FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

All sections must be addressed, or the application will be considered invalid

I. APPLICANT INFORMATION

A. Applicant Name: Trout Unlimited

Mailing Address: 312 N. Higgins Ave

City: Missoula State: MT Zip: 59802

Telephone: 406-546-5680 E-mail: Casey.hackathorn@tu.org

B. Contact Person (if different than applicant): Casey Hackathorn

Address:

City: State: Zip:

Telephone: E-mail:

C. Landowner and/or Lessee Name (if different than applicant): Beaverhead Deerlodge National Forest

Mailing Address: 420 Barrett Street

City: Dillon State: MT Zip: 59725

Telephone: 406-683-3861 E-mail: Jennifer.mickelson@usda.gov

II. PROJECT INFORMATION

A. Project Name: Warm Springs Creek Fish Passage Improvement

River, stream, or lake: Warm Springs Creek

Location: Township: T10N Range: R12W Section: 18

Latitude: 46.18083 Longitude: -113.15806 *Within project (decimal degrees)*

County: Deer Lodge

B. Purpose of Project:

The purpose of the project is to replace an undersized culvert with a bridge to improve fish passage, floodplain connectivity, and stream function on Warm Springs Creek at a Forest Service road crossing.

C. Brief Project Description (attach additional information to end of application). Please include the anticipated construction schedule:

The project will remove an undersized 7' concrete box culvert with a 65' full-channel spanning concrete bridge that will accommodate Q100 streamflow with a 5' freeboard. The stream channel will be rebuilt through the project site to include bankfull bench, vegetated streambanks and rock step pools through the site. The project is currently out for bid and construction is anticipated for the summer of 2024. See attached construction plan set.

D. What was the cause of habitat degradation and how will the project correct the cause?

Fish passage is limited at the site by an undersized culvert and a velocity barrier created during high flow conditions. The existing floodplain and sediment transport processes are impaired by the road prism at the crossing. In addition, the entire road prism and crossing is at risk of failure during extreme flow events. The proposed design will accommodate 100-year flow conditions, provide year-round aquatic organism passage, and reconnect floodplain surfaces through the site.

E. Length of stream or size of lake that will be treated (project extent): 300'

Length/size of impact, if larger than project extent (e.g., stream miles opened): 19 miles

F. Project Budget Summary:

Grant Request (Dollars):	**$**	**52,800**
Matching Dollars:	**$**	**52,800**
Matching In-Kind Services:*	**$**	

**salaries of government employees are not considered matching contributions*

Other Contributions (not part of this app)	**$**	**397,200**
Total Project Cost:	**$**	**502,800**

G. Attach itemized (line item) budget – *see budget template*

H. Attach project location map(s) that include:

- [x] Extent of the project, including context (relation to major landmark or town)
- [x] Indication of public and private property
- [ ] Riparian buffer locations and widths (if applicable) and grazing locations

I. Attach project plans:

- [x] Detailed sketches or plan views with the location and proposed restoration
- [ ] Pre-project photographs (GPS location strongly recommended)
- [ ] If water leasing or water salvage is involved, attach a supplemental questionnaire (*https://myfwp.mt.gov/getRepositoryFile?objectID=36110*)

J. Attach letters or statements of support (e.g., landowner consent, community or public support, and FWP fisheries support). List any other project partners:

Beaverhead Deerlodge National Forest

III. MAINTENANCE AND MONITORING (attach additional information to end of application):

A. A 20-year maintenance commitment is required*. Please confirm that you will ensure this protection and describe your approach. Attach any relevant maintenance plans.

Yes	No
x	

**If it is a water leasing project, describe the length of the agreement.*

The project will be maintained by the Beaverhead-Deerlodge National Forest as part of the USFS road system.

B. Will grazing be part of or adjacent to the project? If so, describe or attach land management plans, including short term and long term grazing regimes. If the landowner is not the applicant, please describe their involvement in the project. *If you want assistance with grazing plan development, note your need.*

No.

C. Will the project be monitored to determine if goals were met? If so, what are the short-term and long-term plans to assess benefits and lessons learned? Were pre-project data collected? Will monitoring information be shared with FWP?

Yes, project monitoring will be conducted by USFS personnel to ensure that the bridge and road improvements are functioning as designed. TU and USFS personnel will coordinate stream and riparian monitoring activities to ensure recovery of riparian vegetation and fish passage improvements are performing as designed. Post-project monitoring documentation will be shared with FWP.

IV. PROJECT BENEFITS (attach additional information to end of application):

A. What species of fish will benefit from this project?

WCT, bull trout, and nongame species.

B. How will the project protect or enhance wild fish habitat?

The project will improve resilience of native fish populations in Warm Springs Creek through improved fish passage and floodplain connectivity through the project site as well as protect against potential catastrophic failure of the road crossing during high flow events by providing adequate flood flow capacity at the site.

C. What is the expected improvement to fish populations, both short term and long term? How might the project translate to angler success?

The project will benefit fish population by improved connectivity to spawning habitat upstream of the existing culvert for migratory native fish in Warm Springs Creek. Anglers may benefit by increased presence of larger-bodied fluvial migrants on public lands above and below the project site.

D. Will the project increase public fishing opportunity for wild fish and, if so, how? Is public fishing allowed onsite? If not, describe how the public would access the project benefits.

The project will increase fishing opportunity by improving habitat conditions and connectivity for migratory native trout species. The project is located on public lands and promotes a publicly accessible fishery. The project may improve angler success by improving native fish populations in Warm Springs Creek on easily accessible public Forest Service lands.

E. Aside from angling, what local or large-scale public benefits will be realized from this project?

The local community may benefit economically from local contractors and labor utilized on the project. In addition, access to public lands will be maintained through improvements of the USFS road system ensuring access to the upper Warm Springs watershed into the future.

F. Will the project interfere with water or property rights of adjacent landowners? (explain):

No.

G. Will the project result in the development of commercial recreational use on the site (including paid access)? Explain:

No.

H. Is this project associated with the reclamation of past mining activity?

No.

Each approved project applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.

V. AUTHORIZING STATEMENT

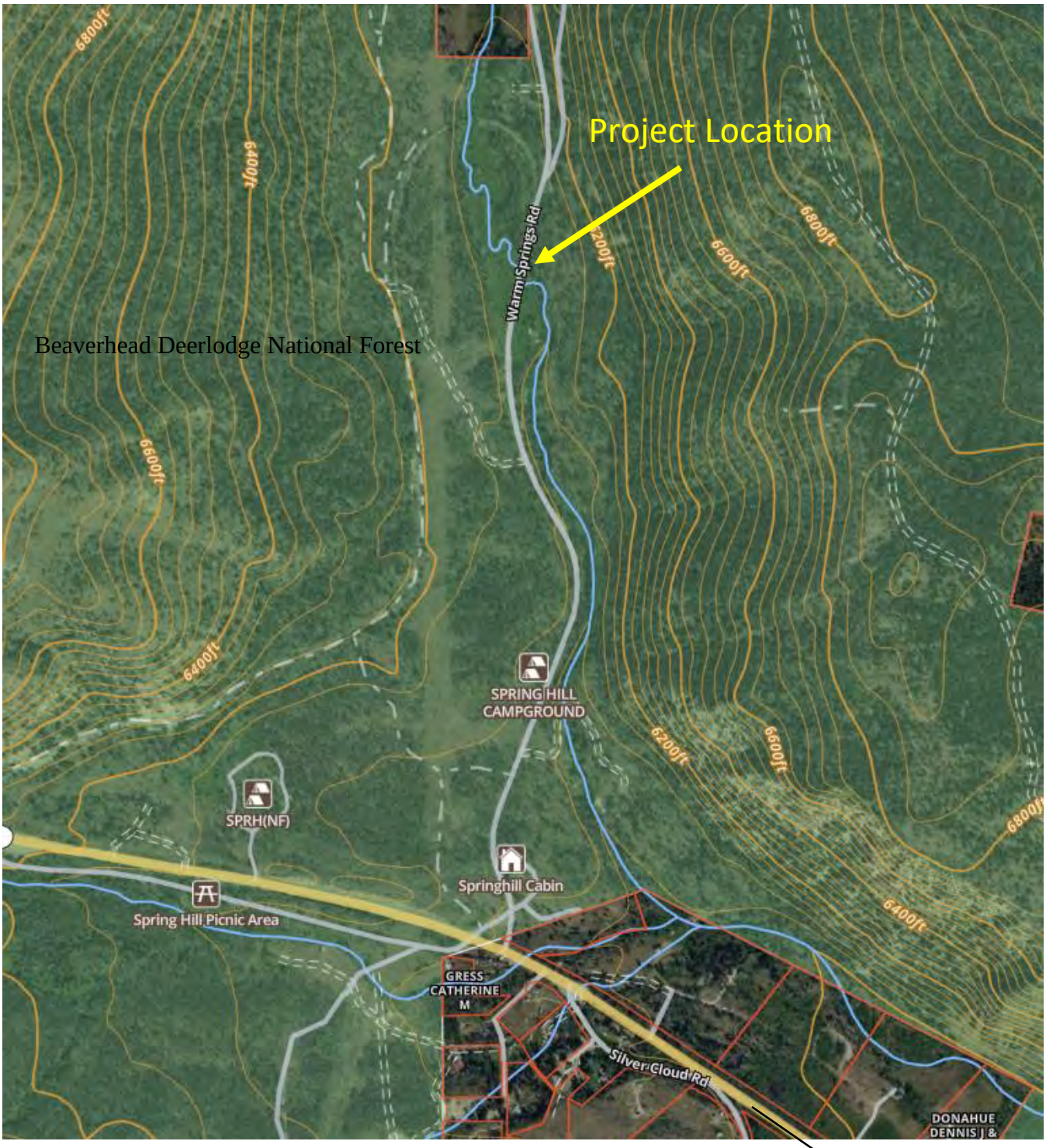
I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: _____ Date: 11/15/2023

Submittal: **Applications must be signed and received on or before November 15 and May 15 to be considered for the subsequent funding period**. Late or incomplete applications will be rejected.

