Piers, Concrete Deck/Beams) to become property of Contractor and shall be removed from the site by the Contractor. Existing structure shall be removed to at least 1' below streambed. See Tabulation REMOVAL OF EXISTING STRUCTURES on Sheet 6.					
0090	2402-2720000	<u>EXCAVATION, CLASS 20</u> Quantity is based on the assumption that Class 10 work is completed prior to starting excavation for abutments. Suitable material shall be used in construction of approach grading. No payment for Overhaul will be allowed. Unsuitable and excess material may be wasted on site. See STANDARD ROAD PLAN EW-102 for allowable placement.					
0100	2403-0100010	<u>STRUCTURAL CONCRETE (BRIDGE)</u> All Structural Concrete shall be Class 'C'. Shall include Certified Plant Inspection. See BRIDGE STANDARD QUANTITIES on Sheet 7.					
0110	2404-7775005	<u>REINFORCING STEEL, EPOXY COATED</u> See BRIDGE STANDARD QUANTITIES on Sheet 7 and STANDARD BRIDGE PLANS on Sheet 7.					
0120	2414-6424124	<u>CONCRETE OPEN RAILING, TL-4</u> Shall include Certified Plant Inspection. See BRIDGE STANDARD QUANTITIES on Sheet 7 and STANDARD BRIDGE PLANS on Sheet 7.					
0130	2417-0225024	<u>APRONS, METAL, 24 IN. DIA.</u> See Tabulation ACCESS POINTS on Sheet 6.					
0140	2417-0225060	<u>APRONS, METAL, 60 IN. DIA.</u> See Tabulation ACCESS POINTS on Sheet 6.					
0150	2417-1040024	<u>CULVERT, CORRUGATED METAL ENTRANCE PIPE, 24 IN. DIA.</u> See Tabulation ACCESS POINTS on Sheet 6.					
0160	2417-1040060	<u>CULVERT, CORRUGATED METAL ENTRANCE PIPE, 60 IN. DIA.</u> See Tabulation ACCESS POINTS on Sheet 6.					
0170	2501-0201042	<u>PILES, STEEL, HP 10 X 42</u> Drive to full penetration where practical. See BRIDGE STANDARD QUANTITIES on Sheet 7, PILE DRIVING NOTES on Sheet 12, and BRIDGE PLAN VIEW on Sheet 10 for length and location. Refer to STANDARD BRIDGE PLANS on Sheet 7.					
0180	2501-0201473	<u>PILES, STEEL, HP 14 X 73</u> Drive to full penetration where practical. See BRIDGE STANDARD QUANTITIES on Sheet 7, PILE DRIVING NOTES on Sheet 12, and BRIDGE PLAN VIEW on Sheet 10 for length and location. Refer to STANDARD BRIDGE PLANS on Sheet 7.					
0190	2501-5478073	<u>CONCRETE ENCASEMENT OF STEEL H PILES, HP 14 X 73 (P10L TYPE 3)</u> All Structural Concrete shall be Class 'C'. No payment will be mde for Heating & Protection of concrete placed between November 15 and April 1. Shall include Certified Plant Inspection. See BRIDGE STANDARD QUANTITIES on Sheet 7 for lengths and locations.					
0200	2501-6335010	<u>PREBORED HOLES</u> See Tabulation TABULATION OF BRIDGE STANDARD QUANTITIES on Sheet 7.					
0210	2502-8215806	<u>SUBDRAIN, TILE, 6 IN. DIA.</u> Item is for replacement of farm tile. Includes connections to existing farm tile, new tile intake and tile outlet. See LIST OF SUBDRAIN WORK on Sheet 8.					
0220	2502-8221305	<u>SUBDRAIN, TILE, 12 IN. DIA.</u> Item is for replacement of farm tile. Includes connections to existing farm tile, new tile intake and tile outlet. See LIST OF SUBDRAIN WORK on Sheet 8.					
0230	2502-8221305	<u>SUBDRAIN OUTLET, DR-305</u> Item is for placement of farm tile outlet. See DR-305 Type A (Standard Subdrain Outlet). Outlet is to be 12 inch diameter. See LIST OF SUBDRAIN WORK on Sheet 8.					
0240	2507-3250005	<u>ENGINEERING FABRIC</u> To be placed below REVETMENT, CLASS E. See EROSION CONTROL PLAN VIEW on Sheet 11 for limits and Tabulation ENGINEERING FABRIC on Sheet 8 for locations and quantities.					
0250	2507-6800061	<u>REVETMENT, CLASS E</u> To be placed at a thickness of 2 feet. See EROSION CONTROL PLAN VIEW on Sheet 11 for limits and Tabulation REVETMENT on Sheet 8 for locations and quantities.					
0260	2519-3280000	<u>FENCE, FIELD</u> See Tabulation FENCING on Sheet 8					
0270	2519-3300400	<u>FIELD FENCE BRACE PANELS</u> See Tabulation FENCING on Sheet 8					
0280	2519-4200110	<u>REMOVAL OF FENCE, BARBED WIRE</u> See Tabulation REMOVAL OF FENCE on Sheet 6					
2022 Traffic Count = 45 vpd		POWESHIEK COUNTY	BROS-C079(73)--8J-79	STATE IOWA	FISCAL YEAR 2026	SHEET NO. 3	TOTAL SHEETS 20

ESTIMATE REFERENCE INFORMATION						100-4A 10-29-02
Item No.	Item Code	Description				
0290	2524-9100030	OBJECT MARKER, TYPE 3 To be placed at the four corners of the bridge. See STANDARD ROAD PLAN SI-173. Method of Measurement and Basis of Payment to be per each OBJECT MARKER installed.				
0300	2526-8285010	CONSTRUCTION SURVEY, MONUMENT PRESERVATION Shall also include presercation of property pins, cornerstone, and re-establishment of major cornerstone (mile and half-mile).				
0340	2528-2518000	SAFETY CLOSURE Shall include 2 Hazard Closures and 2 Safety Closures. See Tabulation SAFETY CLOSURES on Sheet 6 and STANDARD ROAD PLAN TC-252.				
0370	2601-2634100	MULCHING Contractor is to reshape, fertilize, seed, and mulch any areas disturbed during construction (excluding areas with GRANULAR SURFACING or REVETMENT). See EROSION CONTROL PLAN VIEW on Sheet 11 for limits and Tabulation SEEDING on Sheet 6 for locations and areas.				
0380	2601-2636043	SEEDING AND FERTILIZING (RURAL) Contractor is to reshape, fertilize, seed, and mulch any areas disturbed during construction (excluding areas with GRANULAR SURFACING or REVETMENT). See EROSION CONTROL PLAN VIEW on Sheet 11 for limits and Tabulation SEEDING on Sheet 6 for locations and areas.				
0390	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING Shall be used at the discretion of the Engineer for seeding outside of specified dates. Item may be omitted if seeding within specified dates can be achieved in a timely manner.				
0400	2602-0000030	SILT FENCE FOR DITCH CHECKS See EROSION CONTROL PLAN VIEW on Sheet 11 and Tabulation PERIMETER AND SEDIMENT CONTROL DEVICES on Sheet 6 for locations.				
0410	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA. See EROSION CONTROL PLAN VIEW on Sheet 11 and Tabulation PERIMETER AND SEDIMENT CONTROL DEVICES on Sheet 6 for locations.				
0420	2602-0010010	MOBILIZATIONS, EROSION CONTROL See EROSION CONTROL PLAN VIEW on Sheet 11 and Tabulation PERIMETER AND SEDIMENT CONTROL DEVICES on Sheet 6 for locations.				
0430	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL Item is intended to allow temporary erosion control when placement of Silt Fence is not possible. Item may be omitted if Silt Fence can be placed in a timely manner. See EROSION CONTROL PLAN VIEW on Sheet 11, and Tabulation PERIMETER AND SEDIMENT CONTROL DEVICES ON SHEET 6 for locations.				

Bid Items Referenced: 0010																	110-17 04-18-17			
CLEARING AND GRUBBING																				
Location		Work and Material Type	Trees, Stumps, and Logs and Down Timber Material Diameters												All Other Materials		Estimated Quantities			Remarks
Station to Station or Ref. Loc. Sign to Re. Loc. Sign or Description	Direction of Travel		3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>48"-60"	>60"-72"	>72"	Length	Width	Units	Area	Herbicide Application	
															FT	FT	Units	Acres	Each	
22+75 to 23+75	NB	Trees, brush, fence															0.09			
24+30 to 25+25	NB	Trees, brush, fence															0.07			
22+00 to 23+70	SB	Trees, brush, fence															0.13			
24+20 to 25+40	SB	Trees, brush, fence															0.09			
Total																	0.38			

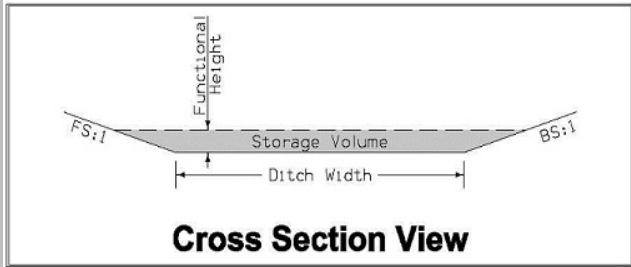
Bid Items Referenced: 0020, 0030, 0040, 0090											
EARTHWORK											
Refer to Section 2102 of the Standard Specifications, EW-101, & EW-102											
* Excess shall be paid for as Class 10, Roadway & Borrow if used as Class 10, Roadway & Borrow "fill". Excess not used as Class 10 Roadway & Borrow shall be incidental to Class 10, Channel.											
Location	Excavation Type	Cut	Raw Fill	Shrinkage Factor	Cut Req'd For Fill	Total Borrow Needed	Borrow Available from Site	Contractor Furnished Borrow	*Excess	Payment Quantity	Remarks
Station		CY	CY	%	CY	CY	CY	CY	CY	CY	
Total	Class 10 Channel	7874.2	2038.7	35%	2752.2	0.0	7874.2	0.0	5122.0	7,874.2	Suitable Class 10 Channel Excess may be used for Class 10, Roadway & Borrow. Class 10 Channel Excess may be wasted on site.
	Class 10, Roadway & Borrow	3954.6	4631.4	35%	6252.4	6,252.4	3954.6	2,297.8	0.0	3,954.6	Class 10 Excess shall be used or Class 10, Roadway & Borrow.
	Class 20	137								137	Suitable Class 20 may be used for Class 10, Roadway & Borrow. Class 20 may be wasted on site.

