

#8 Price Co (USFS) Dalrymple Bridge

State of Wisconsin
 Department of Natural Resources
 dnr.wi.gov

Motorized Recreation Grant Application

For: (choose all that apply)

Form 8700-159 (R 02/2024)

- ATV/UTV Trail Aid
- Snowmobile Trail Aid

Due Date: April 15

Notice: Completion of this form is required under Wisconsin Statutes 23.09(26) and 23.33. Failure to complete this form will result in denial of financial assistance. Personally identifiable information found on this form is not intended to be used for any other purpose. The Department of Natural Resources (DNR) may provide this information to requesters as required by Wisconsin's Public Records law (ss. 19.31 - 19.39, Wis. Stats.).

Instructions: Applications may combine more than one source of funds. They may be submitted for consideration of traditional ATV, UTV, Snowmobile and Motorized Stewardship funding. Submit one copy of all forms and attachments. See Page 2 for necessary attachments. Send applications to your Community Services Specialist.

DNR Use Only	
Category	Number

Section 1: Applicant Information

Applicant / Organization Name			Check Recipient: Individual other than authorized individual to act on behalf of the applicant. <input checked="" type="checkbox"/> Select if the same as applicant.		
Price County Snowmobile/Price County ATV Association			Check Recipient Name (Name to Appear on Check)		
Individual Authorized to Act on Behalf of Applicant per Resolution			Evan Lund/Fred Freeman		
Evan Lund/Fred Freeman			Evan Lund/Fred Freeman		
Title			Title		
Snowmobile Coordinator/ATV Coordinator			Snowmobile Coordinator/ATV Coordinator		
Address			Address		
104 S Eyder Ave, Rm 205			104 S Eyder Ave, Rm 205		
City	State	ZIP Code	City	State	ZIP Code
Phillips	WI	54555	Phillips	WI	54555
Telephone Number		Email Address			
(715) 339-2550		lcd@co.price.wi.us			

Section 2: Project Information Required for all Projects

Project Title					Current Funded Miles	New Miles (if applicable)
DALRYMPLE ATV/SNOWMOBILE TRAIL OVER SAILOR CR.						
County	Township	Range	Section	¼ ¼	¼	GPS Coordinates:
Price	39 N	1	14	NE	SW	Lat. 45.849995 Long. -90.347882

Project Description Summary

The Dalrymple bridge is located on Trail 118G-102 which is an ATV/UTV and snowmobile in Price County, on the Medford- Park Falls Ranger District of the Chequamegon-Nicolet National Forest. This bridge was inspected by a professional engineer who recommended that the load rating be posted to two tons following load rating. The bridge has both substructure and superstructure in poor condition (NBI conditions of 3 and 4 respectively).

The proposed bridge would replace the existing bridge to fully reopen this segment of trail. The proposed bridge is a 45' single-span bridge on glulam girders. This bridge provides a long-term site solution which facilitates all trail users. The bridge additionally increases hydraulic capacity dramatically, increases freeboard during flood events, widens the previously pinched stream channel at the bridge location, and improves trail horizontal alignment to prevent groomer strike damage which was previously common.

The County requests that grant funds be split between snowmobile and ATV funds.

USFS has completed H&H study, wetland delineation and engineering. Total Grant request \$191,384 with RTP at 80% and remainder split 50/50 ATV/Snow

I certify that all maintenance land use agreements are on file.

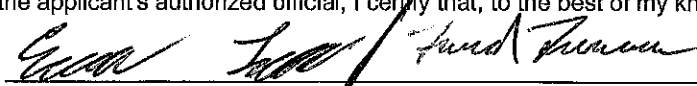
Estimated Cost

Maintenance	Acquisition	Insurance	Development	Bridge Rehab.	Trail Rehab.	Total Estimated Cost
				\$15,427.00		\$15,427.00
Leave Blank - DNR Use Only						
				\$191,384.00		\$191,384.00

Applicant Certification

Printed Name of Authorized Official	Official's Title
Evan Lund/Fred Freeman	Snowmobile/ATV Coordinators

As the applicant's authorized official, I certify that, to the best of my knowledge, the information in this application is true and correct.


 Signature of Authorized Official

4/11/24
 Date Prepared

Appendix A (continued)

Summarize Costs in Appropriate Categories:

Bridge Structure			
		Quote 1	Quote 2
		<input type="radio"/> Steel <input checked="" type="radio"/> Wooden	<input type="radio"/> Steel <input checked="" type="radio"/> Wooden
Bridge Dimensions:		<u>45' span x 12' clear</u>	<u>45' span x 12' clear</u>
Bridge Manufacturer:	<u>TBD</u>	<u>Contech</u>	
Design Weight Load		<u>25,000 lbs. (H12.5 loading)</u>	<u>25,000 lbs.</u>
Cost of Structure:	1. Engineering	\$ <u>40,930 (complete)</u>	\$ <u>40,930 complete</u>
	2. Structure	\$ <u>144,000 (installed superstructure,</u>	\$ <u>72,250 (materials only)</u>
	Subtotal	<u>\$ 184,930</u> deck, & wearing surface	<u>\$ 113,180</u>

		Quote 1	Quote 2	
		<input checked="" type="radio"/> Contractor or <input type="radio"/> Sponsor Estimate	<input checked="" type="radio"/> Contractor or <input type="radio"/> Sponsor Estimate	
Installation Costs:	1. Engineering	\$ <u>0 (complete - see above)</u>	\$	
	2. Site Preparation	\$ <u>68,370</u>	\$ <u>68,370</u>	
	3. Abutments	\$ <u>11,800</u>	\$ <u>11,800</u>	
	4. Pilings/Piers	\$ <u>16,000</u>	\$ <u>16,000</u>	
	5. Approaches	\$ <u>10,964</u>	\$ <u>10,964</u>	
	6. Riprap	\$ <u>12,000</u>	\$ <u>12,000</u>	
	7. Labor	\$ <u>NA - all costs are materials installed</u>	\$	
	8. Equipment Rental	\$ <u>NA - all costs are materials installed</u>	\$	
	9. Culverts	\$ <u>0 (none present)</u>	\$	
	10. H & H Study	\$ <u>3,690 (complete)</u>	\$ <u>3,690</u>	
	11. Wetland Delineation	\$ <u>1,890 (complete)</u>	\$ <u>1,890</u>	
	12. Other 15% Contingency	\$ <u>39,470</u>	\$ <u>39,470</u>	
	Subtotal	\$ <u>164,184</u> Please also see attached	\$ <u>164,184</u>	\$ <u>124,714.00</u>
	Total Cost	\$ <u>349,114</u> detailed engineer's estimate	\$ <u>277,364</u>	\$ <u>237,894.00</u>

For the application grant, you must take the lowest of the two quotes.

Entire Deck and Railing Projects Contractor Sponsor Club

Bridge Dimensions:	_____
Design Weight Load	_____ lbs.
1. Materials	\$ _____
2. Labor	\$ _____
Total	\$ _____

Subtracting out the Engineering, H&H, and wetland delineation = \$191,384.00

Split 50/50 = \$95,692 each

Guidelines for Applicant

Complete this form for each bridge structure you are submitting a grant application for. Provide any additional documents not requested on application checklist to substantiate your points, including actual deeded easements.

Category		Possible Points	Actual Points
1	Condition of the Structure (max of 10 points)		
	Has a certified bridge inspection report that supports the project & demonstrates need (see example, must provide copy of report by August 1 for 2024 only)	10	10
2	Permits (maximum points 4)		
	Consultation with DNR Water Mgmt Specialist has occurred & permit is likely, if needed	1	1
	Permit in hand / Bridge already permitted	3	3c
3	Funding (maximum points 2) Are other funds already committed? Sno/ATV 50/50		
	50% or greater from other funding source(s)?	2	2
	11% - 49% from other funding source(s)?	1	
4	Length of Written Easements or Land Use Agreement (max points 5)(ch. 23.09(26)(am)1 WI Stats)		
	On public land (County, State, Federal)	5	5
	10 or more year deeded easement on private land or other public land, for <u>all portions of that trail to the nearest road on each side of the bridge</u>	5	
	3-9 year deeded easement on private land or other public land, for <u>all portions of that trail to the nearest road on each side of the bridge</u>	4	
	10 or more year deeded easement on private land or other public land, for <u>just the bridge site</u>	3	
	3-9 deeded easement on private land or other public land, for <u>just the bridge site</u>	2	
	10 or more year land use agreement (LUA, not deeded) on private land or other public land	1	
	3-9 year land use agreement (LUA, not deeded) on private land or other public land	0	
5	Miles Impacted – How many miles will need to rerouted if the structure is not replaced? Measured from nearest intersection on both sides of the bridge. (max 4 points)		
	Less than 20 miles	1	1
	20 miles or more	3	
	No other snowmobile trails connect. Explain:	4	
DEDUCTIONS			
6	County Active Project Deduction (maximum deduction 1 point) A snowmobile active project is one that has exceeded it's initial grant period.		
	Two or more active projects - deduct 1 point	-1	
GRAND TOTAL			20 19

Comments/Notes:



Chequamegon-Nicolet National Forest Medford Park Falls Ranger District
Dalrymple Bridge Project

90°19'19"W 90°19'18"W 90°19'18"W 90°19'17"W 90°19'17"W 90°19'16"W 90°19'16"W 90°19'15"W 90°19'15"W 90°19'14"W 90°19'13"W 90°19'13"W 90°19'12"W



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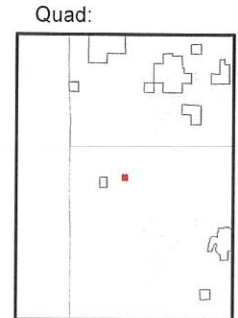
Map Date: 3/22/2024 - JBB

Legend

- Trail
- Dalrymple_Bridge

- Water**
- Lakes
 - Marsh
 - Rivers

- Ownership**
- USDA-Forest Service
 - Other (Non-FS Lands)

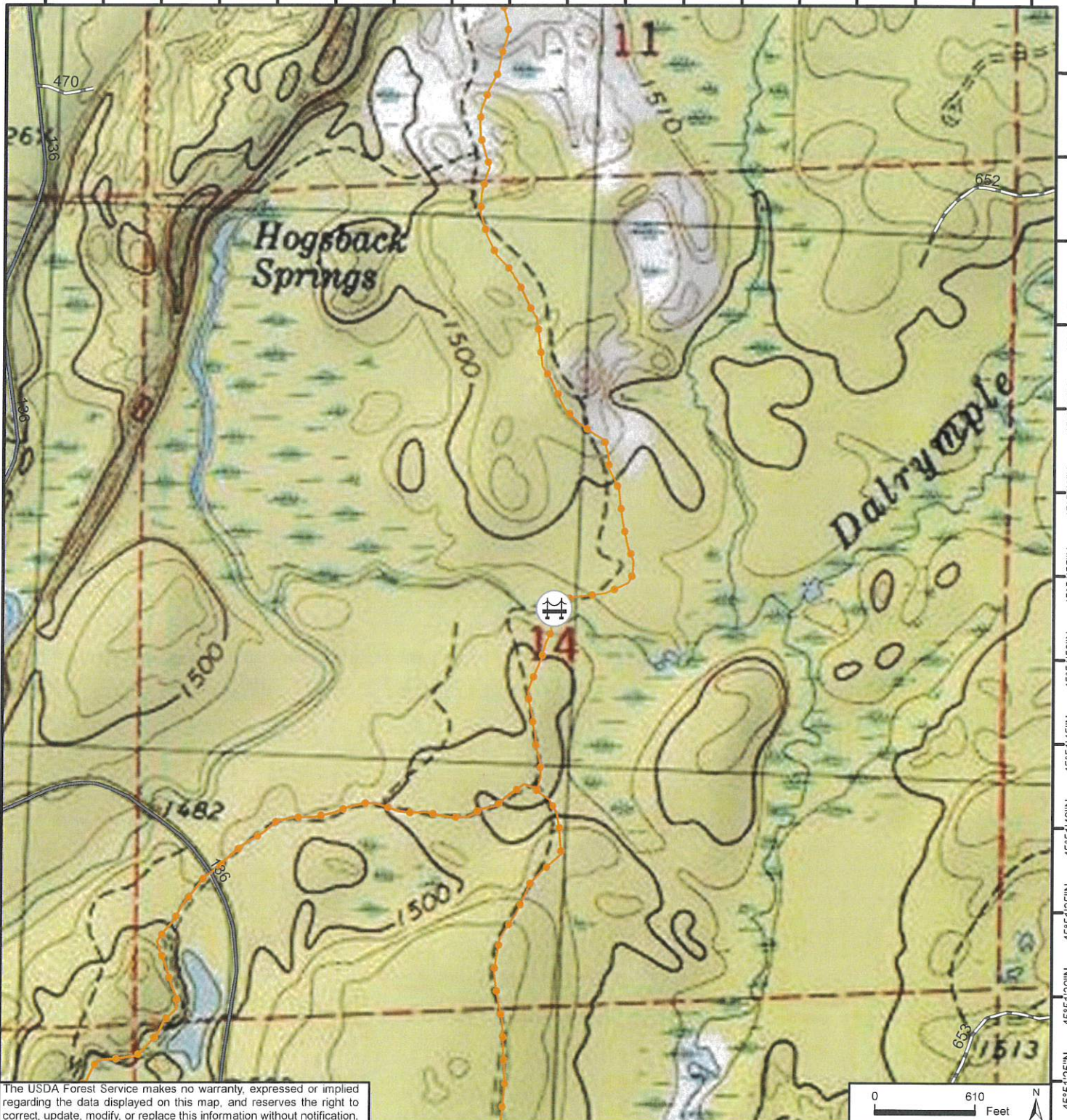




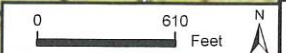
Chequamegon-Nicolet National Forest Medford Park Falls Ranger District

Dalrymple Bridge Project

90°20'0"W 90°19'55"W 90°19'45"W 90°19'35"W 90°19'25"W 90°19'15"W 90°19'5"W 90°19'0"W 90°18'55"W 90°18'45"W 90°18'35"W



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Map Date: 3/22/2024 - JBB

Legend

- Trail
- Dalrymple_Bridge

Roads and Trails

- Paved
- Dirt

Water

- Lakes
- Marsh
- Rivers

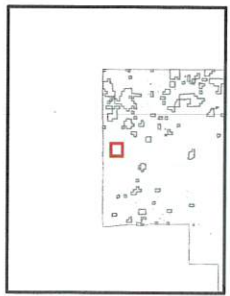
Ownership

- USDA-Forest Service
- Other (Non-FS Lands)

WISCONSIN



Quad:

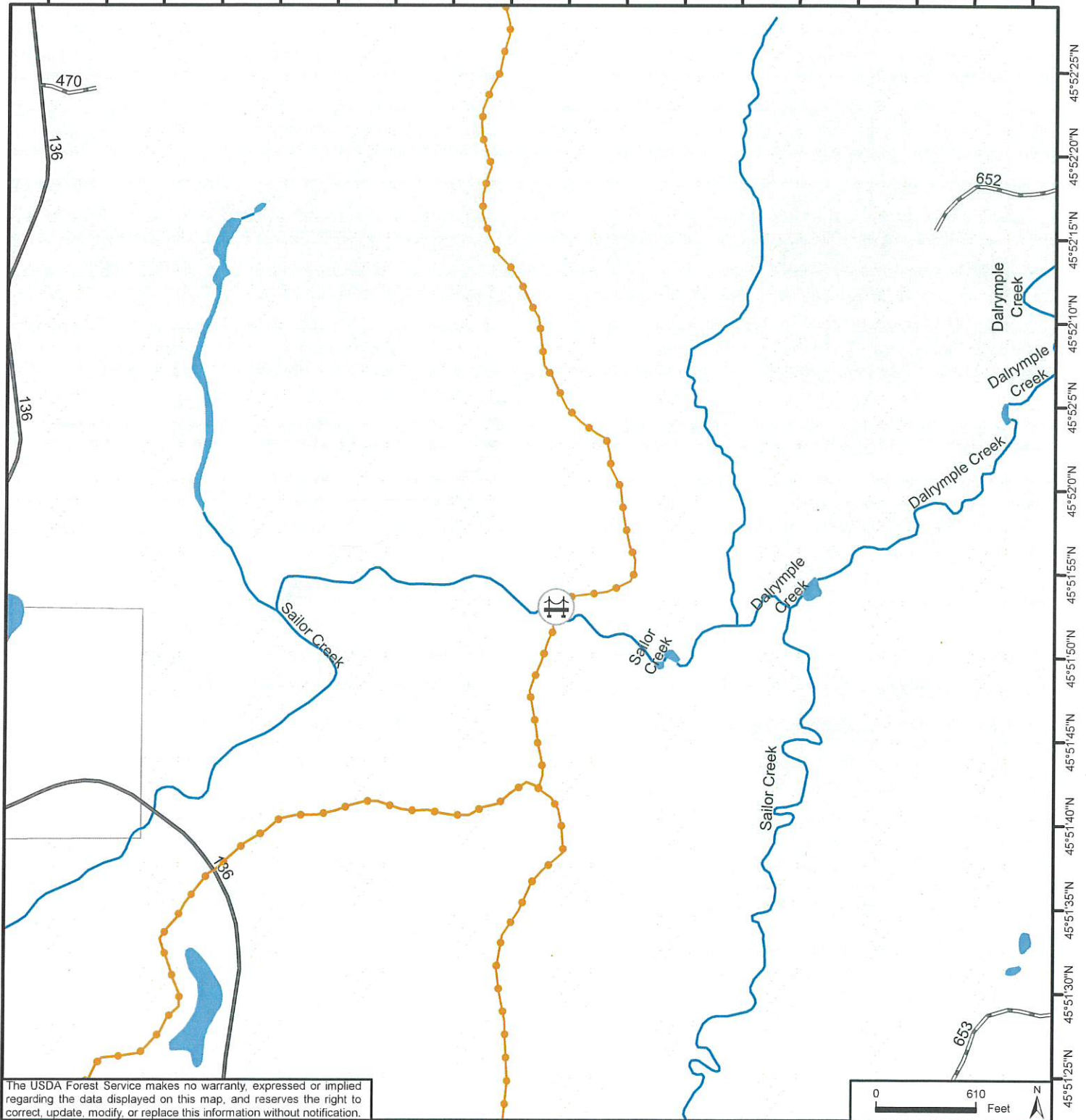




Chequamegon-Nicolet National Forest Medford Park Falls Ranger District

Dalrymple Bridge Project

90°20'0"W 90°19'55"W 90°19'45"W 90°19'35"W 90°19'25"W 90°19'15"W 90°19'5"W 90°19'0"W 90°18'55"W 90°18'45"W 90°18'35"W



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Map Date: 3/22/2024 - JBB

Legend

WI Wetland Inventory

WETCODE

lowland opening/open water;

lowland shrub

lowland forested

Trail

Dalrymple_Bridge

Roads and Trails

Paved

Dirt

Ownership

USDA-Forest Service

Other (Non-FS Lands)

Water

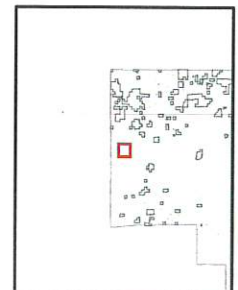
Lakes

Marsh

Rivers

WISCONSIN

Quad:



Tr. Bridge Name: DALRYMPLE BRIDGE Feature Crossed: DALRYMPLE CREEK Trail #-MP: 118G-102-2.6780

**TRACS
TRAIL BRIDGE
INSPECTION**

**PATRICK
HAMPSTON**

Digitally signed by
PATRICK HAMPSTON
Date: 2022.07.22
07:59:04 -05'00'

BRIDGE IDENTIFICATION AND LOCATION				Category	MAJOR
Trail Bridge Name:	DALRYMPLE BRIDGE	Trail Number-Bridge MP:	118G-102-2.6780		
Location:		Feature Crossed:	DALRYMPLE CREEK		
Latitude:	45.864645	Longitude:	-90.319377		
Trail Class:	3	Designed Use:	4WD > 50		
Forest/Special Use Unit:	Chequamegon-Nicolet NF	District:	Medford-Park Falls RD		

STRUCTURE TYPE AND MATERIAL

Superstructure	Number of Main Spans:	1	Number of Approach Spans:	2		
Main Span Type:	DECK GIRDER	Material:	TIMBER, LOG TREATED			
Quantity and Dimensions (Q x D" x W" x L'):	6	x	15"	x	15"	x 32.3'
Approach Span Type:	Choose an item.	Material:	Choose an item.			
Quantity and Dimensions (Q x D" x W" x L'):	3	x	33"	x	5 1/8"	x 55'
Substructure Type:	SPREAD FOOTING	Material:	TIMBER, TREATED			
Deck Type:	PLANK	Material:	TIMBER, SAWN TREATED			
Dimensions (D"xW"xL"):	3"	x	9.75"	x	144"	Wearing Surface: NONE
User Barrier Rail Type:	POST WITH HORIZONTAL RAILING					
Rail Material:	TIMBER, SAWN TREATED		Rail Ht: (in)	37"	Max Rail Opening: (in)	15"
Curb Material:	TIMBER, SAWN TREATED		Curb (Ht" x W"):	5"	x	3.5"

Geometry / Design / Rating		Plan Number:	
Overall Length (ft):	32.8'	Overall Deck Width (in):	144"
Maximum Span (ft):	30.2'	Horizontal Clear Width (in):	136"
Clear Span (ft):	28.9'	Tread Width (in):	136"
Bridge Skew (°):	0	Bridge Flare (Y/N):	n
		Service Under Bridge:	WATERWAY
		Vertical Under Bridge Opening (ft):	5'
		Top of Deck Height (ft):	6.7'
		Vertical Clear Height (ft):	99.9'

Structure Remarks

Tr. Bridge Name: DALRYMPLE BRIDGE		Feature Crossed: DALRYMPLE CREEK		Trail #-MP: 118G-102-2.6780	
Inspection Date:	7/20/2022	Inspection Frequency (Months):	24		
Inspected by:	Dave Grawwunder, Marc Ankenbauer, Colt Ehrnfeld, Pat Hampston				
Description:	Routine				
CONDITION CODES and REMARKS					
ITEM		CODE	REMARKS		
Wearing Surface:		N			
58. DECK:		5			
Cleanliness		Good			
Deck Slab/Panels		Fair	Generally solid, some wear in wheel paths		
Drains and Drainage		Good			
Utilities		-			
Deck Joints		-			
36. User Barriers:		3			
Railing		Poor	NE corner - two posts broken, one rail broke, curb broken off. Solid elsewhere. Black mold staining throughout.		
Post		Poor	On west side round posts are loose.		
Curb		Poor	Missing NE corner.		
59. SUPERSTRUCTURE (Main Span):		4			
All	Bearings	-			
	Paint	-			
	Bracing	-			
Flooring	Floor Beams	-			
	Stringers/Girders	-			
	Diaphragms/Bracing	-			
Girder	Stringers/Girders	Poor	Upstream fascia girder has many holes filled with foam. (~15% section loss @ 1/4 span. 3rd girder from upstream is completely rotten at the 1/4 span point. Remaining girders sound punky at surface, assume 1/2" exterior not effective. Metal rods hanging down from fascia girders that can catch debris.		
		-			
		-			
59. SUPERSTRUCT (Approach Span):		NA			
	NA	-			
		-			
	NA	-			
		-			
		-			
	NA	-			
		-			
		-			
		-			

Tr. Bridge Name: DALRYMPLE BRIDGE		Feature Crossed: DALRYMPLE CREEK		Trail #-MP: 118G-102-2.6780	
60. SUBSTRUCTURE:		3			
All	Alignment/Settlement/Skew	Poor	South sill tilted down towards downstream 2.95°. North sill tilted down toward upstream 1.8°. Suspected frost heave or differential settlement.		
	Scour/Erosion	Good	Good riprap		
Abutments	Backing Plank/Backwall	Fair			
	Gabion/Reinforced Earth	-			
	Sill/Grade Beam	Poor	North sill is completely rotten but not yet crushing.		
		-			
		-			
		-			
		-			
		-			
Piers	Sill/Grade Beam	-			
		-			
		-			
		-			
		-			
		-			
		-			
		-			
61. Channel		7			
Channel Protection		Good			
Channel Scour/Erosion		Good			
Vegetation		Good			
Waterway Obstruction/Drift		Fair	Remnants of recently removed beaver dam.		
TRAIL APPROACHES:		7		Tight horizontal alignment. Groomer keeps destroying rails.	
Approach Settlement		Good	South object markers are too low. All are non-reflective.		
Shoulder Embankment		Good	Needs brushing.		
Surfacing		Good	10T weight limit signs in place.		
71. WATERWAY ADEQUACY:		7			
Opening/Stream Constraint		-			
Vertical Underbridge Opening		-			
Appraisal – Bridge Elements Meet TMO? (Print TMO direct from INFRA Tr. Bridge Module)					
COMPONENT		VALUE	MEET	REMARKS	
Deck Width		144	Y		
User Barrier		-	N		
Bridge Grade			Y		
Trail Alignment			N		
Trail Grade			Y		
Tread Width		136	Y		
Other			-		

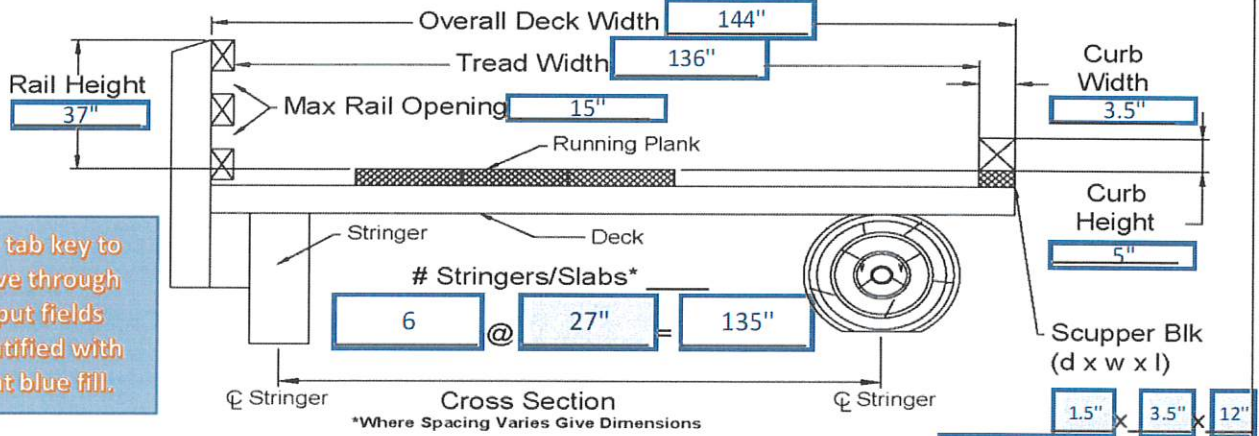
Tasks					
Item Category	Task	Material	Cost/Unit Severity	Quantity	
Whole_Bridge	Install new major bridge		Any material	\$188.58 / SQ FT - Difficult	520
	Task ID	TB-MAJ-WHL-07A			
	Comments				
Approaches	Restore/improve per bridge		Any material	\$508.4 / LS	1
	Task ID	TB-MAJ-APR-DRN-02A			
	Comments	Heavy brushing around bridge			
Superstructure	-		-	-	
	Task ID	-			
	Comments	Rerate bridge			
User_Barrier	Repair/replace/install Railing		Timber	\$44.97 / LN FT	20
	Task ID	TB-MAJ-RAL-TBR-02A			
	Comments	Fix NE rail			
Superstructure	Repair/replace stringers/floor beams/logs		Any material	-	
	Task ID	#N/A			
	Comments	Remove metal rods from fascia girders			
Substructure	Repair/Replace sills or caps		Timber	\$34.63 / FBM	1000
	Task ID	TB-MAJ-SUB-TBR-02A			
	Comments	Level sills and replace north sill.			
-	-		-	-	
	Task ID	-			
	Comments				
-	-		-	-	
	Task ID	-			
	Comments				
-	-		-	-	
	Task ID	-			
	Comments				
-	-		-	-	
	Task ID	-			
	Comments				
-	-		-	-	
	Task ID	-			
	Comments				
-	-		-	-	
	Task ID	-			
	Comments				

Structure Name: DALRYMPLE BRIDGE Feature Crossed: DALRYMPLE CREEK Trail #-MP: 118G-102-2.6780

Single Span Timber Bridge

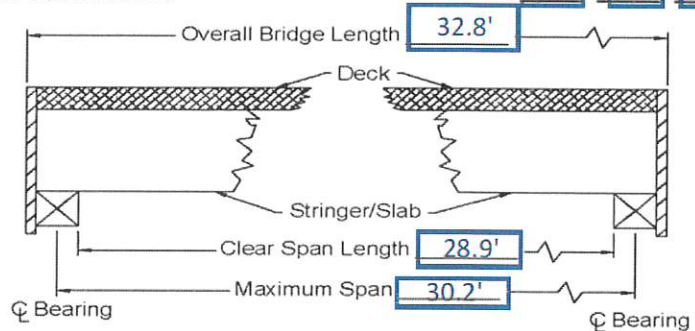
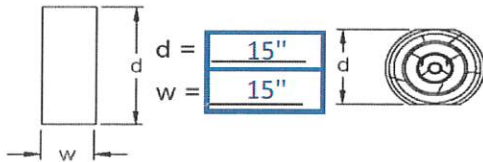
All Measurements in Feet and Inches

Use tab key to move through input fields identified with light blue fill.