Mail to:	FWP Future Fisheries Fish Habitat Bureau PO Box 200701 Helena, MT 59620-0701	Email:	Future Fisheries Coordinator FWPFFIP@mt.gov (electronic submissions must be signed) For files over 10MB, use https://transfer.mt.gov and send to mmcgree@mt.gov

Warm Springs Fish Passage Project Location Map



BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

PROJECT COSTS					CONTRIBUTIONS			
WORK ITEMS (Itemize by Category)	NUMBER OF UNITS	UNIT DESCRIPTION *	COST/UNIT	TOTAL COST	FUTURE FISHERIES REQUEST	MATCH (Cash or Services)**	OTHER (Not part of this application)	TOTAL
Personnel* **								
Permitting	1	LS	$2,000.00	$ 2,000.00	-		2,000.00	$ 2,000.00
Oversight	1	LS	$14,000.00	$ 14,000.00	-		14,000.00	$ 14,000.00
Monitoring	1	LS	$2,000.00	$ 2,000.00	-		2,000.00	$ 2,000.00
Maintenance	1	LS	$2,000.00	$ 2,000.00	-		2,000.00	$ 2,000.00
			Sub-Total	**$ 20,000.00**	**$ -**	**$ -**	**$ 20,000.00**	**$ 20,000.00**
Contracted Services								
Mobilization	1	LS	$44,000.00	$ 44,000.00			44,000.00	$ 44,000.00
Survey and Staking	1	LS	$6,000.00	$ 6,000.00			6,000.00	$ 6,000.00
Erosion and Pollution Control	1	LS	$3,000.00	$ 3,000.00			3,000.00	$ 3,000.00
Dewatering	1	LS	$10,000.00	$ 10,000.00			10,000.00	$ 10,000.00
Removal of Existing Culvert	1	LS	$8,000.00	$ 8,000.00			8,000.00	$ 8,000.00
Structure Excavation	1	LS	$15,000.00	$ 15,000.00			15,000.00	$ 15,000.00
Placed RipRap	160	CY	$100.00	$ 16,000.00			16,000.00	$ 16,000.00
Geocell abutment stabilization	45	SY	$200.00	$ 9,000.00			9,000.00	$ 9,000.00
Road Resurfacing, crushed aggregate	100	CY	$100.00	$ 10,000.00			10,000.00	$ 10,000.00
Precast, prestressed concrete, bulb-tee beams, installed	4	EA	$60,000.00	$ 240,000.00	50,300.00	50,300.00	139,400.00	$ 240,000.00
Precast concrete grade beam,installed	2	EA	$25,000.00	$ 50,000.00			50,000.00	$ 50,000.00
Precast concrete wingwall, installed	4	EA	$1,500.00	$ 6,000.00			6,000.00	$ 6,000.00
Steel Bridge Railing, installed	139	LF	$200.00	$ 27,800.00			27,800.00	$ 27,800.00
Guardrail, Installed	150	LF	$120.00	$ 18,000.00			18,000.00	$ 18,000.00
Temporary traffic bypass, installed and reclaimed	1	LS	$15,000.00	$ 15,000.00			15,000.00	$ 15,000.00
Site Revegetation	1	LS	$5,000.00	$ 5,000.00	2,500.00	2,500.00	-	$ 5,000.00
			Sub-Total	**$ 482,800.00**	**$ 52,800.00**	**$ 52,800.00**	**$ 377,200.00**	**$ 482,800.00**
			TOTALS	**$ 502,800.00**	**$ 52,800.00**	**$ 52,800.00**	**$ 397,200.00**	**$ 502,800.00**

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used). Do not use government salaries as match. Describe here or in text.

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications may require a justification or minimum of two competitive bids for the cost of undertaking the project. For projects that include a maintenance request, it must not exceed 10% of the total project cost.

****The Review Panel recommends a maximum fencing cost of $1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Additional details:

APPLICATION MATCHING CONTRIBUTIONS

(do not include requested funds or contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
USFS	$ -	$ 52,800.00	$ 52,800.00	Y
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ -	$ 52,800.00	$ 52,800.00	

OTHER CONTRIBUTIONS

(contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
TU	$ 10,000.00	$ -	$ 10,000.00	Y
USFS	$ 10,000.00	$ 377,200.00	$ 387,200.00	Y
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ 20,000.00	$ 377,200.00	$ 397,200.00	

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE, REGION 1

CONSTRUCTION PLANS FOR:

WARM SPRINGS SITE #2 CULVERT REPLACEMENT

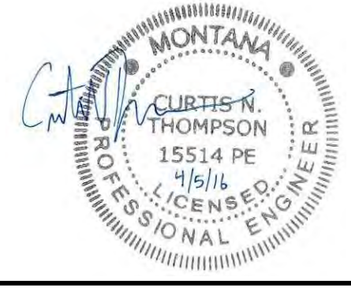
NFSR 170 MP 0.9

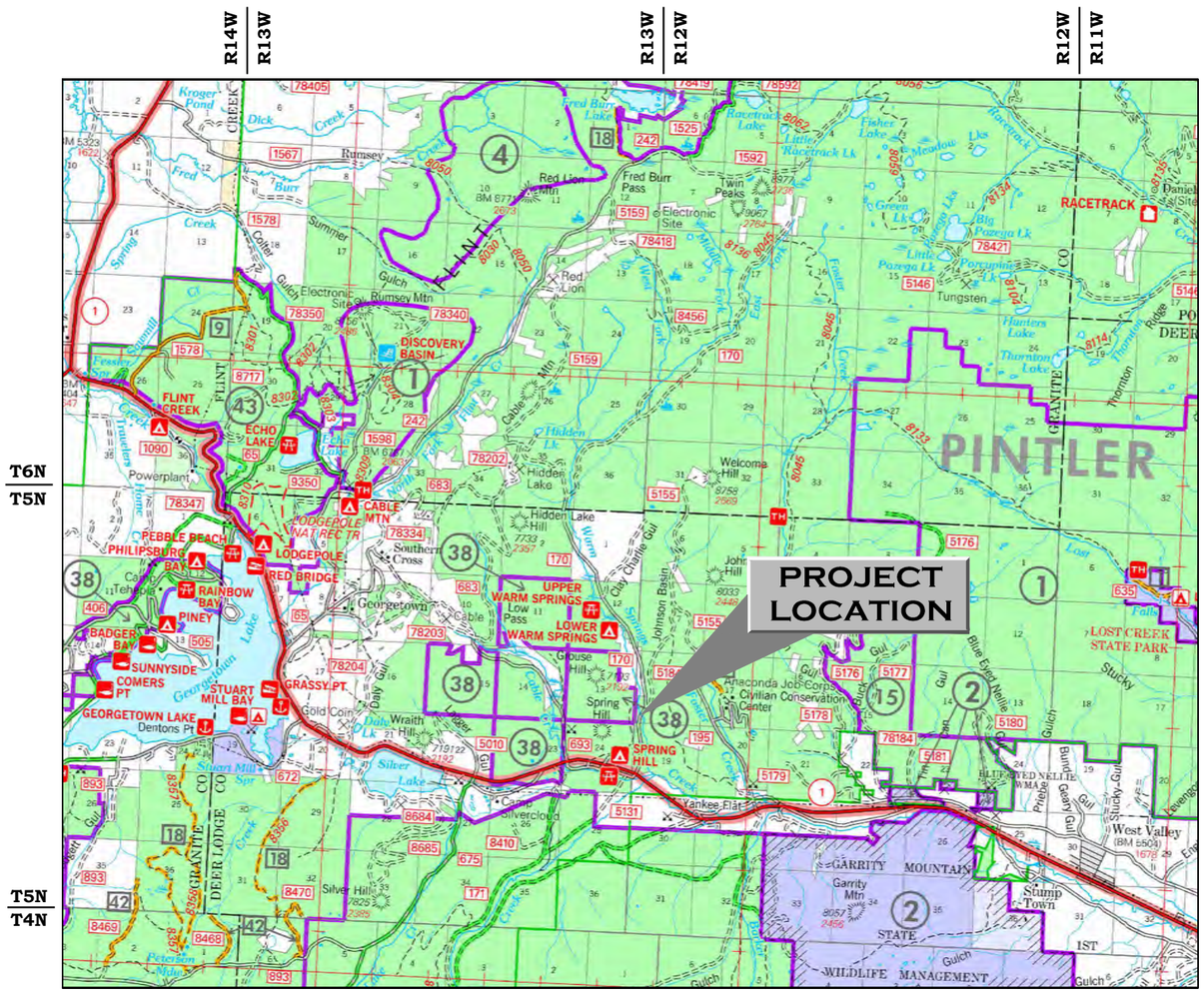
BEAVERHEAD-DEERLODGE NATIONAL FOREST
PINTLER RANGER DISTRICT
DEERLODGE COUNTY, MONTANA

LOCATION MAP

INDEX TO SHEETS

MATERIAL SOURCES
CONTRACTOR FURNISHED
Waste Site
Coarse Granular Backfill (for geocell)
Crushed Aggregate
Riprap





VICINITY MAP

RECOMMENDED:

_____ DATE _____
DISTRICT RANGER
PINTLER RANGER DISTRICT

REVIEWED:

_____ DATE _____
FOREST ENGINEER
BEAVERHEAD-DEERLODGE NATIONAL FOREST

APPROVED:

_____ DATE _____
FOREST SUPERVISOR
BEAVERHEAD-DEERLODGE NATIONAL FOREST

APPROVED:

_____ DATE _____
REGIONAL ENGINEER
NORTHERN REGION

DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 RUSSELL STREET, MISSOULA, MONTANA 59801-8591
PHONE 406/721-4520 FAX 406/549-6371