Bid Items Referenced: 0050												
SPREADING TOPSOIL												
<div><div></div><div><p>Perform this work according to Section 2105. Prior to placing topsoil on any cohesive soil, scarify the area to be covered to a minimum depth of 3 inches.</p><p>Appropriate adjustments have been made in the template quantities to reflect the placement of topsoil on foreslope, backslope and ditch bottom as detailed hereon.</p></div></div>												
Location							Remarks	Topsoil Excavation Available From				Remarks
Station to Station		Side	Slope	T	Area	Quantity		Station to Station		Amount Reserved		
		LT or RT	B. or F.	IN	SF	CY				CY		
24+25	28+75	LT	Both	4.00	27,975.0	345.4	NW Quadrant	24+25	28+75	345.4		
24+25	28+75	RT	Both	4.00	31,648.4	390.7	NE Quadrant	24+25	28+75	390.7		
19+25	23+75	LT	Both	4.00	24,965.6	308.2	SW Quadrant	19+25	23+75	308.2		
19+25	23+75	RT	Both	4.00	17,993.8	222.1	SE Quadrant	19+25	23+75	222.1		
Total					102,582.8	1,266.4				1,266.4		

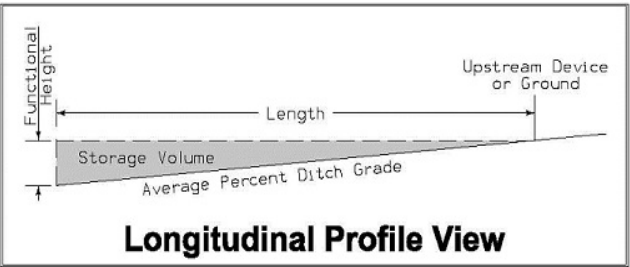
Bid Items Referenced:
0350, 0360, 0370, 0380

100-18
10-16-18

PERIMETER AND SEDIMENT CONTROL DEVICES



Cross Section View



Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.

* Volume equation: $[0.5 \times \text{Spacing} \times (0.5 \times H^2 \times \text{FS} + \text{DW} \times H + 0.5 \times H^2 \times \text{BS})]$

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary							Remarks
		Station	Side	Installation LF	Maintenance LF	Removal LF	Foreslope FS:1	Backslope BS:1	Ditch Width FT	Avg.% Slope Ditch Grade	Spacing	Down Stream	Volume* CF	
20		28+00	RT	24.0			3.0	3.0	4.0	2.0%			0.0	NE Quadrant
19		27+25	RT	24.0			3.0	3.0	4.0	1.0%	75		404.4	NE Quadrant
18		25+50	RT	24.0			3.0	3.0	4.0	2.0%	175		943.5	NE Quadrant
17		25+00	RT	24.0			3.0	3.0	4.0	2.0%	50		269.6	NE Quadrant
16		24+50	RT	24.0			3.0	3.0	4.0	6.5%	50		269.6	NE Quadrant
15		23+70	RT	24.0			3.0	3.0	4.0	17.0%	50		269.6	SE Quadrant
14		23+20	RT	24.0			3.0	3.0	4.0	4.0%	70		377.4	SE Quadrant
13		22+50	RT	24.0			3.0	3.0	4.0	4.0%	100		539.1	SE Quadrant
12		21+50	RT	24.0			3.0	3.0	4.0	3.5%	100		539.1	SE Quadrant
11		20+50	RT	24.0			3.0	3.0	4.0	3.0%			0.0	SE Quadrant
10		28+00	LT	24.0			3.0	3.0	4.0	2.0%			0.0	NW Quadrant
9		27+25	LT	24.0			3.0	3.0	4.0	4.0%	75		404.4	NW Quadrant
8		25+50	LT	24.0			3.0	3.0	4.0	4.0%	175		943.5	NW Quadrant
7		25+00	LT	24.0			3.0	3.0	4.0	2.0%	50		269.6	NW Quadrant
6		24+50	LT	24.0			3.0	3.0	4.0	6.5%	50		269.6	NW Quadrant
5		23+70	LT	24.0			3.0	3.0	4.0	11.5%	50		269.6	SW Quadrant
4		23+20	LT	24.0			3.0	3.0	4.0	2.0%	70		377.4	SW Quadrant
3		22+50	LT	24.0			3.0	3.0	4.0	3.5%	100		539.1	SW Quadrant
2		21+50	LT	24.0			3.0	3.0	4.0	5.0%	100		539.1	SW Quadrant
1		20+50	LT	24.0			3.0	3.0	4.0	5.0%			0.0	SW Quadrant
TOTAL				480.0									7224.6	

Bid Items Referenced:
0070, 0130, 0140, 0150, 0160

ACCESS POINTS

*Predetermined for access point not constructed with this project.

Location		Type*	W**	Pipe Culvert**					Aprons	Driveway Surfacing Material	Remarks
Station	Side			H	Size	PL	Lt.	Rt.			
			FT	FT	IN	FT	LF	LF	No.	TON	
26+50	RT	C	60	8.00	60	126	57	69	2	30.0	110 Acres
26+50	LT	C	60	6.00	24	114	64	50	2	30.0	5 Acres
20+80	RT	C	40	1.00	24	56	30	26	2	15.0	8 Acres
19+45	RT									15.0	Residential Driveway
Total				24"	170				4		
Total				60"	126				2		
Total										90.0	

Bid Items Referenced:
0060

GRANULAR SURFACING ON ROADWAY

Location		Side	Width (ft)	Depth (in)	Tons	Remarks
Station to Station						
24+73	31+00	Both	26	6	529.8	Roadway
17+00	23+23	Both	26	6	526.4	Roadway
Total					1,056.2	

Bid Items Referenced:
0370, 0380

SEEDING

Location		Mulching	Native Grass Seeding	Mulching	Native Grass Seeding	Remarks
Begin Station	End Station					
24+25	28+75	37,235.0	37,235.0	0.850	0.850	NE
19+25	23+75	13,007.0	13,007.0	0.300	0.300	SE
24+25	28+75	32,793.0	32,793.0	0.750	0.750	NW
19+25	23+75	29,902.0	29,902.0	0.690	0.690	SW
Total		112937.0	112937.0	2.590	2.590	

Bid Items Referenced:
0250

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
	1		At 440th & 100th
29+50		1	EOP
19+50		1	BOP
	1		At 450th & 100th
Total	2	2	

Bid Items Referenced:
0260

100-08
04-17-18

REMOVAL OF FENCE

Removal of Field Fence is incidental to Clearing and Grubbing

Location				Type	Length	Remarks
From		To			LF	
Station	Offset	Station	Offset			
26+50	163' RT	26+50	187' RT	Barbed	24.0	Removal of end of field fence
Total					24.0	

Bid Items Referenced:
0080,

REMOVAL OF EXISTING STRUCTURES

Refer to Section 2401 & 1104.06 B of the Standard Specifications

Station	Side	Description	Disposal
23+98	Center	94'x20' PPCB Bridge, Timber Abutments/Piers, Concrete Deck/Beams	As per Specification 2401

Bid Items Referenced: 0100, 0110, 0120, 0190, 0200, 0210				
BRIDGE STANDARD QUANTITIES				
Refer to Standard Bridge Plan Sheets Listed Below				
Segment	Source	Revision Date	Units	Quantity
150'-0 X 30'-6 CCSB on 0° Skew				
Superstructure Structural Concrete (includes 4 wings @ 0.68 CY each & 2 temporary paving blocks @ 0.8 CY each, excludes rail)	J30-19E-06	Sept. 2020	CY	392.8
Standard Superstructure Reinforcing Steel (Epoxy Coated)	J30-19E-06	Sept. 2020	LB	82,169
Weight of Single 5h1 Bar	J30-19E-06	Sept. 2020	LB	8.89
Standard Number of 5h1 bars (for 12 Piles)	J30-19E-06	Sept. 2020	NO.	44
Selected Number of 5h1 Bars (for 7 Piles)	J30-03E-06	Sept. 2020	NO.	48
Weight of Additional 5h1 Bars (See Note 1, J30-23-06)	Calculation	Sept. 2020	LB	36
Selected Superstructure Reinforcing Steel (Epoxy Coated)	Calculation		LB	82,205
Open Rail Pay Length (TL-4)	J30-19E-06	Sept. 2020	LF	322.0
Open Rail Reinforcing Steel	J30-19E-06	Sept. 2020	LB	9,605
Structural Concrete In 1 Abutment (With Steel H Piles)	J30-39-06	Sept. 2020	CY	11.1
Structural Concrete In 2 Abutments (With Steel H Piles)	Calculation		CY	22.2
Reinforcing Steel In 1 Abutment (With Steel H Piles)	J30-39-06	Sept. 2020	LB	1,579
Reinforcing Steel In 2 Abutments (With Steel H Piles)	Calculation		LB	3,158
Structural Concrete - Superstructure	See Above		CY	392.8
Structural Concrete - 2 Abutments	See Above		CY	22.2
Structural Concrete - Total	Calculation		CY	415.0
Reinforcing Steel - Superstructure	See Above		LB	82,205
Reinforcing Steel - 2 Abutments	See Above		LB	3,158
Reinforcing Steel - Open Rail	See Above		LB	9,605
Reinforcing Steel - Total	Calculation		LB	94,968

STANDARD BRIDGE PLANS			
The following Standard Bridge Plans apply to construction work on this project.			
Number	Date Issued	Date Revised	Title
J30-01-06	Nov 2006	Sept 2020	Index Sheet
J30-01A-06	Nov 2006	Sept 2020	General Notes
J30-18E-06	Nov 2006	Sept 2020	Superstructure Details 150'-0 Bridge Epoxy Coated Reinforcing
J30-19E-06	Nov 2006	Sept 2020	Superstructure Details 150'-0 Bridge Epoxy Coated Reinforcing
J30-20-06	Nov 2006	Sept 2020	Superstructure Details All Bridges
J30-21-06	Nov 2006	Sept 2020	Superstructrue Details All Bridges 0° & 15° Skew
J30-23-06	Nov 2006	Sept 2020	Monolithic Pier Cap Details All Bridges
J30-24-06	Nov 2006	Sept 2020	Monolithic Pier Cap Details All Bridges
J30-34-06	Nov 2006	Sept 2020	Abutment Details 0° Skew - Steel Piling
J30-39-06	Nov 2006	Sept 2020	Abutment Details Steel Piling
J30-43-06	Nov 2006	Sept 2020	Open Rail Details (TL-4)
J30-44-06	Nov 2006	Sept 2020	Open Rail Details (TL-4)
J30-45-06	Nov 2006	Sept 2020	Subdrain Details
J30-46-06	Nov 2006	Sept 2020	Wing Armoring Details
J30-47-06	Dec 2008	Sept 2020	Abutment Backfill Details for 0 Degree Skews
P10L	Jan 2009	Jun 2025	LRFD Trestle Pile Bents - P10L