Stringer/Slab

Measure sawn to 1/8", glulam to 1/16"



Superstructure (Pick One): Treated (Y/N) Y

Longitudinal Glulam Slab (Depth to 1/8")

Longitudinal Naillam Slab (Depth to 1/8")

Sawn Stringer (size to nearest 1/8")

Glulam Stringer (size to nearest 1/8")

Log Stringer (Avg diameter in inches) 15" min

Other

Elevation

Deck: Treated (Y/N) Y

Plank (Size) X

Nail-Lam (Depth)

Glulam (Depth)

Other (Size)

User Barrier: Treated (Y/N)

Post HxLxW 51" x 4" x 3.5"

Post Spacing 64

Rail Dims HxW 2" x 5.5"

Rails/Side 2

Scupper Blk/Side 8

Substructure (Pick One)

Piling Crib Other (Describe)

Sill/Grade Beam X Wall

Substructure Material Type (Pick One)

Timber, Treated X Reinforced Concrete

Timber, Untreated Gabion

Steel Other(Describe)

Wearing Surface: Treated (Y/N)

Other None

Steel Running Plank (size)

Timber Running Plank (size)

Aggregate (Depth)

Asphalt (Depth)

Take pictures along bridge surface and underneath to illustrate features ie. wearing surface, railing, stringers/slabs, substructure

** As needed, insert additional pages for photos of structure and/or site.

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS



South Approach



North Approach

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



Looking Upstream from the Bridge Deck



Looking Downstream from the Bridge Deck

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



Looking Upstream - Elevation Profile



Looking Downstream - Elevation Profile

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



North Abutment



South Abutment

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



View of Superstructure



View of Deck and Rails

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



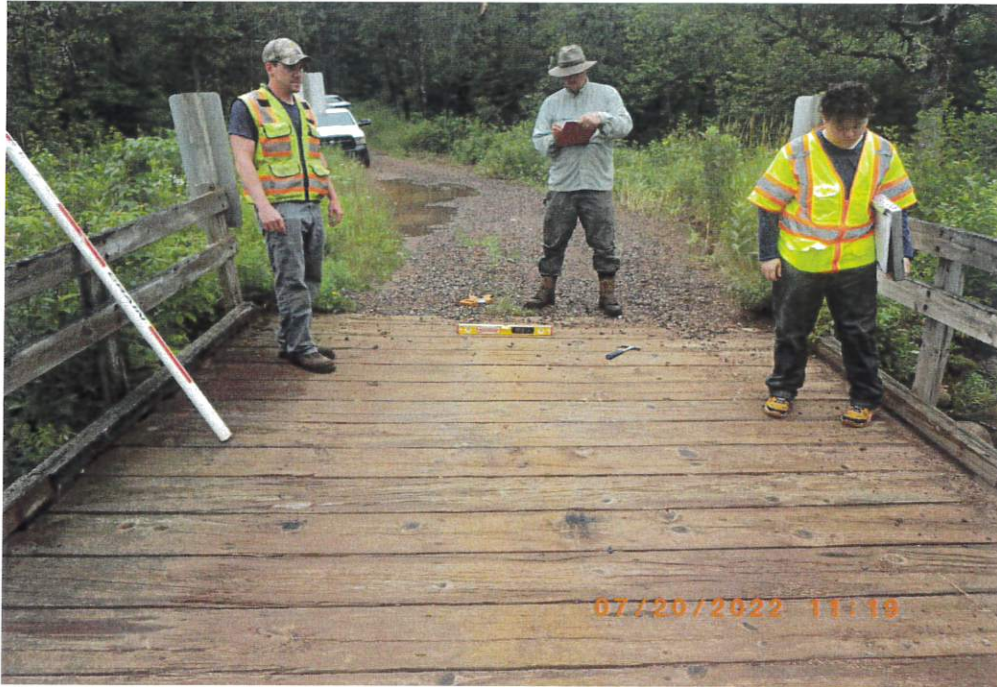
East end of north sill, rotten and delaminated



3rd girder from upstream completely rotten at 1/4 point.

Structure Name:	DALRYMPLE BRIDGE	Date:	7/20/2022
Trail #-MP:	118G-102-2.6780	Feature Crossed:	DALRYMPLE CREEK

BRIDGE PHOTOS - cont.



Bridge end tilt measurement location (typ)



NE rail section destroyed from groomer impact

FINAL OPINION OF PROBABLE CONSTRUCTION COST - DALRYMPLE TRAIL BRIDGE

Chequamegon-Nicolet National Forest Trail Bridge Design

Chequamegon-Nicolet National Forest

2/16/2024

USDA, Forest Service, Eastern Region - Region 9

Estimate based on Summer 2024 bid.

ITEM	DESCRIPTION	QUANTITIES	UNIT	UNIT COST	COST
15101	Mobilization	1	Lump Sum	\$10,000.00	\$10,000.00
15201	Construction survey and staking, method II, tolerance class A	1	Lump Sum	\$1,700.00	\$1,700.00
15205	Bridge survey and staking	1	Lump Sum	\$500.00	\$500.00
15212	Slope, reference, and clearing and grubbing stakes; method II, tolerance class A	1	Lump Sum	\$3,400.00	\$3,400.00
15217	Centerline reestablishment, Precision 0.06'	1	Each	\$400.00	\$400.00
15401	Contractor testing	1	Lump Sum	\$4,050.00	\$4,050.00
15713	Soil erosion and pollution control	1	Lump Sum	\$8,300.00	\$8,300.00
20158	Clearing and Grubbing	1	Lump Sum	\$2,700.00	\$2,700.00
20301	Removal of bridge, disposal method A	1	Lump Sum	\$5,000.00	\$5,000.00
20407	Roadway excavation	67	Cubic Yard	\$32.00	\$2,144.00
20411	Unclassified borrow excavation	136	Cubic Yard	\$53.00	\$7,208.00
20414	Conserved Top Soil	1	Lump Sum	\$1,200.00	\$1,200.00
20417	Embankment construction, compaction placement method A	164	Cubic Yard	\$40.00	\$6,560.00
20701A	Earthwork geosynthetics, type geotextile, class 1, type A	230	Square Yard	\$12.00	\$2,760.00
20701B	Earthwork geosynthetics, type geogrid, type IV	90	Square Yard	\$4.00	\$360.00
20801	Structure excavation, type bridge	152	Cubic Yard	\$50.00	\$7,600.00
20803	Structural backfill, type bridge	70	Cubic Yard	\$90.00	\$6,300.00
25103	Placed riprap, class 3	150	Square Yard	\$80.00	\$12,000.00
30208	Aggregate surface course, method 2	115	Ton	\$53.00	\$6,095.00
55105	Helical pile, in place	80	Foot	\$200.00	\$16,000.00
55201	Structural concrete, Class AE, Type IA	9.4	Cubic Yard	\$1,000.00	\$9,400.00
55402	Reinforcing steel, 60ksi	1	Lump Sum	\$2,400.00	\$2,400.00
55704	Structural Timber and Lumber, Glue Laminated Timber and Treated Timber and Lumber	1	Lump Sum	\$144,000.00	\$144,000.00
62404	Placing conserved topsoil, 4 inch depth	22	Square Yard	\$6.00	\$132.00
62550	Turf establishment	1	Lump Sum	\$600.00	\$600.00
63305	Sign, aluminum panel, type engineer grade sheeting	23.6	Square Foot	\$22.00	\$519.20
63306	Post, wood 4"x4"	72	Foot	\$6.00	\$432.00
63307	Object marker, type 3	4	Each	\$51.00	\$204.00
63312	Remove signs and posts	1	Lump Sum	\$390.00	\$390.00
63501	Temporary traffic control	1	Lump Sum	\$780.00	\$780.00
SUBTOTAL					\$263,134.20
CONSTRUCTION CONTINGENCY				15%	\$39,470.13
CONSTRUCTION COST TOTAL					\$302,604.33

PROJECT: Dalrymple Trail
Price County, Wisconsin



Wheeler Lumber LLC
Jake Silkey
jsilkey@wheeler1892.com
262.229.4068

BID DATE:

Stringer Recreation Bridge Kit

Bridge Size: 45' x 12'		
Live Load: 90 psf	Vehicle Load: H12.5	Design Code: AASHTO LRFD
Stringers: Glulam	Species: DF	Treatment: QNAP
Decking: Wood plank	Species: DF	Treatment: QNAP
Railing: Wood	Species: DF	Treatment: QNAP
	Safety Railing: 42" Horizontal	Rail Spacing: FS Design

Item Lump Sum... \$72,250.00

Additional Notes:

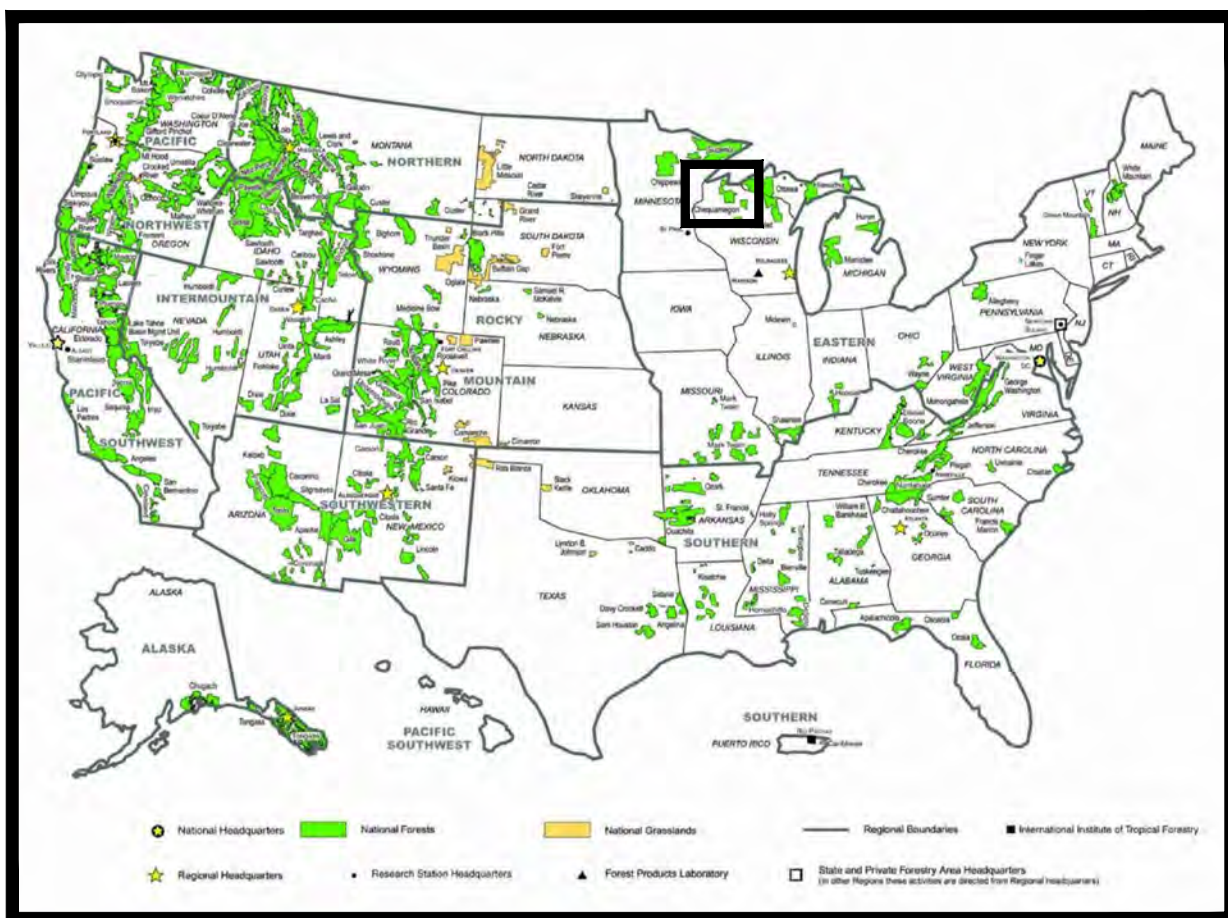
- Douglas Fir timber to be pressure treated with Copper Naphthenate (QNAP) in Type A Hydrocarbon Solvent in accordance with AWPA P-36-22 and HSA-23 to meet AWPA UC4B & UC4C.
- All practical pre-framing to be done prior to treatment. Some field cutting and drilling may be required.
- All Douglas Fir to be graded per WCLIB Standard Grading Rules.
- Includes associated hardware. Hardware to be hot-dipped galvanized or coated to meet ICC AC-257.
- Material certification may not be available for all hardware. Some items may not meet Buy America requirements.
- Bridge to be shipped in pieces as a field assembled kit.
- Substructures to be designed and supplied by others.
- Does not include the cost of unloading and installation.
- The method and sequence of erection shall be the responsibility of others.
- Wheeler will include bridge superstructure plans sealed by a Professional Engineer registered in the state of the bridge location. Wheeler will not assume responsibility as Engineer of Record for the project.



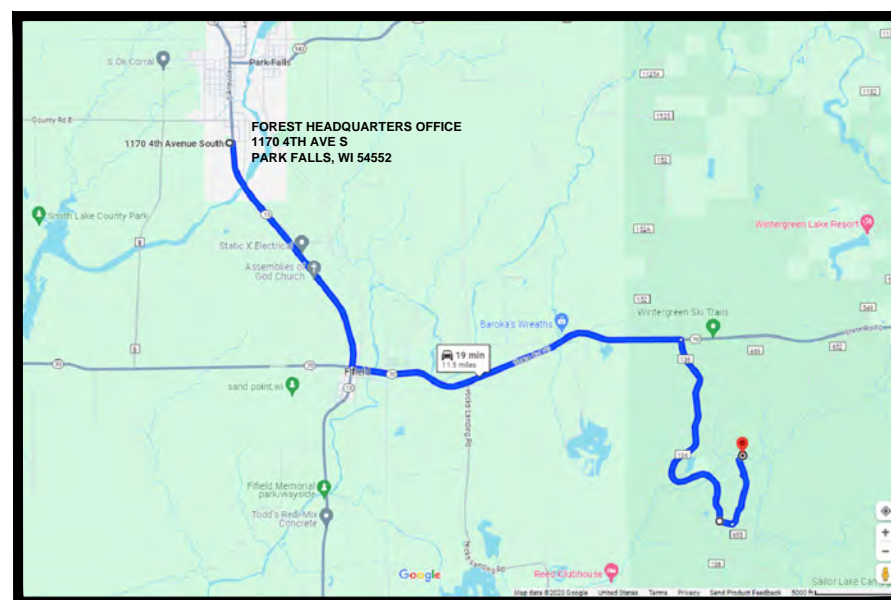
United States Department of Agriculture
Forest Service

WISCONSIN
PRICE COUNTY
(R09) EASTERN REGION
CHEQUAMEGON-NICOLET NATIONAL FOREST
MEDFORD - PARK FALLS RANGER DISTRICT

STRUCTURE NO. 091301-118G-102-0.0 DALRYMPLE ATV/SNOWMOBILE TRAIL OVER SAILOR CR.



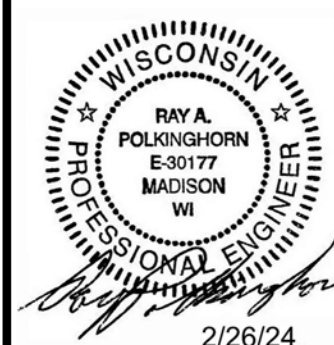
FOREST LOCATION MAP



PROJECT LOCATION MAP

TRAVEL DIRECTIONS:
FROM THE FOREST HEADQUARTERS OFFICE, TRAVEL FROM PARK FALLS, HEAD SOUTH ON STATE HIGHWAY 13 FOR 3.2 MILES, TURN LEFT ONTO STATE HIGHWAY 70 AND TRAVEL EAST FOR 4.2 MILE, TURN RIGHT ONTO NORTH GATES LAKE ROAD AND TRAVEL FOR 3.0 MILES, TURN LEFT (EAST) ONTO FOREST ROAD 653 AND TRAVEL 500-FEET, TURN LEFT (NORTH) ONTO SNOWMOBILE TRAIL 121A AND TRAVEL 0.9 MILE, FIFIELD, WI 54524. LATITUDE 45.849995 AND LONGITUDE -90.347882.

INDEX OF SHEETS		
SHEET	SHEET TITLE	DATE
G-01	COVERSHEET	2/26/2024
C-01	GENERAL NOTES, CONTROL POINTS, AND QUANTITIES	2/16/2024
C-02	QUANTITIES AND ITEM TABLES	2/16/2024
C-03-04	ITEM TABLES	2/16/2024
C-05	TEMPORARY TRAFFIC CONTROL AND OVERVIEW	2/16/2024
C-06	EROSION CONTROL PLAN AND TRAIL TYPICAL SECTION	2/16/2024
C-07-09	PLAN AND PROFILE	2/16/2024
C-10-13	DETAILS	2/26/2024
C-14-17	CROSS SECTIONS	2/16/2024
S-01	STRUCTURE GENERAL PLAN	2/26/2024
S-02	STRUCTURE GENERAL NOTES	2/26/2024
S-03	GEOTECHNICAL BORINGS	2/16/2024
S-04-05	ABUTMENTS	2/26/2024
S-06	SUPERSTRUCTURE AND DECK	2/26/2024
S-07	TYPICAL SECTION AND RAILING	2/26/2024



2/26/24

STAMP FOR SHEETS C-01 THROUGH C-17.



2/26/2024

STAMP FOR SHEETS S-01 THROUGH S-07.

ART JOHNSTON, LLC
37 N. 93RD AVE. W
DULUTH, MN 55808
715-360-6629

RECOMMENDED BY:

FOREST ENGINEER _____
DISTRICT RANGER _____
FOREST SUPERVISOR _____
RO BRIDGE PROGRAM MANAGER _____

DATE _____
DATE _____
DATE _____
DATE _____

APPROVED:

DIRECTOR OF ENGINEERING _____

DATE _____

LEGEND

ELECTRIC PEDESTAL	⊞	LIGHT POLE	* * * * *
TELEPHONE PEDESTAL	✕	SINGLE POLE SIGN	* * * * *
BOLLARD	•	MARK CMK	* * * * *
CLEAN OUT	⊙ CO	GAS VALVE	* * * * *
WATER VALVE	• WV	CONTROL POINT	⊙ SAN
MAIL BOX	⊞	SANITARY MANHOLE	⊙ SAN
STORM SEWER MANHOLE	⊙ SS	INLET FLOOD DRAIN	⊙ SAN
FIRE HYDRANT	⊙	YARD LIGHT	⊙ SAN
POWER POLE	⊞	SATELLITE DISH	⊙ SAN
FLAG POLE	• FLAG	WITNESS CORNER MONUMENT	⊙ SAN
BENCHMARK	⊙	LIGHT POLE MAST ARM	⊙ SAN
LAND CONIFEROUS SHRUB	⊙	ELECTRIC/GAS METER	⊙ SAN
LAND DECIDUOUS TREE	⊙		
EXISTING SANITARY SEWER LINE	— SAN — SAN		
BURIED GAS LINE	— G — G		
BURIED ELECTRIC LINE	— E — E		
EXISTING STORM SEWER LINE	— SS — SS		
BURIED WATER SERVICE	— W — W		
OVERHEAD UTILITY	— OH — OH		
UNDERGROUND TELEPHONE LINE	— T — T		
UNDERGROUND FIBER OPTIC	— FO — FO		
SECTION LINE	---		
PROPERTY LINE	---		

ABBREVIATIONS

AGG.	AGGREGATE
ASPH.	ASPHALT
BM	BENCHMARK
CP	CONTROL POINT
DIA.	DIAMETER
EX.	EXISTING
FT	FOOT
IN	INCH
LHF	LEFT HAND FORWARD
MAX.	MAXIMUM
MIN.	MINIMUM
NOR.	NORMAL
RHF	RIGHT HAND FORWARD
SHLD	SHOULDER
STA.	STATION
TYP.	TYPICAL
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
VAR.	VARIES
W/	WITH

UTILITIES

THERE ARE NO KNOWN BURIED UTILITIES AT THE SITE. BEFORE THE START OF ANY EXCAVATION, A COMPLETE LOCATE OF ALL UTILITIES WITH THE CONSTRUCTION AREA SHOULD BE COMPLETED.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN.



CALL DIGGERS HOTLINE 1-800-242-8511 TOLL FREE WI STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

HORIZONTAL AND VERTICAL CONTROL

POINT	LOCATION			ELEV.	DESCRIPTION	
	STA./OFF.	N	E			
CP-01	9+99.97	7.52	477214.78	790728.64	1490.68	CP
BM-02	10+65.93	15.26'	477277.19	790751.35	1488.68	BM LAG BOLT 12" W BIRCH
BM-03	11+09.70	27.93'	477318.68	790772.36	1485.79	BM LAG BOLT 16" POPPLE
CP-04	11+34.80	10.12'	477346.12	790759.31	1485.89	CP
BM-05	11+50.95	-32.06'	477375.70	790724.48	1484.71	BM LAG BOLT 15" MAPLE
CP-06	11+78.68	5.60'	477384.42	790772.47	1486.58	CP
CP-07	11+75.65	-10.81'	477391.66	790757.42	1486.12	CP
CP-08	11+96.87	-5.49'	477405.63	790774.31	1486.38	CP
CP-09	12+24.69	-1.66'	477425.79	790793.91	1485.98	CP
CP-10	12+48.05	-17.10'	477454.80	790800.52	1485.51	CP
BM-11	12+61.39	-24.82'	477470.45	790809.14	1486.12	BM 1/2" IRON REBAR
CP-12	12+96.85	10.13'	477452.44	790857.02	1485.16	CP
CP-13	13+20.59	5.47'	477460.60	790879.27	1485.99	CP
CP-14	13+63.06	11.72'	477460.39	790922.05	1483.95	CP
CP-15	14+24.37	9.63'	477471.27	790982.61	1484.54	CP
CP-16	14+56.90	-0.48'	477486.09	791013.28	1486.30	CP

SEE SHEET C-05 FOR CP AND BM LOCATIONS.
 COORDINATE SYSTEM: WisCORS, PRICE COUNTY HORIZONTAL DATUM: NAD83(2011)
 VERTICAL DATUM: NAVD88(2012): US SURVEY FOOT

GENERAL NOTES

1. THE GOVERNING SPECIFICATIONS SHALL BE THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-14, THE LATEST EDITION PUBLISHED BY THE US DEPT. OF TRANSPORTATION.
2. THE WORK COVERED BY THESE PLANS INCLUDES TIMBER BRIDGE REMOVAL, CONSTRUCT A GLULAM TIMBER GIRDER BRIDGE AND ABUTMENTS, SIGN REMOVAL, SIGN INSTALLATION, TREE REMOVAL AND CLEARING AND GRUBBING, EARTHWORK, RIPRAP, AGGREGATE SURFACE, LANDSCAPING, AND PLACEMENT OF EROSION CONTROL AND SLOPE PROTECTION.
3. THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE A MINIMUM OF 3 WORKING DAYS PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO INSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
4. SNOWMOBILE TRAIL 102/121A WILL BE CLOSED TO THRU TRAFFIC AT THE JUNCTION OF TRAIL 102 AND 121A TO THE SOUTH AND AT THE JUNCTION OF TRAIL 102/121A AND FOREST ROAD (FR) 469 DURING CONSTRUCTION. THE CONTRACTING OFFICER SHALL BE NOTIFIED IN WRITING 3 WEEKS PRIOR TO ANY PROPOSED CLOSURE. DURATION OF CLOSURE SHALL NOT EXCEED 60 CONSECUTIVE DAYS. ROAD CLOSURE SIGNING SHALL BE IN PLACE PRIOR TO MOBILIZING EQUIPMENT OR MATERIALS.
5. NO MATERIAL SHALL BE CLEANED OR ALLOWED TO ERODE INTO THE WETLANDS, OR STREAM NOR SHALL MATERIAL BE PLACED INTO THE WATER OR WETLANDS EXCEPT AS SHOWN ON THE PLANS.
6. ALL DISTURBED GROUND SHALL BE PREPARED, SEEDED AND MULCHED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND NOTIFY THE CONTRACTING OFFICER IF HERITAGE RESOURCES OR HUMAN REMAINS ARE ENCOUNTERED.
8. ANY HAUL ROADS USED SHALL BE MAINTAINED BY THE CONTRACTOR AS NEEDED AND AS DIRECTED BY THE CONTRACTING OFFICER.
9. NO WORK SHALL BE PERFORMED ON FEDERAL HOLIDAYS OR WEEKENDS WITHOUT PRIOR APPROVAL FROM THE CONTRACTING OFFICER.
10. THE CONTRACTOR MAY NOT DAMAGE EXISTING LIVE TREES UNLESS INDICATED IN THE PLANS FOR REMOVAL, PRUNING, OR TRIMMING.
11. EXCESS EARTHWORK WASTE MATERIAL NOT SUITABLE FOR CONSTRUCTION SHALL BE REMOVED FROM THE PROJECT SITE. NO FILL OR STOCKPILING OF MATERIALS SHALL BE PLACED IN DRAINAGE WAYS THAT LEAD TO LAKES, STREAMS, OR WETLANDS.
12. THERE IS NO MERCHANTABLE TIMBER IDENTIFIED FOR THE PROJECT. CLEAR AND GRUB ALL TREES AND BRUSH WITHIN THE LIMITS SHOWN IN THE TYPICAL SECTIONS, PLANS, AND DETAILS, AND AS IDENTIFIED BY THE CONTRACTING OFFICER. REMOVE AND PROPERLY DISPOSE OF SLASH, BRUSH, AND STUMPS OFF OF NATIONAL FOREST PROPERTY.
13. REMOVE ALL CONSTRUCTION WASTE FROM THE SITE AND DISPOSE OF PROPERLY OFF OF FOREST SERVICE PROPERTY.
14. THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH FOREST SERVICE TRAILS MANAGEMENT HANDBOOK #FSH 2309.18, PRECONSTRUCTION HANDBOOK #FSH7709.56, AND TRANSPORTATION STRUCTURES HANDBOOK #FSH 7709.56B WHERE APPLICABLE.
15. ALL BACKFILL MATERIAL SHALL BE COMPACTED ACCORDING TO FP-14 SUBSECTION 209.10.
16. PROVIDE 100% BIODEGRADABLE EROSION MAT WHEN EROSION MAT IS SHOWN IN THE PLANS.
17. IN-STREAM WORK IS RESTRICTED BETWEEN MARCH 1 AND JUNE 15 FOR FISH SPAWNING.



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

STAMPS, LOGOS, AND SEALS



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NO.	REVISION / ISSUE	DATE

PROJECT NAME

**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

**GENERAL NOTES AND
CONTROL POINTS**

DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-01
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 2 OF 25

QUANTITIES

ITEM	DESCRIPTION	QUANTITIES	UNIT
15101	Mobilization	1	Lump Sum
15201	Construction survey and staking, method II, tolerance class A	1	Lump Sum
15205	Bridge survey and staking	1	Lump Sum
15212	Slope, reference, and clearing and grubbing stakes; method II, tolerance class A	1	Lump Sum
15217	Centerline reestablishment, Precision 0.06'	1	Each
15401	Contractor testing	1	Lump Sum
15713	Soil erosion and pollution control	1	Lump Sum
20158	Clearing and Grubbing	1	Lump Sum
20301	Removal of bridge, disposal method A	1	Lump Sum
20407	Roadway excavation	67	Cubic Yard
20411	Unclassified borrow excavation	136	Cubic Yard
20414	Conserved Top Soil	1	Lump Sum
20417	Embankment construction, compaction placement method A	164	Cubic Yard
20701A	Earthwork geosynthetics, type geotextile, class 1, type A	230	Square Yard
20701B	Earthwork geosynthetics, type geogrid, type IV	90	Square Yard
20801	Structure excavation, type bridge	152	Cubic Yard
20803	Structural backfill, type bridge	70	Cubic Yard
25103	Placed riprap, class 3	150	Square Yard
30208	Aggregate surface course, method 2	115	Ton
55105	Helical pile, in place	80	Foot
55201	Structural concrete, Class AE, Type IA	9.4	Cubic Yard
55402	Reinforcing steel, 60ksi	1	Lump Sum
55704	Structural Timber and Lumber, Glue Laminated Timber and Treated Timber and Lumber	1	Lump Sum
62404	Placing conserved topsoil, 4 inch depth	22	Square Yard
62550	Turf establishment	1	Lump Sum
63305	Sign, aluminum panel, type engineer grade sheeting	23.6	Square Foot
63306	Post, wood 4"x4"	72	Foot
63307	Object marker, type 3	4	Each
63312	Remove signs and posts	1	Lump Sum
63501	Temporary traffic control	1	Lump Sum

CLEARING AND GRUBBING SUMMARY

LOCATION	STA.	NO. TREES => 5" DIA. (EACH)
STA. 11+10 TO 11+90, LT/RT	0.8	0
STA. 12+10 TO 13+10, LT/RT	1	0
NO. 20158, CLEARING AND GRUBBING TOTAL	1.8	0

1) CLEARING AND GRUBBING IS MEASURED BY THE LUMP SUM AND INCLUDES TREES OF ALL SIZES. THE QUANTITIES SHOWN IN THE TABLE ABOVE ARE ESTIMATED QUANTITY AMOUNTS TO COMPLETE THE PROJECT AND ARE FOR INFORMATION ONLY.
 2) TREES EQUAL TO OR GREATER THAN 5" DIAMETER WILL NOT BE CONSIDERED MARKETABLE TIMBER.