DRAWING NO. R2195

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	MEASUREMENT		WARM SPRINGS CREEK BRIDGE NO. 170-0.9
		METHOD	UNIT	
15101	MOBILIZATION	LSQ	Lump Sum	1
15221	CONSTRUCTION SURVEY AND STAKING	LSQ	Lump Sum	1
15713	SOIL EROSION & POLLUTION CONTROL	LSQ	Lump Sum	1
15730	DEWATERING	LSQ	Lump Sum	1
20301	REMOVAL OF EXISTING 7'x7' REINFORCED CONCRETE BOX CULVERT	AQ	Each	1
20806	STRUCTURE EXCAVATION	LSQ	Lump Sum	1
25101	PLACED RIPRAP, CLASS 4, MACHINE PLACED (CONTRACTOR FURNISHED)	CQ	Cubic Yard	160
27201	GEOCELL ABUTMENT STABILIZATION, 6" DEPTH	CQ	Square Yard	45
30809	CRUSHED AGGREGATE, SURFACING, COMPACTION METHOD 2 (CONTRACTOR FURNISHED)	CQ	Cubic Yard	100
55301	PRECAST, PRESTRESSED STRUCTURAL CONCRETE MEMBER, BULB-TEE BEAM	AQ	Each	4
553A01A	PRECAST CONCRETE MEMBER, GRADE BEAM	AQ	Each	2
553A01B	PRECAST CONCRETE MEMBER, WINGWALL	AQ	Each	4
55601	TYPE T-101 STEEL BRIDGE RAILING	CQ	Linear Foot	139
61718	W-BEAM GUARDRAIL, G4, TYPE I, CLASS A, TRANSITION SECTION	CQ	Linear Foot	75
61719	W-BEAM GUARDRAIL, G4, TYPE I, CLASS A, FLARED END SECTION	CQ	Linear Foot	75
62201	EQUIPMENT RENTAL,LARGE DUMP TRUCK	AQ	Hour	8
62202	EQUIPMENT RENTAL, HYDRAULIC EXCAVATOR WITH THUMB	AQ	Hour	8

CQ= Contract Quantity (See SECTION 109.02(b) of the STANDARD SPECIFICATIONS)
AQ= Actual Quantity; LSQ = Lump Sum Quantity

CALL
TWO WORKING DAYS
BEFORE YOU DIG
(ID, MT, ND, OR, WA, WY)

CALL 1-800-424-5555
UNDERGROUND UTILITIES LOCATION CENTER

WITH THE FOLLOWING:
COUNTY DEERLODGE
NEAREST CITY ANACONDA
SEC. & 1/4 SEC. NO.# 18, SW 1/4
TOWNSHIP & RANGE T 5 N, R 12 W

GENERAL NOTES

DESIGN: This structure is designed for HL-93 live loading in accordance with AASHTO LRFD Bridge Design Specifications, 7th edition.

HYDROLOGY AND HYDRAULICS: This structure has been designed to pass a flood of 397 cfs (Q100) with freeboard shown on Sheet 5.

SPECIFICATIONS: Construct the project in compliance with Federal Highway Administration Standard Specifications for Construction of Road and Bridges on Federal Highway Projects (FP-03) and applicable Forest Service Supplemental Specifications.

DEWATERING & EROSION CONTROL PLAN: Submit a Dewatering and Soil Erosion and Sediment Control Plan to the Contracting Officer for approval at least seven (7) days prior to beginning work. See Section 157 of the Supplemental Specifications for details. Construct temporary means to divert the flow of the live stream as necessary to perform work. Do not pump water from excavations directly into the live stream.

DISPOSAL: All materials designated for removal become the property of the Contractor and are to be disposed of by removing from the forest in an environmentally safe manner in accordance with all Local, State and Federal requirements.

TEMPORARY TRAFFIC CONTROL: Submit a Temporary Traffic Control Plan to the Contracting Officer for approval at least 30 days prior to intended use.

CONCRETE: Use Class A(AE) Concrete for Precast members. The required 28-day compressive strength (f'c) is 5,000 psi with an entrained air content of 5% ± 1%. Finish all precast elements with an ordinary surface finish. Make all concrete in accordance with an approved mix design. Chamfer all exposed edges of concrete 3/4" and fillet all acute angles 3" unless otherwise noted.

Use Class "P" Prestressed concrete with strength requirements as determined by the prestressed beam fabricator, except as follows. The minimum 28-day compressive strength is 5500 psi (f'c = 5500 psi) and the minimum compressive strength at transfer of prestress force is 3500 psi (f'ci = 3500 psi). In the top two inches of the prestressed beams, use concrete with an entrained air content of 5% ±1%.

REINFORCING STEEL: Use reinforcing steel of the deformed type conforming to AASHTO M31 (ASTM A615) Grade 60. Concrete cover is as shown; where not shown it must conform to AASHTO. Cut and bend reinforcing steel in conformance with ACI 315. Lap splice bars 2' min.

PRESTRESSING STEEL: Use prestressing steel of low-relaxation prestressing strand conforming to AASHTO M203, Grade 270.

HARDWARE AND STRUCTURAL STEEL: Use shapes, plates and bars meeting the requirements of ASTM A36, unless otherwise specified in these plans. Use hardware meeting the requirements of ASTM A325, except as noted in the drawings.

WELDING: Weld in accordance with the Structural Welding Code, AWS D1.1. A certified welder is required.

EXISTING UTILITIES: The contractor is responsible for locating all utilities prior to any excavation activities and coordinating with the appropriate utility companies to have utilities moved as necessary to complete the project. Damage to any existing utilities will be repaired at the Contractor's expense.

INSTALLATION OF PRESTRESSED BEAMS: Erect prestressed concrete beams with vertical variations of no more than 3/8" at Centerline Bearing and no more than 5/8" between deck surfaces at any point along the beam length. Use galvanized steel shims where necessary. Furnish shims the same size as the elastomeric bearing pads and place the shims between the beams and the bearing pads. Galvanize the shims in accordance with AASHTO M232.

After erecting the beams and prior to grouting, measure the vertical difference between adjacent beam surfaces every 10' along the beam length and submit the measurements to the CO. DO NOT proceed with grouting the beam keyways or attempt to level the beams until the CO has reviewed and evaluated the measurements for tolerances and camber or erection inconsistencies. If the CO determines that a camber adjustment/leveling procedure is required, submit a camber adjustment/leveling plan designed and approved by the beam manufacturer. Any camber adjustment/leveling work authorized by the CO must be done under the direction of a manufacturer's representative. Notify the CO immediately of any damage to the beams during erection. Make no repairs until authorized by the CO.

FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE
REGION ONE

BY	DATE	REVISION DESCRIPTION

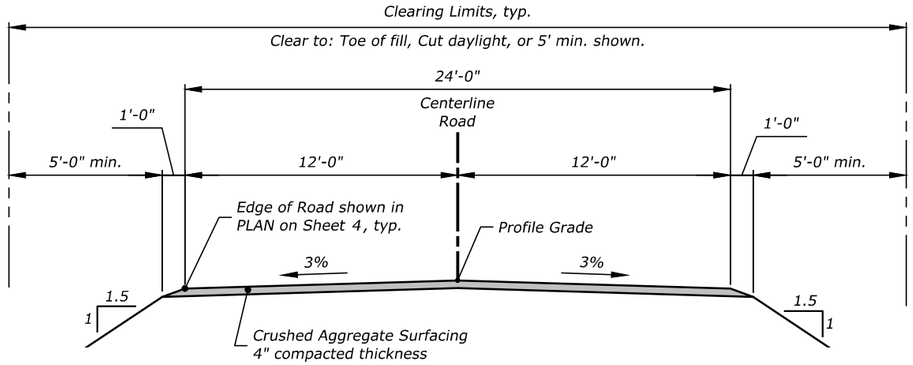
DESIGN CT PROJ. NO. 6528
DRAWN CT DATE Apr-16
CHECKED MJ SURVEYED DJ&A

DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

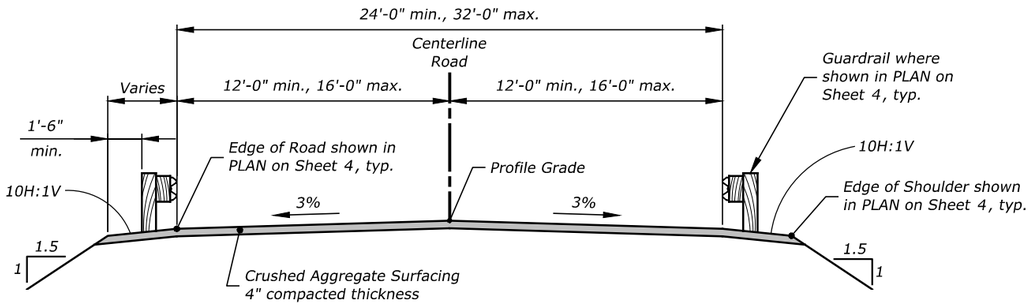
USFS BEAVERHEAD-DEERLODGE NF
WARM SPRINGS CULVERTS
NFSR 170 MP 0.9

ESTIMATED QUANTITES & GENERAL NOTES

SHEET 2 OF 18



STA 20+00 to STA 20+40
STA 22+60 to STA 23+20



STA 20+40 to BRIDGE
BRIDGE to STA 22+60

ROAD TYPICAL SECTIONS

Not to Scale

CENTERLINE POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
7000	5011.5556	10197.8792	999.09	STA 20+00
7001	5008.8917	10178.0574	999.14	STA 2020
7002	5006.2279	10158.2356	999.23	STA 20+40
7003	5002.2321	10128.5029	999.47	STA 20+70
7004	5000.9002	10118.5920	999.58	STA 20+80
7005	4998.2363	10098.7702	999.85	STA 21+00
7006	4995.8499	10081.0132	1000.11	STA 21+17.92
7007	4986.9038	10014.4449	1001.12	STA 21+85.08
7008	4984.9170	9999.6612	1001.35	STA 22+00
7009	4981.8906	9977.1414	1001.69	STA 22+22.72
7010	4980.9213	9969.9285	1001.81	STA 22+30
7011	4976.9255	9940.1958	1002.39	STA 22+60
7012	4972.9297	9910.4631	1003.14	STA 22+90
7013	4968.9339	9880.7304	1004.01	STA 23+20