South Abutment				
Centerline Grade Elevation at South Abutment	Bridge Hdy.		FT	879.76
Elevation Diff. From Top of Deck to Bottom of Abut at CL (6'-1")	J30-20-06	Sept. 2020	FT	6.08
Bottom of South Abutment Elevation at Centerline	Calculation		FT	873.68
Pile Embedment Into Abutment	J30-20-06	Sept. 2020	FT	2.00
Elevation at Top of South Abutment Piles	Calculation		FT	875.68
Number of Steel H Piles For South Abutment (HP10x42)	J30-39-06	Sept. 2020	NO.	7
Length of Each South Abutment Pile	Use IDOT BDM 6.2	Feb. 2021	LF	65
Length Of Steel H Piles For South Abutment	Calculation		LF	455
Elevation at Bottom of South Abutment Piles (Planned)	Calculation		FT	810.68
Prebore Length Per Pile	J30-39-06	Sept. 2020	LF	10
Length of Prebored Holes With Steel Piles For South Abutment	Calculation		LF	70
Required Bearing per Pile	Use IDOT BDM 6.2		TONS	89
South Pier				
Number Of South Pier Piles (HP14x73)	Use BDM 6.2.6.1-1	Feb. 2021	NO.	8
Length Of South Pier Piles (HP14x73)	Use IDOT BDM 6.2	Feb. 2021	LF	95
Pay Length Of South Pier Piles (HP14x73)	Calculation		LF	760
Centerline Grade Elevation at Each Pier	Bridge Hdy.		FT	879.54
Depth of Deck (2'-0")	J30-19E-06	Sept. 2020	FT	2.00
Depth of Monolithic Pier Cap	J30-20-06	Sept. 2020	FT	1.00
Elevation at Bottom of Pier Cap at Centerline	Calculation		FT	876.54
Pile Embedment Into Cap	J30-24-06	Sept. 2020	FT	1.00
Elevation at Top of Pier Piles at Centerline	Calculation		FT	877.54
Ground Elevation at Pier	Survey		FT	855.48
Encasement Depth Below Ground Level	IDOT BDM 6.6.4.2.2	Feb. 2021	FT	3.00
Bottom Encasement Elevation	Calculation		FT	852.48
Length Of Each Encasement	Calculation		LF	24.1
Number Of Piles To Encase	Calculation		NO.	8
Pay Length Of Encasements	Calculation		LF	192.8
Required Bearing per Pile	Use IDOT BDM 6.2		TONS	166
North Pier				
Number Of North Pier Piles (HP14x73)	Use BDM 6.2.6.1-1	Feb. 2021	NO.	8
Length Of North Pier Piles (HP14x73)	Use IDOT BDM 6.2	Feb. 2021	LF	95
Pay Length Of North Pier Piles (HP14x73)	Calculation		LF	760
Centerline Grade Elevation at Each Pier	Bridge Hdy.		FT	879.25
Depth of Deck (2'-0")	J30-18E-06	Sept. 2020	FT	2.00
Depth of Monolithic Pier Cap	J30-20-06	Sept. 2020	FT	1.00
Elevation at Bottom of Pier Cap at Centerline	Calculation		FT	876.25
Pile Embedment Into Cap	J30-24-06	Sept. 2020	FT	1.00
Elevation at Top of Pier Piles at Centerline	Calculation		FT	877.25
Streambed Elevation	Survey		FT	855.48
Encasement Depth Below Streambed	IDOT BDM 6.6.4.2.2	Feb. 2021	FT	3.00
Bottom Encasement Elevation	Calculation		FT	852.48
Length Of Each Encasement	Calculation		LF	23.8
Number Of Piles To Encase	Calculation		NO.	8
Pay Length Of Encasements	Calculation		LF	190.4
Required Bearing per Pile	Use IDOT BDM 6.2		TONS	166
North Abutment				
Centerline Grade Elevation at North Abutment	Bridge Hdy.		FT	846.76
Elevation Diff. From Top of Deck to Bottom of Abut at CL (6'-1")	J30-20-06	Sept. 2020	FT	6.08
Bottom of North Abutment Elevation at Centerline	Calculation		FT	840.68
Pile Embedment Into Abutment	J30-20-06	Sept. 2020	FT	2.00
Elevation at Top of North Abutment Piles	Calculation		FT	842.68
Number of Steel H Piles For North Abutment (HP10x42)	J30-39-06	Sept. 2020	NO.	7
Length of Each North Abutment Pile	Use IDOT BDM 6.2	Feb. 2021	LF	65
Length Of Steel H Piles For North Abutment	Calculation		LF	455
Elevation at Bottom of North Abutment Piles (Planned)	Calculation		FT	777.68
Prebore Length Per Pile	J30-39-06	Sept. 2020	LF	10
Length of Prebored Holes With Steel Piles For North Abutment	Calculation		LF	70
Required Bearing per Pile	Use IDOT BDM 6.2		TONS	101

Bid Items Referenced: 0190										
ENGINEERING FABRIC										
Refer to Section 2507 & 4196 of the Standard Specifications										
Location			Approx. Length FT	Approx. Width FT	Area SF	Slope _:1	Projected Area SF	Area SY	Projected Area SY	Remarks
Station to Station		Side								
24+20	24+70	LT	50	160	8000	2.5	8616	888.9	957.4	Projected area based on 2.5:1 embankment slope
23+28	23+78	Both	50	160	8000	2.5	8616	888.9	957.4	Projected area based on 2.5:1 embankment slope
Total					16000		17233	1777.8	1914.8	

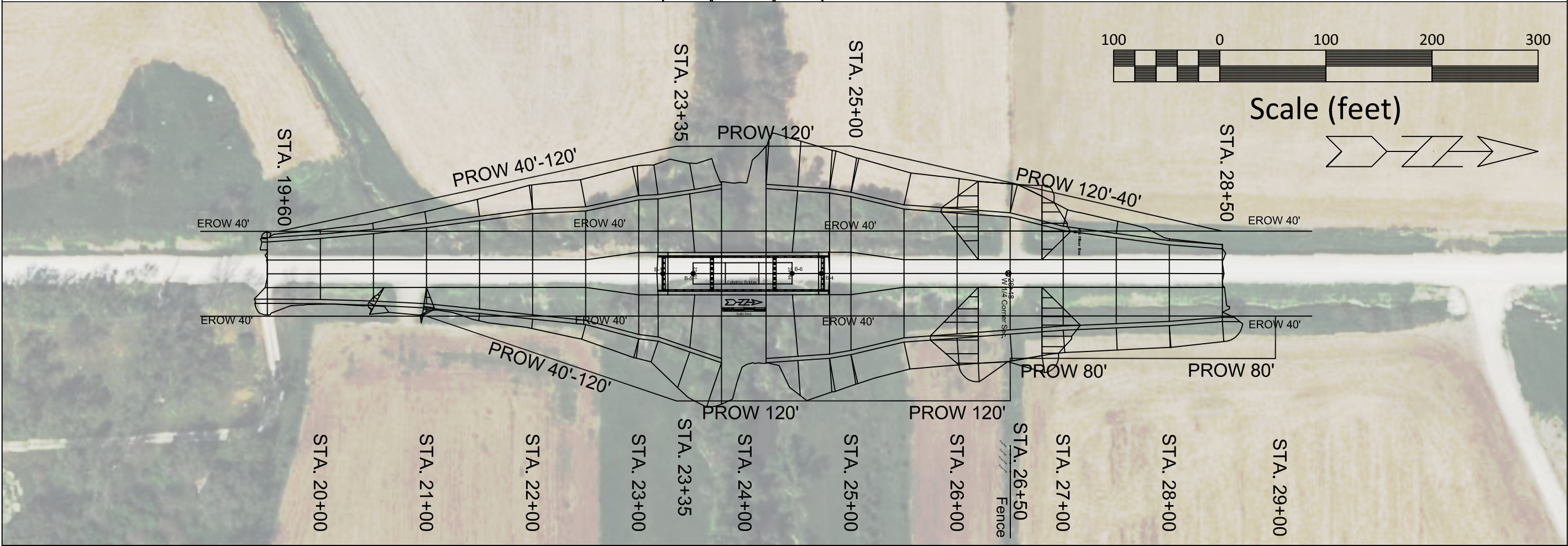
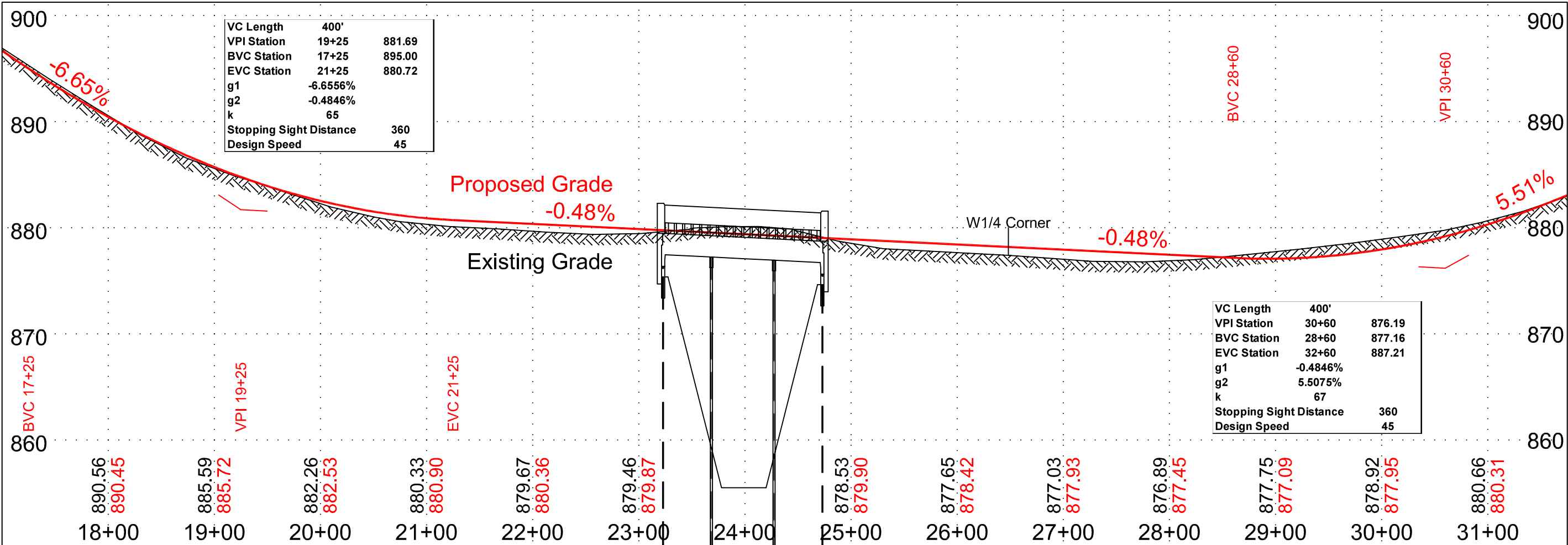
Bid Items Referenced: 0240														
REVETMENT														
Refer to Section 2507 of the Standard Specifications														
Location			Approx. Length	Approx. Width	Area	Slope	Projected Area	Projected Area	Thickness	Projected Volume	Density	Weight	Weight	Remarks
Station to Station		Side												
24+20	24+70	Under Bridge	50	160	8000	2.5	8616	957.4	24	17233	120	2,067,903	1034.0	Projected area based on 2.5:1 embankment slope
23+28	23+78	Under Bridge	50	160	8000	2.5	8616	957.4	24	17233	120	2,067,903	1034.0	Projected area based on 2.5:1 embankment slope
Total			16000			17233		1,914.8		34465		4,135,807		2068.0