EARTHWORK AND STRUCTURE BACKFILL SUMMARY

EXPANSION FACTOR		1.2				
LOCATION	ACCUM. CUT VOLUME (CY)	(1) ACCUM. EMBANKMENT FILL VOLUME (CY)	ADJUSTED FILL (CY)	UNCLASSIFIED BORROW EXCAVATION (CY)	WASTE (CY)	STRUCTURE BACKFILL (CY)
NO. 20801, STRUCTURE EXCAVATION, BRIDGE						
STA. 11+70 TO 11+84	79.4	0.0		0.0	79.4	47
STA. 11+84 TO 11+96 (2)	15.1	0.0		0.0	0.1	
STA. 12+07 TO 12+17.5 (2)	35.2	0.0		0.0	26.2	
STA. 12+17.5 TO 12+27	22.3	0.0		0.0	22.3	23
SUBTOTAL	152.0	0.0		0.0	128.0	70
NO. 20801, STRUCTURE EXCAVATION, BRIDGE TOTAL			152.0		-128.0	
TRAIL APPROACH EARTHWORK (SOUTH)						
STA. 11+10 TO 11+95	33.9	141.2	169.4	135.5	0.0	
SUBTOTAL	33.9	141.2	169.4	135.5	0.0	
TRAIL APPROACH EARTHWORK (NORTH)						
STA. 12+07 TO 13+10	32.4	134.0	160.8	128.4	0.0	
SUBTOTAL	32.4	134.0	160.8	128.4	0.0	
MISCELLANEOUS						
	0.7		0.8	0.1		
NO. 20407, ROADWAY EXCAVATION TOTAL		67.0				
NO. 20411, UNCLASSIFIED BORROW EXCAVATION				136.0		
NO. 20417, EMBANKMENT CONSTRUCTION, COMPACTION PLACEMENT METHOD A			331.0			
PROJECT BORROW/WASTE TOTAL			112.0			

RIPRAP AND GEOTEXTILE FABRIC

LOCATION				(1) SALVAGED RIPRAP	DELIVERED RIPRAP, CLASS 3	PLACED RIPRAP, CLASS 3	EARTHWORK GEOSYNTHETICS, TYPE GEOTEXTILE, CLASS 1, TYPE A	COMMENTS
START	SIDE	END	SIDE	C.Y.	C.Y.	C.Y.	S.Y.	SY
STA. 11+65	LT/RT	STA. 11+90	LT/RT	15.0	34.2	49.2	73.8	111
STA. 12+10	LT	STA. 12+30	LT	9.0	8.5	17.5	26.3	44
STA. 12+10	RT	STA. 12+40	RT			29.3	43.9	67
MISC. (IF NEEDED)						4.0	6.0	8
TOTAL				24.0	42.7	100.0	150.0	230

RIPRAP PLACED DEPTH WILL BE 2-FEET. TABLE IS FOR INFORMATION ONLY. SEE THE SCHEDULE OF QUANTITIES.
 (1) MEASURED UNDER STRUCTURE EXCAVATION, SEE EARTHWORK TABLE. REDUCES AMOUNT OF CLASS 3 RIPRAP MATERIAL DELIVERED TO THE SITE. EXISTING RIPRAP SIZE VARIES BETWEEN ABOUT 6 TO 18-INCH DIAMETER, IS GLACIAL BOULDERS, AND ASSUMED TO BE 18-INCHES THICK.



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

STAMPS, LOGOS, AND SEALS



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△		
NO.	REVISION / ISSUE	DATE

PROJECT NAME

**STRUCTURE NO.
091301-130-0.0
SAILOR CREEK
TRIBUTARY
BRIDGE
CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

**QUANTITIES AND
ITEM TABLES**

DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-02
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 3 OF 25

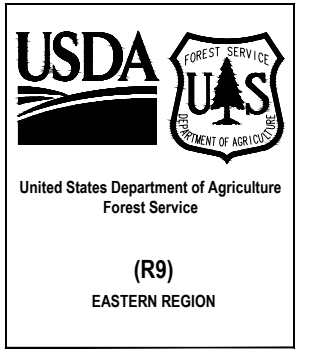
2/13/24 00:47 CEDP - OWNER X:\PROJECTS\232647_ST_USFS_FD_3 TRAIL BR DESIGNS\90_CADD\901_PLANS\901.4_FRD_03-QUANTITIES.DWG

AGGREGATES						
LOCATION				AGG. SURFACE COURSE, METHOD 2		COMMENTS
START	SIDE	END	SIDE	C.Y.	TON	
STA. 11+10	RT/LT	STA. 11+76	RT/LT	18.5	37	
STA. 12+23	RT/LT	STA. 13+10	RT/LT	24.2	49	
MISC. (IF NEEDED)				3.5	7	
TRAIL ACCESS MAINTENANCE (IF NEEDED)				10.8	22	
TOTAL				57.0	115	

TABLE IS FOR INFORMATION ONLY. SEE THE SCHEDULE OF QUANTITIES.

TOPSOIL, TURF ESTABLISHMENT, AND SOIL EROSION AND POLLUTION CONTROL SUMMARY						
ITEM	4" DEPTH (SF)	VOLUME (CY)	MIN. AREA (SY)	MIN. WEIGHT (LBS.)	MIN. LENGTH (LF)	MIN. COUNT (EACH)
NO. 20414, CONSERVED TOP SOIL	3240	40				
NO. 62406, PLACING CONSERVED TOPSOIL, 4" DEPTH	1710	22	190			
NO. 62550, TURF ESTABLISHMENT			190			
PERMANENT SEEDING				1.8		
FERTILIZER				7.9		
NO. 15713, SOIL EROSION AND POLLUTION CONTROL						
ROLLED E.C. PRODUCT, TYPE 2C JUTE			190			
SILT FENCE					420	
TURBIDITY CURTAIN					120	

1) TURF ESTABLISHMENT IS MEASURED BY THE LUMP SUM AND INCLUDES PERMANENT SEEDING AND FERTILIZER. THE QUANTITIES SHOWN IN THE TABLE ABOVE ARE MINIMUM ESTIMATED QUANTITY AMOUNTS REQUIRED TO COMPLETE THE PROJECT AND ARE FOR INFORMATION ONLY.
2) MOW VEGETATION PRIOR TO CONSERVING TOP SOIL.
3) CONSERVED TOP SOIL ESTIMATED QUANTITY IS BASED ON SALVAGING APPROXIMATELY 4" DEPTH.
4) USE DRY METHOD APPLICATIONS.
5) PERMANENT SEEDING SHALL BE FESCUE AND RYEGRASS BLEND PER THE SUPPLEMENTAL SPECIFICATIONS AND APPLIED AT A RATE OF 45 POUNDS PER ACRE.
6) FERTILIZER SHALL BE 10-20-10 WITH APPLICATION RATE OF 200 POUNDS PER ACRE.
7) SOIL EROSION AND POLLUTION CONTROL IS MEASURED BY THE LUMP SUM AND INCLUDES ROLLED EROSION CONTROL PRODUCT, TYPE 2C JUTE FABRIC AND SILT FENCE. THE QUANTITIES SHOWN IN THE TABLE ABOVE ARE MINIMUM ESTIMATED QUANTITY AMOUNTS REQUIRED TO COMPLETE THE PROJECT AND ARE FOR INFORMATION ONLY.



NO.	REVISION / ISSUE	DATE

PROJECT NAME
**STRUCTURE NO.
091301-130-0.0
SAILOR CREEK
TRIBUTARY
BRIDGE**
CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
ITEM TABLES

DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-03
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 4 OF 25

2/13/24 00:47 CEDP - OWNER X:\PROJECTS\232347_ST_USFS_FD_3 TRAIL BR DESIGNS\90_CADD\901_PLANS\901_4_FRD_03-QUANTITIES.DWG

SIGNS AND OBJECT MARKERS TABLE

NO.	LOCATION		REMOVE (LUMP SUM)	SIGN TYPE			SIGN SIZE		MATERIAL AREA (SF)		OBJECT MARKERS			BOTTOM HEIGHT	POSTS		COMMENT
				SIGN CODE	MESSAGE	MATERIAL	WIDTH	HEIGHT	ALUM.	HDPE	TYPE 2 (EACH)	TYPE 3 (EACH)	TYPE 4 (EACH)	(IN.)	WOOD		
							(IN.)	(IN.)							4"X4"	8"X8"	
S-01	STA. 9+70.0	8.0'			ONE LANE BRIDGE											REMAIN IN PLACE	
S-02	STA. 10+25.0	8.0'		R12-1	WEIGHT LIMIT 12 TONS	ALUM.	24	30	5				60	11'		FACING SOUTH, WHITE W/ BLACK LETTERING	
S-03	STA. 11+35.0	10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2				70	10'		FLORESCENT ORANGE DIAMOND, FACING SOUTH	
S-03	STA. 11+35.0	10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2							FLORESCENT ORANGE DIAMOND, FACING NORTH	
S-04	STA. 11+35.0	-10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2				70	10'		FLORESCENT ORANGE DIAMOND, FACING SOUTH	
S-04	STA. 11+35.0	-10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2							FLORESCENT ORANGE DIAMOND, FACING NORTH	
S-05	STA. 11+75.0	6.5'	1	OM3-R	OBJECT MARKER, TYPE 3	ALUM.	12	36	3		1		48			YELLOW W/ BLACK, MOUNT ON BRIDGE POST, FACING SOUTH	
S-06	STA. 11+75.0	-6.5'	1	OM3-L	OBJECT MARKER, TYPE 3	ALUM.	12	36	3		1		48			YELLOW W/ BLACK, MOUNT ON BRIDGE POST, FACING SOUTH	
S-07	STA. 12+21.0	-17.1'	1													POST WITHOUT SIGN	
S-08	STA. 12+24.0	6.5'	1	OM3-R	OBJECT MARKER, TYPE 3	ALUM.	12	36	3		1		48			YELLOW W/ BLACK, MOUNT ON BRIDGE POST, FACING NORTH	
S-09	STA. 12+24.0	-6.5'	1	OM3-L	OBJECT MARKER, TYPE 3	ALUM.	12	36	3		1		48			YELLOW W/ BLACK, MOUNT ON BRIDGE POST, FACING NORTH	
S-10	STA. 12+29.0	-3.0'	1													SALVAGE FLEXIBLE MARKER	
S-11	STA. 12+29.0	-17.0'	1													SALVAGE FLEXIBLE MARKER	
S-12	STA. 12+40.0	-17.6'	1													SALVAGE FLEXIBLE MARKER	
S-13	STA. 12+44.0	-3.0'	1													SALVAGE FLEXIBLE MARKER	
S-14	STA. 12+45.0	-23.7'	1													TRAIL MARKER W/ ARROW	
S-15	STA. 12+53.0	-16.0'	1													SALVAGE FLEXIBLE MARKER	
S-16	STA. 12+53.0	-1.3'	1													SALVAGE FLEXIBLE MARKER	
S-17	STA. 12+63.0	10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2				70	10'		FLORESCENT ORANGE DIAMOND, FACING SW	
S-17	STA. 12+63.0	10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2							FLORESCENT ORANGE DIAMOND, FACING NE	
S-18	STA. 12+63.0	-10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2				70	10'		FLORESCENT ORANGE DIAMOND, FACING SW	
S-18	STA. 12+63.0	-10.0'		TB-1	ORANGE TRAIL REASSURANCE MARKER	ALUM.	5	7	0.2							FLORESCENT ORANGE DIAMOND, FACING NE	
S-19	STA. 13+75.0	-10.0'		R12-1	WEIGHT LIMIT 12 TONS	ALUM.	24	30	5				60	11'		FACING NE; WHITE W/ BLACK LETTERING	
S-20	STA. 14+25.0	-10.0'	1		ONE LANE BRIDGE			24					60	10'		MOVE SIGN FROM 13+50, LT	
QUANTITY SUMMARY			13						23.6	0	0	4	0		72	0	

STANDARD FEDERAL COLORS INCLUDE BROWN (#20059), YELLOW-CREAM (#23695), AND WHITE (#37875).
 ALUM. - ALUMINUM SIGNS, 0.125" THICK WITH 3M 3290 ENGINEER GRADE SHEETING. ORDER METAL SIGNS WITH PREDRILLED HOLES.
 HDPE - HIGH DENSITY POLYETHYLENE PLASTIC, YELLOW CORE, BROWN SURFACE, 3/4-INCH THICKNESS OR AS INDICATED.
 WOOD - DOUGLAS FIR NO. 2 OR BETTER, OR SOUTHERN YELLOW PINE STAINED BROWN (#20059).
 WPC - WOOD PLASTIC COMPOSITE.
 ALL WOOD POSTS, WOOD SIGNS, AND CAMPSITE MARKERS SHALL BE STAINED BROWN (#20059).

- WOOD POSTS AND CAMPSITE MARKER POSTS SHALL HAVE A 30 DEGREE BEVELED TOP, STAINED, AND BE MEASURED AND PAID AS WOOD POST, 4"X4", 4"X6", OR 6"X6". POST DRIVEN/PLACED HEIGHT WILL BE 2" ABOVE TOP OF SIGN EXCEPT SITE IDENTIFICATION SIGN.
- SITE IDENTIFICATION SIGN LETTERING WILL BE ASA SERIES AND NATIONAL FOREST LOGOTYPE, SEE USDA FOREST SERVICE "SIGN AND POSTER GUIDELINES FOR THE FOREST SERVICE", EM7100-15 FOR LETTER SIZE. SPECIAL SIGN MESSAGE LETTERING WILL BE SERIES D, 2" UPPER CASE UNLESS INDICATED.
- MOUNT SIGNS TO WOOD POSTS WITH ZINC COATED LAG SCREWS OR BOLTS. MOUNT OBJECT MARKERS TO GATES AND POSTS WITH ZINC COATED AND PAINTED BROWN (#20059) BRACKETS AS NEEDED AND STAINLESS STEEL NUTS, BOLTS, AND WASHERS.
- PLACE INSTALLATION DATE AND VANDAL WARNING DECALS TO THE CORNER OF THE SIGN CLOSEST TO THE ROAD. THE VANDAL WARNING DECAL GOES ON THE BACK OF STOP OR YIELD SIGNS, BUT ON THE FRONT OF ALL OTHER SIGNS. THE INSTALLATION DATE DECAL GOES ON THE BACK OF ALL SIGNS. BOTH DECALS MAY BE OBTAINED FROM THE FOREST SERVICE THROUGH UNICOR. CONTACT REBECCA HICKEY OF FOREST SERVICE 715-762-5133, REBECCA.HICKEY@USDA.GOV.
- PROVIDE SIGN PROOFS TO REBECCA HICKEY OF FOREST SERVICE 715-762-5133, REBECCA.HICKEY@USDA.GOV FOR APPROVAL PRIOR TO ORDERING.
- SIGNS AND POSTS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
- SIGN CODES ARE BASED ON USDA FOREST SERVICE "SIGN AND POSTER GUIDELINES FOR THE FOREST SERVICE", PUBLICATION EM7100-15 AND U.S. FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- SIGNS ARE INDICATED WITH THEIR STANDARD CODE AND DIMENSION. FOREST ROAD DESTINATION (FRD) NON-STANDARD RECTANGULAR SIGN ARE INDICATED BY "FRD" AND DIMENSION.
- REMOVAL OF SIGNS AND MARKERS SHALL INCLUDE THE POST IT IS MOUNTED TO.
- SIGN POST OFFSETS ARE TYPICALLY 4-FT FROM TRAIL EDGE, 6-FT FROM SITE ROADWAY EDGES, AND 13-FT FROM HIGHWAY PAVEMENT EDGE.
- BOTTOM OF SIGN MOUNTING HEIGHT IS TYPICALLY 60-INCHES ALONG TRAILS, 48-INCHES ALONG INTERNAL ROADWAYS, AND 60-INCHES ALONG HIGHWAYS UNLESS NOTED ON THE SIGN TABLE. SNOWMBILE TRAIL REASSURANCE MARKERS ARE MOUNTED 40-INCHES ABOVE AVERAGE MAXIMUM SNOWFALL.
- SALVAGE FLEXIBLE MARKERS AND SET ASIDE IN A LOCATION DESIGNATED BY THE CO.



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NO.	REVISION / ISSUE	DATE

PROJECT NAME

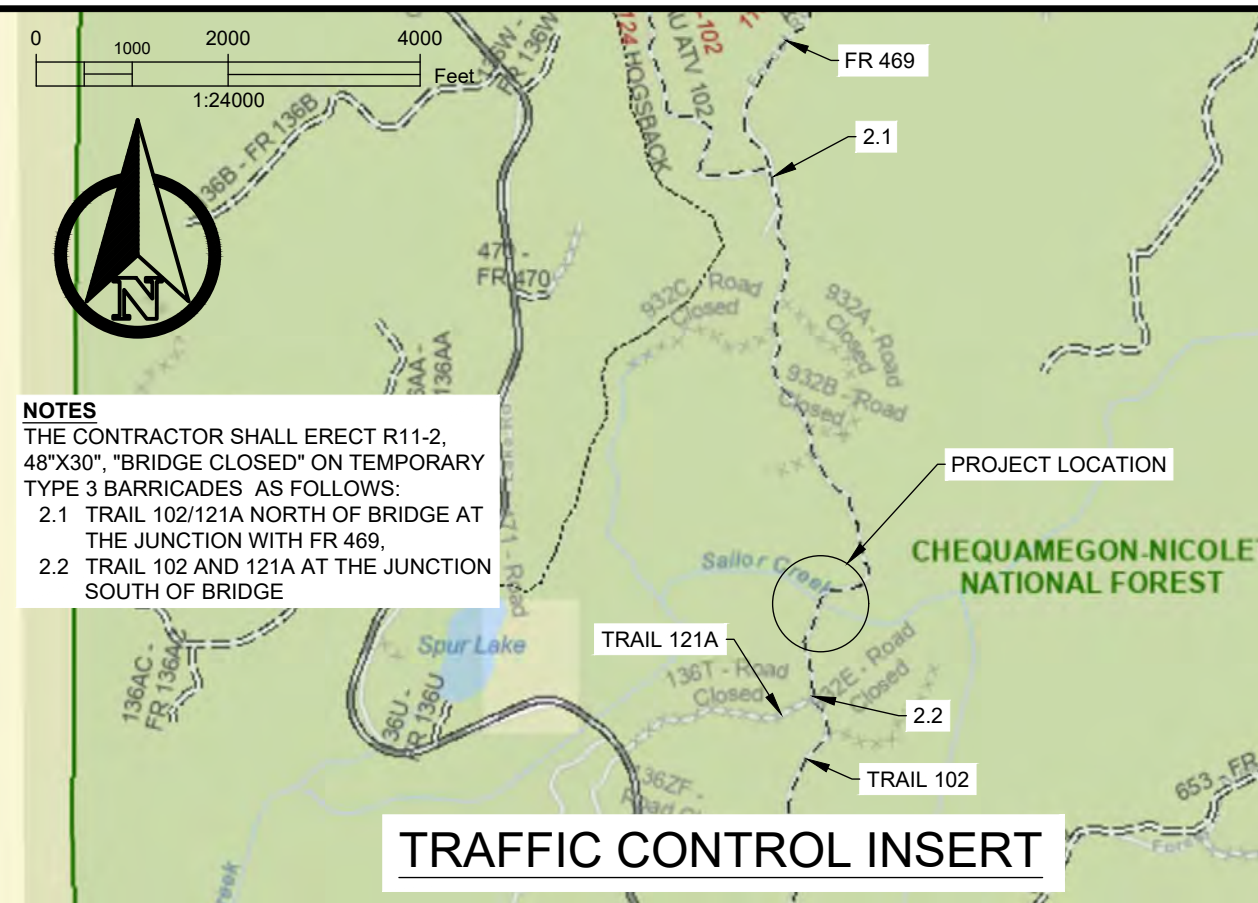
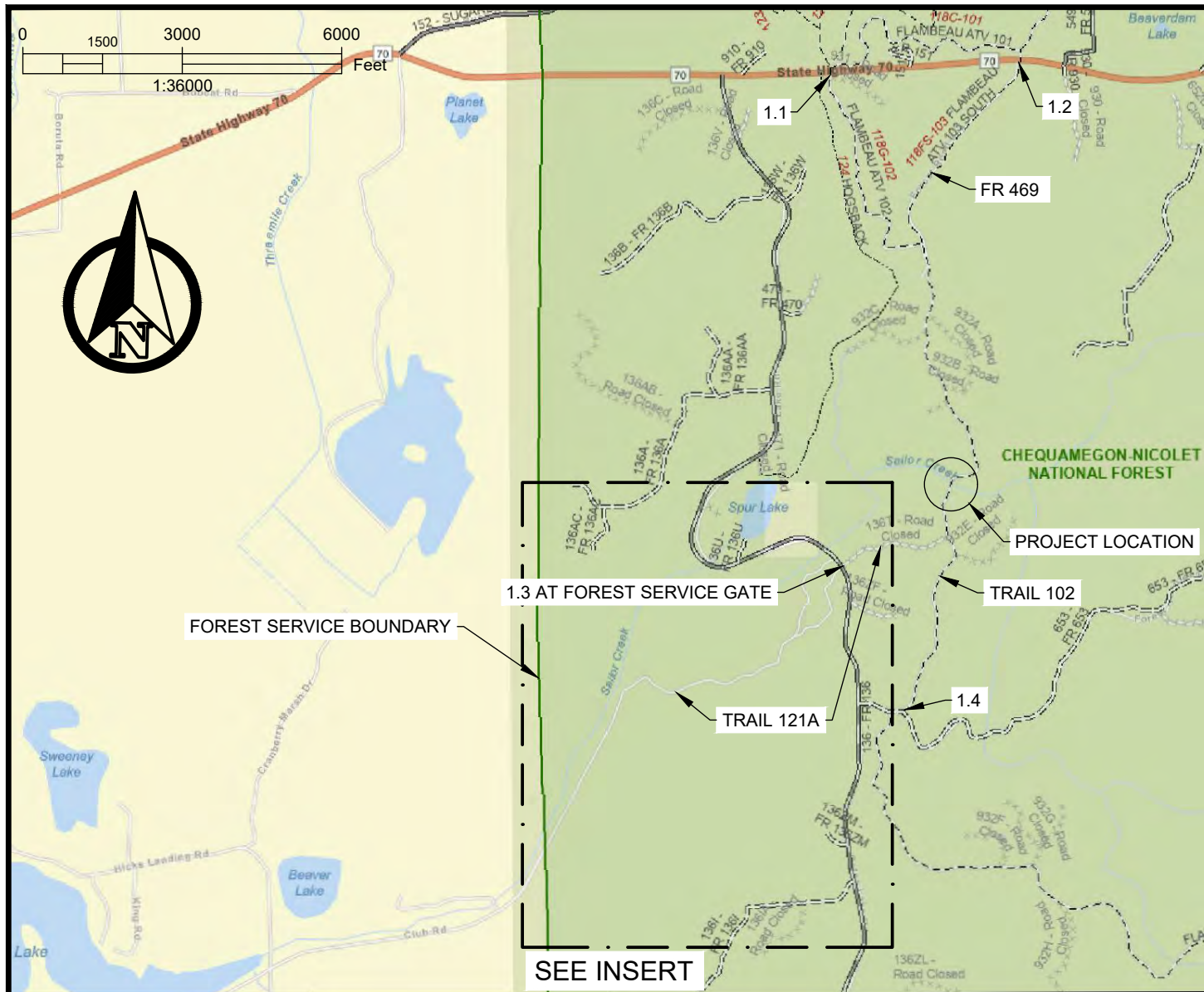
**STRUCTURE NO.
091301-130-0.0
SAILOR CREEK
TRIBUTARY
BRIDGE
CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

ITEM TABLES

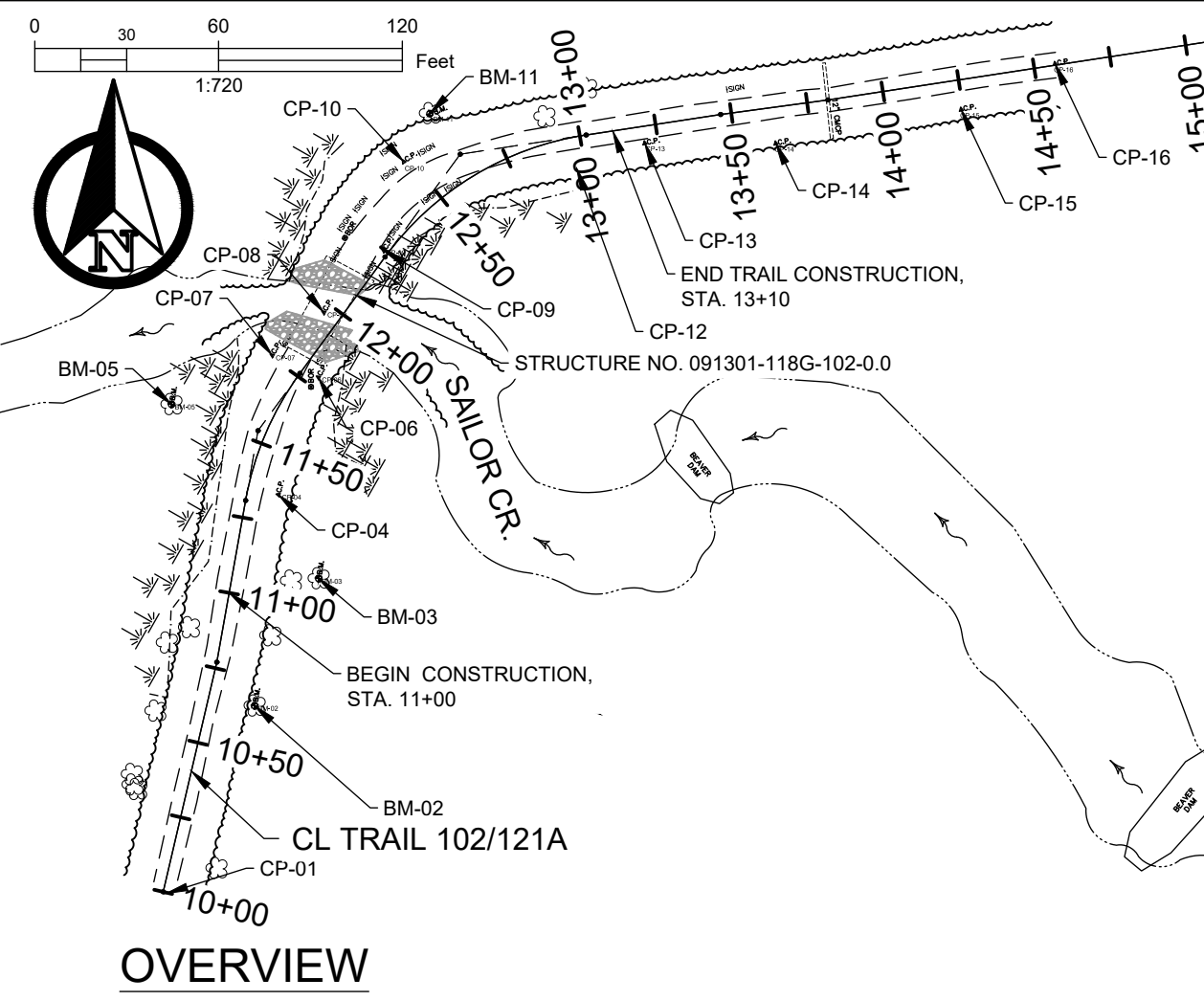
DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-04
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 5 OF 25



NOTES
 THE CONTRACTOR SHALL ERECT R11-2, 48"X30", "BRIDGE CLOSED" ON TEMPORARY TYPE 3 BARRICADES AS FOLLOWS:
 2.1 TRAIL 102/121A NORTH OF BRIDGE AT THE JUNCTION WITH FR 469,
 2.2 TRAIL 102 AND 121A AT THE JUNCTION SOUTH OF BRIDGE

NOTES
 THE CONTRACTOR SHALL ERECT R11-3b, 48"X30", "BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY" ON TEMPORARY TYPE 3 BARRICADES AT ROAD AND TRAIL JUNCTIONS AND CROSSINGS AS FOLLOWS:
 1.1 TRAIL 121A AND STATE HWY. 77 JUNCTION, 1.8 MILES AHEAD,
 1.2 FOREST ROAD 469 AND STATE HWY. 77 JUNCTION, 1.8 MILES AHEAD,
 1.3 TRAIL 121A AND FOREST ROAD (FR) 136 (N. GATES LAKE ROAD) JUNCTION, 0.6 MILES AHEAD
 1.4 TRAIL 102 AND FR 653 JUNCTION, 0.9 MILES AHEAD.