SHOULDER WIDENING DETAIL

Not to Scale

NOTES:

1. *Construct benches as shown from STA 22+00 to STA 22+60, left edge of road.*
2. *Benching work is incidental to other road work, included in Item 20806.*

REGION ONE

BY	DATE	REVISION DESCRIPTION

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CHECKED MJ SURVEYED DJ&A

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3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

USFS BEAVERHEAD-DEERLODGE NF
WARM SPRINGS CULVERTS
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ROAD TYPICAL SECTIONS

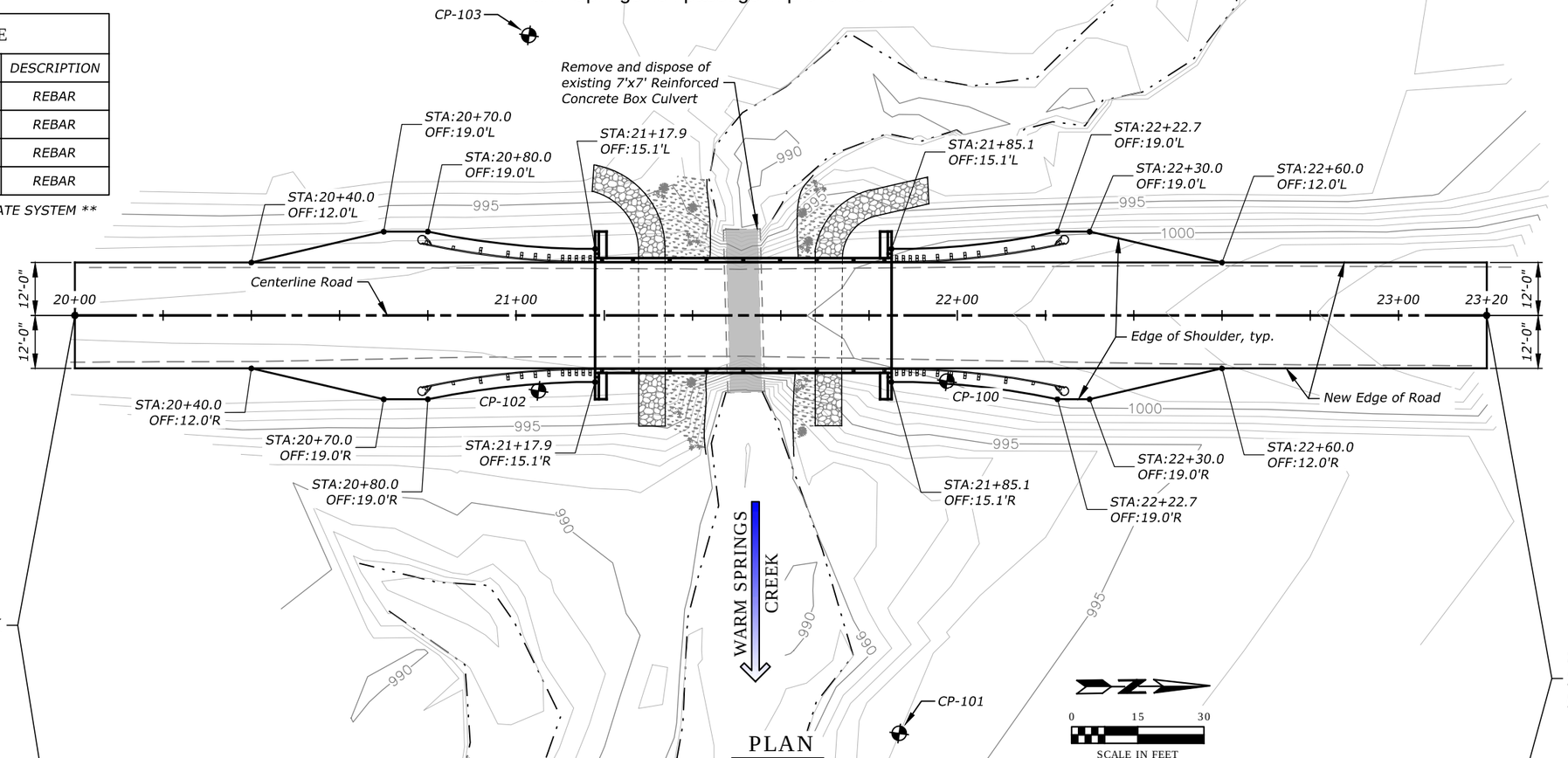
SHEET 3 OF 18

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-100	5000.00	10000.00	1000.00	REBAR
CP-101	5080.58	10000.09	995.27	REBAR
CP-102	5014.49	10091.44	998.58	REBAR
CP-103	4934.91	10104.33	992.48	REBAR

** SITE SURVEY BY USFS, LOCATION COORDINATE SYSTEM **

LEGEND — EXISTING FEATURES

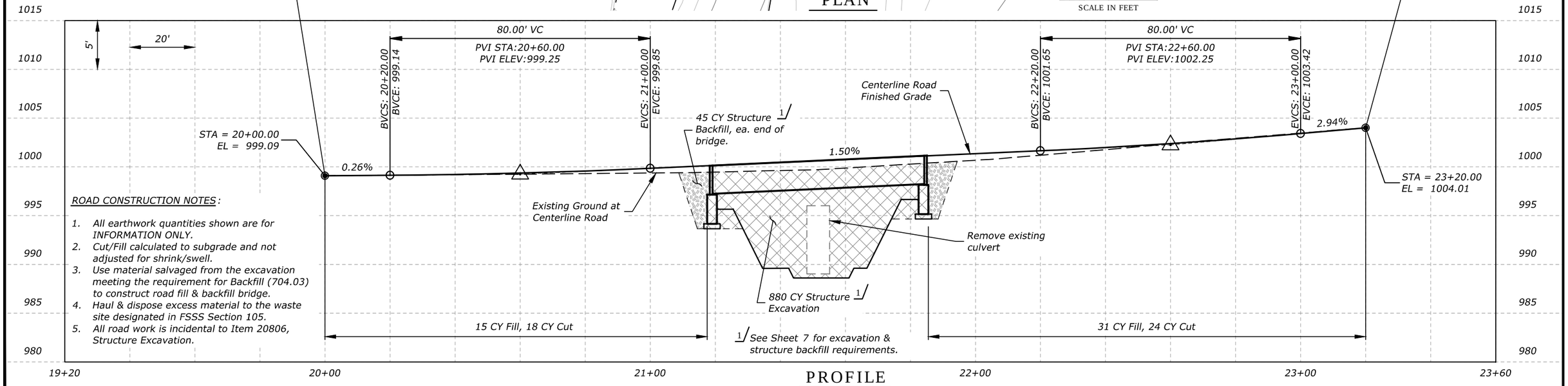
- Existing Edge of Road
- Existing Culvert
- Existing Edge of Water
- Existing Ditch
- 6300 Major Contour (5')
- Minor Contour (1')



PLAN

STA 20+00
BEGIN ROAD WORK
MATCH EXISTING

STA 23+20
END ROAD WORK
MATCH EXISTING



PROFILE

ROAD CONSTRUCTION NOTES:

1. All earthwork quantities shown are for INFORMATION ONLY.
2. Cut/Fill calculated to subgrade and not adjusted for shrink/swell.
3. Use material salvaged from the excavation meeting the requirement for Backfill (704.03) to construct road fill & backfill bridge.
4. Haul & dispose excess material to the waste site designated in FSSS Section 105.
5. All road work is incidental to Item 20806, Structure Excavation.