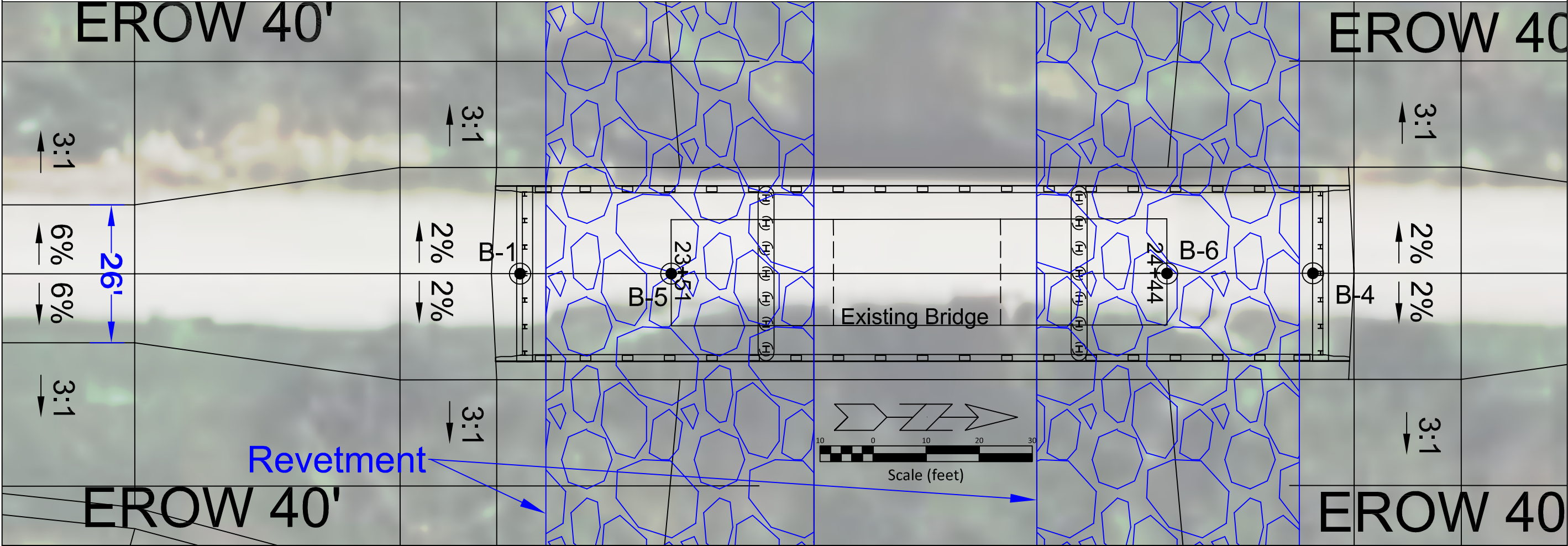
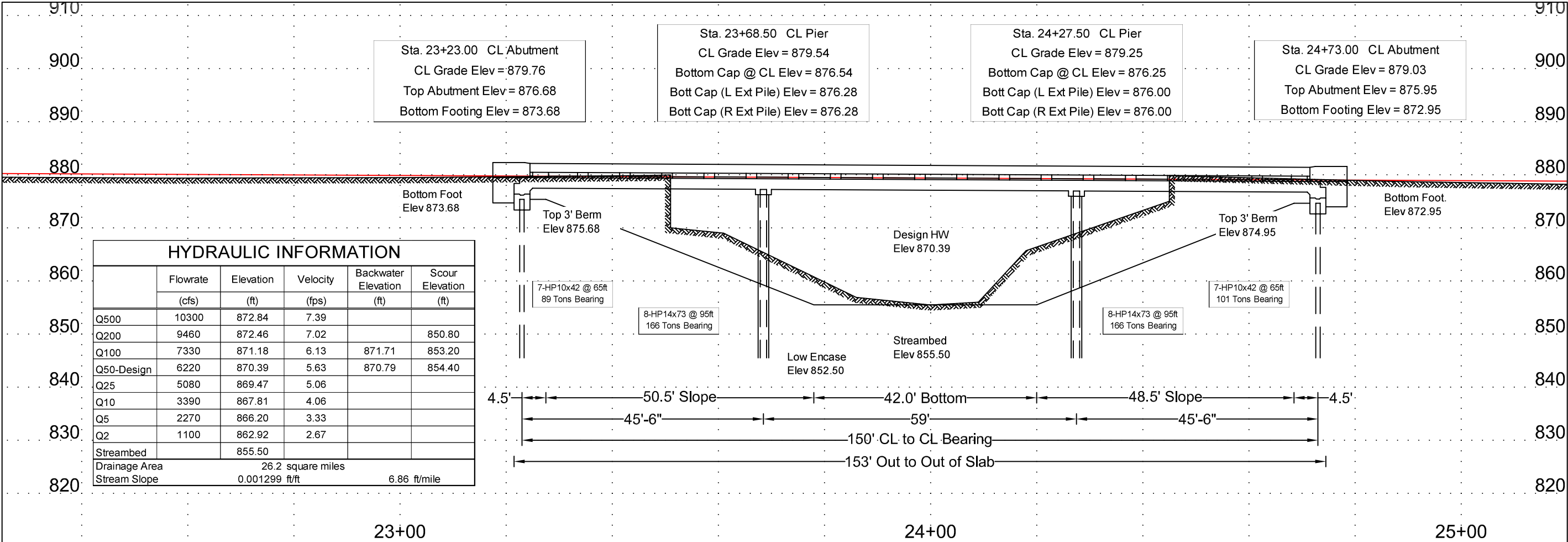
Bid Items Referenced: 0210, 0220, 0230																	104-5C 10-17-17	
LIST OF SUBDRAIN WORK																		
Possible Standards: DR-121, DR-201, DR-203, DR-301, DR-302, DR-303, DR-305 and DR-306. Possible Detail: 500-10.																		
* Not a bid item																		
Location			Pipe			Aprons		Outlets			Connected Pipe Joints*		Trench Drain	Granular Material	Porous Backfill*	Class "A" Crushed Stone*	Remarks	
No.	Station to Station	Type of Installation	Concrete, CMP, or Plastic	Dia. IN	Length LF	DR-201 No.	DR-203 No.	500-10 No.	DR-305		DR-306 No.	DR-121		Blanket CY				CY
		DR-301, DR-302, DR-303							Type	No.		Type	No.					
0210	25+30		CMP	6	10					1							Place tile, connect to existing tile.	
0220	26+30		Plastic	12	10					1							Place tile, connect to existing tile.	

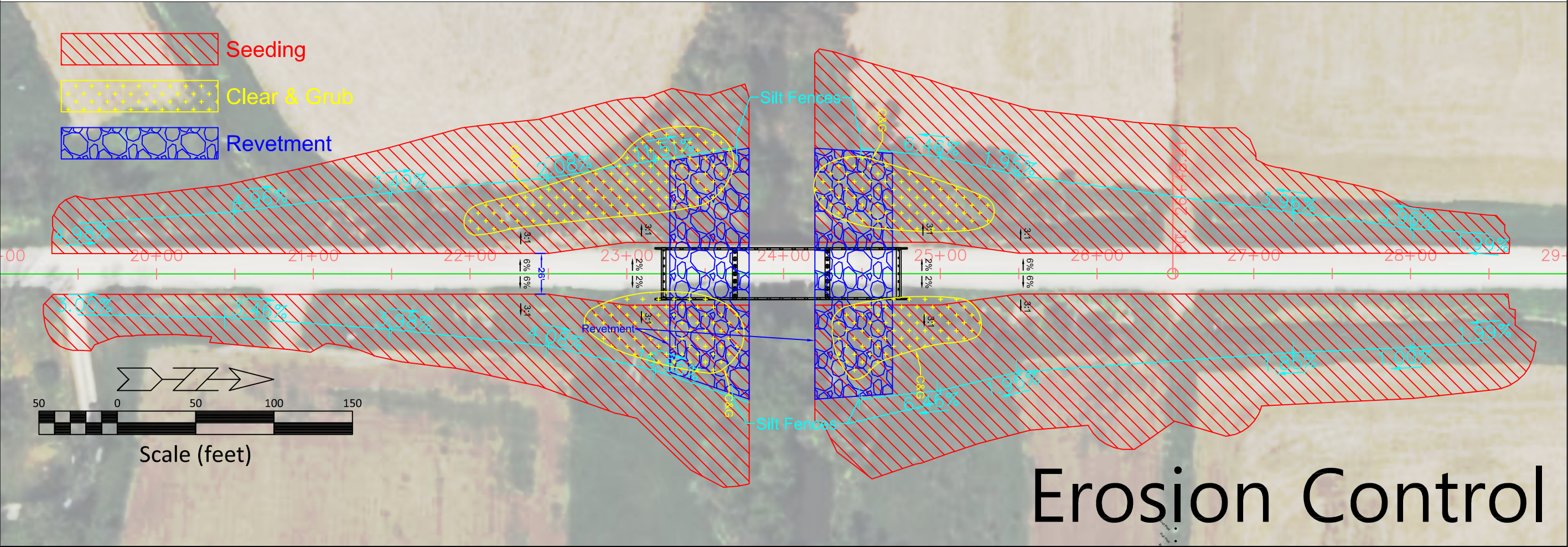
Bid Items Referenced: 0260, 0270																		100-7 10-16-12	
FENCING																			
*Bid Item																			
Location				Side	Chain Link				Deer				Field				Channel Crossing		Remarks
From		To			Fence		Gate		Fence	Brace	Gate		Fence	Brace	Gate		Channel Crossing		
Station	Offset	Station	Offset		Length	Type	No.*	Type	Length*	Panels*	No.*	Type	Length*	Panels*	No.*	Type	Length	Type	
							EACH												
26+50	163'			RT									24.0	3.0					Connect remaining fence that runs East from Brace.
Total													24.0	3.0					

Bridge Replacement - CCSB
Project: BROS-C079(73)--8J-79

POWESHIEK COUNTY
Letting Date: June 16, 2026







Erosion Control

2022 Traffic Count = 45 vpd	POWESHIEK COUNTY	BROS-C079(73)--8J-79	STATE IOWA	FISCAL YEAR 2026	SHEET NO. 11	TOTAL SHEETS 20
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THE CONTRACT LENGTH OF 65 FEET FOR THE SOUTH ABUTMENT PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 98 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.6. PILES ALSO WERE DESIGNED FOR A FACTORED TENSION FORCE OF 0 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.55.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR SOUTH ABUTMENT PILES IS 89 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. IN NO CASE SHALL A PILE BE EMBEDDED LESS THAN 35 FEET. CONSTRUCTION CONTROL REQUIRES A MODIFIED IOWA DOT ENR FORMULA.

THE CONTRACT LENGTH OF 65 FEET FOR THE NORTH ABUTMENT PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 98 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.6. PILES ALSO WERE DESIGNED FOR A FACTORED TENSION FORCE OF 0 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.55.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR NORTH ABUTMENT PILES IS 101 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. IN NO CASE SHALL A PILE BE EMBEDDED LESS THAN 35 FEET. CONSTRUCTION CONTROL REQUIRES A MODIFIED IOWA DOT ENR FORMULA.

THE CONTRACT LENGTH OF 90 FEET FOR THE SOUTH PIER PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 169 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.6. PILES ALSO WERE DESIGNED FOR A FACTORED TENSION FORCE OF 0 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.55.