TRAFFIC CONTROL



OVERVIEW

USDA **FOREST SERVICE**
 UNITED STATES DEPARTMENT OF AGRICULTURE
 Forest Service
 (R9)
 EASTERN REGION

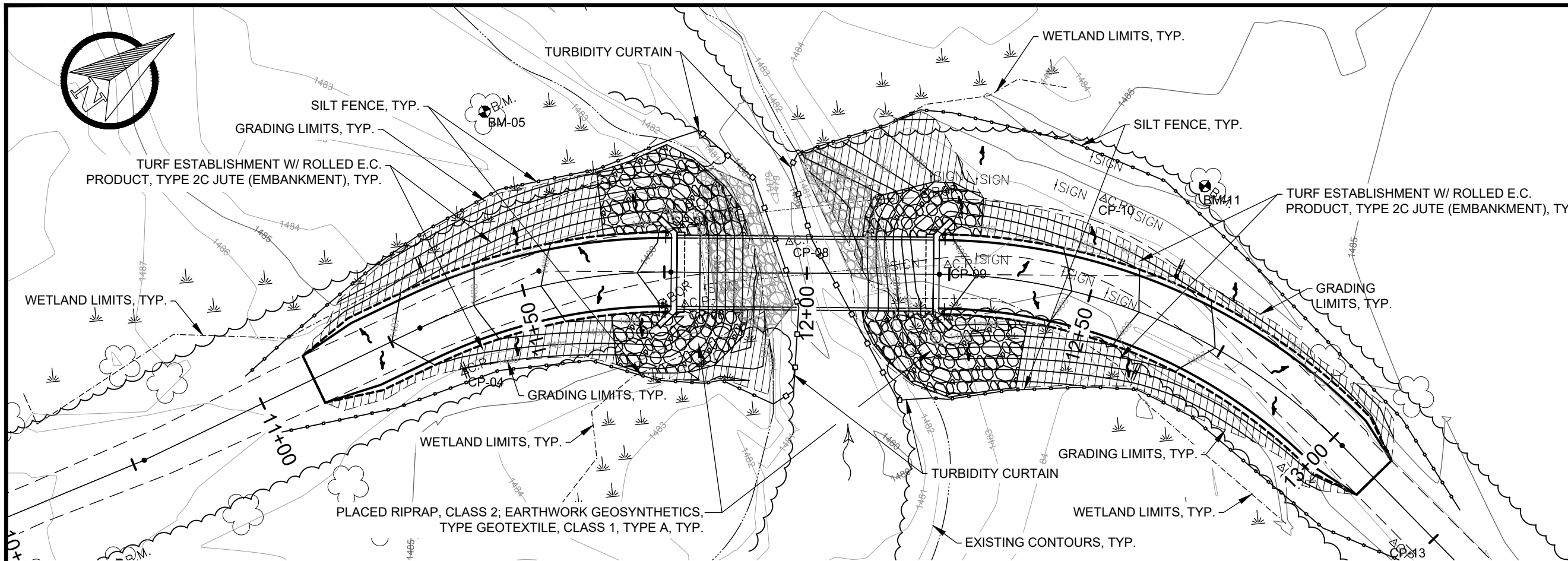
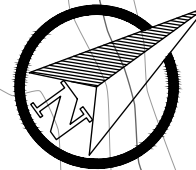
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NO.	REVISION / ISSUE	DATE


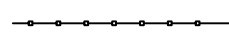
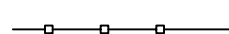
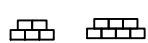

PROJECT NAME
STRUCTURE NO. 091301-118G-102-0.0
DALRYMPLE BRIDGE
 CHEQUAMEGON-NICOLET NATIONAL FOREST
 MEDFORD-PARK FALLS RANGER DISTRICT

DRAWING TITLE
TEMPORARY TRAFFIC CONTROL AND OVERVIEW

DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-05
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 5 OF 26

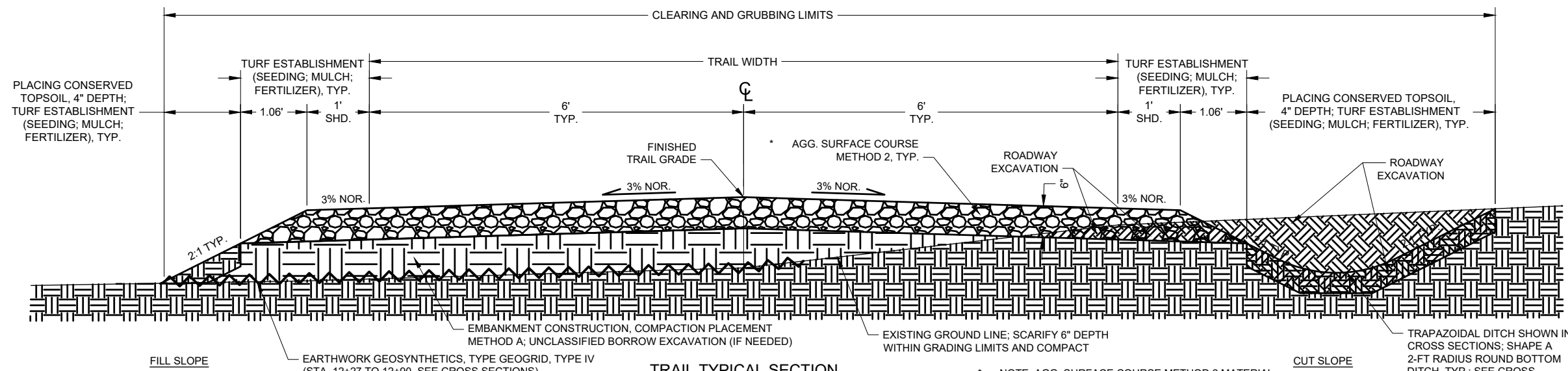


LEGEND

-  TURF ESTABLISHMENT W/ ROLLED E.C. PRODUCT, TYPE 2C JUTE (EMBANKMENT)
-  SILT FENCE
-  TURBIDITY CURTAIN
-  BALES, STRAW
-  RUNOFF DIRECTION

NOTES


1. TURF ESTABLISHMENT INCLUDES SOIL PREPARATION, SEED, AND FERTILIZER.
2. INSTALL SILT FENCE AT EDGE OF WETLANDS OR GRADING LIMITS AS SHOWN.
3. SEE SUPPLEMENTAL SPECIFICATIONS SECTION 107 FOR WATER WORK RESTRICTED DATES.



TRAIL TYPICAL SECTION

STA. 11+10 TO STA. 11+77
 STA. 12+22 TO STA. 13+10
 (NTS)

* NOTE: AGG. SURFACE COURSE METHOD 2 MATERIAL MAY BE GRADING DESIGNATION "U" AS INDICATED IN THE SUPPLEMENTAL SPECIFICATIONS, TABLE 703-3, OR WisDOT BASE AGGREGATE DENSE 3/4-INCH



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**STRUCTURE NO.
 091301-118G-102-0.0
 DALRYMPLE
 BRIDGE**

CHEQUAMEGON-NICOLET
 NATIONAL FOREST

MEDFORD-PARK FALLS
 RANGER DISTRICT

DRAWING TITLE

**EROSION CONTROL
 PLAN AND TRAIL
 TYPICAL SECTION**

DATE 2/16/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-06
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 7 OF 25

2/12/24 22:44 CEDP - OWNER X:\PROJECTS\2326427_ST_USFS_FD_3 TRAIL BR DESIGNS\90_CADD\901_PLANS\901.4_FRD_07.EC & TYPICAL.DWG



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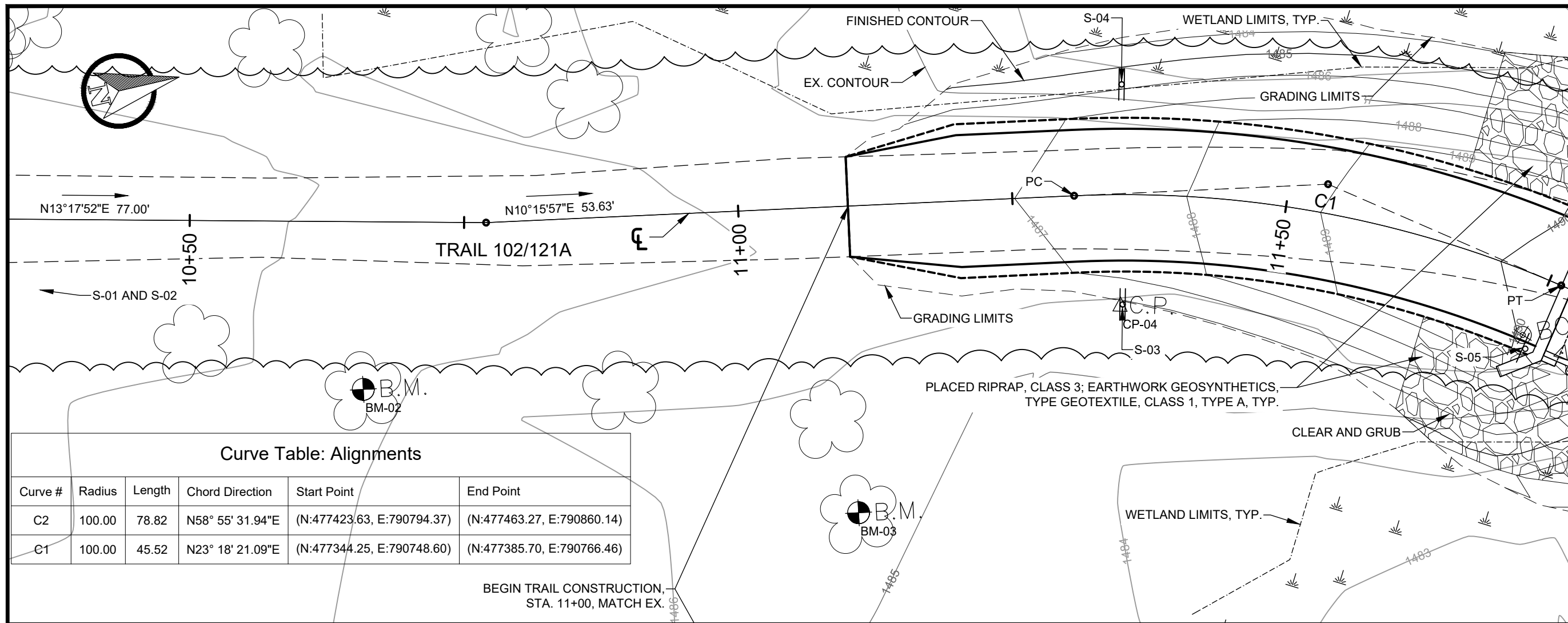


NO.	REVISION / ISSUE	DATE
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PROJECT NAME
STRUCTURE NO. 091301-118G-102-0.0
DALRYMPLE BRIDGE
CHEQUAMEGON-NICOLET NATIONAL FOREST
MEDFORD-PARK FALLS RANGER DISTRICT

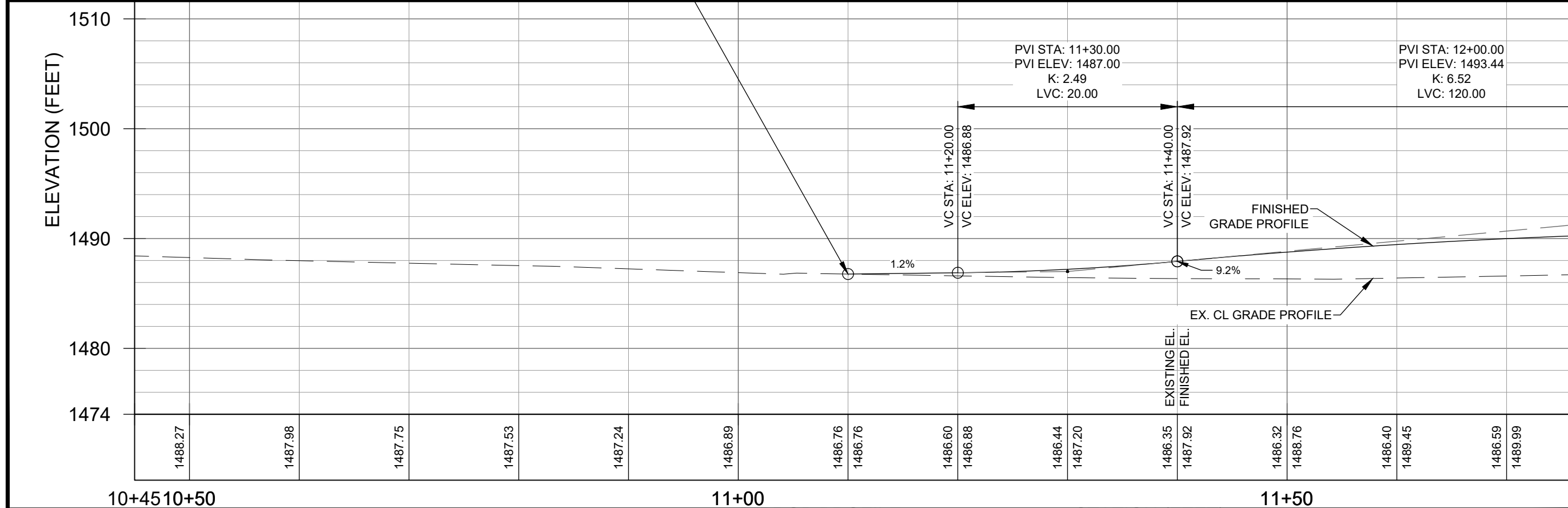
DRAWING TITLE
PLAN AND PROFILE

DATE 2/26/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-07
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 8 OF 25

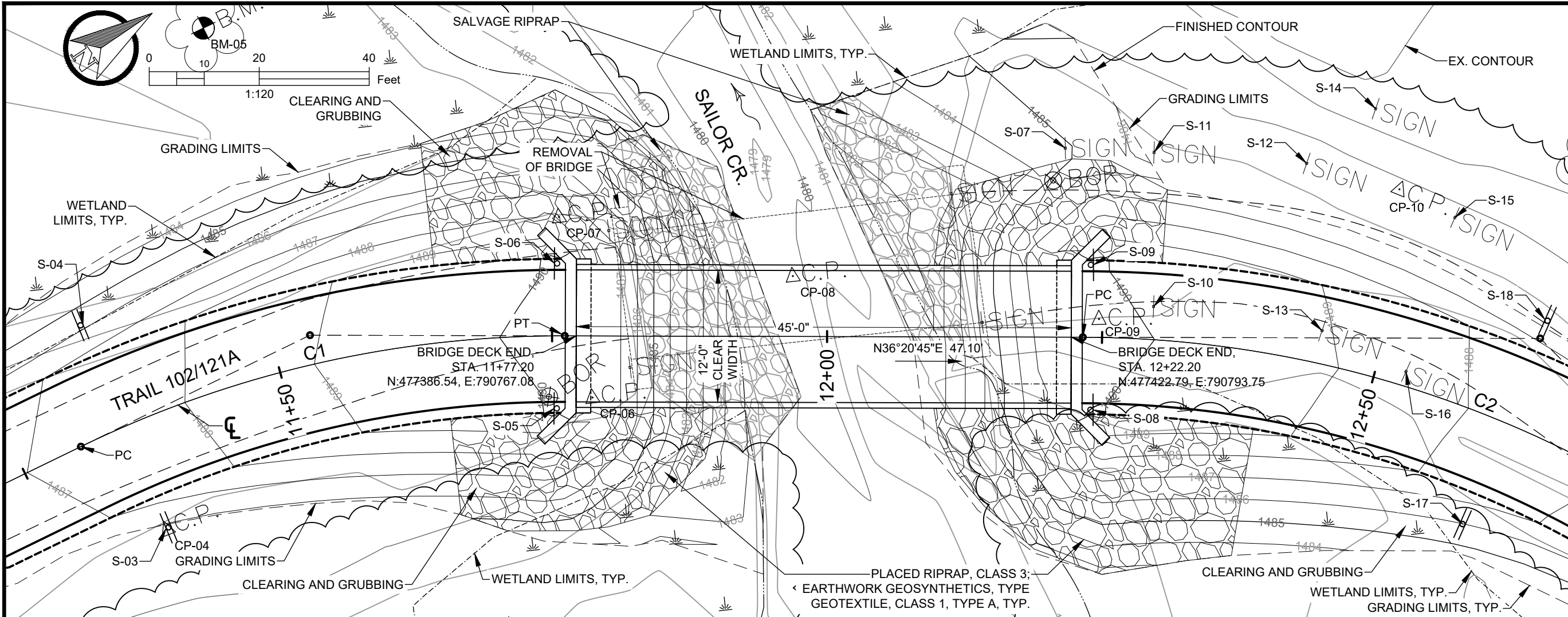
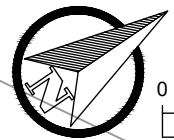


Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Start Point	End Point
C2	100.00	78.82	N58° 55' 31.94"E	(N:477423.63, E:790794.37)	(N:477463.27, E:790860.14)
C1	100.00	45.52	N23° 18' 21.09"E	(N:477344.25, E:790748.60)	(N:477385.70, E:790766.46)



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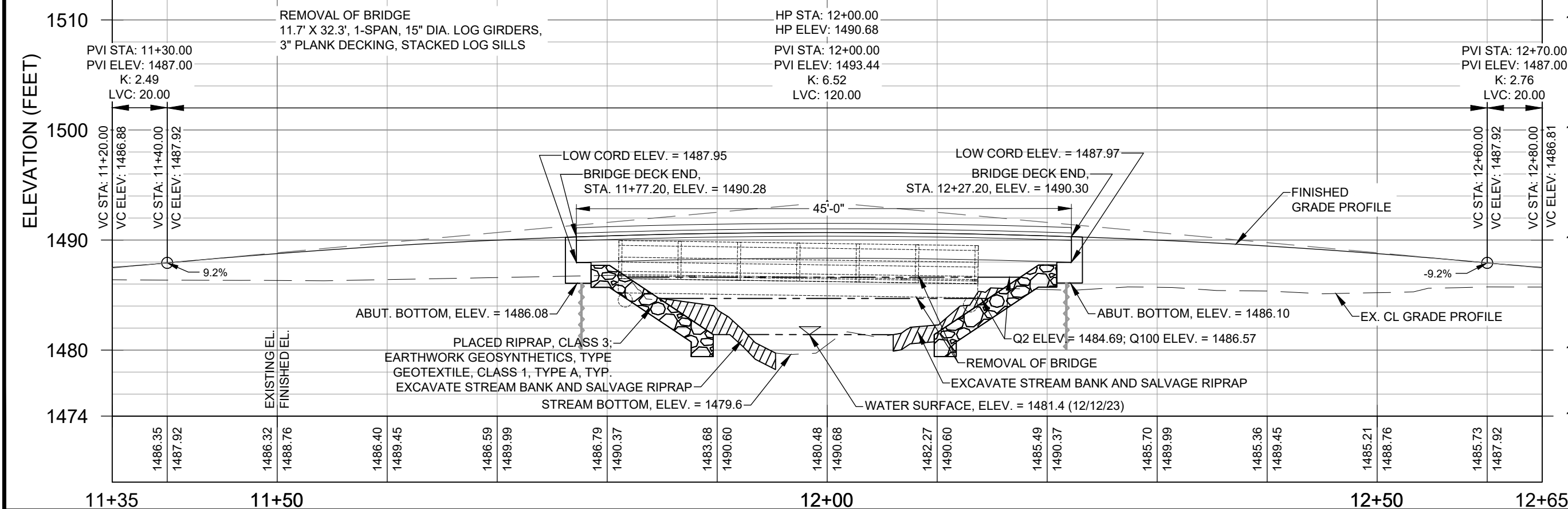


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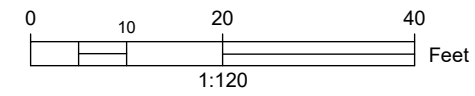
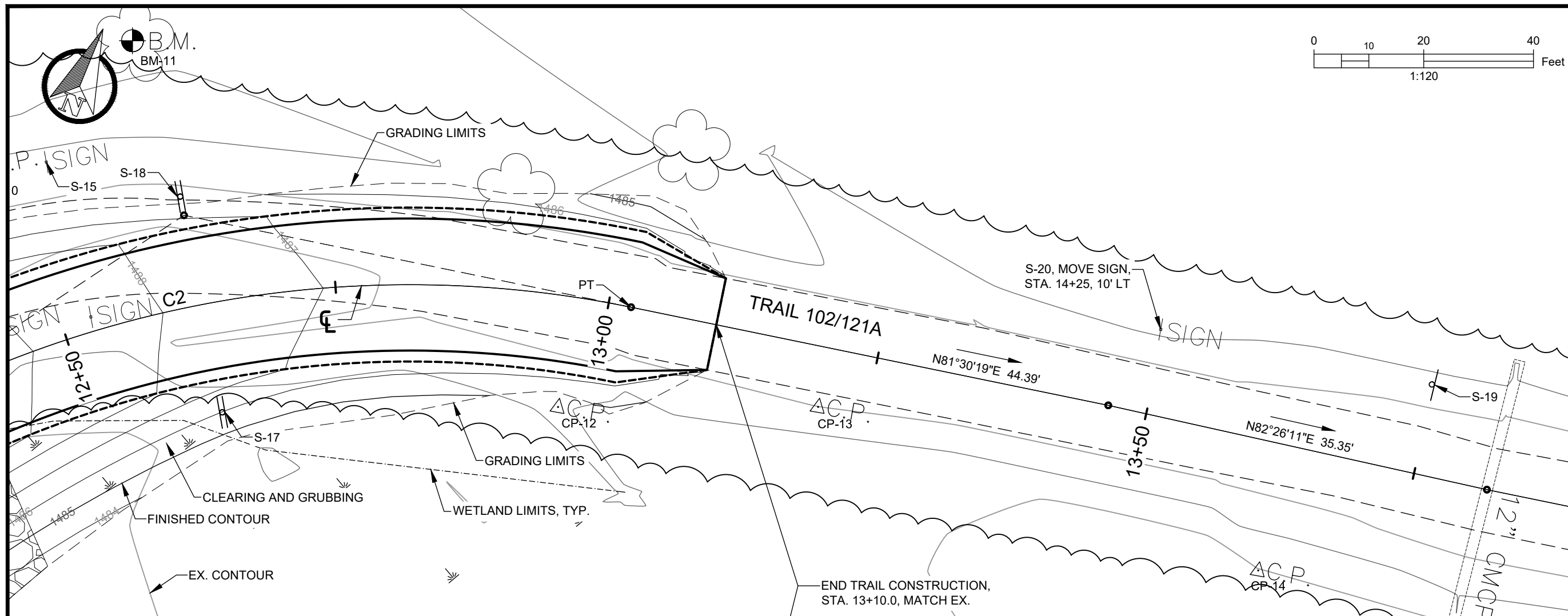
PROJECT NAME
STRUCTURE NO. 091301-118G-102-0.0
DALRYMPLE BRIDGE
 CHEQUAMEGON-NICOLET NATIONAL FOREST
 MEDFORD-PARK FALLS RANGER DISTRICT



DRAWING TITLE
PLAN AND PROFILE

DATE 2/26/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-08
DRAWN R. POLKINGHORN	CHECKED A. JOHNSTON
PROJECT NO.	SHEET 9 OF 25

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PROJECT NAME

**STRUCTURE NO.
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DALRYMPLE
BRIDGE**

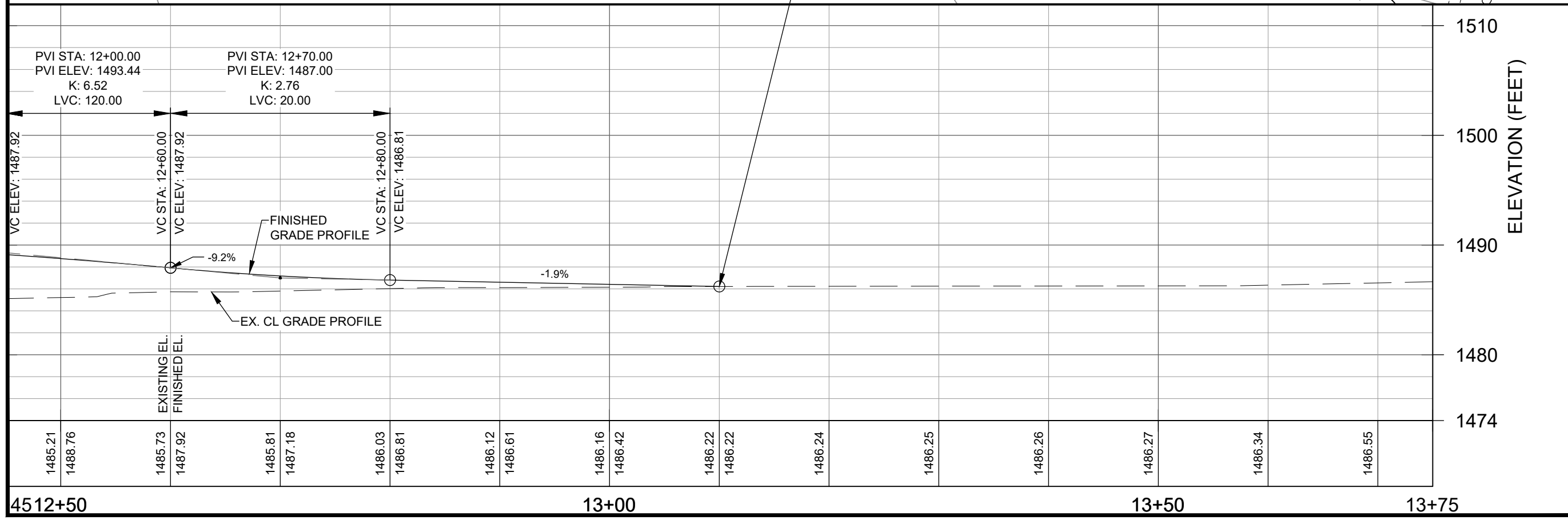
CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

PLAN AND PROFILE

DATE 2/26/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-09
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 10 OF 25



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PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

CHEQUAMEGON-NICOLET
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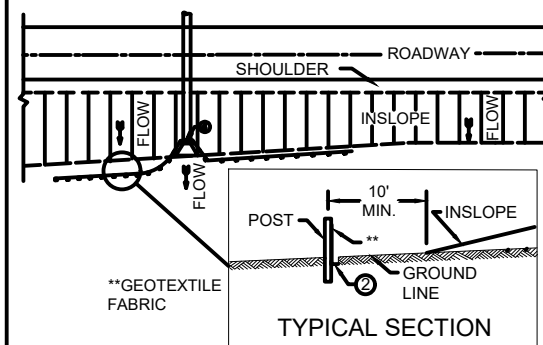
MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
DETAILS

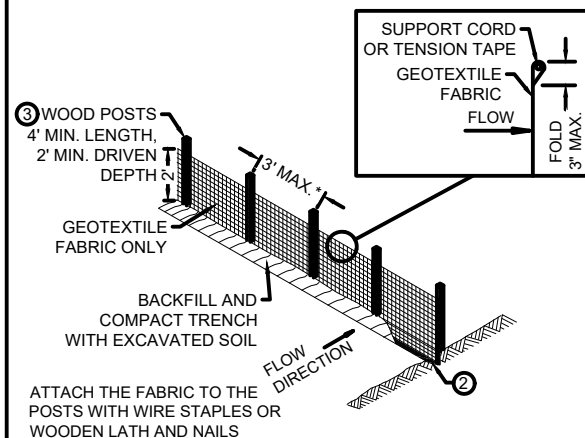
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DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-10
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 11 OF 25

GENERAL NOTES

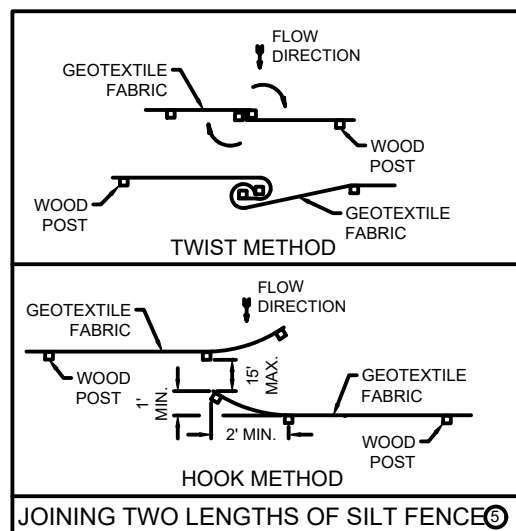
- DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
*8' POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.
- HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
 - FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
 - WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/2" X 1 1/2" OF OAK OR HICKORY.
 - SILT FENCE TO EXTEND ACROSS THE TOP OF PIPES.
 - CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE TWO FOLLOWING METHODS: A) OVERLAP THE END POSTS AND TWIST OR ROTATE AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



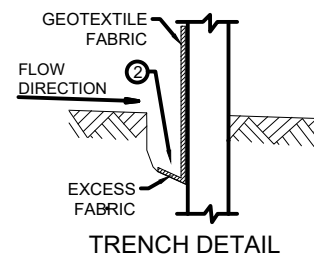
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



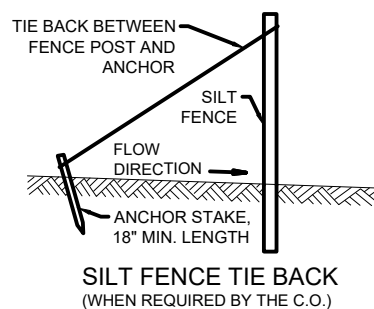
SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE



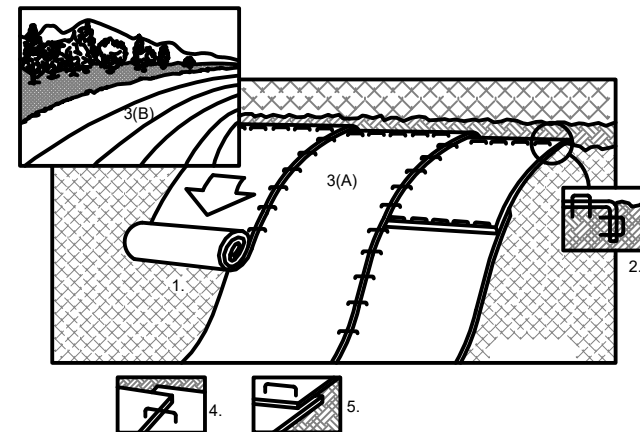
TRENCH DETAIL



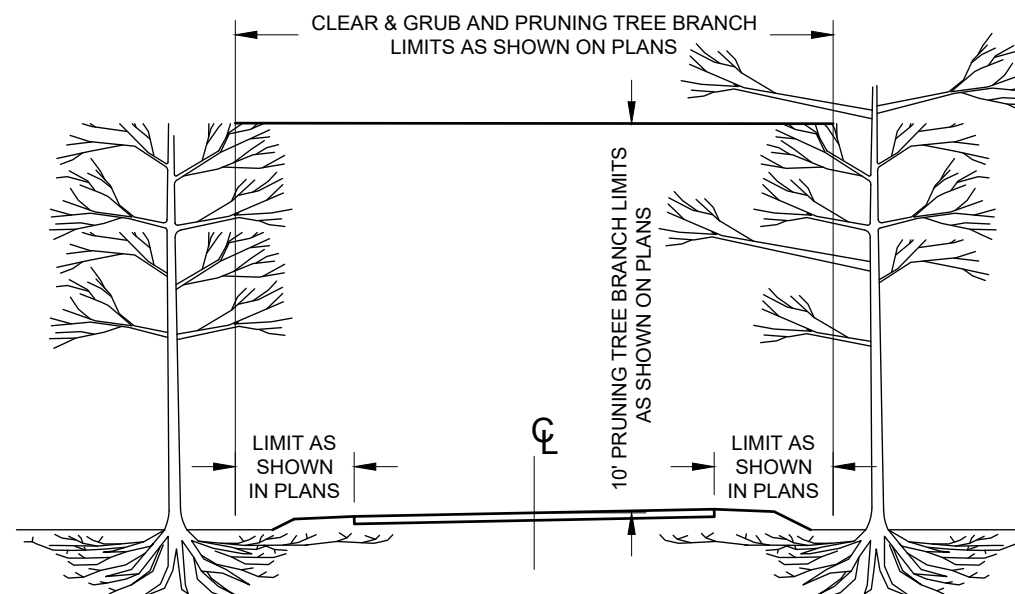
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE C.O.)