BY	DATE	REVISION DESCRIPTION

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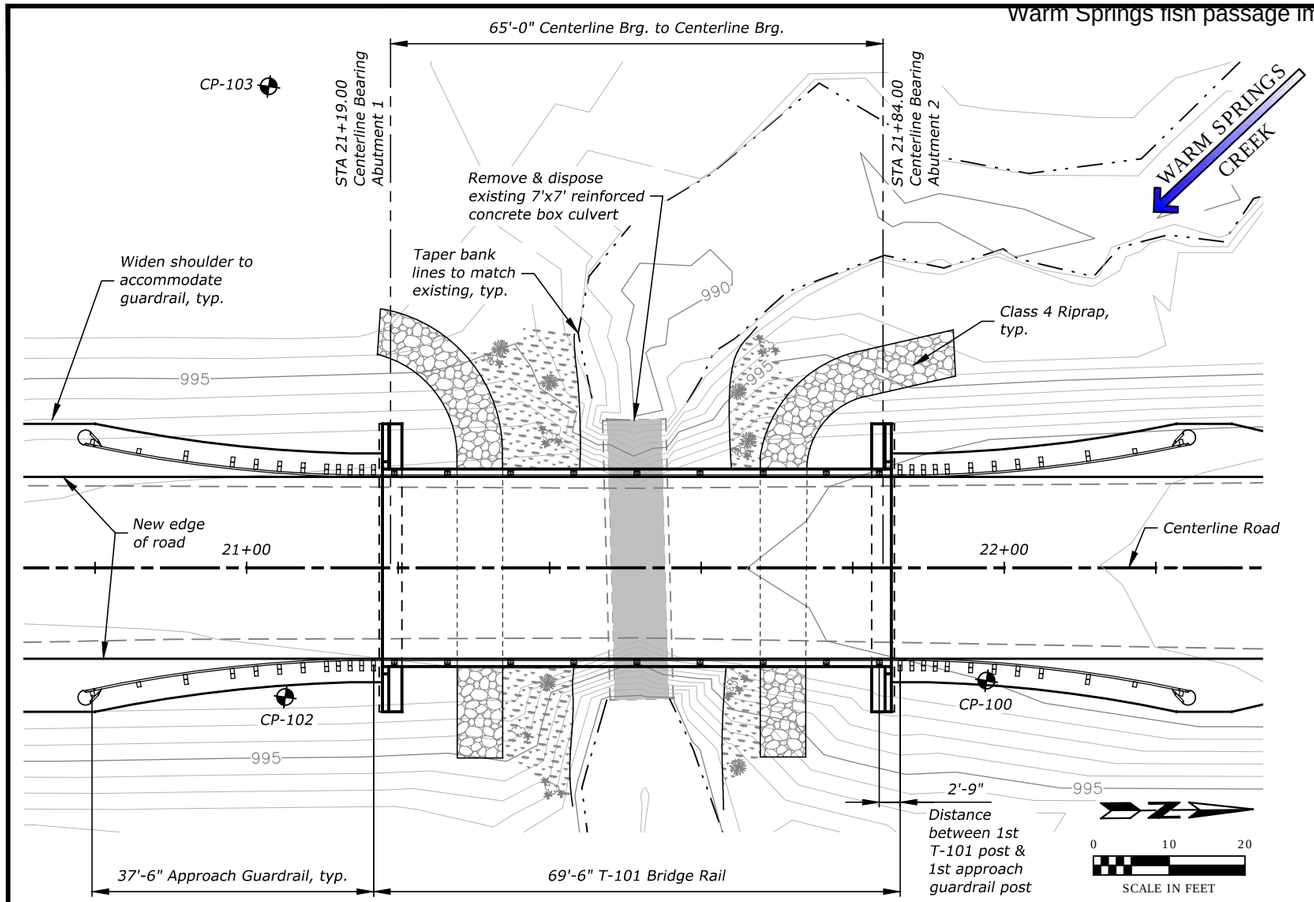
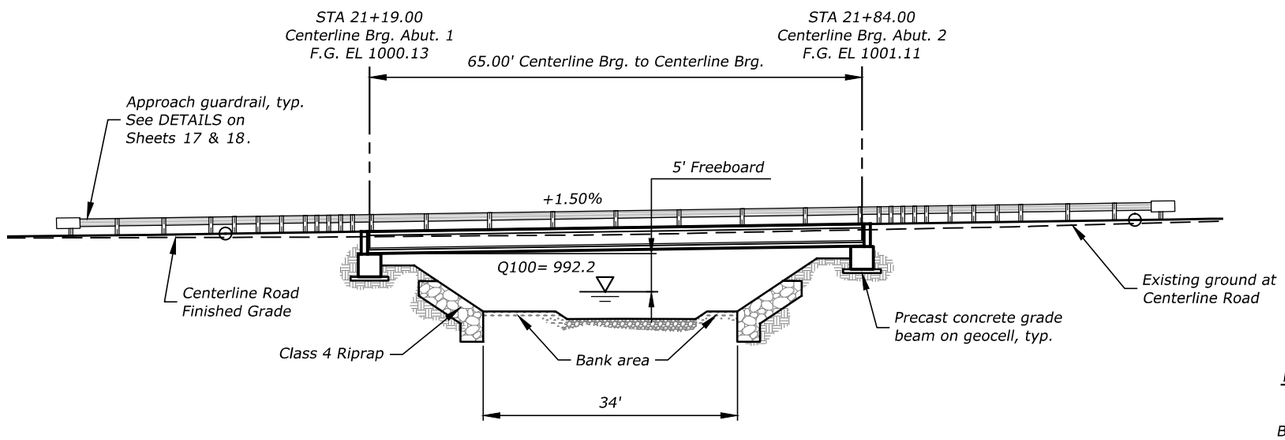
ROAD PLAN & PROFILE

SHEET 4 OF 18

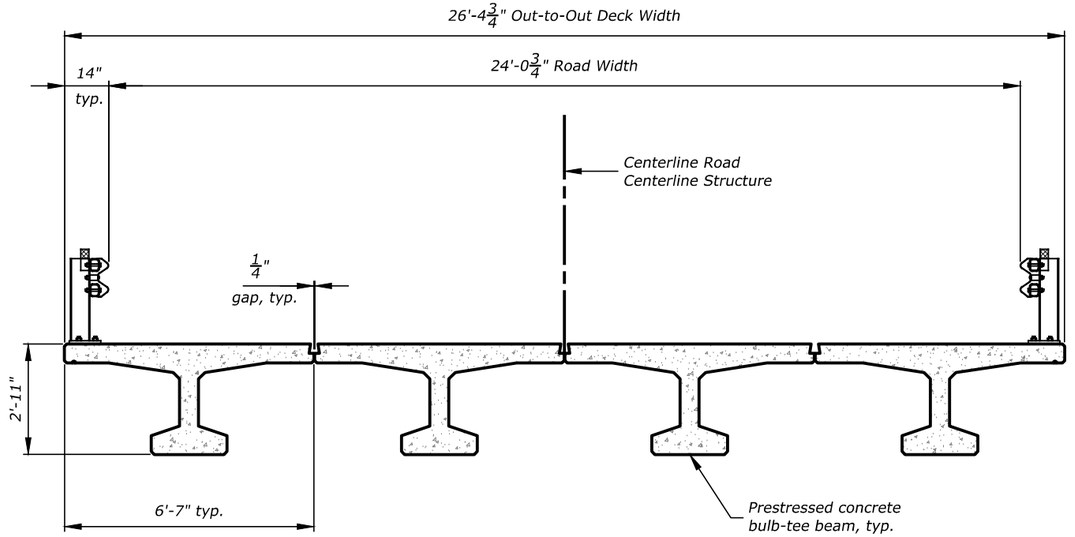


PLAN



ELEVATION

Scale: 1" = 20'



TYPICAL SECTION

Scale: 1/4" = 1'-0"

HYDRAULIC DATA:
Q2 = 106 cfs
Avg. depth = 2.5'
Bankfull width = 21'

Q100 = 397 cfs
Avge. depth = 3.2'

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REGION ONE

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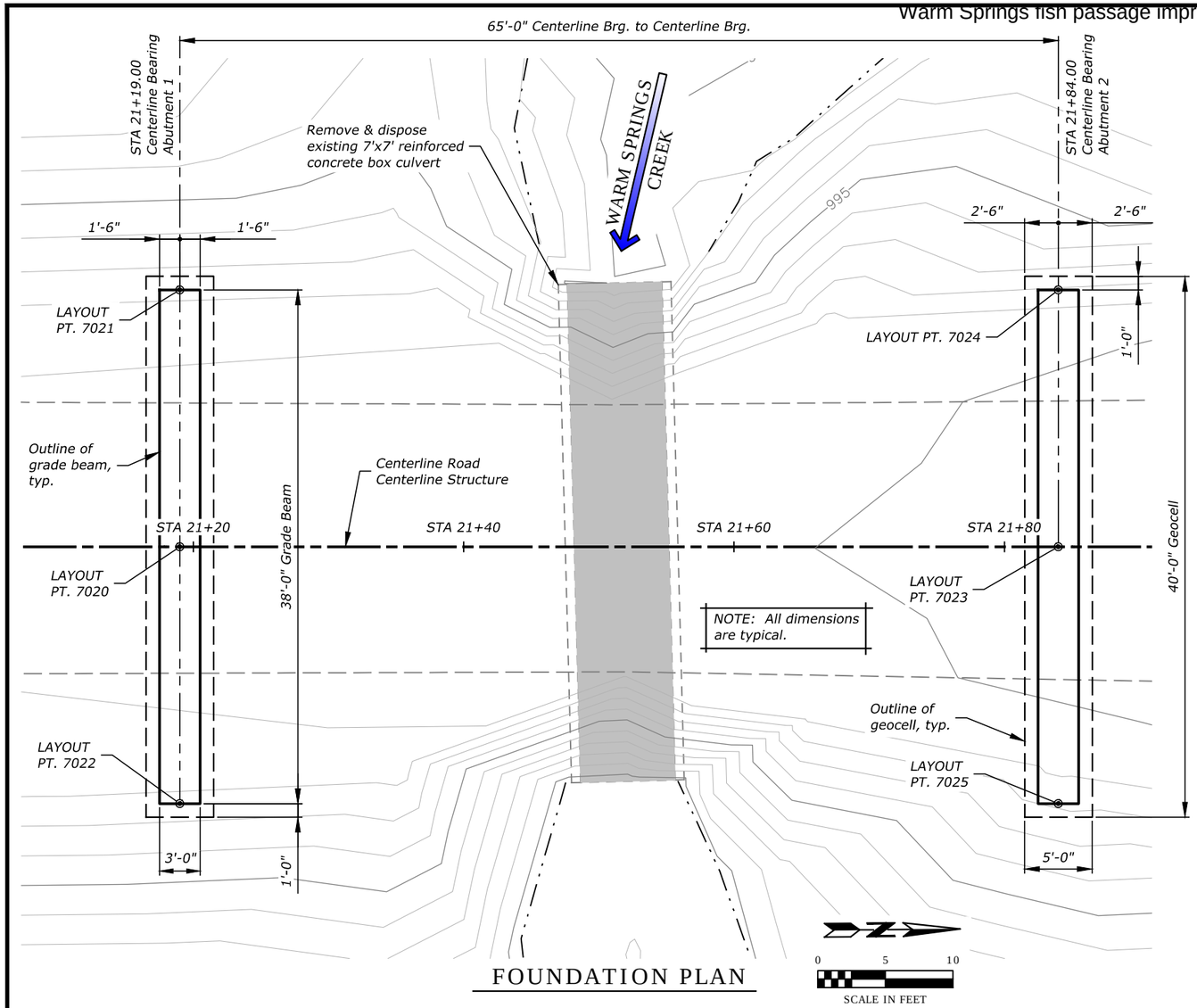
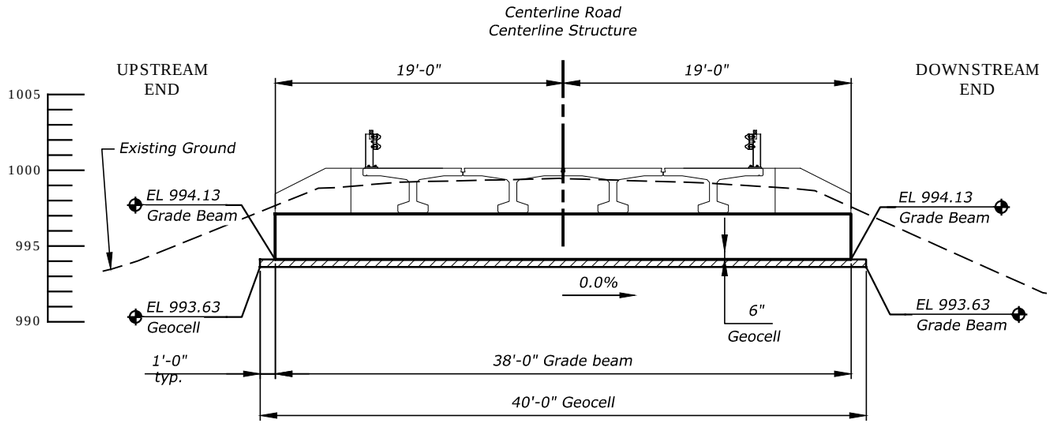
BRIDGE GENERAL LAYOUT