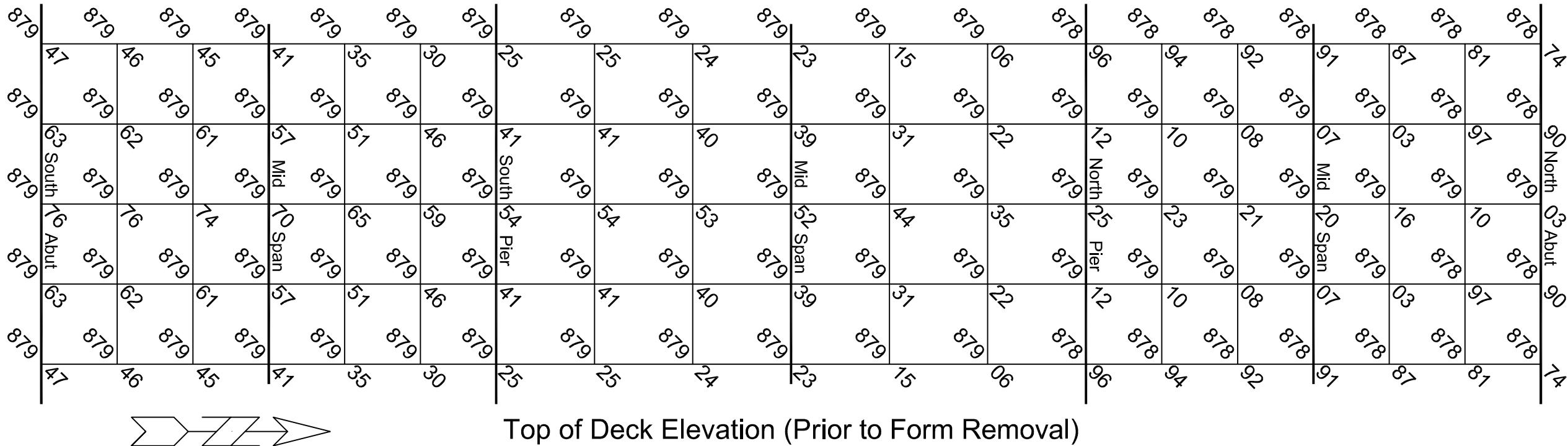
THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR SOUTH PIER PILES IS 166 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. IN NO CASE SHALL A PILE BE EMBEDDED LESS THAN 35 FEET. CONSTRUCTION CONTROL REQUIRES A MODIFIED IOWA DOT ENR FORMULA.

THE CONTRACT LENGTH OF 90 FEET FOR THE NORTH PIER PILES IS BASED ON A COHESIVE SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 169 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.6. PILES ALSO WERE DESIGNED FOR A FACTORED TENSION FORCE OF 0 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A COHESIVE SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.55.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR NORTH PIER PILES IS 166 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. IN NO CASE SHALL A PILE BE EMBEDDED LESS THAN 35 FEET. CONSTRUCTION CONTROL REQUIRES A MODIFIED IOWA DOT ENR FORMULA.

Bid Items Referenced: 0300			
SURVEY INFORMATION			
Station	Side	Description	Elevation
26+48.31	CL	W 1/4 Corner Sec 15-T79N-R15W	
18+73	37' LT	BM - RR Spike in Power Pole	884.18
00+00.00	CL	SW Corner Sec 15-T79N-R15W	



STAKING AID					
*Toe of Foreslope position assumes entrances/sideroads are placed after grading is complete					
Station	Toe of Foreslope Left		Centerline Elevation	Toe of Foreslope Right	
	Elevation	Offset		Offset	Elevation
28+50	873.00	23.3	877.21	41.3	867.00
28+00	872.00	27.0	877.49	45.0	866.00
27+50	870.00	33.7	877.69	47.2	865.50
27+00	868.00	40.5	877.93	49.5	865.00
26+50	864.00	53.2	878.18	53.2	864.00
26+00	863.00	56.9	878.42	56.9	863.00
25+50	862.00	60.6	878.66	60.6	862.00
25+00	861.00	72.5	878.90	72.5	861.00
24+50	Bridge		879.15	Bridge	
24+00			879.39		
23+50			579.63		
23+00	868.00	69.4	879.87	57.4	867.00
22+50	864.00	59.0	880.12	44.0	869.00
22+00	865.00	56.7	880.36	38.7	871.00
21+50	867.50	50.0	880.60	33.5	873.00
21+00	870.00	43.3	880.89	28.3	875.00
20+50	872.50	37.7	881.52	25.7	876.50
20+00	875.00	33.3	882.53	24.3	878.00
19+50	877.50	30.0	883.93	24.0	879.50

N Abutment

BORING LOG No. 1												Page 1 of 3
PROJECT						SITE						
Pleasant 15 Bridge						Poweshiek Co., IA						
GRAPHIC LOG	Approx. Surface Elevation (ft): Site Datum: Drilling Method: HSA		USCS SYMBOL	DEPTH (ft.)	SAMPLES				TESTS			OTHER
					NUMBER	TYPE	RECOVERY	SPT - N (BLOWS /FT.)	MOISTURE, %	DRY DENSITY (PCF)	UNCONFINED STRENGTH (PSF)	
	0.5		GP CL	0								
	Fill -- GRAVEL, with sand, brown Fill -- Sandy lean CLAY, dark grayish brown				1	SS	12	7	26.7			
	STIFF SANDY CLAY			5	2	ST			24.5	94	3500*	
	8.5		CL		3	SS	16	5	27.3			
	Possible Fill -- Lean CLAY, trace gravel, very dark brown				4	SS	14	9	21.2			
	12.0		CL									
	Alluvium -- Lean CLAY, very dark gray				5	ST			25	99	2000*	
	17.0		SC									
	Alluvium -- Clayey SAND, dark grayish brown				6	SS	10	2	22.2			
	22.0		CL									
Alluvium -- Lean CLAY, dark gray				7	SS	16	WH	28.5				
27.0		SC										
Glacial Outwash -- Clayey SAND, with gravel, very dark gray				8	SS	18	3	36.1				
32.0		CL										
Glacial Till -- Sandy lean CLAY, trace gravel, dark grayish brown				9	SS	14	17	15.1				
FIRM-VERY FIRM GLACIAL CLAY												

Notes: Soil classifications for using the Iowa DOT LRFD Driven Pile Design Charts are shown in blue

* Calibrated hand penetrometer

Hammer Type: Automatic

Water Level:

14 Ft. While Drilling

14 Ft. After Drilling

21 Ft. 1 HR

TEAM Services

Geotechnical and Construction Material Consultants

Boring Started: 6-12-2025




Boring Completed: 6-13-2025

Rig: TRK Foreman: JH

Approved: NG Job #: 1-5676

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES; IN-SITU, THE TRANSITION MAY BE GRADUAL.

N Abutment


BORING LOG No. 1										Page 2 of 3		
PROJECT					SITE							
Pleasant 15 Bridge					Poweshiek Co., IA							
GRAPHIC LOG	Approx. Surface Elevation (ft): Site Datum: Drilling Method: HSA		USCS SYMBOL	DEPTH (ft.)	SAMPLES				TESTS			
	DESCRIPTION				NUMBER	TYPE	RECOVERY	SPT - N (BLOWS / FT.)	MOISTURE %	DRY DENSITY (PCF)	UNCONFINED STRENGTH (PSF)	OTHER
	Glacial Till -- Sandy lean CLAY, trace gravel, dark grayish brown			35								
	FIRM-VERY FIRM GLACIAL CLAY			40	10	SS	16	11	18			
				45	11	SS	18	13	21			
				50	12	SS	18	16	19.2			
	52.0	-52.0										
		Glacial Till -- Sandy lean CLAY, trace gravel, dark grayish brown		CL								
		VERY FIRM SANDY GLACIAL CLAY			55	13	SS	18	21	17.4		
					60	14	SS	14	20	15.5		
					65	15	SS	16	19	16.2		
		67.0	-67.0									
	Glacial Outwash -- Fine to medium SAND, dark brown		SP									
	COARSE SAND				16	SS	7	22	24.7			

Notes: Soil classifications for using the Iowa DOT LRFD Driven Pile Design Charts are shown in blue

* Calibrated hand penetrometer

Hammer Type: Automatic


Water Level:



14 Ft. While Drilling

14 Ft. After Drilling

21 Ft. 1 HR



Geotechnical and Construction Material Consultants

Boring Started: 6-12-2025

Boring Completed: 6-13-2025

Rig: TRK

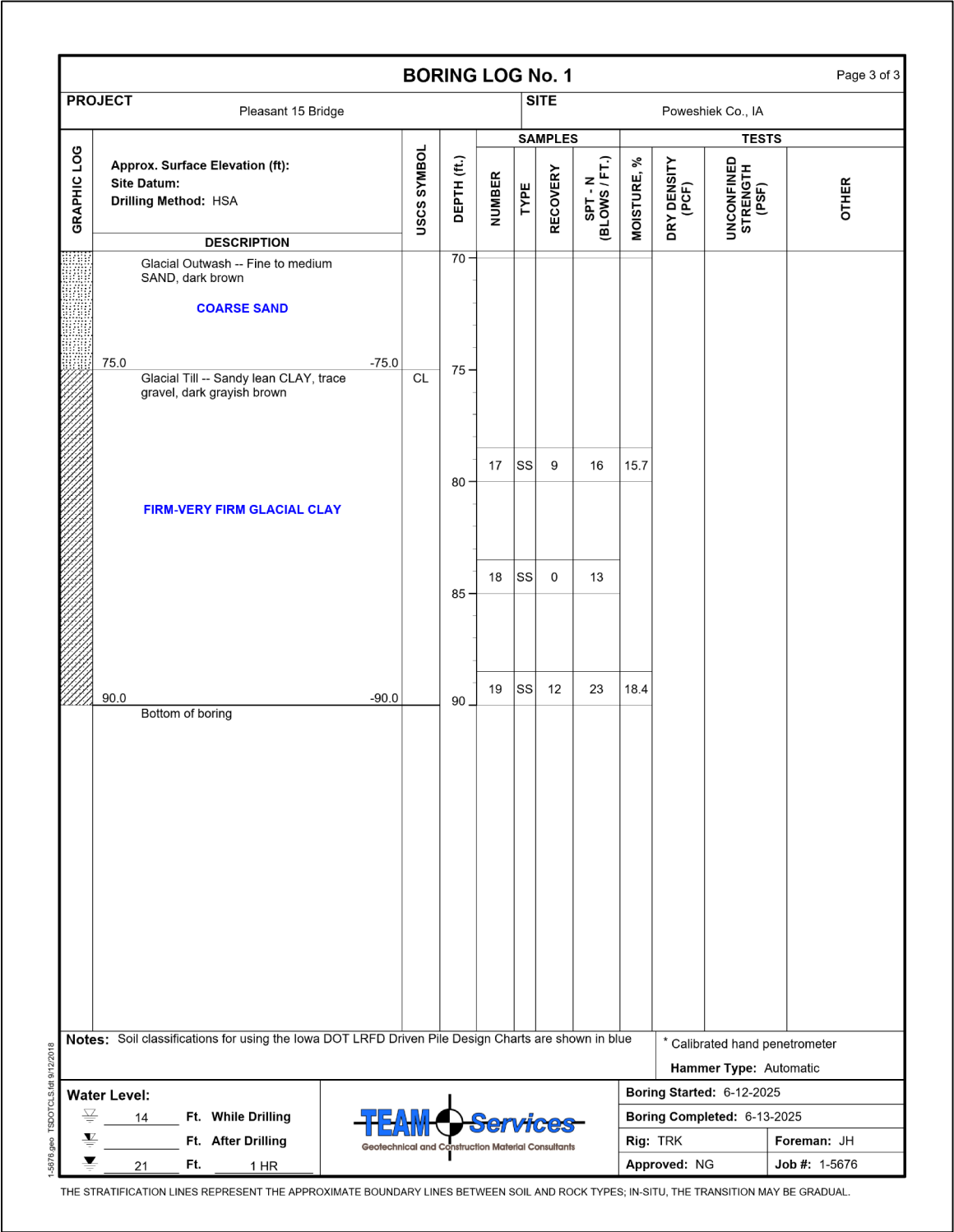
Foreman: JH

Approved: NG **Job #:** 1-5676

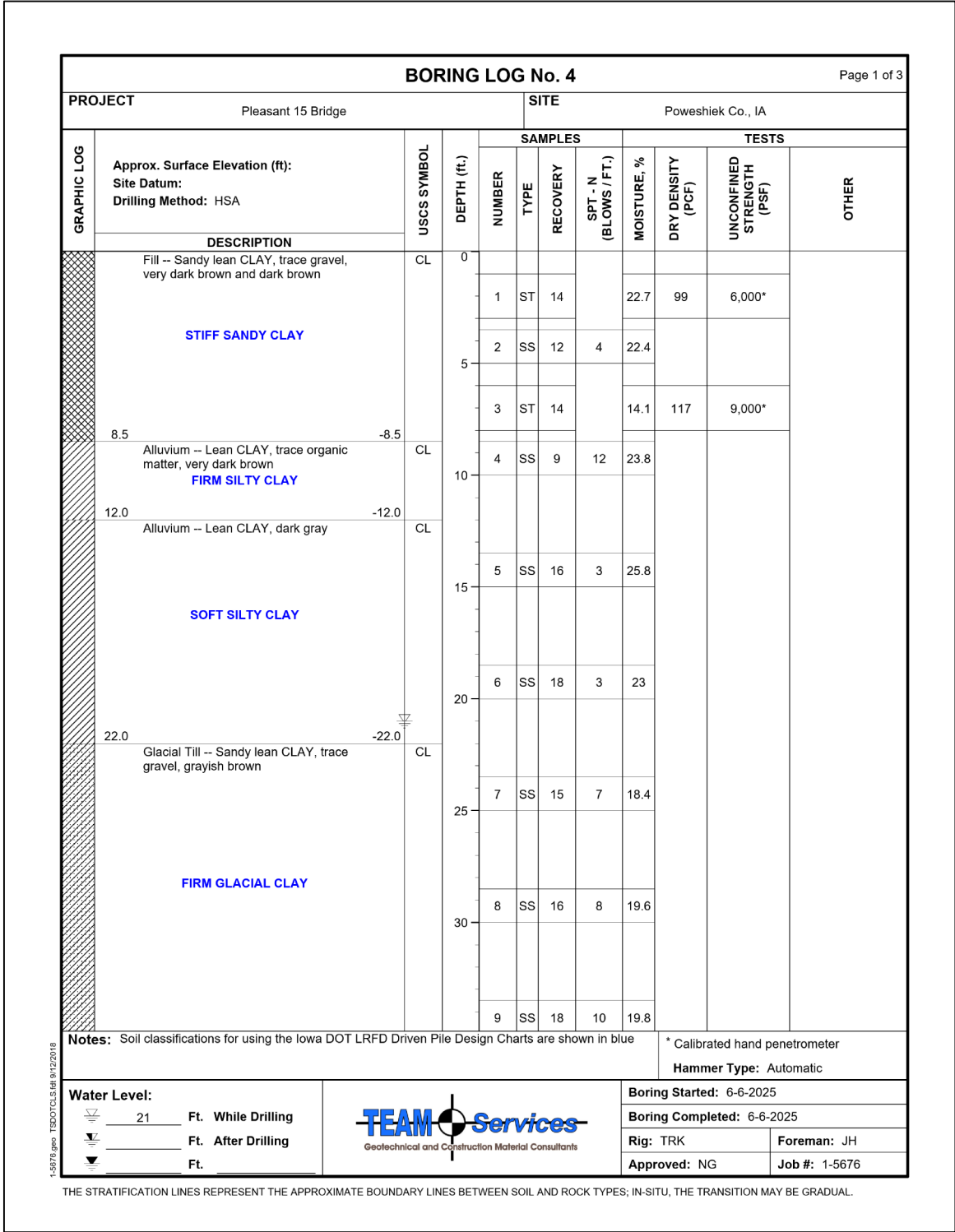
1-5676.dwg TSDOT/CLM 9/12/2018

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES; IN-SITU, THE TRANSITION MAY BE GRADUAL.