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCT, INCLUDE SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ROLLED PRODUCT IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 - ROLL THE ROLLED PRODUCT (3A.) DOWN OR (3B.) HORIZONTALLY ACROSS THE SLOPE.
 - THE EDGES OF PARALLEL ROLLED PRODUCT SHALL BE STAPLED WITH 4" OVERLAP.
 - WHEN ROLLED PRODUCT MUST BE SPICED DOWN THE SLOPE, PLACE ROLLED PRODUCT END OVER END (SHINGLE STYLE) WITH 6" OVERLAP. STAPLE APPROXIMATELY 12" APART.
 - ALL ROLLED PRODUCT MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/ STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER. ALL STAPLES/S TAKES SHALL BE BIODEGRADABLE.
 - ROLLED EROSION CONTROL PRODUCT SHALL CONFORM TO THE TYPE SHOWN IN THE PLANS.



ROLLED EROSION CONTROL PRODUCT



NOTES:

- PRUNE BRANCHES BACK TO THE NEAREST BOUGH OUTSIDE OF THE REMOVAL LIMITS OR FLUSH WITH TRUNK.
- PRUNE ROOTS GREATER THAN 1" DIAMETER WITH A CUTTING TOOL THAT CAN MAKE CLEAN STRAIGHT CUTS. DO NOT USE A TRENCHER OR EXCAVATOR TO MAKE CUTS. DO NOT PRUNE ROOTS WITHIN DISTANCE OF LESS THAN 3X TREE DIAMETER WITHOUT APPROVAL OF THE ENGINEER.
- PROPERLY DISPOSE OF TRIMMINGS AND STUMPS OFF OF NATIONAL FOREST PROPERTY.

CLEARING, GRUBBING, AND PRUNING DETAIL (NTS)



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

STAMPS, LOGOS, AND SEALS



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NO.	REVISION / ISSUE	DATE

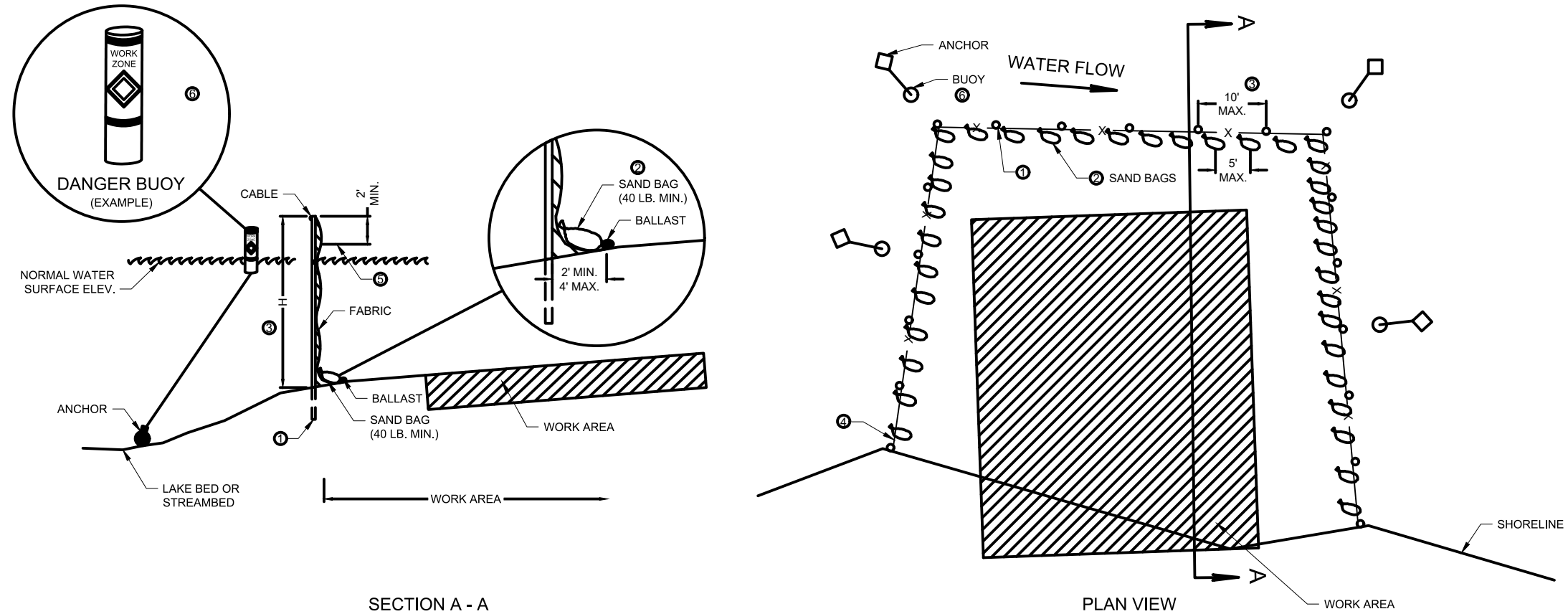
PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

**CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
DETAILS

DATE 2/26/2024	ARCHIVE NO.
DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-11
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 12 OF 25



SECTION A - A

PLAN VIEW

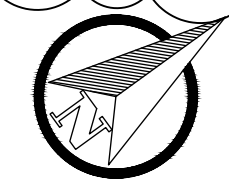
FLOATING TURBIDITY CURTAIN DETAIL (NTS)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY CURTAIN MAY BE REMOVED AT THE C.O.'S DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN NEEDED OR ORDERED BY THE C.O. TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN CURTAIN HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE CURTAIN. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE CURTAIN OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM CURTAIN HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



United States Department of Agriculture
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(R9)
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STAMPS, LOGOS, AND SEALS



NO.	REVISION / ISSUE	DATE

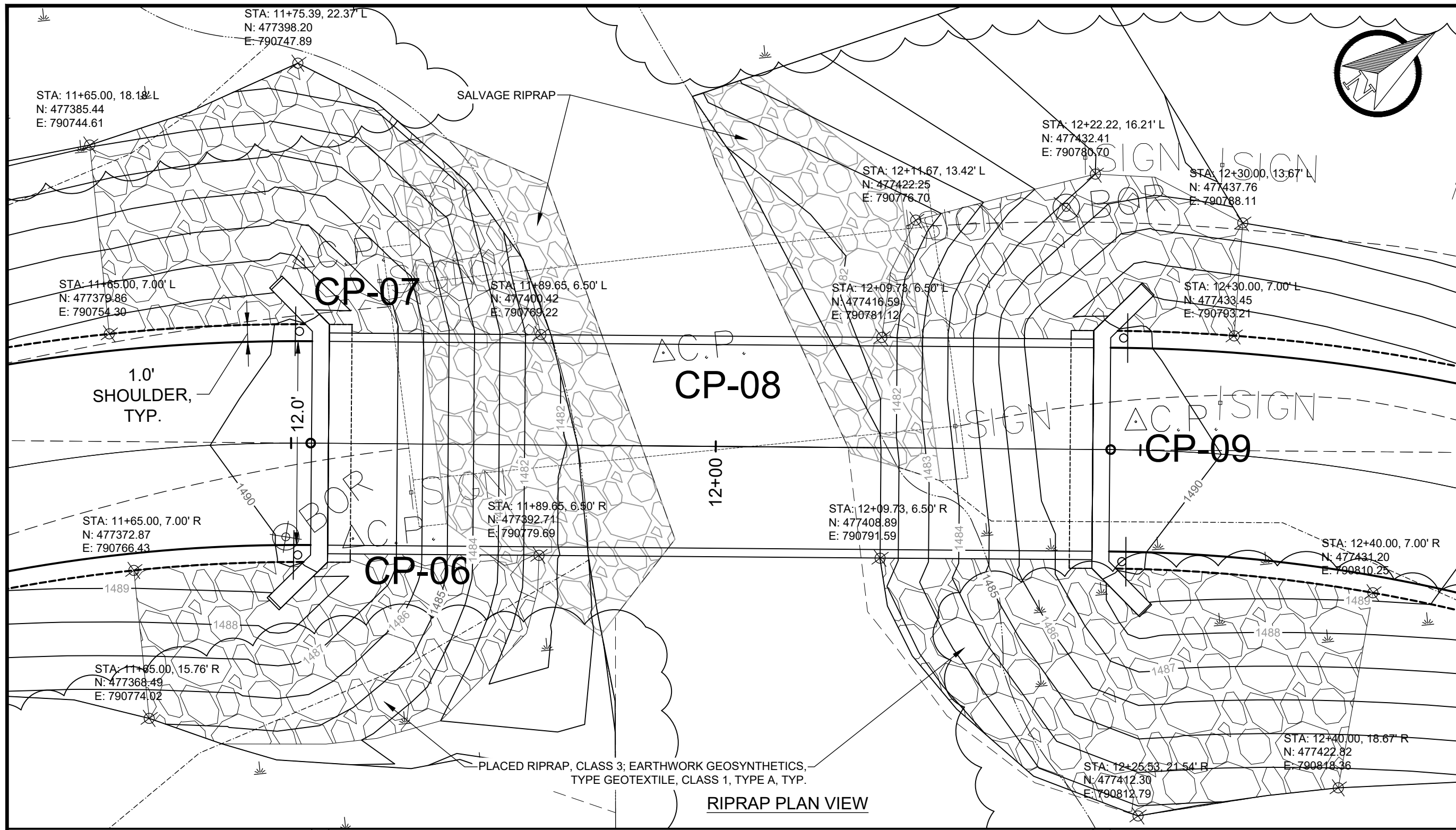
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STRUCTURE NO. 091301-118G-102-0.0 DALRYMPLE BRIDGE

CHEQUAMEGON-NICOLET NATIONAL FOREST

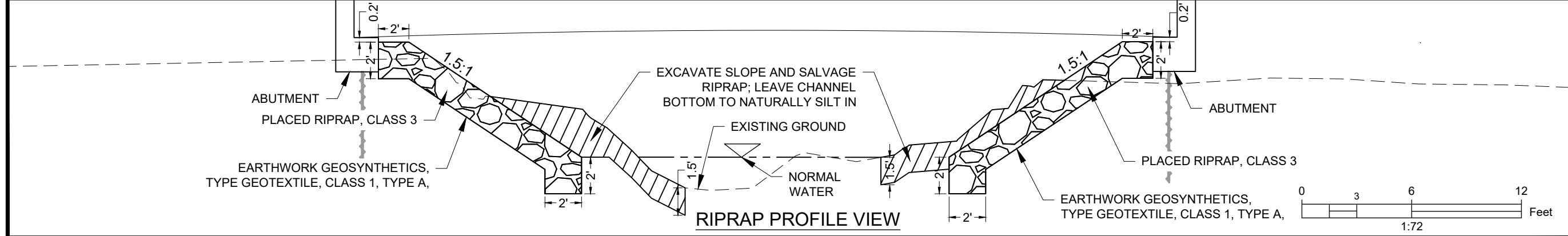
MEDFORD-PARK FALLS RANGER DISTRICT

DRAWING TITLE
DETAILS

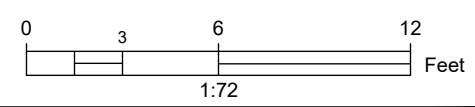
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DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-12
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 13 OF 25



RIPRAP PLAN VIEW



RIPRAP PROFILE VIEW



2/15/24 16:37 CEDP - OWNER X:\PROJECTS\232427_ST_USFS_FD_3 TRAIL BR DESIGNS\90_CADD\501_PLANS\501.4_FRD_11-DETAILS.DWG;



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

STAMPS, LOGOS, AND SEALS



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NO.	REVISION / ISSUE	DATE

PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**
**CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

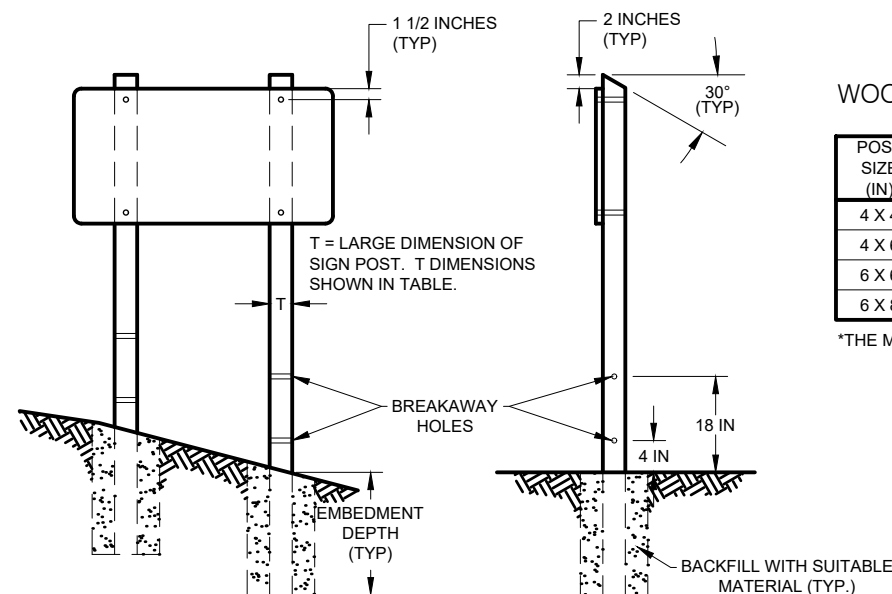
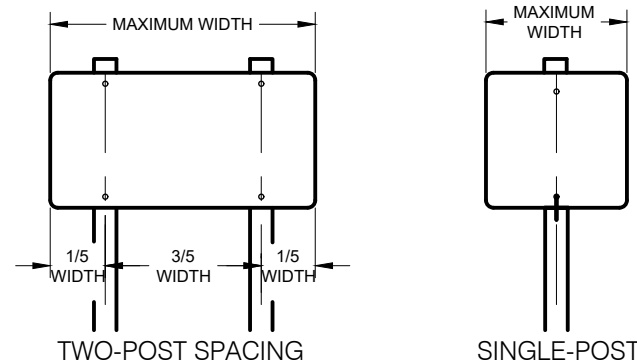
DRAWING TITLE
DETAILS

DATE 2/16/2024	ARCHIVE NO.
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DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 14 OF 25

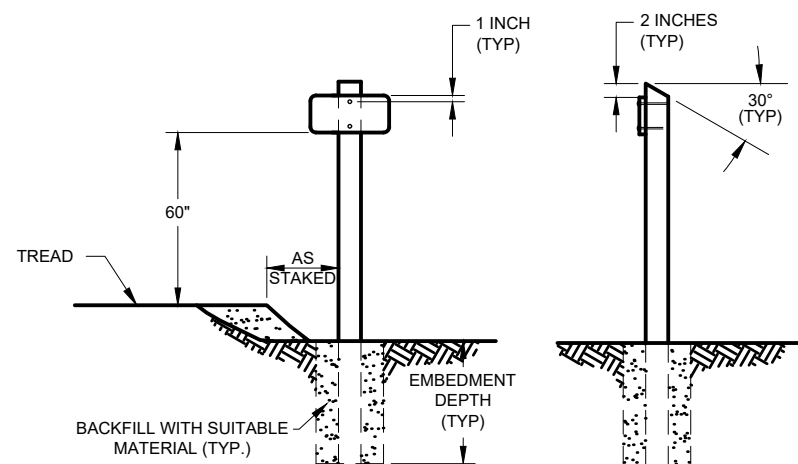
WOOD SIGN POST SPACING AND SIZE REQUIREMENTS

POST SIZE (IN)	SINGLE POST		TWO-POST		MINIMUM EMBEDMENT DEPTH (FT)	HOLE DIAMETER (IN)
	MAX SIGN WIDTH (IN)	MAX SIGN AREA (SQ.FT)	MAX SIGN WIDTH (IN)	MAX SIGN AREA (SQ.FT)		
4 X 4	*47	10	72	20	3	--
4 X 6	48	20	72	50	4	1.5
6 X 6	48	20	96	95	4	2
6 X 8	--	--	--	--	4	3

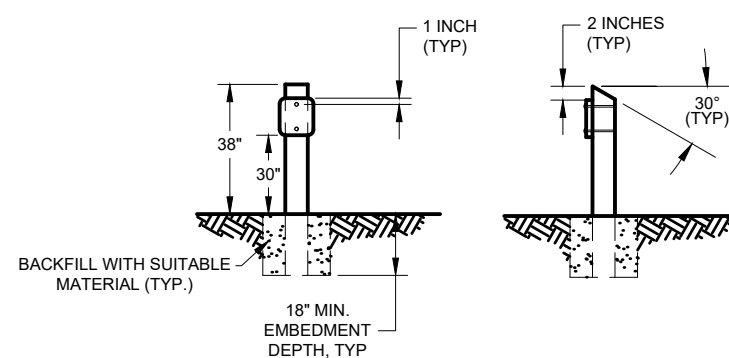
*THE MAXIMUM WIDTH IS 36 INCHES FOR DIAMOND-SHAPED SIGNS.



GUIDELINES FOR WOOD SIGN POSTS



SIGN AND POST INSTALLATION

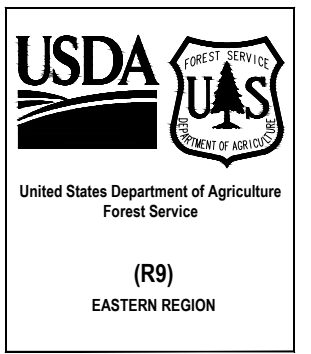
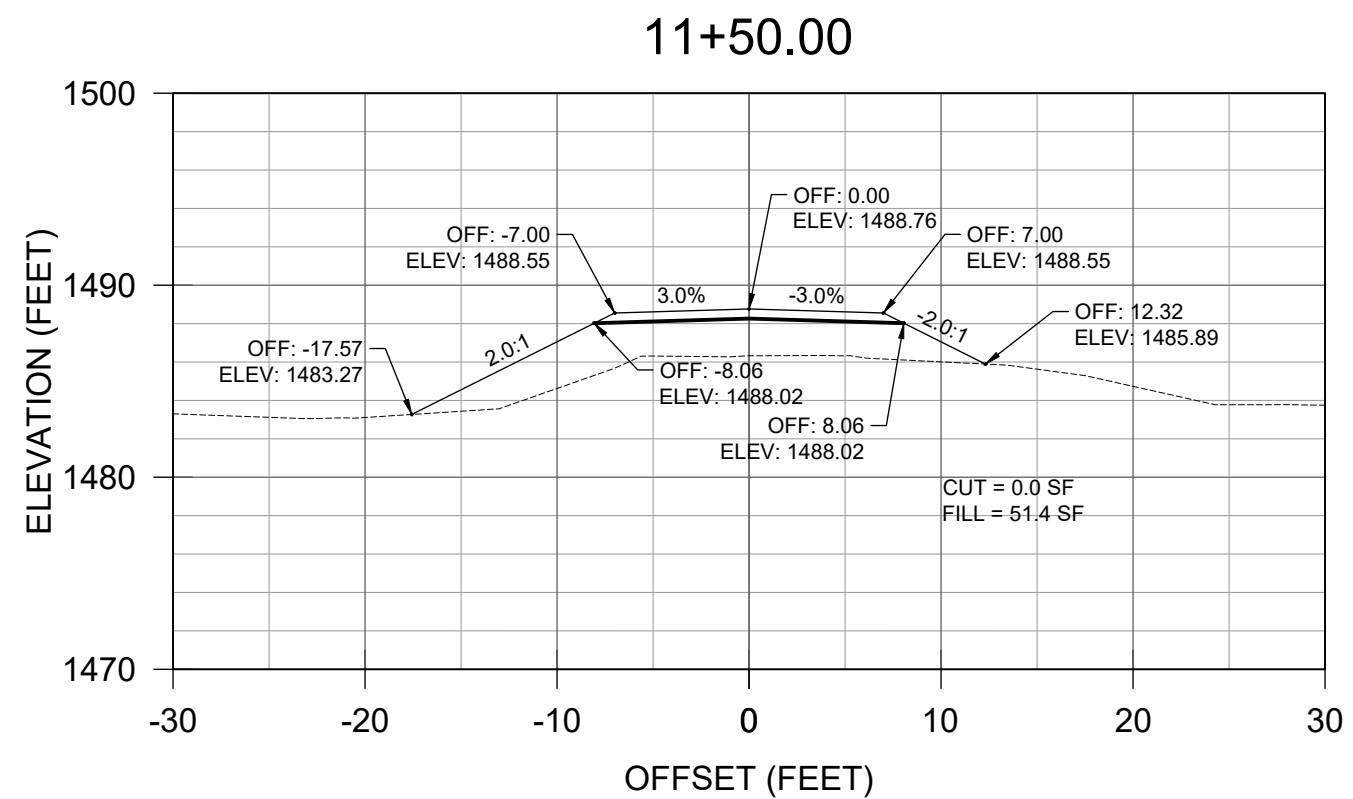
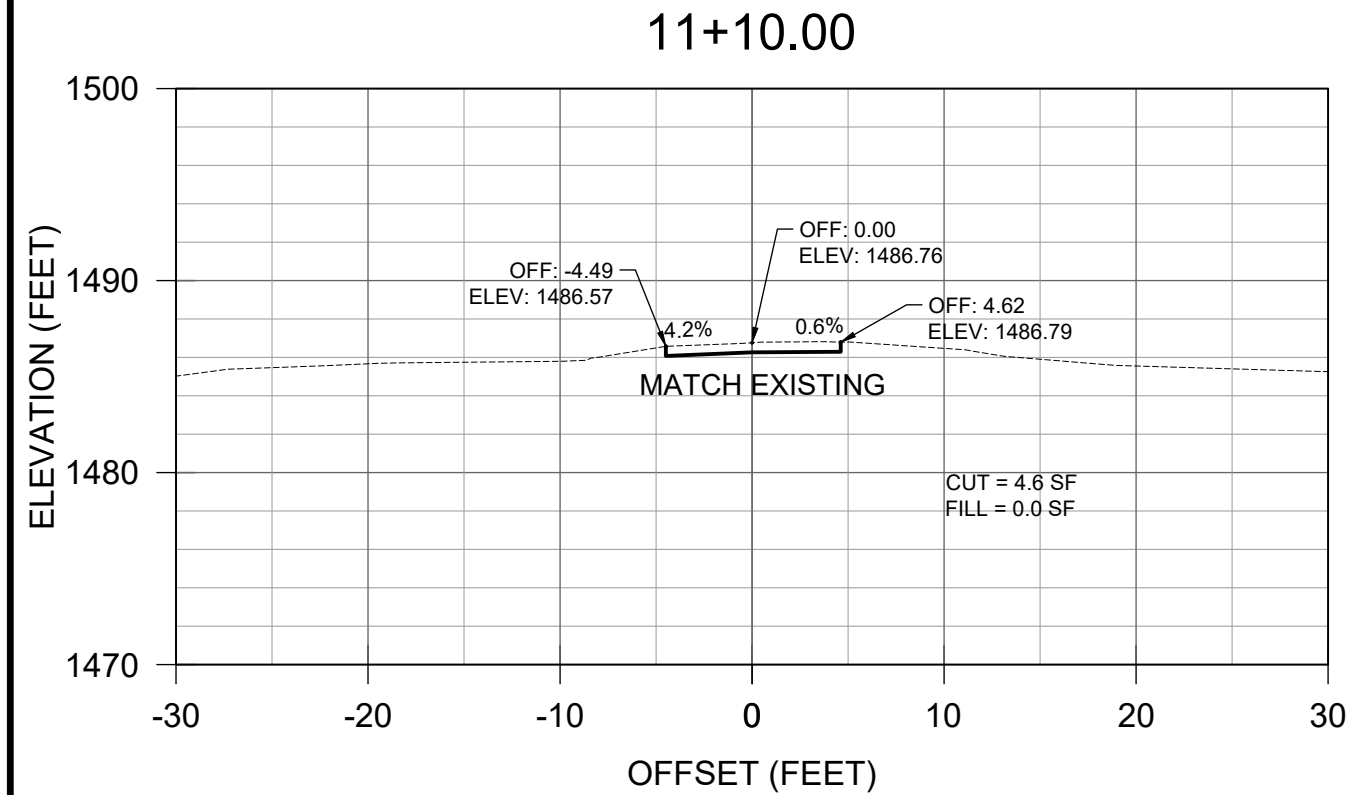
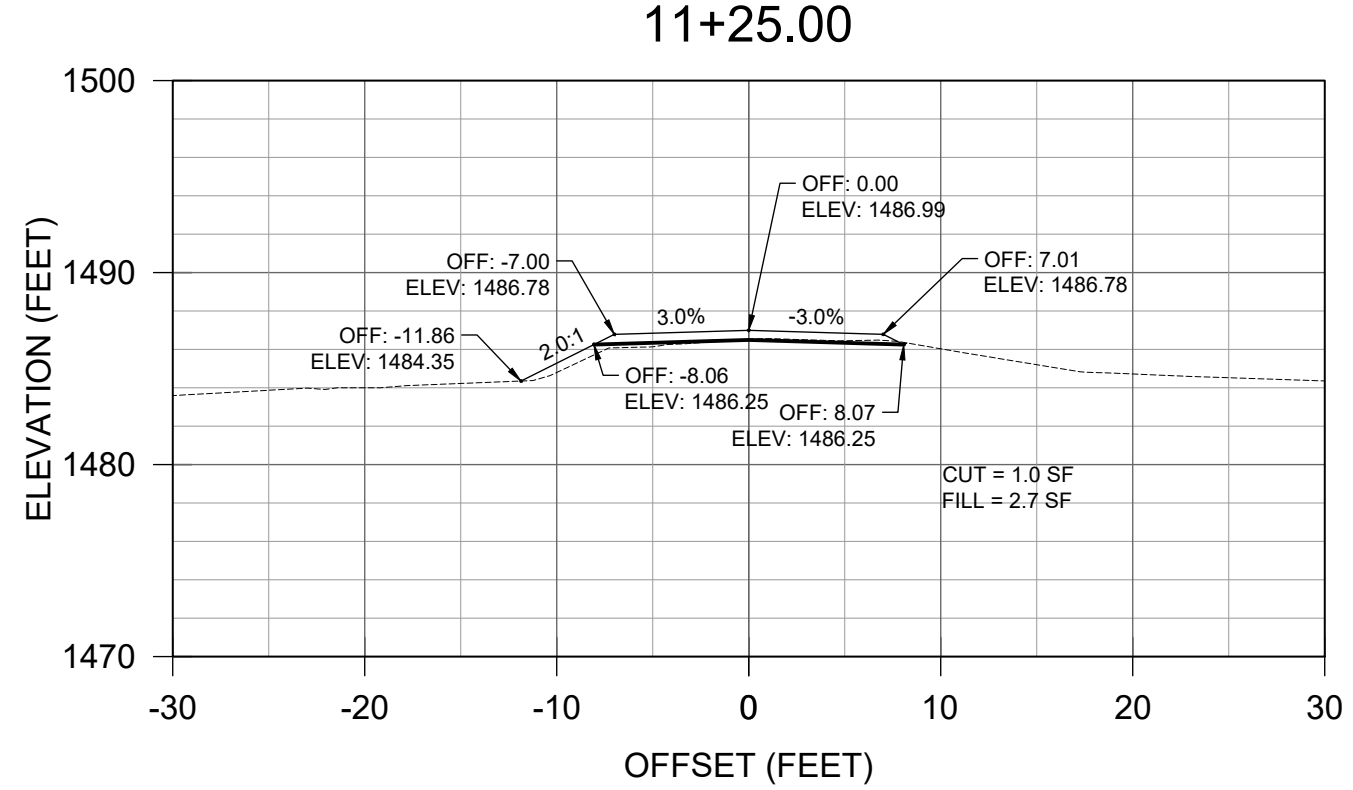
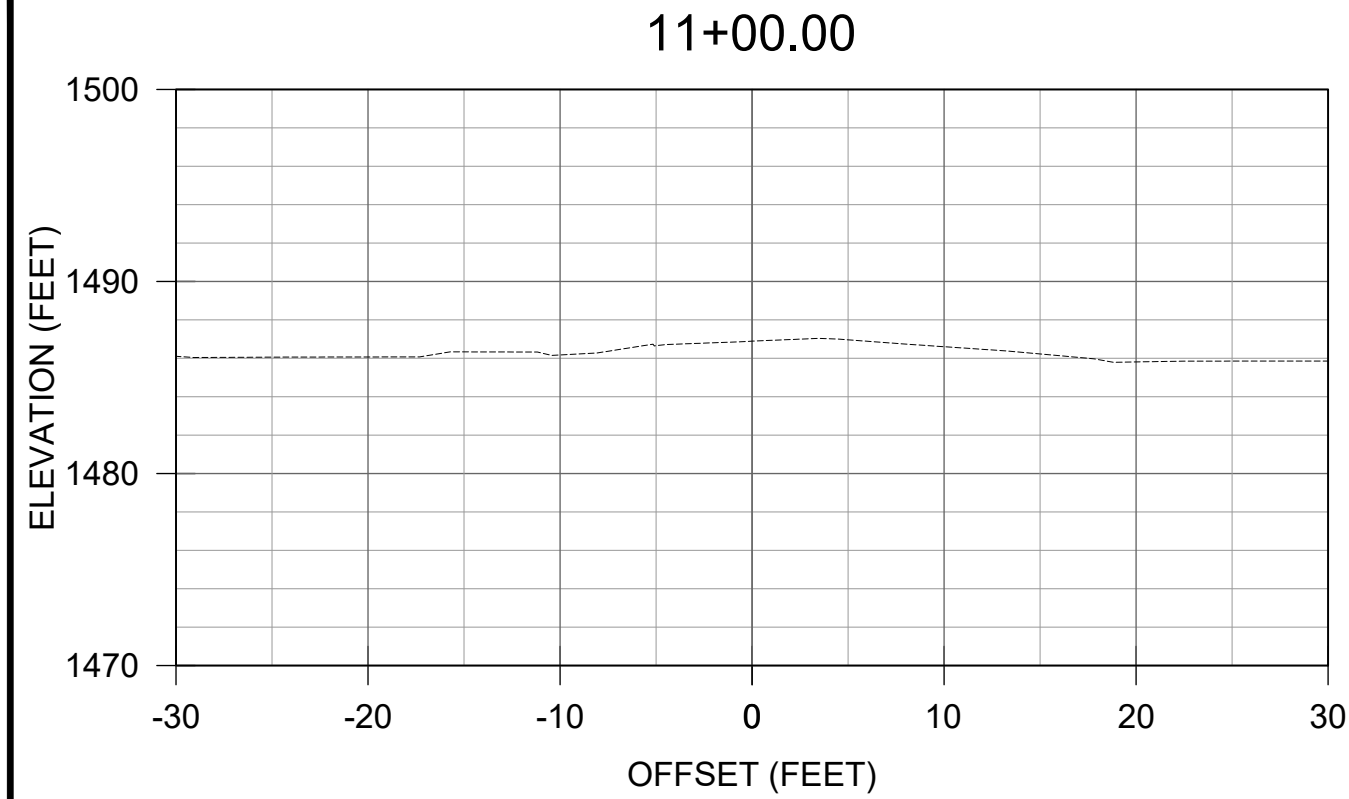


CAMPSITE SIGN AND MARKER POST INSTALLATION

NOTES:

- REFER TO "EM-7100-15 SIGN AND POSTER GUIDELINES FOR THE FS" FOR SIGN SPECIFICATIONS, MATERIALS, AND PLACEMENT.
- POST SPACING APPLIES TO BOTH WOOD AND STEEL POSTS.
- FOR SIZES OF STEEL POSTS, REFER TO EM 7100-15.
- ALL HARDWARE SHALL BE ALUMINUM OR GALVANIZED.
- LAG SCREW FASTENERS REQUIRE LEAD HOLES IN POSTS AND SHALL BE DRILLED PRIOR TO INSTALLATION.
- BOLT HOLES IN POSTS TO BE 1/16 INCH LARGER (MAXIMUM) THAN THE BOLT HOLE REQUIREMENT.
- SIGN AND MARKER POSTS ONLY SHALL BE TREATED WITH CCA (CHROMATED COPPER ARSENATE) FOR UC4A GROUND CONTACT FOR GENERAL USE.
- WOOD POSTS AND MARKERS SHALL BE DOUGLAS FIR NO. 2 OR BETTER, OR YELLOW SOUTHERN PINE, STAINED BROWN FEDERAL STANDARD COLOR 20059.
- COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.
- BREAKAWAY HOLES MUST BE PERPENDICULAR TO THE DIRECTION OF VEHICLE TRAVEL.
- AFTER INSTALLING THE SIGN POST, DRILL THE BREAKAWAY HOLES AND TREAT HOLES WITH PRESERVATIVE.