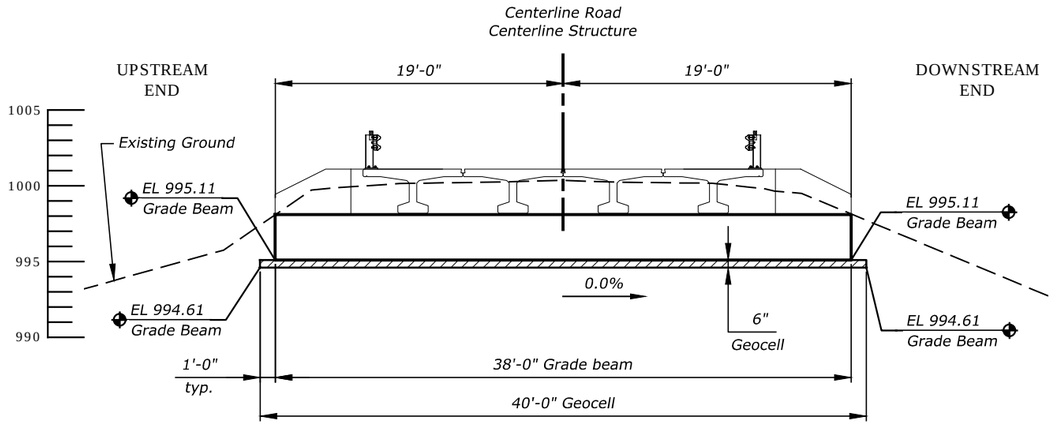
SHEET 5 OF 18



FOUNDATION PLAN



ABUTMENT 1



ABUTMENT 2

SECTIONS ALONG CENTERLINE BEARING *LOOKING AHEAD*

Scale: 1" = 10' *ON-LINE*

DEWATERING AND SOIL EROSION CONTROL

1. *Protect against soil erosion and sedimentation during construction in accordance with FP-03 Section 157 and the project permits. Prepare and submit a Soil Erosion and Sediment Control Plan to the CO for approval. Include drawings and written outline illustrating and describing the proposed layout, methods, and equipment.*
2. *Dewater for riprap placement and existing culvert removal in accordance with FP-03 Sections 208 and 157.*
3. *Existing culvert removal, subgrade excavation, geocell installation, footing placement, riprap placement, and backfill are to be completed in accordance with the contract specifications. Standing or running water in the work area does not relieve the Contractor from meeting the specifications.*
4. *Dewatering is the sole responsibility of the Contractor. Develop and submit to the CO a project-specific Dewatering and Sediment Control Plan with the Excavation Plan for approval. Develop and submit a project-specific Dewatering Plan including drawings and a written outline illustrating and describing proposed layout, methods, equipment and anticipated stream flow volume. Approval of the Contractor's Dewatering Plan does not relieve the Contractor from completing the work as required. If the Contractor's methods are not producing adequate results, the Contractor must re-evaluate and submit another Dewatering Plan. Re-submittal of the Dewatering Plan, if required, is incidental to the work.*

LAYOUT POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
7020	4995.7056	10079.9395	994.13	ABUT LAYOUT
7021	4976.8749	10082.4701	994.13	ABUT LAYOUT
7022	5014.5364	10077.4088	994.13	ABUT LAYOUT
7023	4987.0481	10015.5186	995.11	ABUT LAYOUT
7024	4968.2174	10018.0493	995.11	ABUT LAYOUT
7025	5005.8788	10012.9880	995.11	ABUT LAYOUT

NOTE: Layout Points are bottom of grade beam at centerline bearing.

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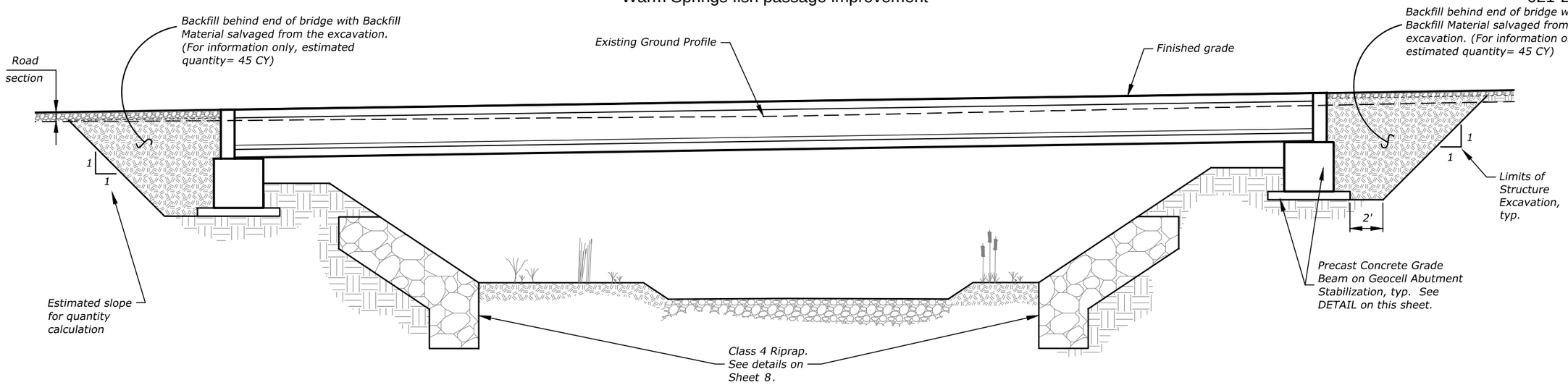
FOUNDATION PLAN & DETAILS

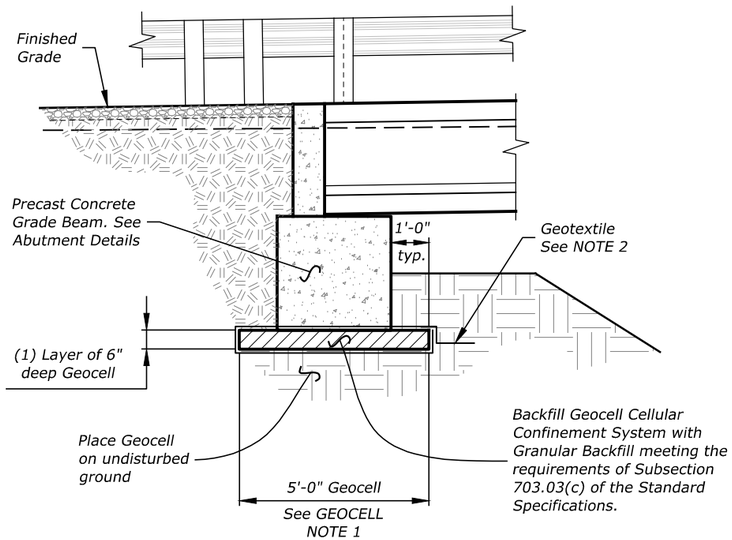
SHEET 6 OF 18



STRUCTURE EXCAVATION AND BACKFILL DETAIL

Not to Scale

SOIL EXPLORATION SUMMARY							
TEST PIT #1							
Depth (ft)	Description	USCS	AASHTO	OSHA (Visual)	%<#200	Plasticity Index	Suitable for Backfill according to 704.03(a)
0-4	Silty gravel with sand & cobbles	GM	A-1-a	B	12	N/A	Yes



ABUTMENT SECTION

Not to Scale

ABUTMENT 1 SHOWN
ABUTMENT 2 SIMILAR

GEOCELL NOTES:

1. *Field cut Geocell per Manufacturer's specifications to width shown.*
2. *Place Type IV-A Geotextile under Geocell and wrap over top after backfilling. Incidental to Item 27201.*
3. *Secure geocell in place to the lines and grades shown on the drawings with suitable side forms (Stretcher Frames).*

STRUCTURE EXCAVATION NOTES:

1. *Complete Structure Excavation in accordance with FP-03 Section 208.*
2. *The Contractor is solely responsible for excavation support and compliance with all applicable OSHA regulations.*
3. *Excavation limits shown comply with OSHA sloping and benching requirements based on Soil Type B (GM) as shown in the SOIL EXPLORATION SUMMARY shown on this sheet. Notify the CO immediately if actual conditions vary from the assumed soil types.*
4. *Submit an Excavation Plan for approval prior to beginning the work. As a minimum, the Excavation Plan must include: drawings and a written outline illustrating and describing the proposed excavation limits, methods, equipment to be used, location of stockpiles, and estimated quantities. The Excavation Plan must comply with all applicable OSHA requirements and list the soil type assumed. Changes to the excavation limits shown here for the Contractor's dewatering methods or Contractor convenience must be shown on the Plan and are the responsibility of the Contractor. The Excavation Plan is incidental to the work.*