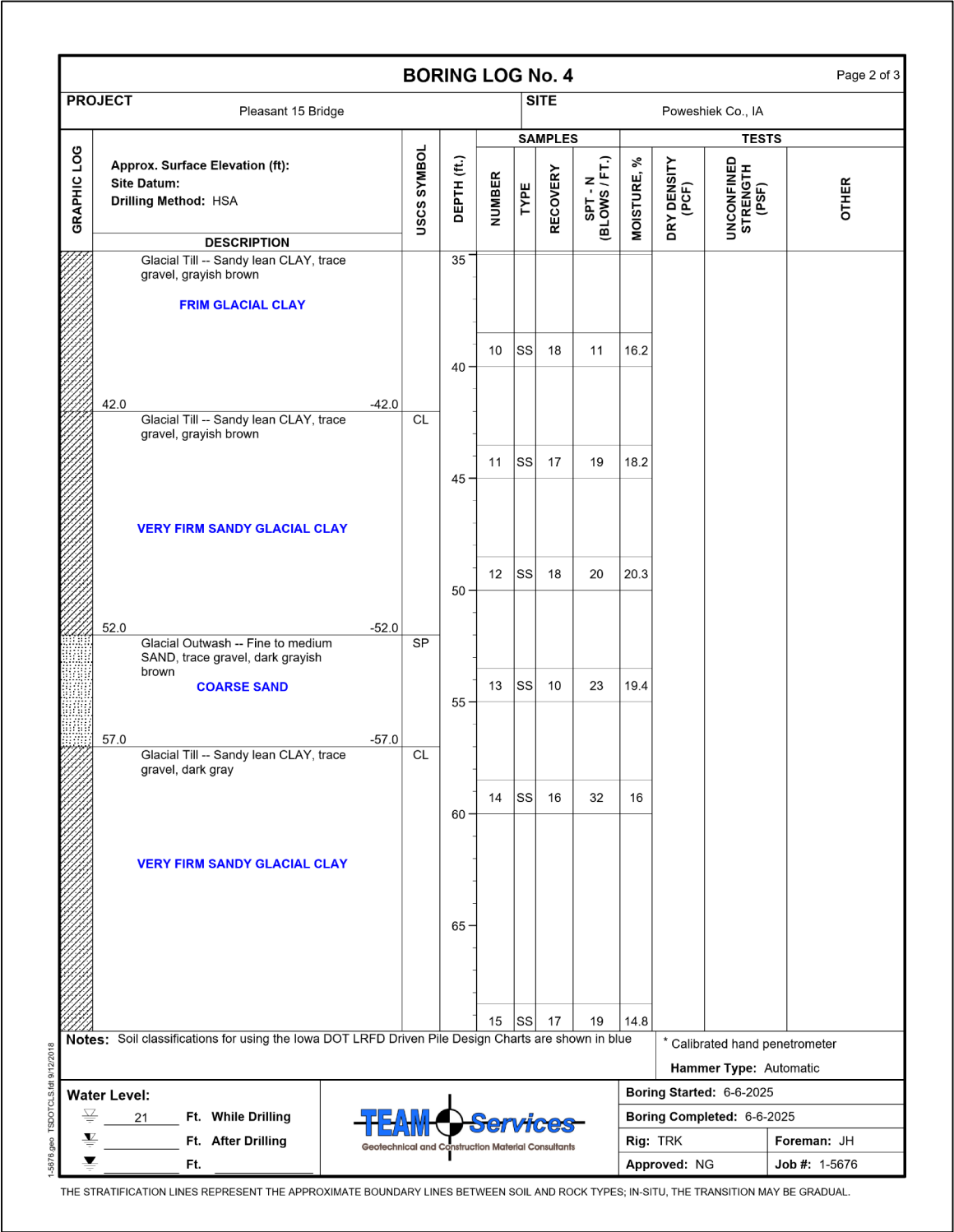
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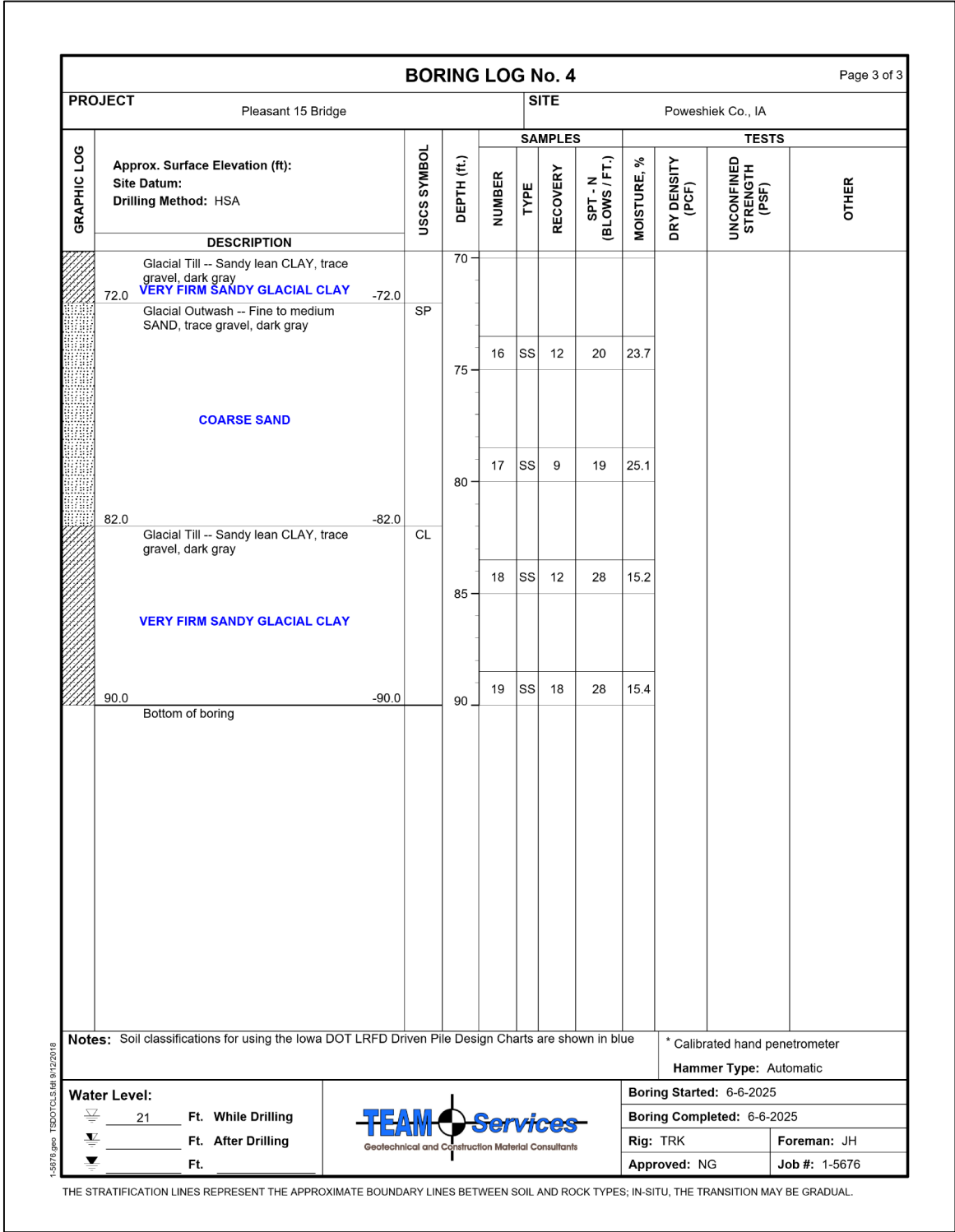
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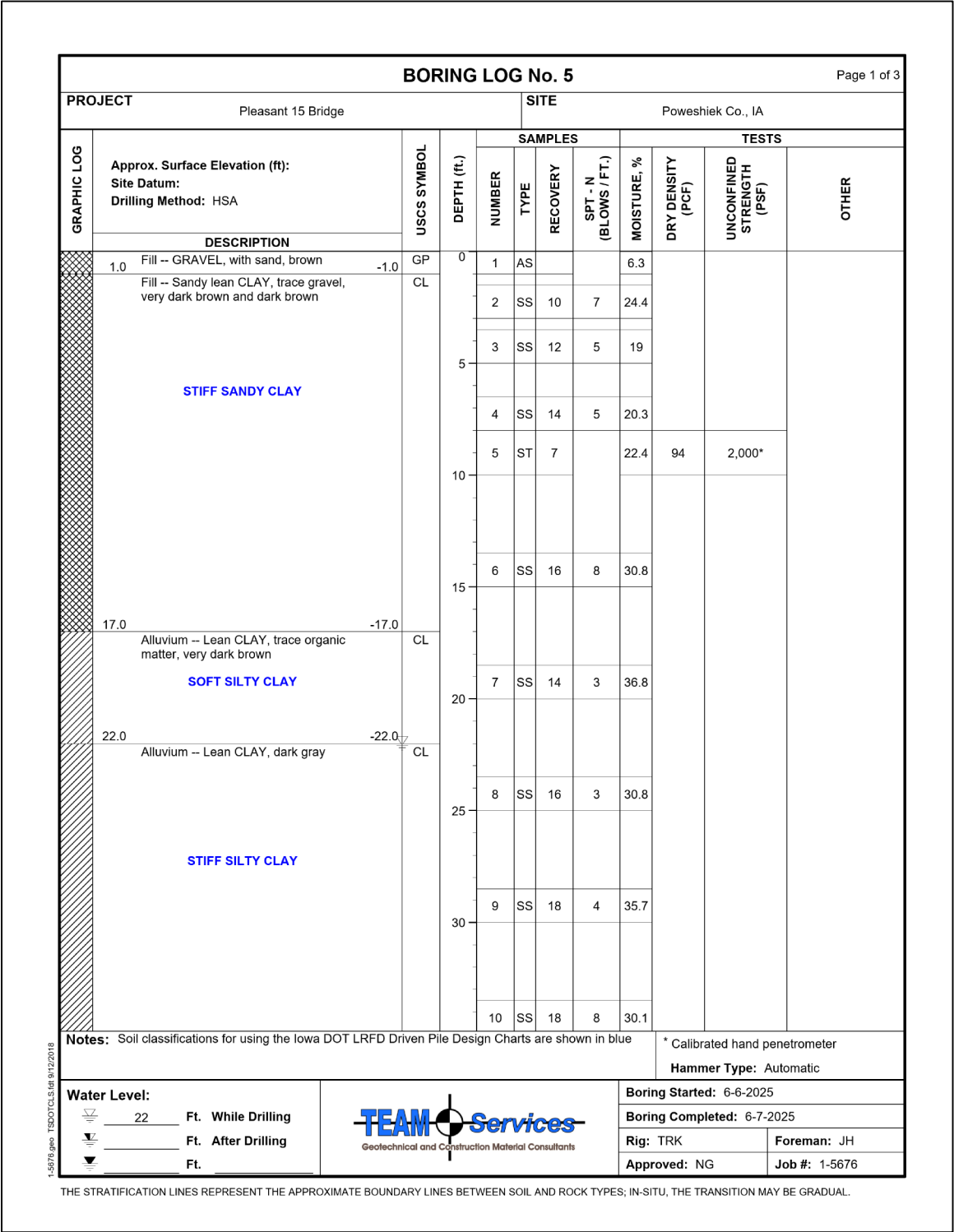
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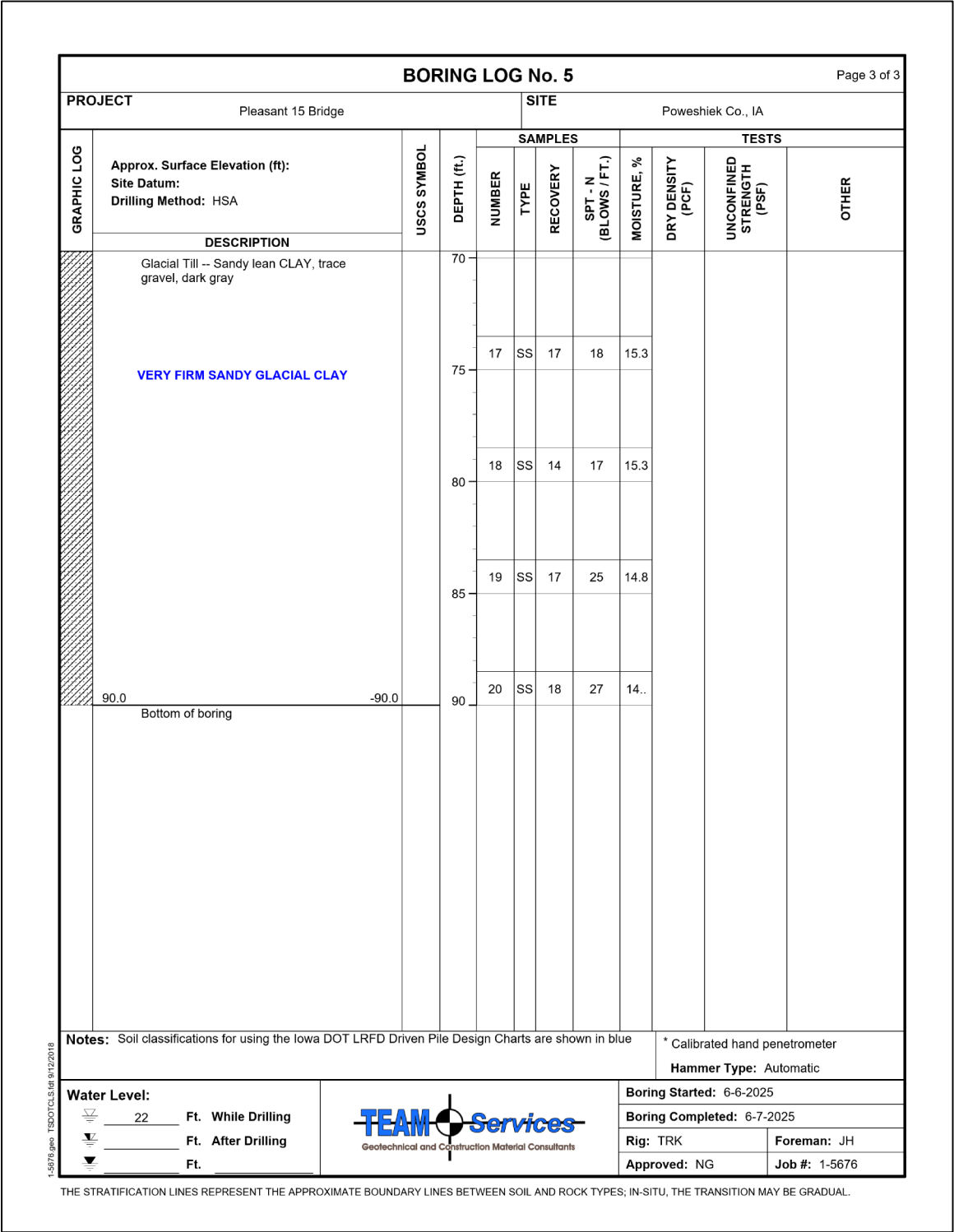
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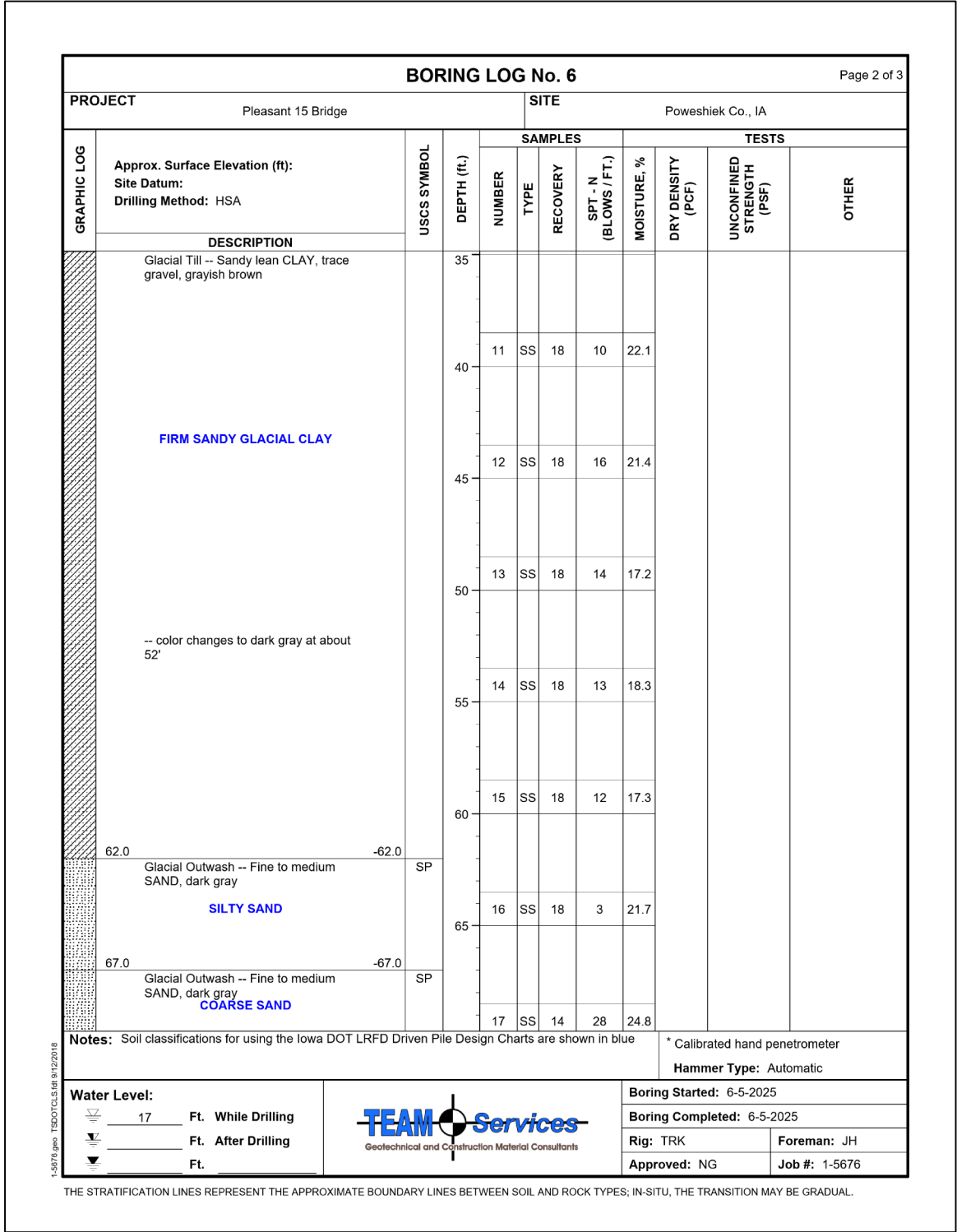
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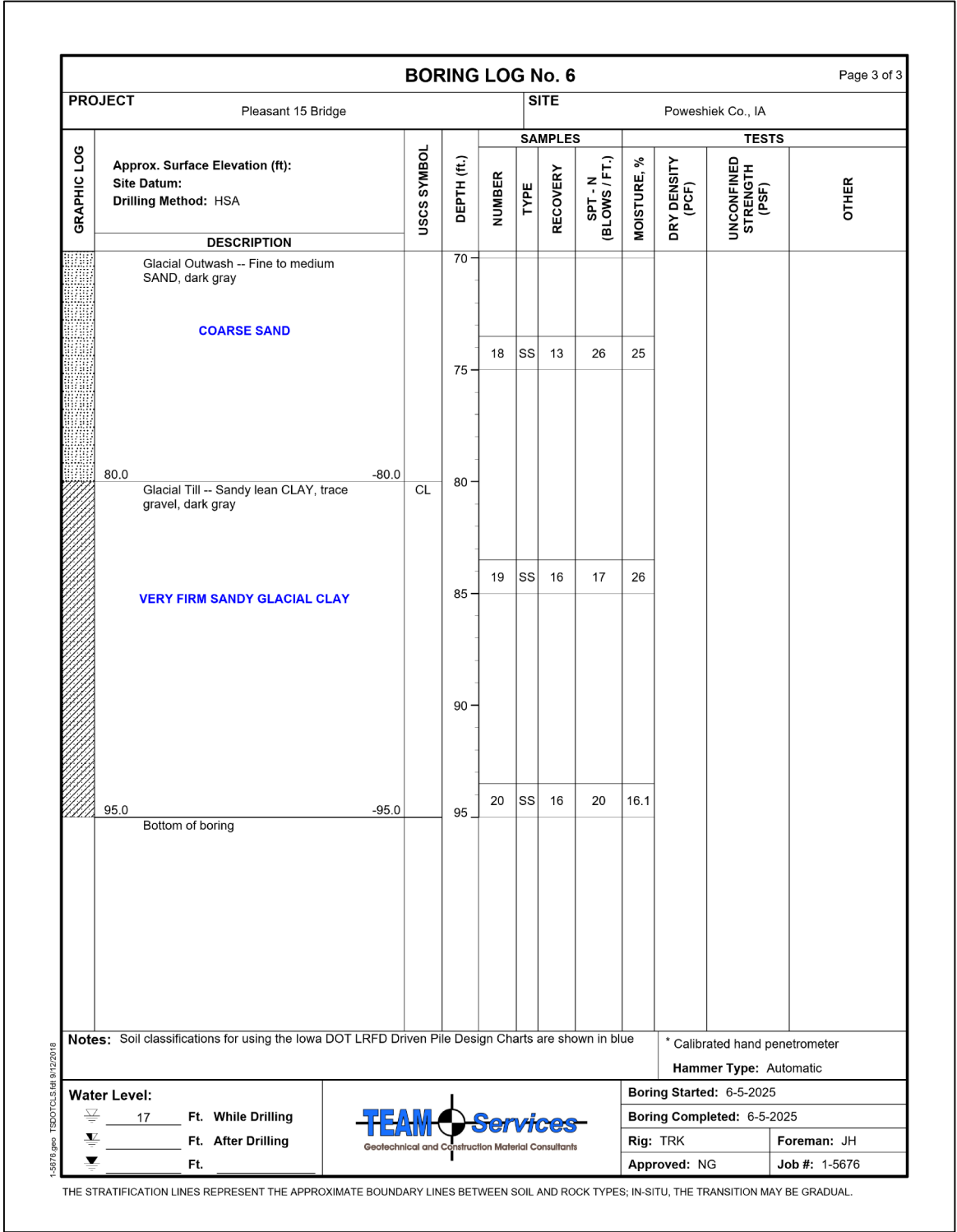
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S Pier