2/12/24 2:20 CEDP - OWNER X:\PROJECTS\232347_ST_USFS_PD_3 TRAIL BR DESIGNS\90_CADD\901_PLANS\91.4_FRD_15-X-SECTIONS.DWG;



NO.	REVISION / ISSUE	DATE

PROJECT NAME

**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

CHEQUAMEGON-NICOLET
NATIONAL FOREST

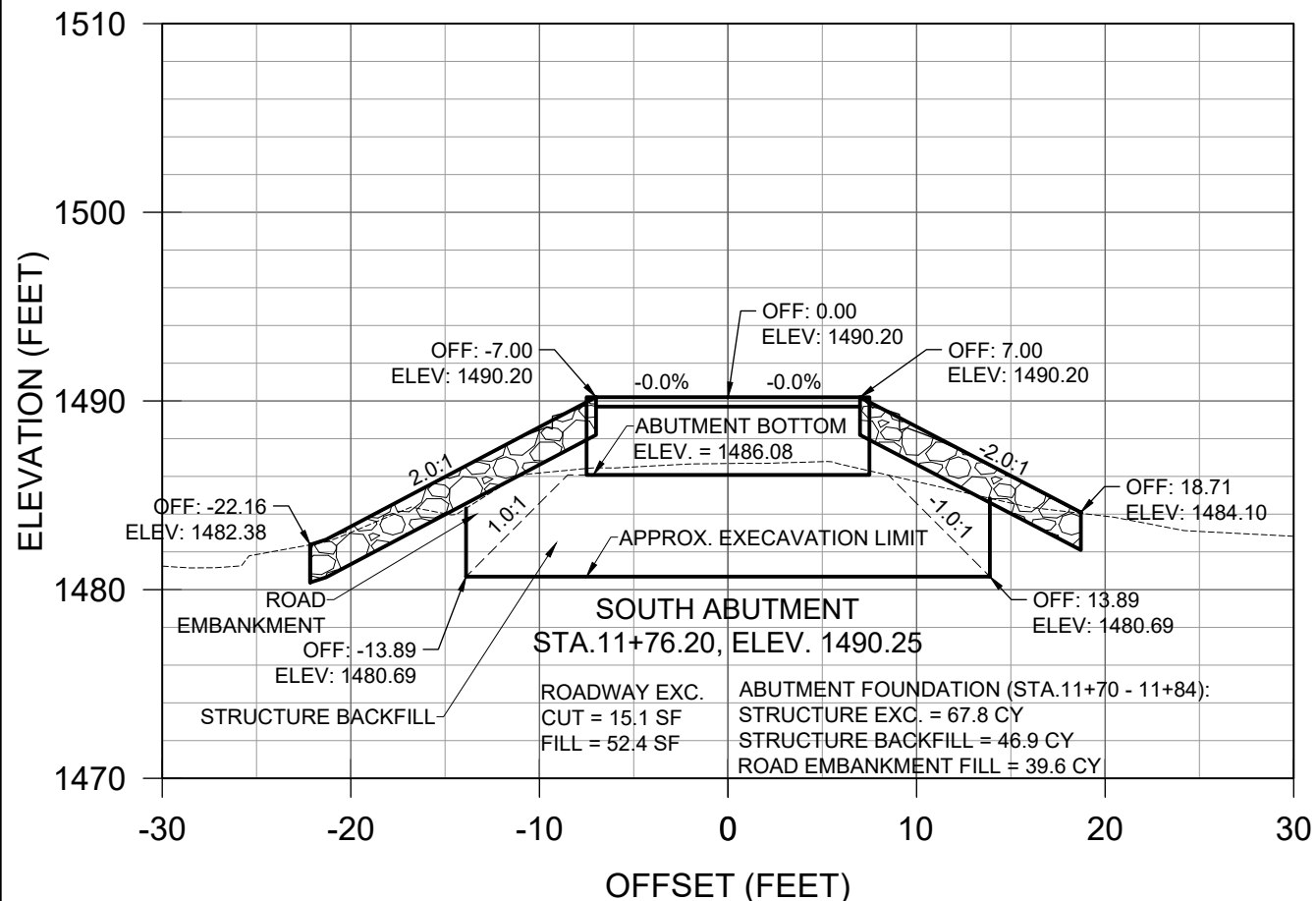
MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

CROSS SECTIONS

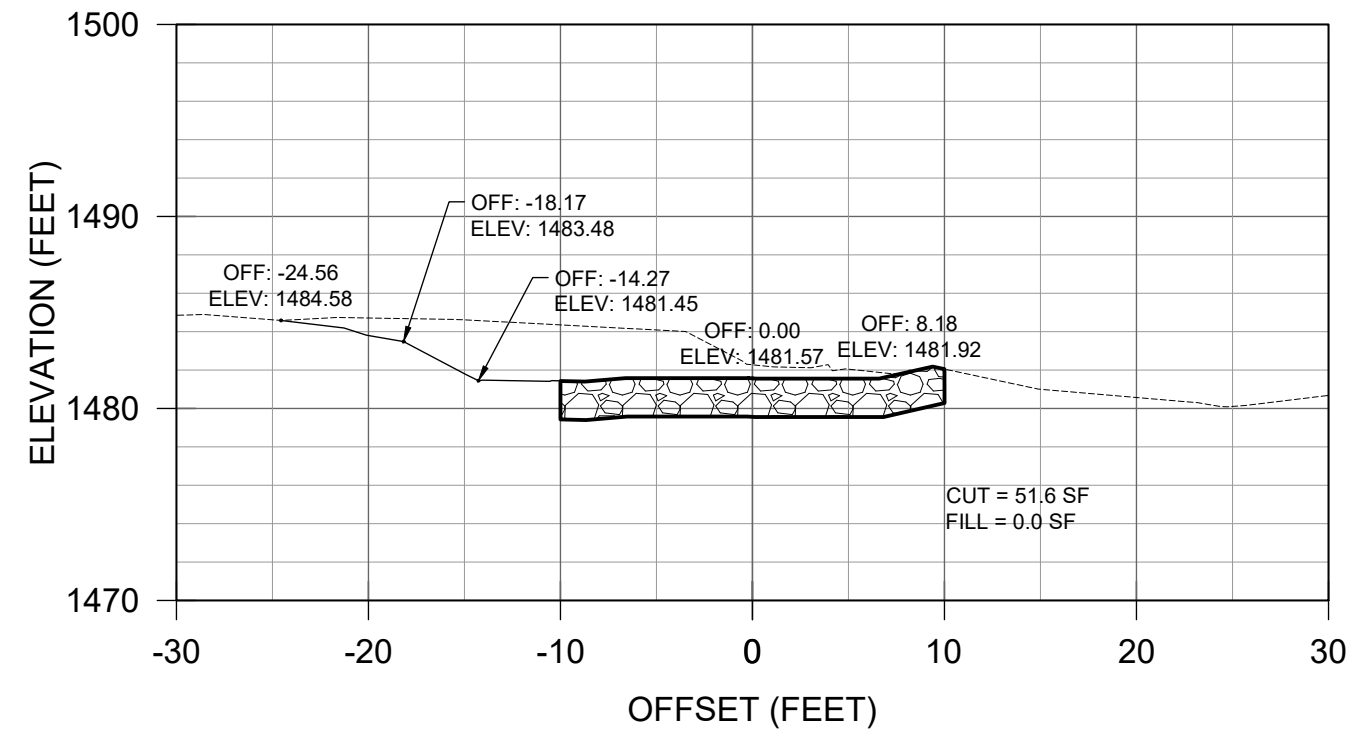
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DESIGNER R. POLKINGHORN	DRAWING SHEET NO. C-14
DRAWN R. POLKINGHORN	
CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 15 OF 25

11+75.00



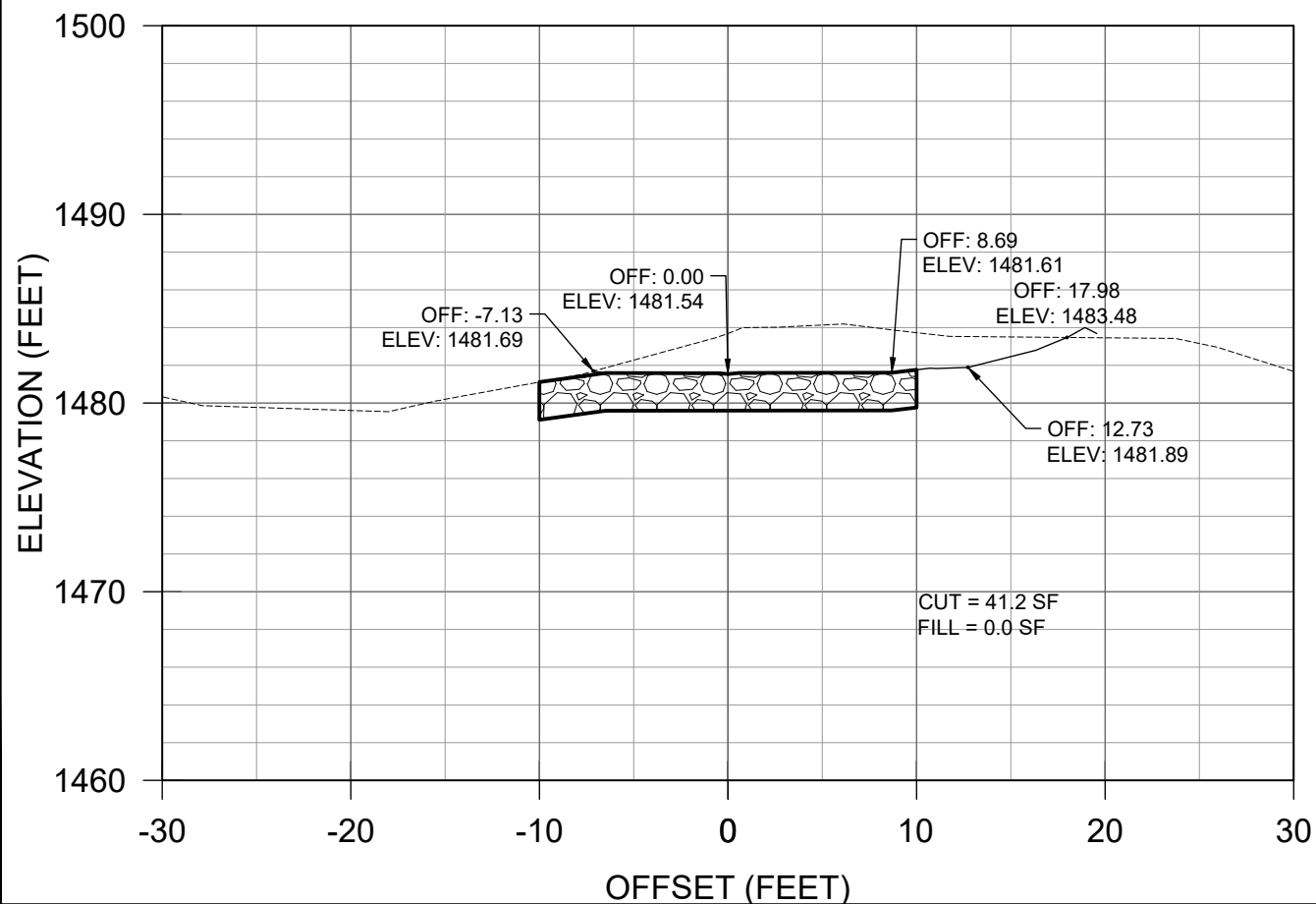
SOUTH ABUTMENT
STA. 11+76.20, ELEV. 1490.25

12+10.00



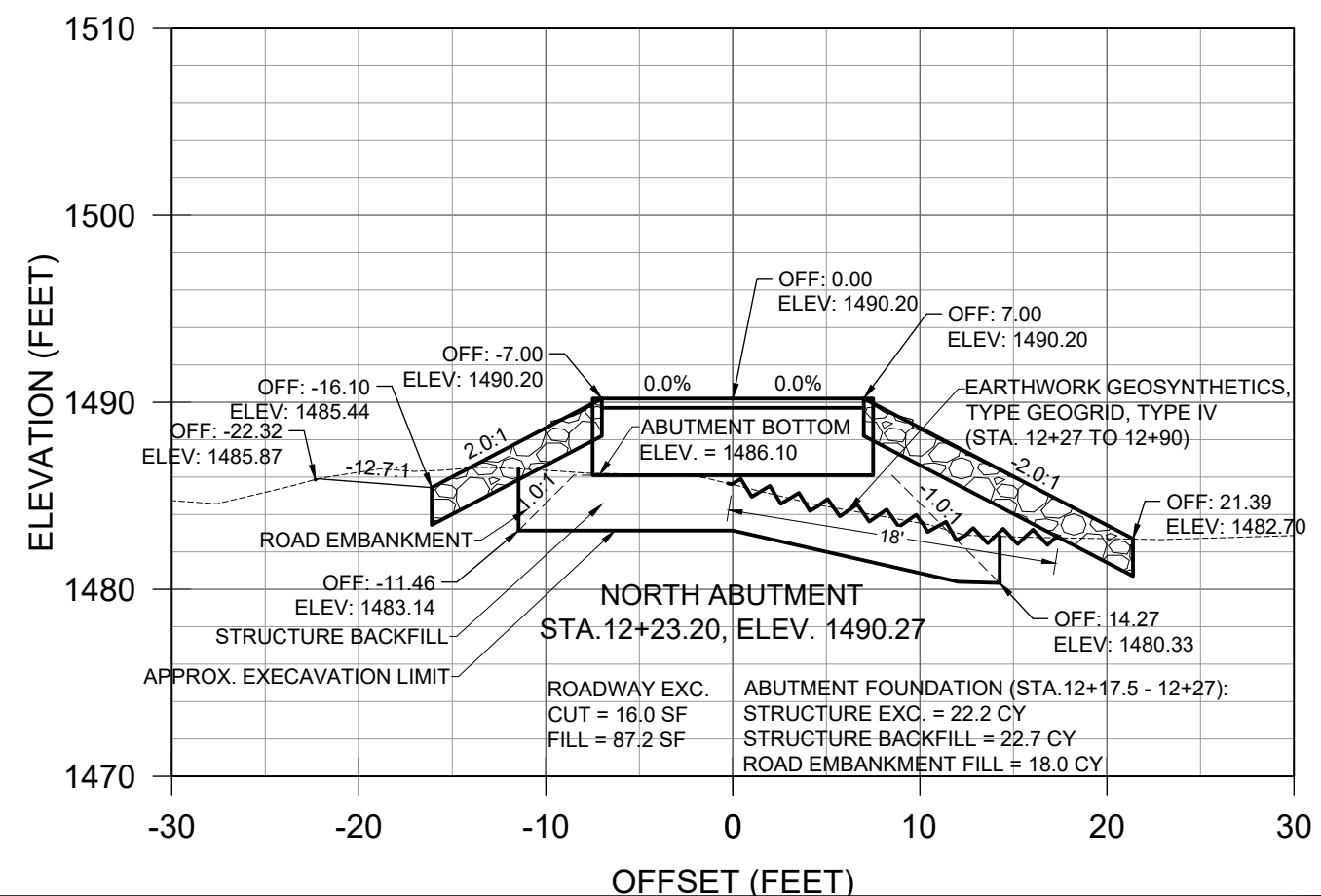
OFFSET (FEET)

11+90.00



OFFSET (FEET)

12+25.00



OFFSET (FEET)



United States Department of Agriculture
Forest Service

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EASTERN REGION

STAMPS, LOGOS, AND SEALS



NO.	REVISION / ISSUE	DATE

PROJECT NAME

STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE

CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

CROSS SECTIONS

DATE 2/16/2024	ARCHIVE NO.
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DESIGNER R. POLKINGHORN	DRAWING SHEET NO.
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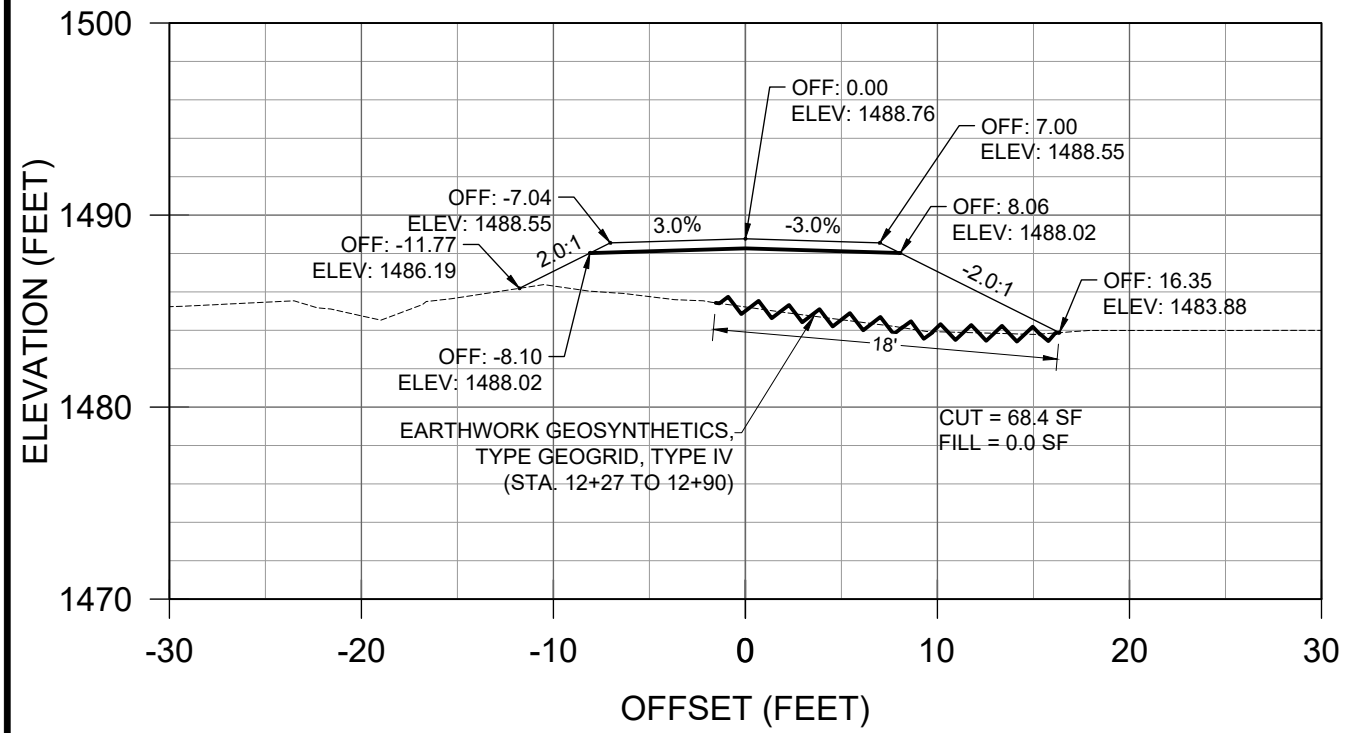
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CHECKED A. JOHNSTON	SHEET 16 OF 25
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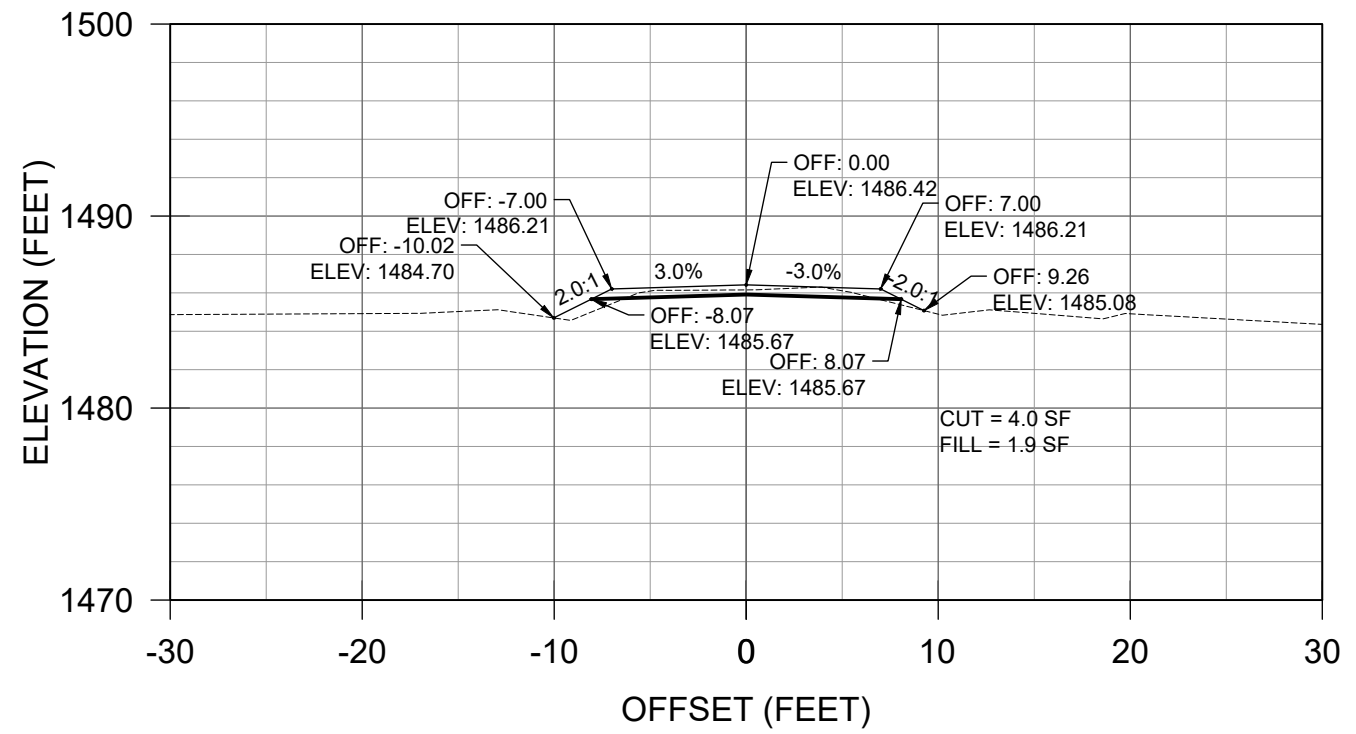
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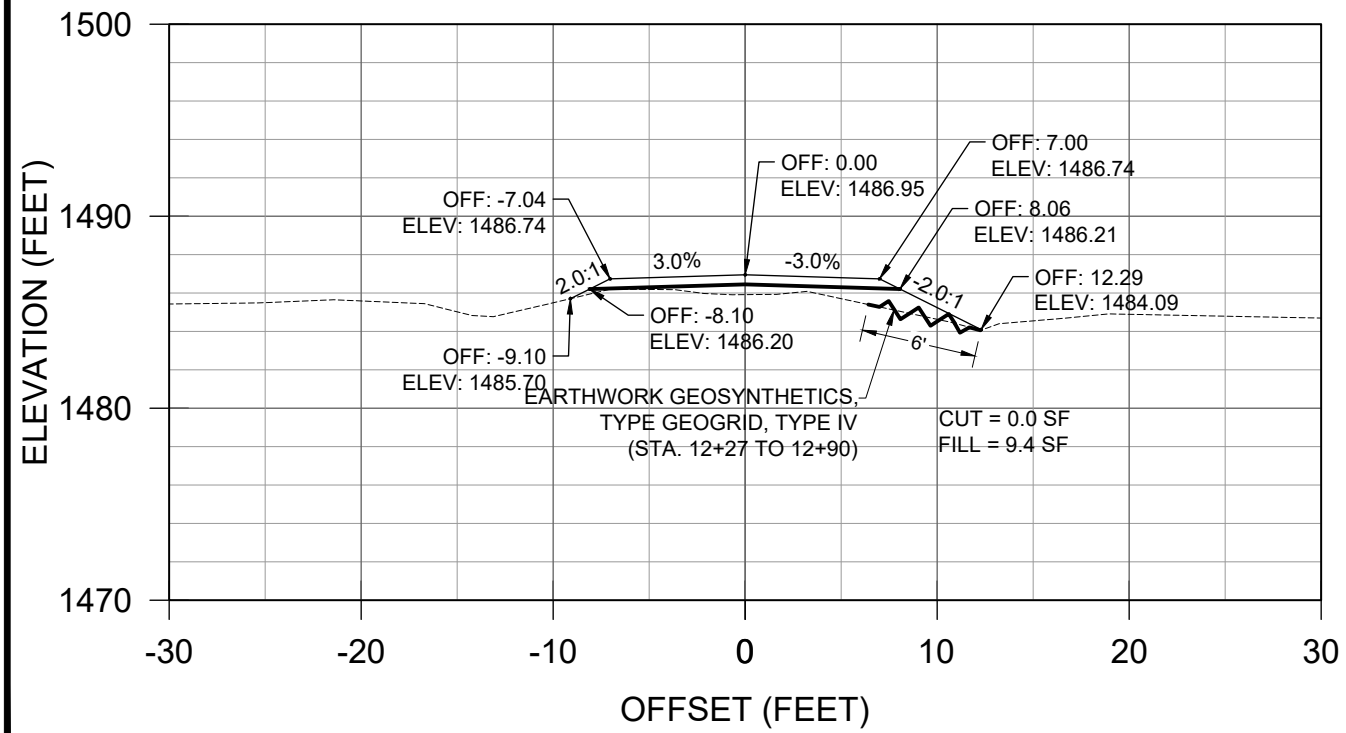
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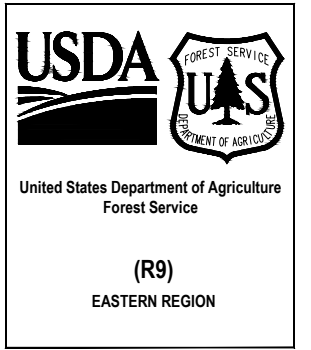
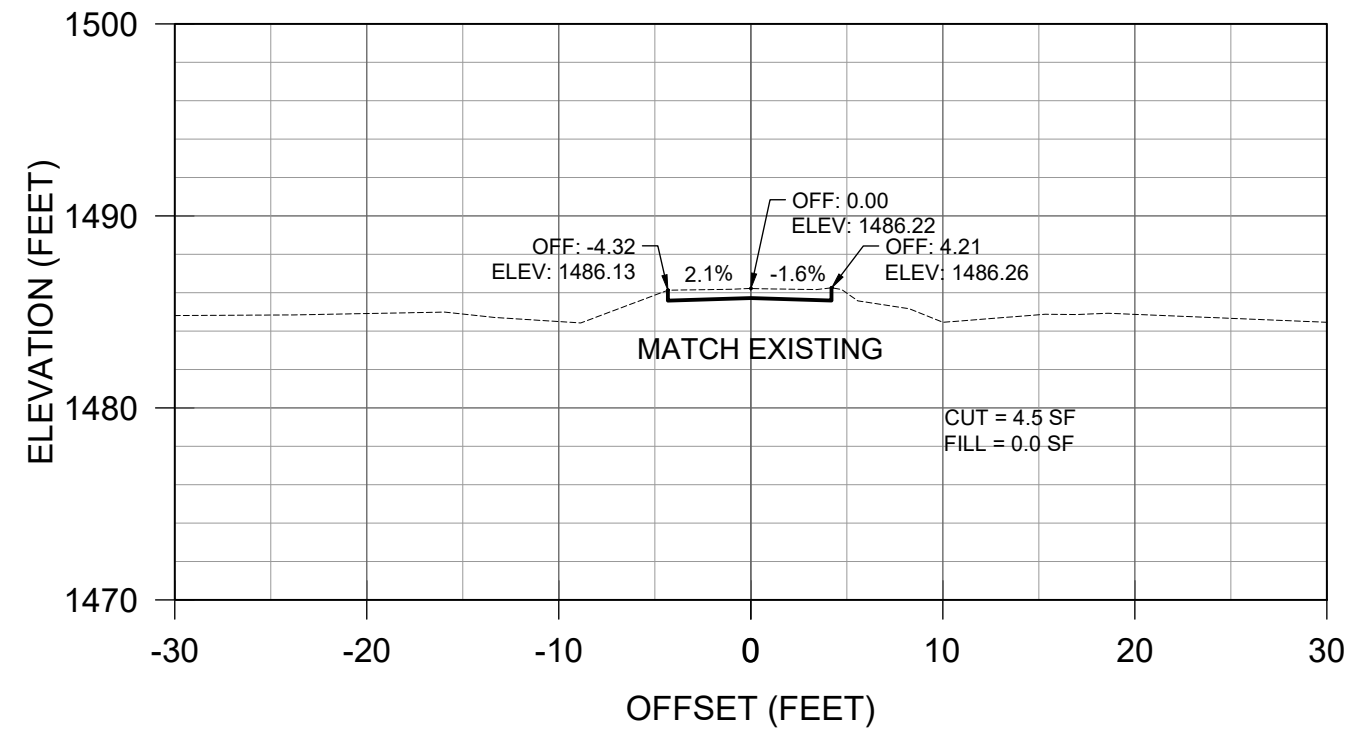
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12+75.00