STRUCTURAL BACKFILL NOTES:

1. *Backfill in accordance with Section 208.10 of the Standard Specifications with backfill material meeting the requirements of Subsection 704.03(a). The limits shown here are the minimum requirements.*
2. *Any backfill outside the limits shown is considered Unclassified Borrow and must meet the requirements for embankment and Subsection 704.06.*
3. *Material from Structure Excavation at this site may be used for Backfill (704.03) or Unclassified Borrow if it meets the specification requirements. Some mixing and sorting may be required. Approval from the CO must be obtained prior to use.*
4. *Compact Backfill in accordance with FSSS Section 208.11. Compact Unclassified Borrow in accordance with Section 204.11. Test compaction in accordance with the specifications and submit test results to the CO.*

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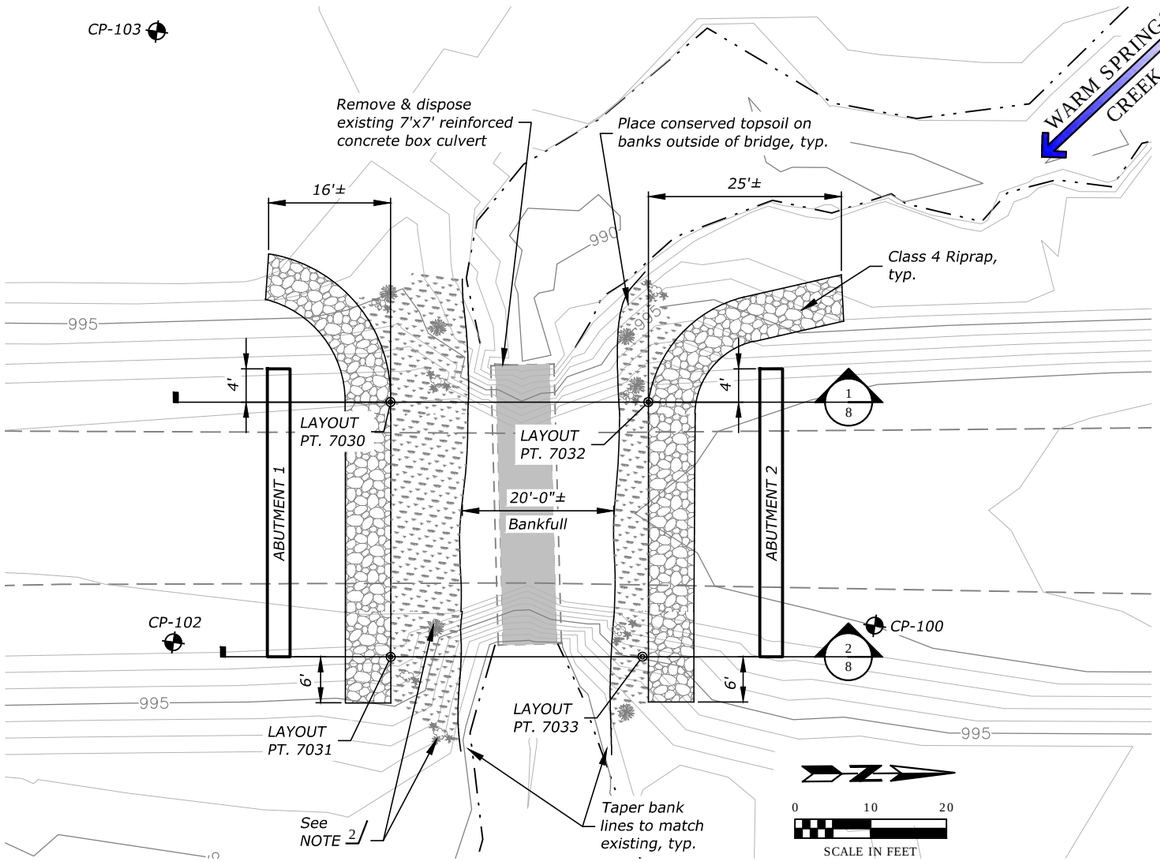
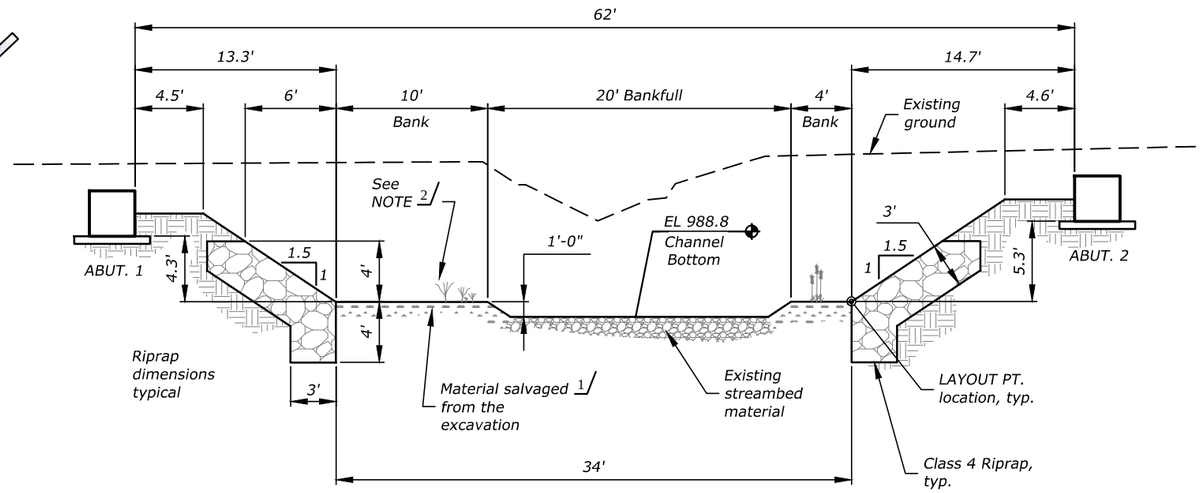
STRUCTURE EXCAVATION & BACKFILL

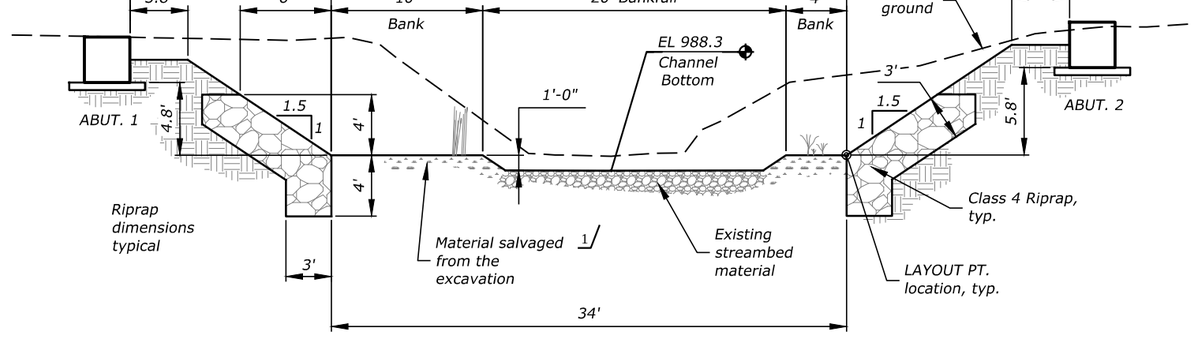
SHEET 7 OF 18



PLAN



1/8 SECTION
Scale: 1" = 10'



2/8 SECTION
Scale: 1" = 10'

LAYOUT POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
7030	4979.2756	10067.2413	989.80	RIPRAP LAYOUT
7031	5012.5658	10062.7458	989.30	RIPRAP LAYOUT
7032	4974.7453	10033.5309	989.80	RIPRAP LAYOUT
7033	5008.0383	10029.0563	989.30	RIPRAP LAYOUT

NOTE: Layout Points are bottom of grade beam at centerline bearing.

1/ Construct banks with material salvaged from the excavation. Use a mix of gravels and fine grained material. Where the banks are exposed (not under the bridge) add salvaged topsoil (where available) to top surface of banks. Slope banks to drain to channel. Bank construction work is incidental to Item 20806, Structure Excavation.

2/ Transplant willows or other native vegetation on site as directed by the CO. This work will be paid under Equipment Rental Item 62202.