S Pier



POLLUTION PREVENTION PLAN												
<p>This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).</p> <p>This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review.</p> <p>All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.</p> <p>I. ROLES AND RESPONSIBILITIES</p> <p>A. Designer:</p> <ol style="list-style-type: none">1. Prepares Base PPP included in the project plan.2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required. <p>B. Contractor:</p> <ol style="list-style-type: none">1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830321).5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.8. Submits amended PPP site map according to Section 2602 of the Standard Specifications. <p>C. Subcontractors:</p> <ol style="list-style-type: none">1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.2. Implement good housekeeping practices according to Paragraph III, C, 2. <p>D. RCE/Project Engineer:</p> <ol style="list-style-type: none">1. Is Project Storm Water Manager.2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.7. Is familiar with the Project PPP and storm water site map.8. On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.10. Is signature authority on Notice of Discontinuation.11. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).12. Makes information to determine permit compliance available to the DNR upon their request. <p>E. Inspector:</p> <ol style="list-style-type: none">1. Updates PPP through field book entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.2. Makes information to determine permit compliance available to the DNR upon their request.3. Conducts joint required inspections of the site with the contractor/subcontractor.4. Completes an inspection report after each inspection.5. Is signature authority on storm water inspection reports. <p>II. PROJECT SITE DESCRIPTION</p> <p>A. This Pollution Prevention Plan (PPP) is for the construction of *one bridge and associated grading*.</p> <p>B. This PPP covers approximately *2.89* acres with an estimated *2.89* acres being disturbed. The portion of the PPP covered by this contract has *2.89* acres disturbed.</p> <p>C. The PPP is located in an area of ONE soil association (*Tama - Muscatine - Downs*). The estimated weighted average runoff coefficient number for this PPP after completion will be *0.23*.</p>	<p>D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:</p> <ol style="list-style-type: none">1. Drainage Patterns - Plan and Profile sheets and Situation plans.2. Proposed Slopes - Cross Sections.3. Areas of Soil Disturbance - Construction limits shown on Plan and Profile sheets.4. Location of Structural Controls - Tabulations in plans and Erosion Control Plan View.5. Locations of Non-structural Controls - Tabulations in plans and Erosion Control Plan View.6. Locations of Stabilization Practices - Generally within construction limits shown on Plan and Profile sheets.7. Surface Waters (including wetlands) - Project Location Map and Plan and Profile sheets.8. Locations where Storm Water is Discharged - Plan and Profile sheets. <p>E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.</p> <p>F. Runoff from this work will flow into: *English River to Iowa River to Mississippi River*.</p> <p>III. CONTROLS</p> <p>A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.</p> <p>B. Preserve vegetation in areas not needed for construction.</p> <p>C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.</p> <p>1. EROSION AND SEDIMENT CONTROLS</p> <p>a. Stabilization Practices</p> <ol style="list-style-type: none">1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:<ol style="list-style-type: none">a) Permanently ceased on any portion of the site, orb) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the plans. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the plans.5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the plans. Additional information may be found in Tabulations in the plans or is referenced in Section 2105 of Standard Specifications. <p>b. Structural Practices</p> <ol style="list-style-type: none">1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the plans, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found in the plans or are referenced in the Standard Road Plans Tabulation (105-4) located in the plans. <p>c. Storm Water Management</p> <p>Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the plans, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the plans. The installation of these devices may be subject to Section 404 of the Clean Water Act.</p> <p>2. OTHER CONTROLS</p> <p>Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive applicable laws, rules or regulations shall apply.</p> <ol style="list-style-type: none">a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.	<p>d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.</p> <p>e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.</p> <p>f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.</p> <p>g. Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.</p> <p>h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.</p> <p>i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.</p> <p>j. Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.</p> <p>3. APPROVED STATE OR LOCAL PLANS</p> <p>During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.</p> <p>IV. MAINTENANCE PROCEDURES</p> <p>The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.</p> <p>V. INSPECTION REQUIREMENTS</p> <p>A. Inspections shall be made jointly by the Contractor and the Contracting Authority at least once every seven calendar days. Storm water monitoring inspections will include:</p> <ol style="list-style-type: none">1. Date of the inspection.2. Summary of the scope of the inspection.3. Name and qualifications of the personnel making the inspection.5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.6. Major observations related to the implementation of the PPP.7. Identification of corrective actions required to maintain or modify erosion and sediment control measures. <p>B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.</p> <p>VI. NON-STORM WATER DISCHARGES</p> <p>This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.</p> <p>VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION</p> <p>Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.</p> <p>VIII. DEFINITIONS</p> <p>A. Base PPP - Initial Pollution Prevention Plan.</p> <p>B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, and fieldbook entries made by the inspector amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.</p> <p>C. Fieldbook Entries - This contains the inspector's daily diary and bid item postings.</p> <p>D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).</p> <p>E. Signature Authority - Representative authorized to sign various storm water documents.</p>	<p>CERTIFICATION STATEMENT</p> <p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p> <p></p> <p>Signature</p> <p><u>Poweshiek County Engineer Lyle Brehm</u> Printed or Typed Name</p>	<table><tr><td>STATE</td><td>FISCAL YEAR</td><td>SHEET NO.</td><td>TOTAL SHEETS</td></tr><tr><td>IOWA</td><td>2026</td><td>20</td><td>20</td></tr></table>	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	IOWA	2026	20	20
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