13+10.00



STAMPS, LOGOS, AND SEALS

NO.	REVISION / ISSUE	DATE

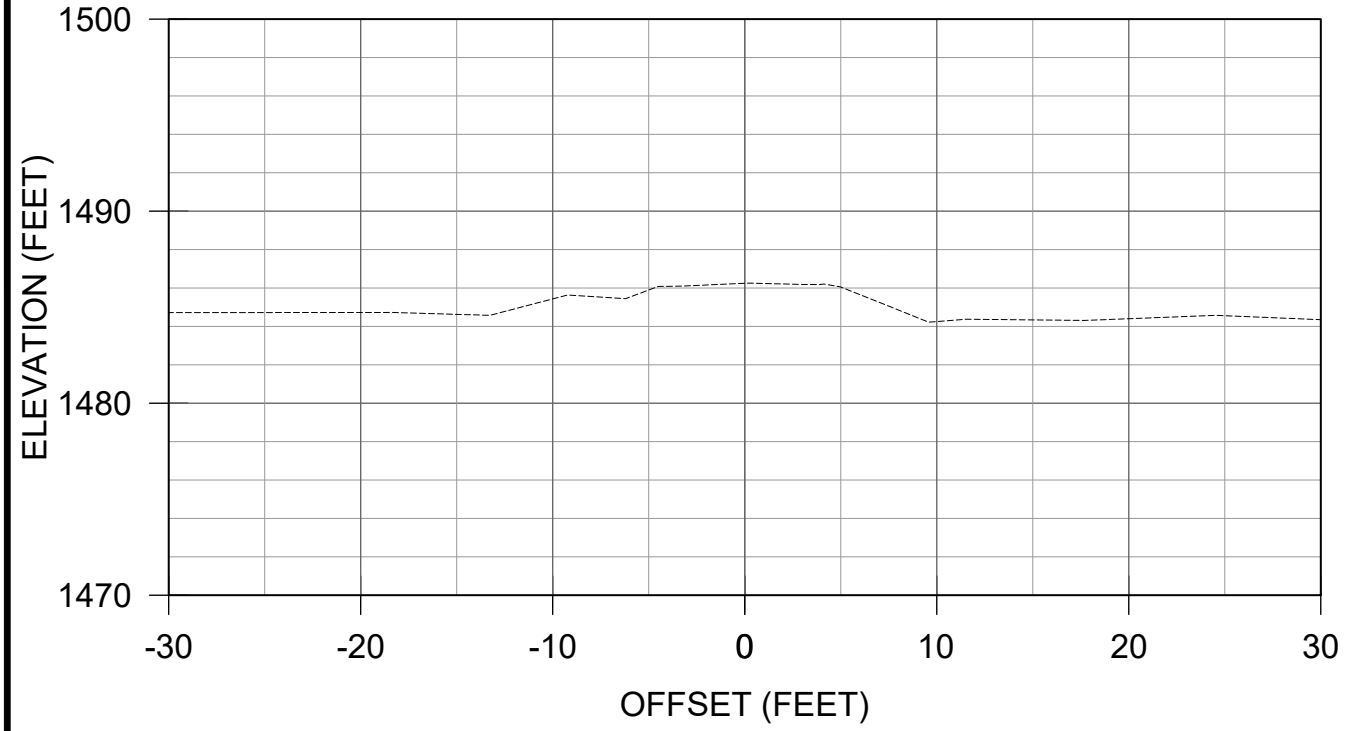
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DALRYMPLE BRIDGE
 CHEQUAMEGON-NICOLET NATIONAL FOREST
 MEDFORD-PARK FALLS RANGER DISTRICT

DRAWING TITLE
CROSS SECTIONS

DATE 2/16/2024	ARCHIVE NO.
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CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 17 OF 25

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13+25.00



United States Department of Agriculture
Forest Service

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EASTERN REGION

STAMPS, LOGOS, AND SEALS

CEDP, Inc.
Consulting Engineers &
Design Professionals
6426 Offshore Drive
Madison, WI 53705
608-467-4900 | www.CEDP.us

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NO.	REVISION / ISSUE	DATE

PROJECT NAME

**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

**CHEQUAMEGON-NICOLET
NATIONAL FOREST**

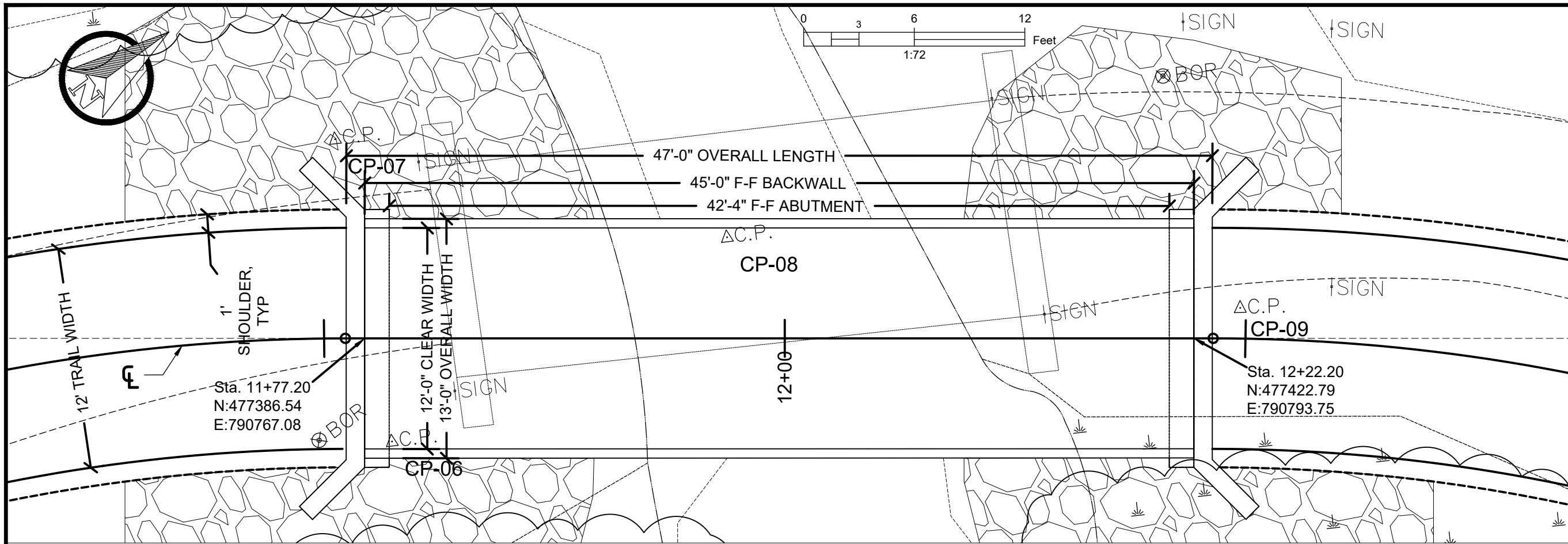
**MEDFORD-PARK FALLS
RANGER DISTRICT**

DRAWING TITLE

CROSS SECTIONS

DATE 2/16/2024	ARCHIVE NO.
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CHECKED A. JOHNSTON	
PROJECT NO.	SHEET 18 OF 25

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United States Department of Agriculture
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(R9)
EASTERN REGION

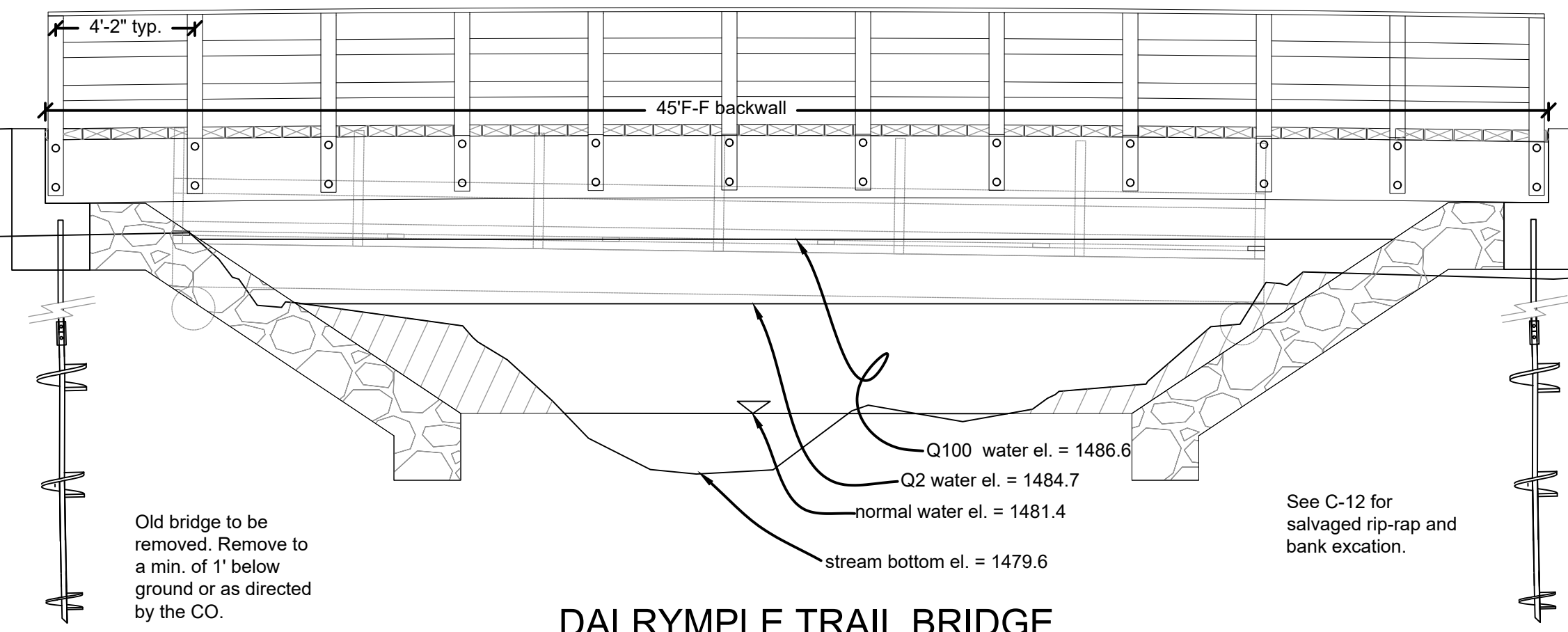
STAMPS, LOGOS, AND SEALS
ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

NO.	REVISION / ISSUE	DATE
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PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**
CHEQUAMEGON-NICOLET
NATIONAL FOREST
MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
**STRUCTURE GENERAL
PLAN**
print on 11 x 17
1"

DATE 2/26/2024	ARCHIVE NO.
DESIGNER A.JOHNSTON	DRAWING SHEET NO. S-01
DRAWN A.JOHNSTON	
CHECKED R.POLKINGHORN	
PROJECT NO.	SHEET 19 OF 25



DALRYMPLE TRAIL BRIDGE
scale: 1/4" = 1'

General Notes:

This project consists of installing a 45' x 12' glulam girder/deck trail bridge, constructing concrete abutments with helical piles, road construction, cut and fill, erosion control, rip-rap placement, and the removal of the existing old bridge.

Specifications:

- LRFD Bridge Design Specification, 9th Ed. AASHTO
- LRFD Guide Specifications for Design of Pedestrian Bridges, 2009, AASHTO
- Building Code Requirements for Structural Concrete, ACI 318-19(22).
- Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-14; FHWA.
- Forest Service Handbook FSH 7709.56b.
- Minimum Design Loads and Associated Criteria for Buildings, ASCE 7-22
- Best Management Practices for Erosion and Sediment Control (FHWA).
- National Design Specifications For Wood Construction, 2018
- Standard for Wood Products-Structural Glued Laminated Timber, ANSI A190.1-2012,
- Standard Specification for Structural Glued Laminated Timber of Softwood Species, ANSI 117-2020.

Design Loads:

Live load; H12.5 truck and snow load of pg = 65 psf, strength I limit state. Deflection: <L/360, truck service I limit state.

Soil Design:

SPT soil borings were done by GESTRA. The bearing capacity is given as allowable 2500 psf and allowable 25 kip for the helical piles..

Sawn Lumber:

- Grades are as per SPIB or WWPA and are minimums. Deck is #1 grade full sawn.
- All lumber is S4S except for the deck and shall be Douglas Fir or Southern Pine.
- Species and dimensions can be substituted with CO approval.

Glulams:

- Meeting ANSI-117-2020. ANSI-109-2007; ANSI A190.1-2012; Industrial Appearance Grade; Adhesives and manufacturing meeting AITC 405 and A190.1 for wet use adhesives; Glulam girders treated with Copper Napthanate to AWPA UC4C and AITC109-2007.
- Certification of Conformance per AITC A190.1 shall be submitted for approval for all glulams.
- Species and dimensions can be substituted with CO approval.
- Structural lumber and glulams shall be protected during storage, and transit with a minimum of load or bundle wrappings per AITC 111.
- All indicated holes shall be predrilled before treatment unless indicated otherwise.
- Glulam girders will be manufactured with 2" camber.

Timber Preservative Treatment--

- All lumber treated with Copper Napthanate to AWPA UC4C,
- All field drilled holes will be treated with three coats of Copper Napthanate , 2% copper solution.
- Certification of Conformance per plant, manufacturing, adhesives, timber, and preservative treatment. shall be submitted for approval prior to delivery,

Adhesive Anchor Systems--

- Hilti HY150 MAX Adhesive w/Hilti HAS galvanized rods as indicated. Installed per manufacturer instructions, incidental to Pay Item 55704.

Concrete:

- Type IA cement, 6% air content, measured with ASTM C231
- Exposure category F2
- Min. 4500 psi, f'c, concrete, per ASTM C39 at 28 days.
- Max. .45 w/c ratio, w/cm;
- Min 564 lbs. Portland per cy.
- 5" max slump per ASTM C172.
- 3/4" coarse aggregate.
- Do 2 test cylinders, for testing @28 days on each abutment per ASTM C172 and C39.
- Reinforcing steel shall have tensile strength of 60ksi meeting ASTM A615.
- Min. splice length on #5's is 24", #4's is 19".
- Min. hook diameter: #5:4"; #4:3". Splices can be substituted for hooks.
- Min. hook extension: #5:3"; #4: 3".
- Min. 2" concrete cover on bars, 3" on bottom.
- Chamfer all exposed edges 3/4"x3/4".
- Slope all tops, including seat, 1/8"/1' for drainage.
- Submit mix design per FHWA 1608.
- If the contractor plans to use any cold joints, their use, details, and locations will be submitted for approve by the CO.
- Abutment will require removal of organic and filling with structure fill meeting FP-14 704.04 and compacting to 95% standard proctor.

Abutments:

The abutments are concrete pile caps combined with helical piles. The concrete spread footing is above the frost depth and is stabilized and enhanced with the helical piles. See supplemental specs 551. Plans show minimum depth, and the minimum torque will be based on the manufacturer's specification to meet the geotech report bearing requirements.

Pilot drilling:

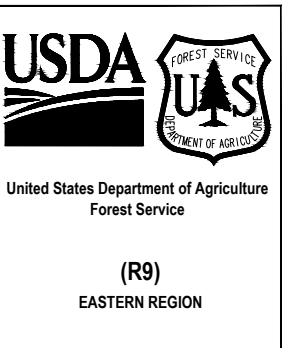
- All lag screws will be installed and have pilot holes drilled per NDS 11.1.4, summarized by: pilot for the shank will have the same diameter and depth as the shank; the threads' pilot will be 70% of the shank diameter.
- The flat washer head screws do not need pilot drilling unless splitting occurs.

Steel:

- All steel connectors are hot dipped galvanized after fabrication per ASTM A123 and A153, except for the flat washer head screws which can be stainless steel or other exterior grade with prior approval by the CO.
- All steel is A36 and connectors are A307 unless otherwise specified.
- All helical anchor material will be per the manufacture's specifications.
- Timber bolts will have dome heads of 3.5 times the shank diameter. Malleable washers will be 4 times the shank diameter.
- Flat head washer screws are Simpson or equal with a shank of >.25" on the deck and >.19" on the rails.

Abbreviations:

- CO: Contracting Officer
- NDS: National Design Specifications
- T.B: Timber Bolt, dome head 3.5 times shaft diameter
- FWH: Flat washer head screws
- L.S.: Lag Screws
- M.W.: Malleable Washer, 4 times shaft diameter
- c.s. or C.S.: cross section
- pc: pieces
- min.: minimum
- glulam: glue laminated
- eq: equivalent
- HDG: hot dipped galvanized
- Ø: diameter



STAMPS, LOGOS, AND SEALS
ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

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NO.	REVISION / ISSUE	DATE

PROJECT NAME

**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

**CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

**STRUCTURE GENERAL
NOTES**

print on 11 x 17
1"

DATE 2/26/2024	ARCHIVE NO.
DESIGNER A.JOHNSTON	DRAWING SHEET NO. S-02
DRAWN A.JOHNSTON	
CHECKED R.POLKINGHORN	
PROJECT NO.	SHEET 20 OF 25

BORING D-1
STA. 12+20.5, 14.2' LT.

SOIL BORING LOG

PAGE NUMBER
1 of 1

PROJECT NAME CNNF Trail Bridge, Dalrymple	DATE DRILLING STARTED 8/17/2023	BORING NUMBER D-1
PROJECT LOCATION Town of Fifield, Price County, Wisconsin	DATE DRILLING ENDED 8/17/2023	PROJECT NUMBER 23241-10
GESTRA Engineering Inc. 191 W Edgerton Avenue Milwaukee, WI 53207 Phone: 414-933-7444, Fax: 414-933-7844		DRILLING RIG LC-55

BORING DRILLED BY
FIRM: GESTRA
CREW CHIEF: A. Woerpel

FIELD LOG
C. Ray

LAB LOG / QC
C. Senechalle

LATITUDE

LONGITUDE

DRILLING METHOD
3 1/4" HSA

SURFACE ELEVATION
99.9 ft

BORING D-2
STA. 11+74.6, 5.5' RT.

SOIL BORING LOG

PAGE NUMBER
1 of 1

PROJECT NAME CNNF Trail Bridge, Dalrymple	DATE DRILLING STARTED 8/16/2023	BORING NUMBER D-2
PROJECT LOCATION Town of Fifield, Price County, Wisconsin	DATE DRILLING ENDED 8/16/2023	PROJECT NUMBER 23241-10
GESTRA Engineering Inc. 191 W Edgerton Avenue Milwaukee, WI 53207 Phone: 414-933-7444, Fax: 414-933-7844		DRILLING RIG LC-55

BORING DRILLED BY
FIRM: GESTRA
CREW CHIEF: A. Woerpel

FIELD LOG
C. Ray

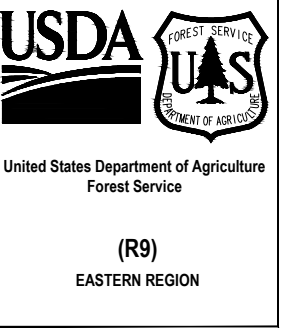
LAB LOG / QC
C. Senechalle

LATITUDE

LONGITUDE

DRILLING METHOD
3 1/4" HSA

SURFACE ELEVATION
100.1 ft



Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft) Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Qu or qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS-1	12	1 2 2	4		TOPSOIL, sandy silt, brown to dark brown, moist, trace root hairs, trace gravel								
SS-2	5	1 1 6	7						3.4 (96.5)				
SS-3	5	2 4 11	15	95.0	SILTY SAND, brown to dark gray, moist to wet, medium dense, trace gravel	SM							
SS-4	10	4 10 8	18						8.6 (91.3)				
SS-5	12	7 12 6	18	90.0	SILTY SAND WITH GRAVEL, grayish brown, moist, medium dense	SM							Driller noted possible cobbles from 7-12 ft.
SS-6	18	4 5 6	11		SILTY SAND, grayish brown, moist to wet, medium dense to very dense, trace gravel								P200 = 28.2%
SS-7	16	4 7 8	15	85.0									
SS-8	18	7 8 10	18			SM							with gravel in SS-8
SS-9	16	23 40 50/5"	R	80.0		SM							
SS-10	14	26 36 42	78		some reddish brown, possible weathered granite from 22-26 ft								
SS-11	15	28 42 46	88	75.0									
SS-12	3	50/5"	R		SILTY SAND, dark gray, very moist, very dense, (possible weathered BEDROCK)	SM							
SS-13	3	50/3"	R	70.0									Driller noted rock chips in SS-13.
End of Boring at 31.0 ft.													

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft) Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Qu or qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS-1	12	2 2 2	4		TOPSOIL, silty sand, brown, moist, trace root hairs, trace gravel, (possible FILL)								
SS-2	6	3 5 4	9						3.5 (96.6)				
SS-3	8	2 1 1	2	95.0	TOPSOIL, silty clayey sand, dark brown, wet, very loose, trace gravel								
SS-4	10	3 5 4	9		SANDY LEAN CLAY WITH SILT, dark brown and reddish brown, wet, stiff	CL							
SS-5	12	2 8 8	16	90.0	SILTY SAND, dark brown to grayish brown, wet, loose to very dense, trace gravel								
SS-6	14	3 3 5	8										
SS-7	18	6 10 14	24	85.0									
SS-8	16	14 19 22	41										
SS-9	18	15 20 23	43	80.0		SM							
SS-10	16	17 32 42	74										trace clay pieces in SS-10
SS-11	16	16 34 45	79	75.0									
SS-12	14	18 36 48	84										
SS-13	1	50/1"	R	70.0	gray								Driller noted rock chips in SS-13.
End of Boring at 31.0 ft.													

STAMPS, LOGOS, AND SEALS
ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

NO.	REVISION / ISSUE	DATE

PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

**CHEQUAMEGON-NICOLET
NATIONAL FOREST**

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
**GEOTECHNICAL
BORINGS**

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: 5 ft.	CAVE DEPTH AT COMPLETION: NMR	WET <input type="checkbox"/> DRY <input type="checkbox"/>
WATER LEVEL AT COMPLETION: 9 ft.	CAVE DEPTH AFTER 0 HOURS: NMR	WET <input type="checkbox"/> DRY <input type="checkbox"/>
WATER LEVEL AFTER 0 HOURS: NMR		

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: 5 ft.	CAVE DEPTH AT COMPLETION: NMR	WET <input type="checkbox"/> DRY <input type="checkbox"/>
WATER LEVEL AT COMPLETION: 8 ft.	CAVE DEPTH AFTER 0 HOURS: NMR	WET <input type="checkbox"/> DRY <input type="checkbox"/>
WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

DATE 2/16/2024	ARCHIVE NO.
DESIGNER A. JOHNSTON	DRAWING SHEET NO. S-03
DRAWN A. JOHNSTON	
CHECKED R. POLKINGHORN	
PROJECT NO.	SHEET 21 OF 25



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

NO.	REVISION / ISSUE	DATE

PROJECT NAME

STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE

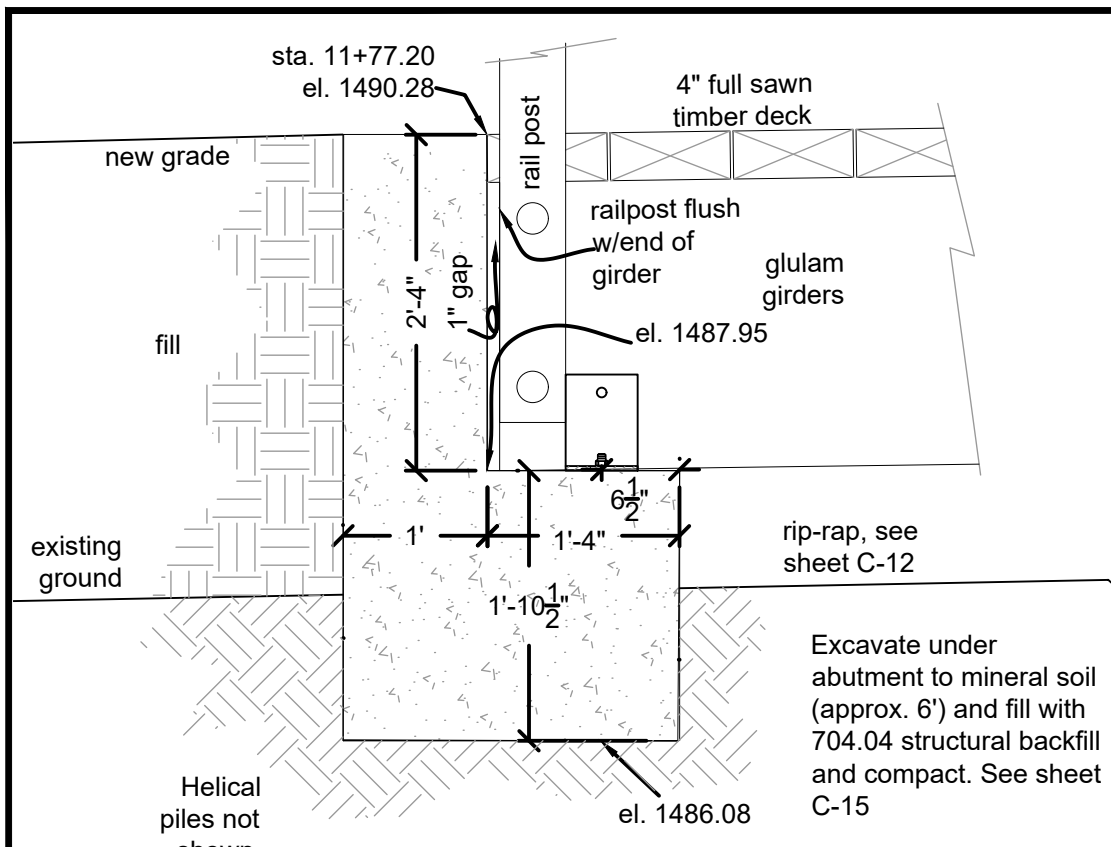
CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE

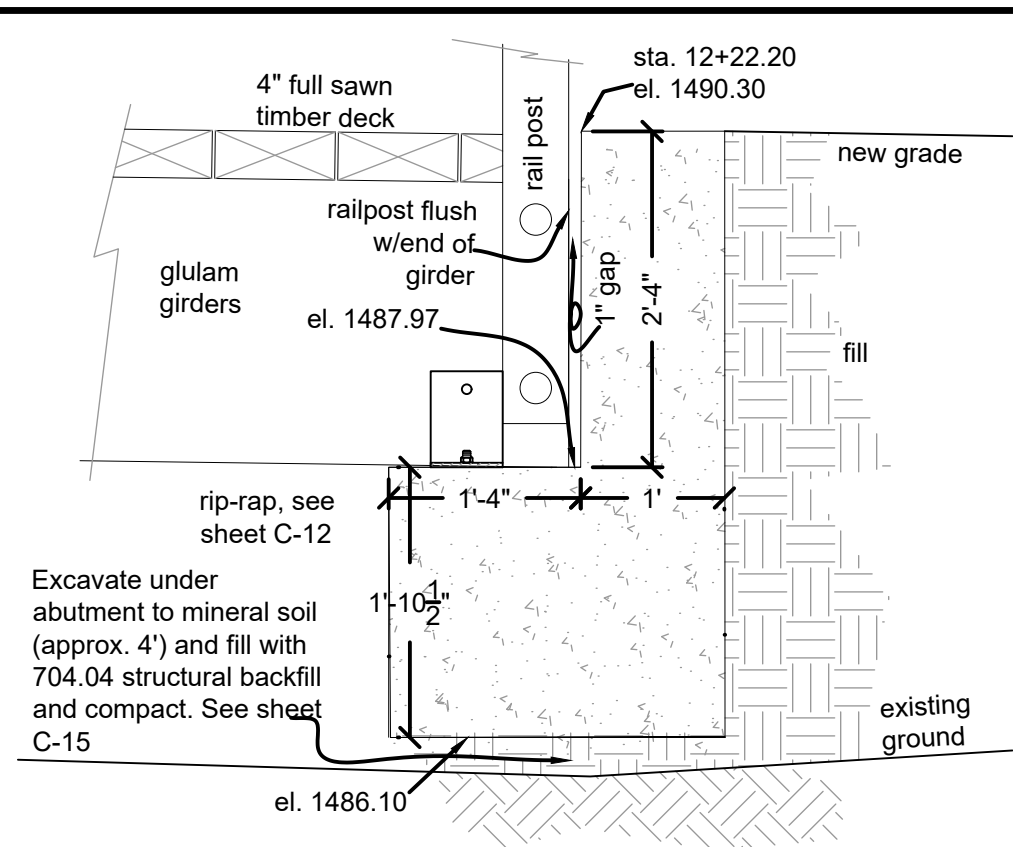
ABUTMENTS
print on 11 x 17
1"

DATE 2/26/2024	ARCHIVE NO.
DESIGNER A. JOHNSTON	DRAWING SHEET NO. S-04
DRAWN A. JOHNSTON	
CHECKED R. POLKINGHORN	
PROJECT NO.	SHEET 22 OF 25



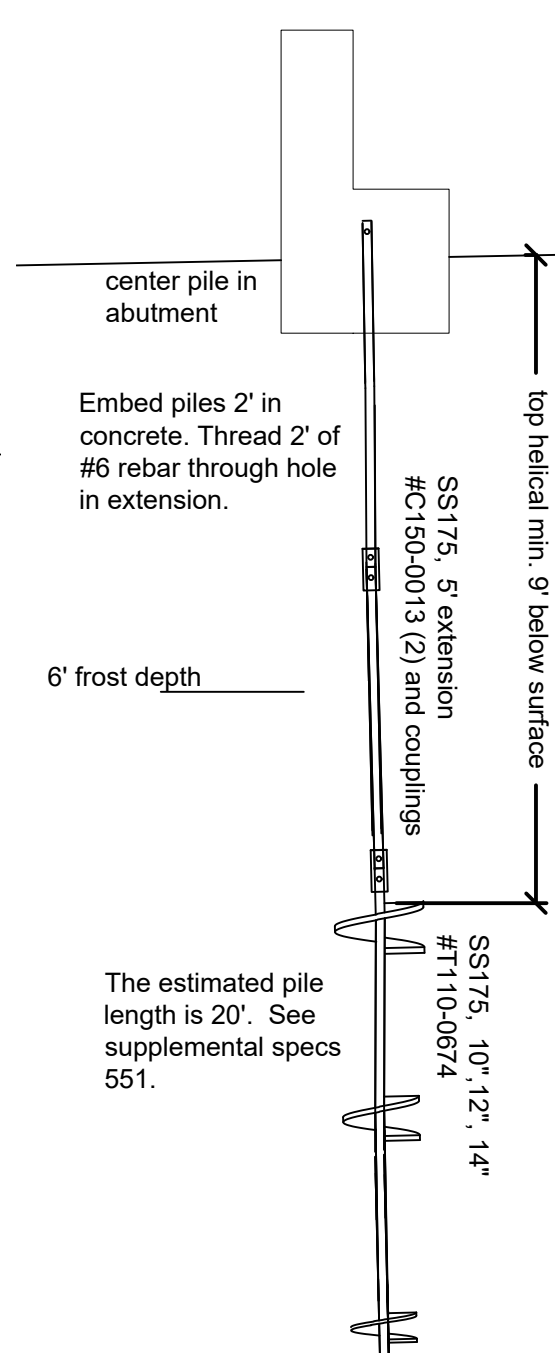
SOUTH ABUTMENT C.S.

scale 3/4" = 1'



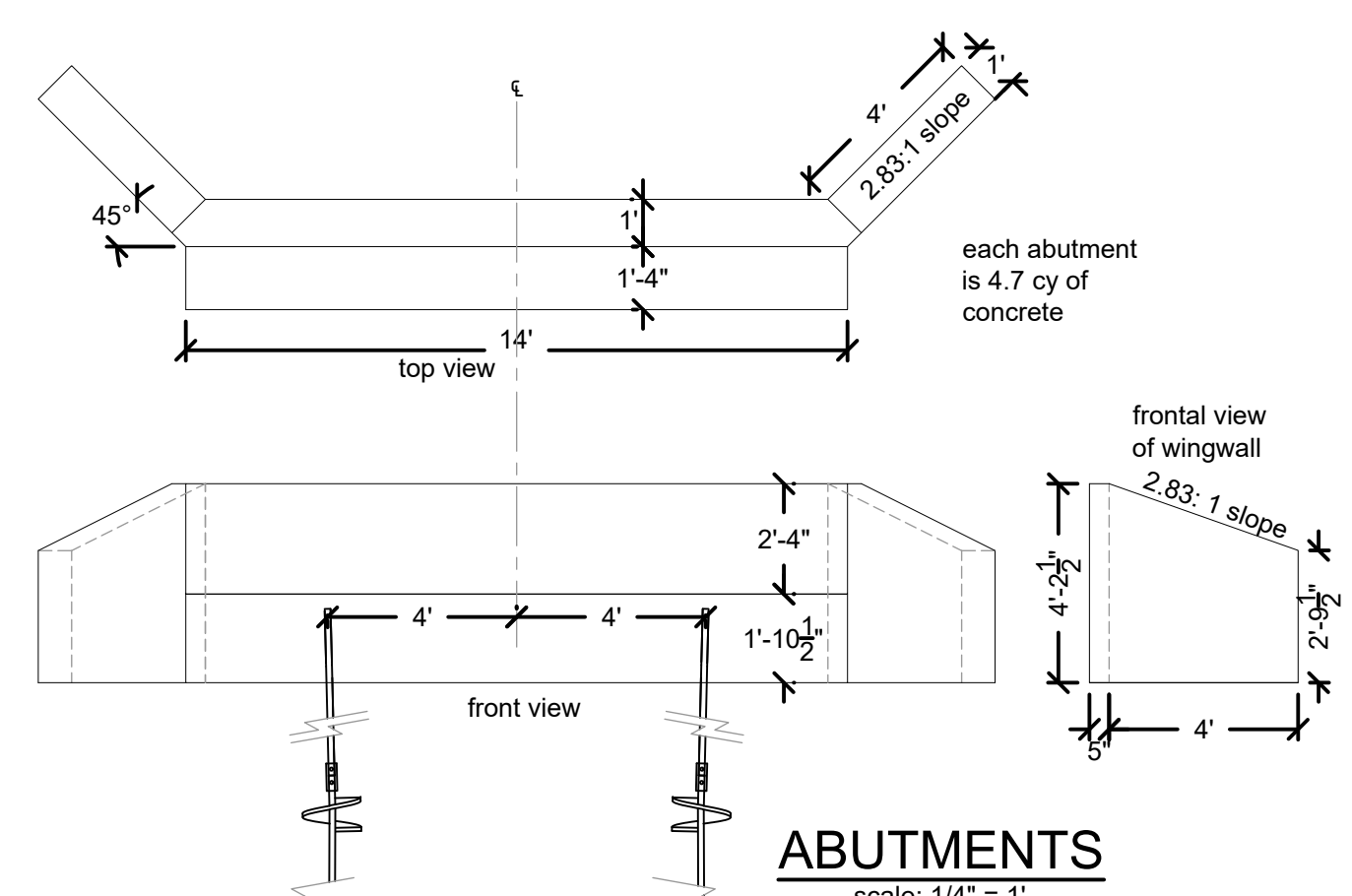
NORTH ABUTMENT C.S.

scale 3/4" = 1'



HELICAL PILES

scale: 3/8" = 1'



ABUTMENTS

scale: 1/4" = 1'

2/27/24 09:48 CEDP - OWNER X:\PROJECTS\230421_ST_USFS_FD_3 TRAIL BR DESIGN\1700_DELIVERABLES\1703_BDDALRYMPLE_STR PLANS_240226.DWG



United States Department of Agriculture
Forest Service

(R9)
EASTERN REGION

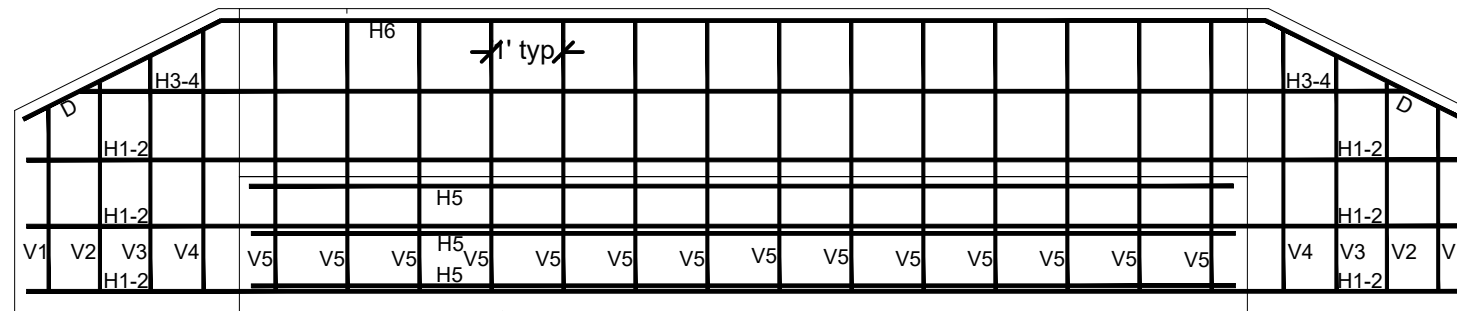
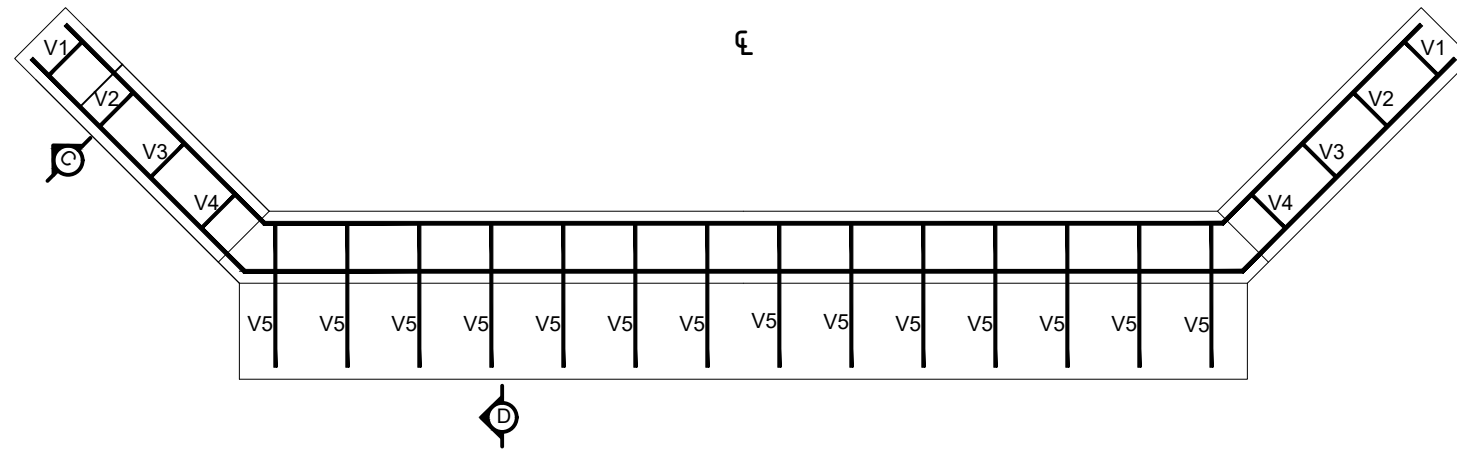
STAMPS, LOGOS, AND SEALS
ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**
CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
ABUTMENTS
print on 11 x 17
1"

DATE 2/26/2024	ARCHIVE NO.
DESIGNER A. JOHNSTON	DRAWING SHEET NO. S-05
DRAWN A. JOHNSTON	
CHECKED R. POLKINGHORN	
PROJECT NO.	SHEET 23 OF 25



ABUTMENT (2) REBARS

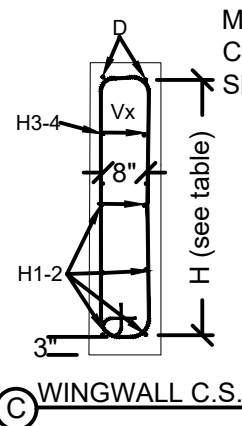
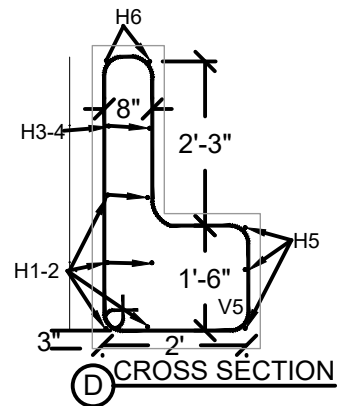
Total concrete = 9.0 c.y.
Each abutment = 4.5 c.y.

scale: 3/8" = 1'

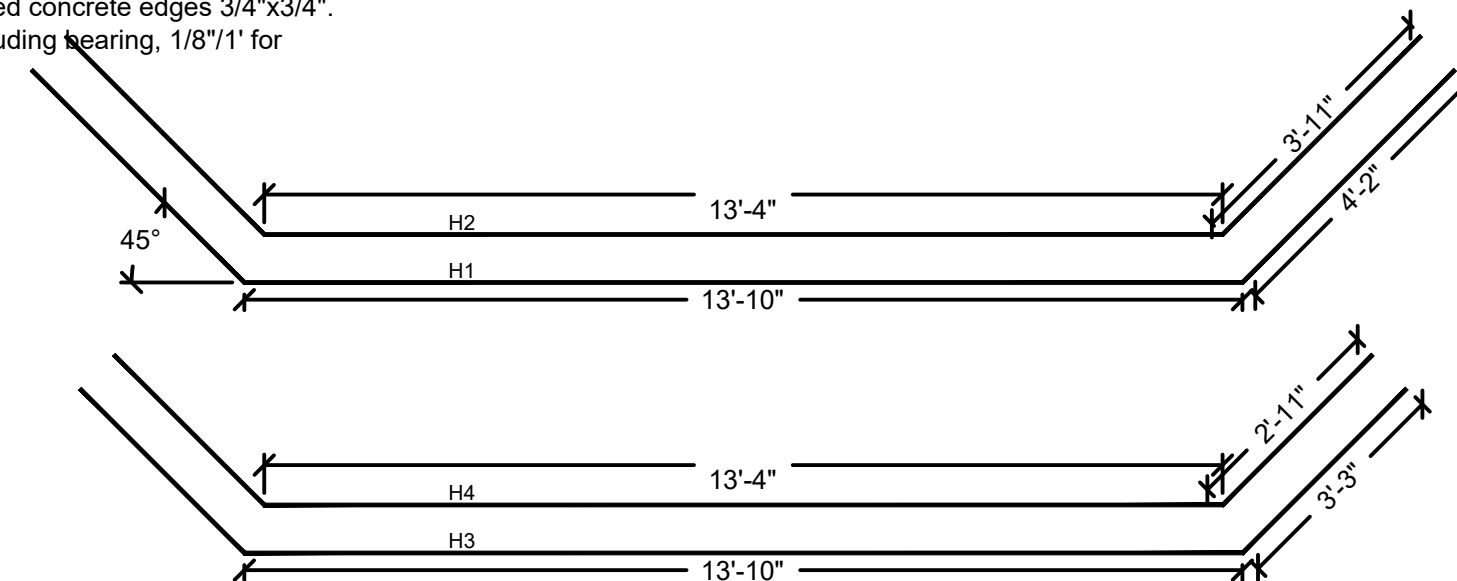
Contractor shall verify
all quantities

Rebar schedule (2 abutments)

Mark	Size	Quantity	Lengths	Weight	
D	# 5	8	4'6"	38	
H1	# 5	6	22'3"	140	
H2	# 5	6	21'2"	133	
H3	# 5	2	20'4"	42	
H4	# 5	2	19'3"	40	
H5	# 5	6	13'8"	86	
H6	# 5	4	14'6"	60	
V1	H=31"	# 4	4	7'4"	20
V2	H=35"	# 4	4	8'0"	21
V3	H=39"	# 4	4	8'8"	23
V4	H=43"	# 4	4	9'4"	25
V5		# 4	28	12'2"	228



Min. concrete cover: 3" on bottom, 2" elsewhere.
Chamfer all exposed concrete edges 3/4"x3/4".
Slope all tops, including bearing, 1/8"/1' for drainage.





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EASTERN REGION

ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

4		
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2		
1		
NO.	REVISION / ISSUE	DATE

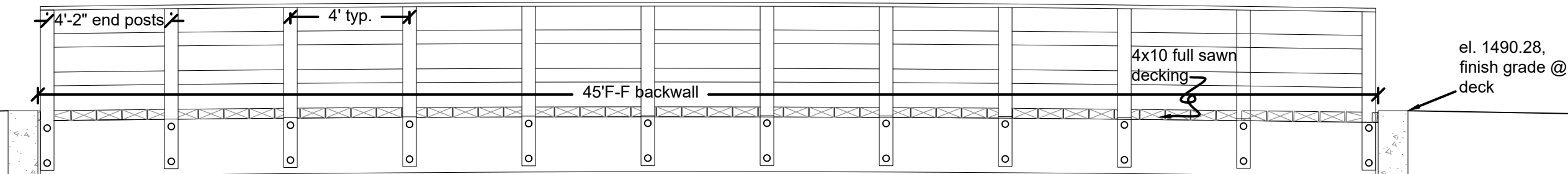
PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

CHEQUAMEGON-NICOLET
NATIONAL FOREST

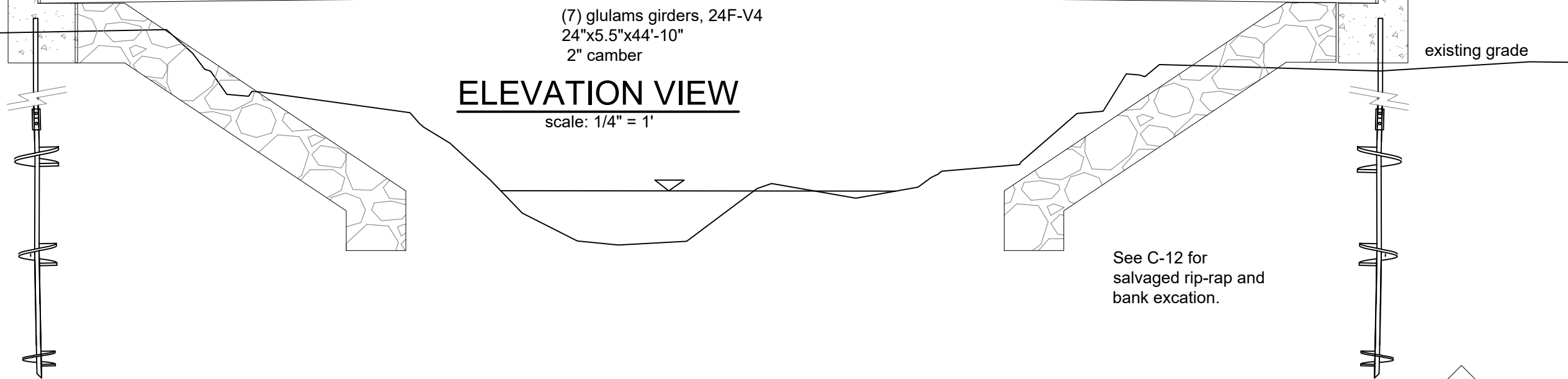
MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
**SUPERSTRUCTURE
AND DECK**
print on 11 x 17
1"
1"

DATE 2/26/2024	ARCHIVE NO.
DESIGNER A.JOHNSTON	DRAWING SHEET NO. S-06
DRAWN A.JOHNSTON	
CHECKED R.POLKINGHORN	
PROJECT NO.	SHEET 24 OF 25



ELEVATION VIEW
scale: 1/4" = 1'



CUT-AWAY VIEW
scale: 1/4" = 1'

Diaphragm locations are staggered to facilitate installation. It is expected that the diaphragms, and adjacent screws, will be attached to the girder before placement and before fastening girder bearings.

See C-12 for salvaged rip-rap and bank excitation.



United States Department of Agriculture
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(R9)
EASTERN REGION

STAMPS, LOGOS, AND SEALS
ART JOHNSTON, LLC
37 N. 93rd AVE. W
DULUTH, MN 55808
715-360-6629

4		
3		
2		
1		
NO.	REVISION / ISSUE	DATE

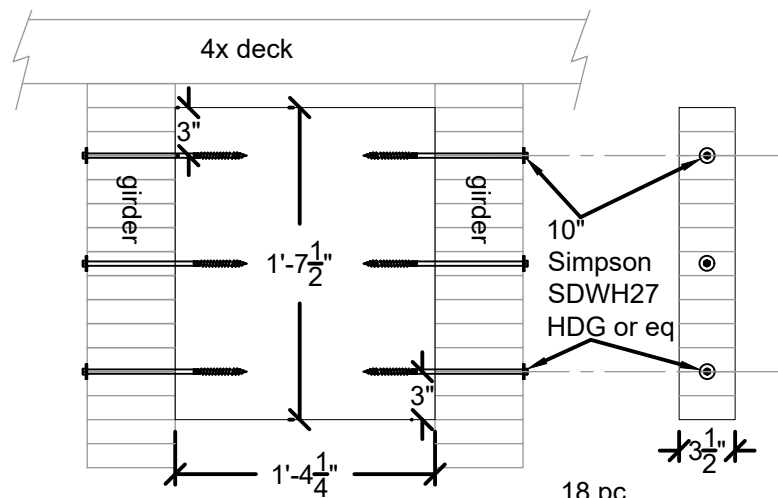
PROJECT NAME
**STRUCTURE NO.
091301-118G-102-0.0
DALRYMPLE
BRIDGE**

CHEQUAMEGON-NICOLET
NATIONAL FOREST

MEDFORD-PARK FALLS
RANGER DISTRICT

DRAWING TITLE
**TYPICAL SECTION
AND RAILING**
print on 11 x 17
1"

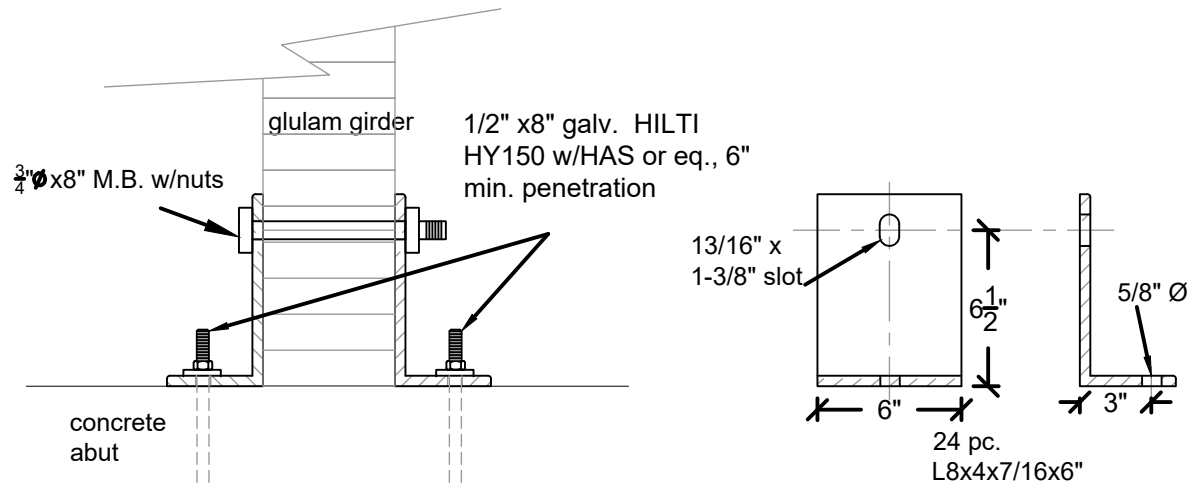
DATE 2/26/2024	ARCHIVE NO.
DESIGNER A. JOHNSTON	DRAWING SHEET NO. S-07
DRAWN A. JOHNSTON	
CHECKED R. POLKINGHORN	
PROJECT NO.	SHEET 25 OF 25



DIAPHRAGMS

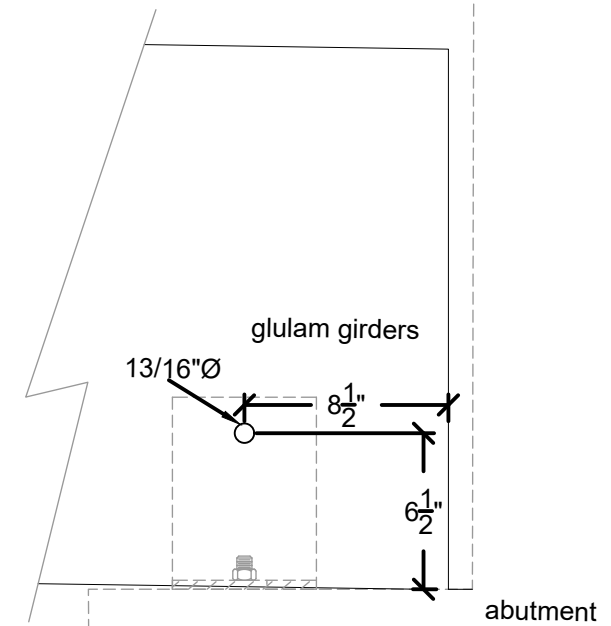
scale 1" = 1'

18 pc.
No. 1 glulam
3.5"x19.5"x16.25"



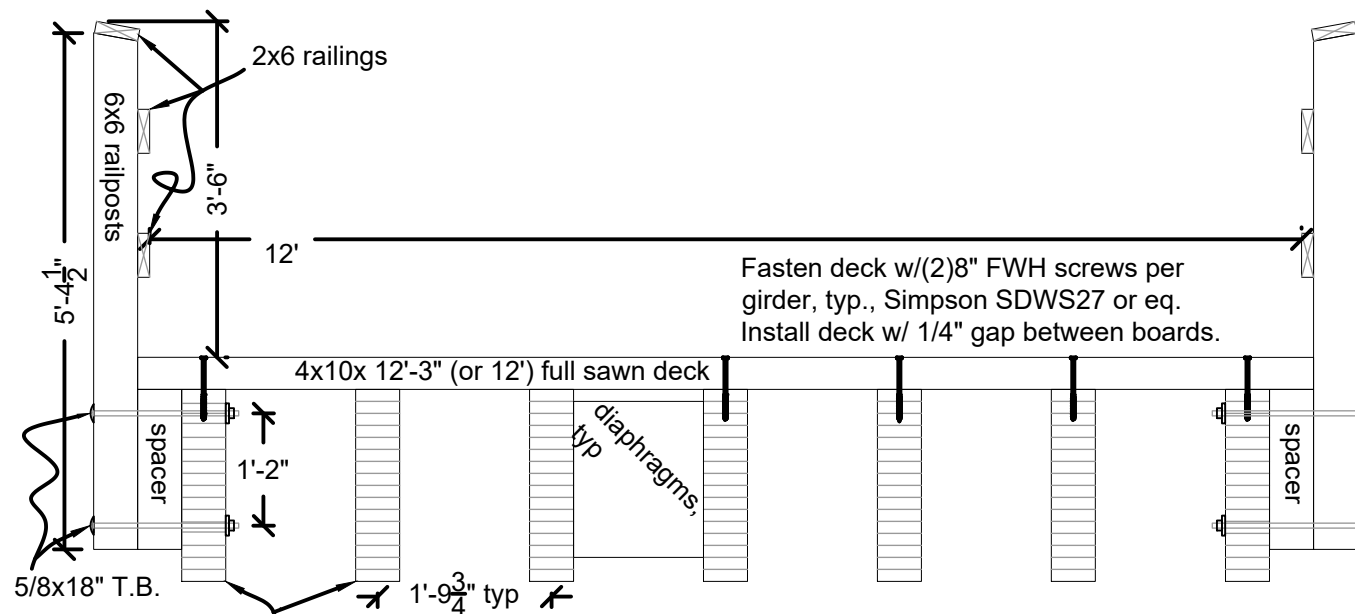
BEARING/BRACKET DETAIL

scale: 1 1/2" = 1'



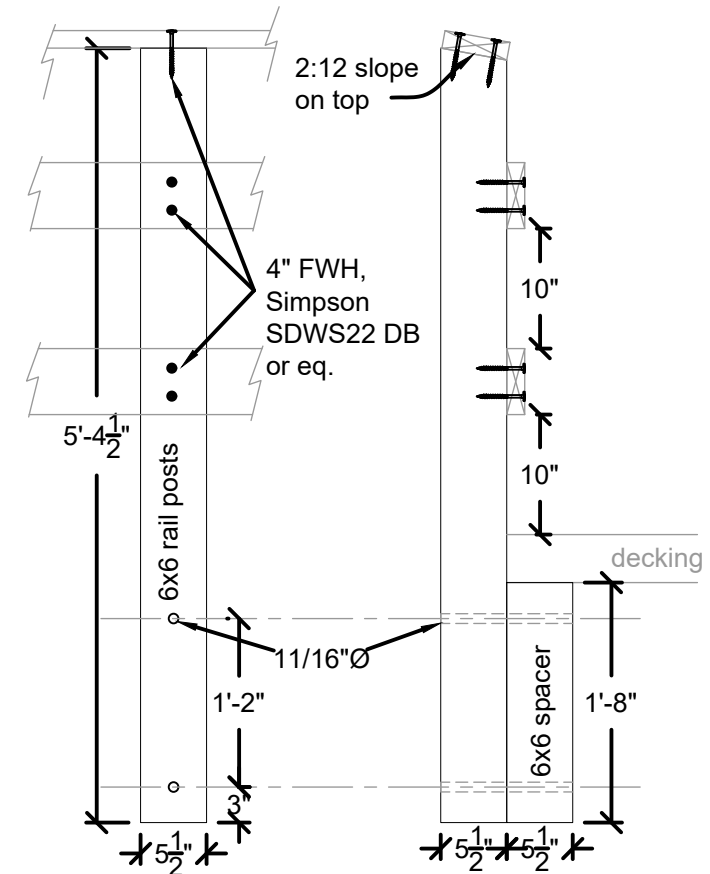
HOLE LOCATION

on girder ends, drill before treating



CROSS SECTION

scale: 1/2" = 1'



RAIL POSTS

scale 3/4" = 1'

24 pc.
rail post, #1 grade,
spacers, #2 grade

2/27/24 08:34 OWNER X:PROJECTS\30427_ST_USFS_FD_3 TRAIL BR DESIGNS\200_COMM\220_TRANSFERS\240226_ART_REVISED PLANS-CAD-DALRYMPLE.MXD\CAD\DALRYMPLE.DWG