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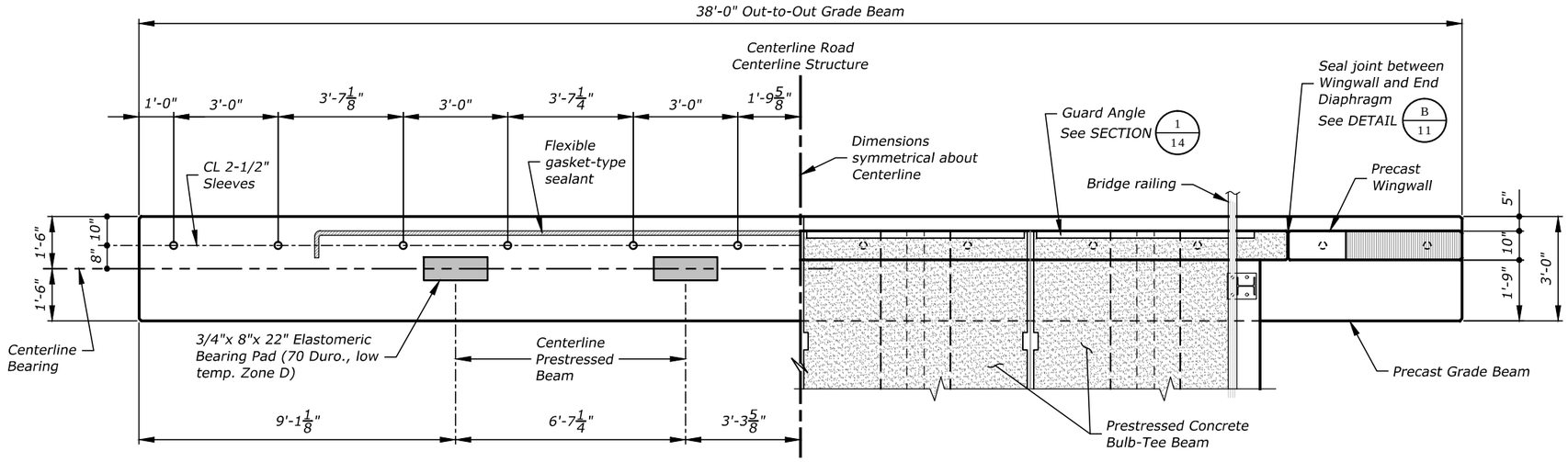
RIRPAP DETAILS

SHEET 8 OF 18

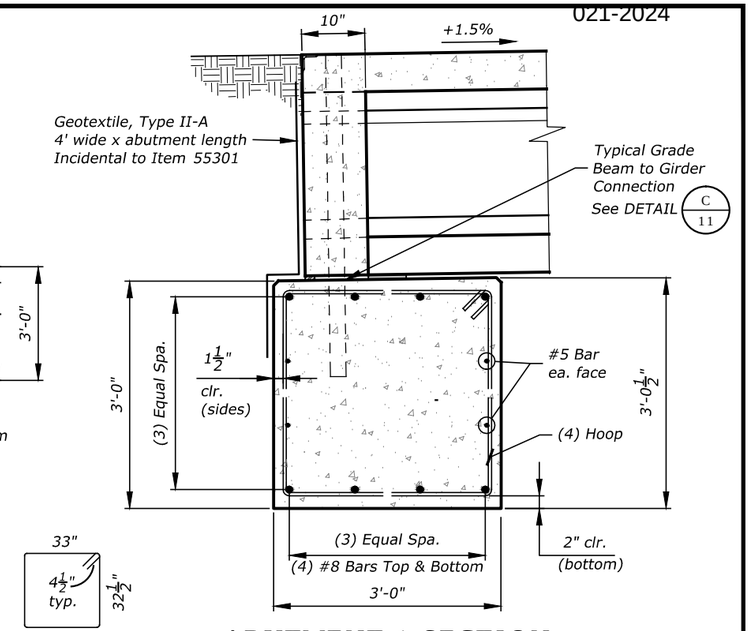


ABUTMENT PLAN

Scale: 1/4" = 1'-0"

ABUTMENT 1 SHOWN
ABUTMENT 2 SIMILAR

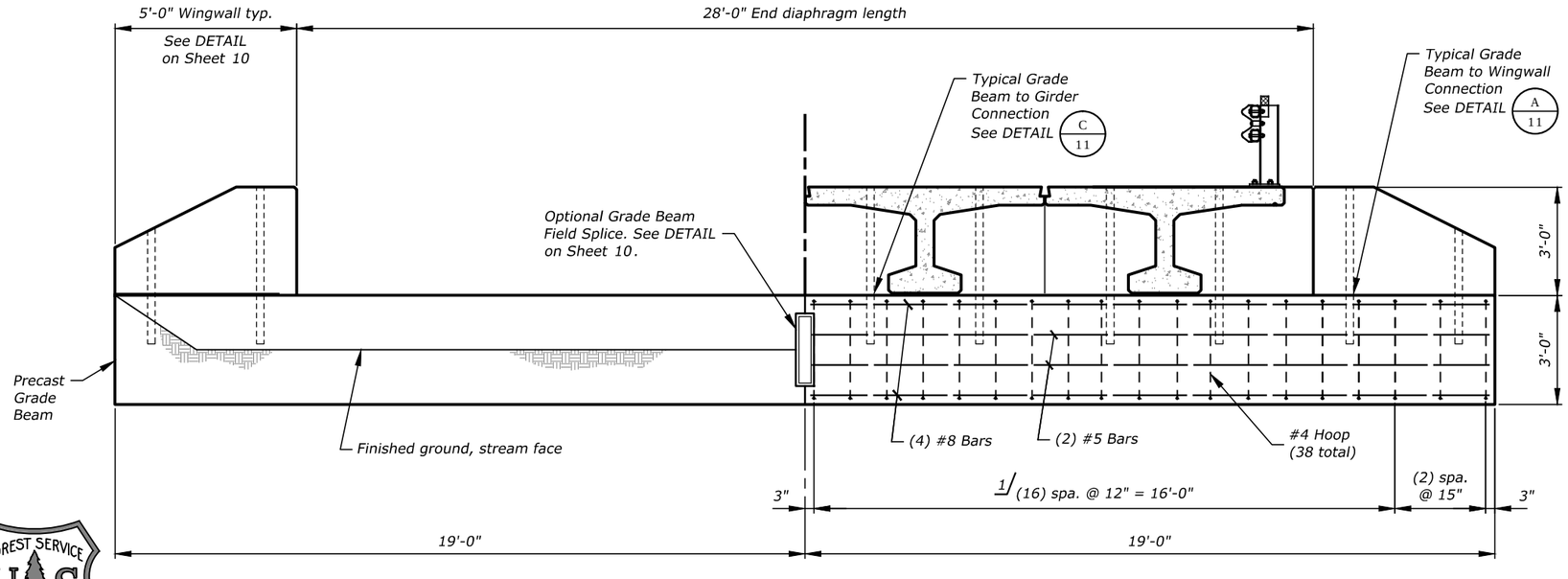
NOTE: PRECAST GRADE BEAMS AND WINGWALLS MUST BE CAST AND SUPPLIED BY THE SAME MANUFACTURER THAT FABRICATES THE PRESTRESSED BEAMS.



ABUTMENT 1 SECTION

Scale: 1/2" = 1'-0"

#4 HOOP

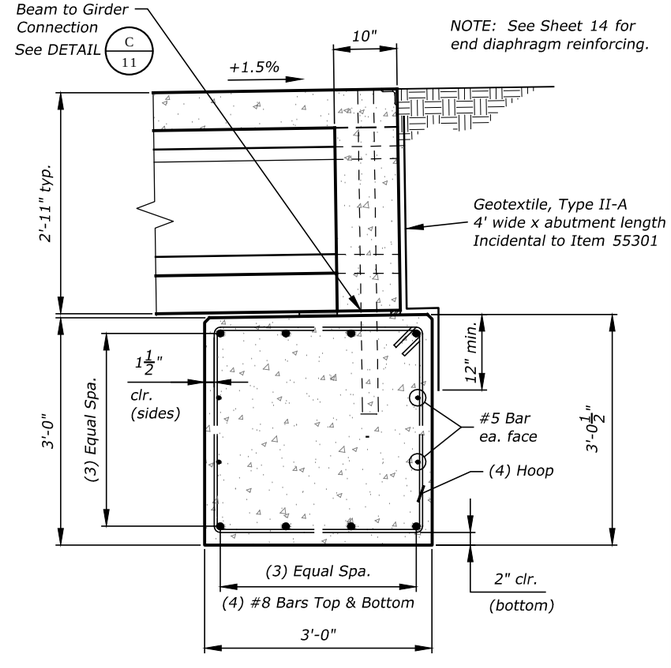


ABUTMENT ELEVATION

Scale: 1/4" = 1'-0"

LOOKING BACK ON-LINE
ABUTMENT 1 SHOWN, ABUTMENT 2 SIMILAR

1/ Adjust spacing where necessary to clear embedded sleeves.



ABUTMENT 2 SECTION

Scale: 1/2" = 1'-0"

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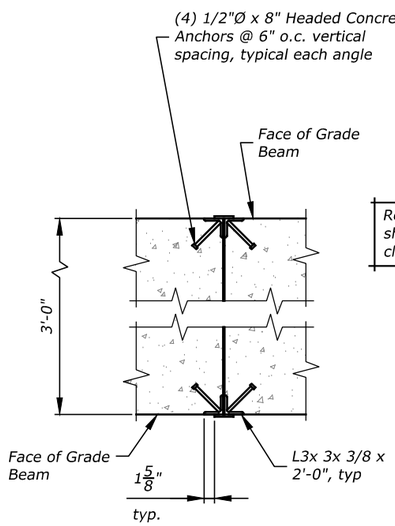
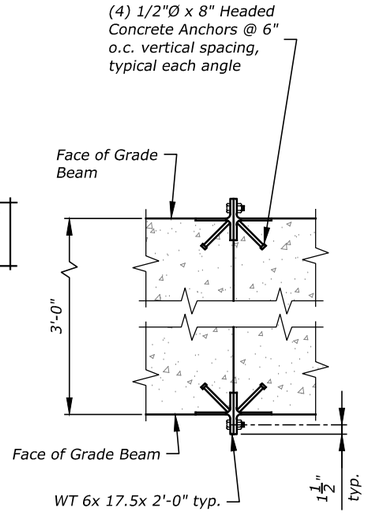
ABUTMENT DETAILS

SHEET 9 OF 18

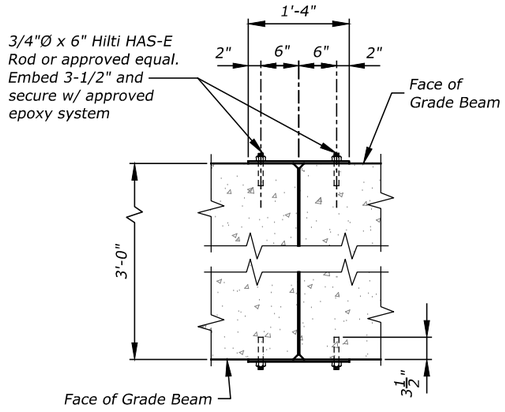


SECTION A -A

Rebar not shown for clarity

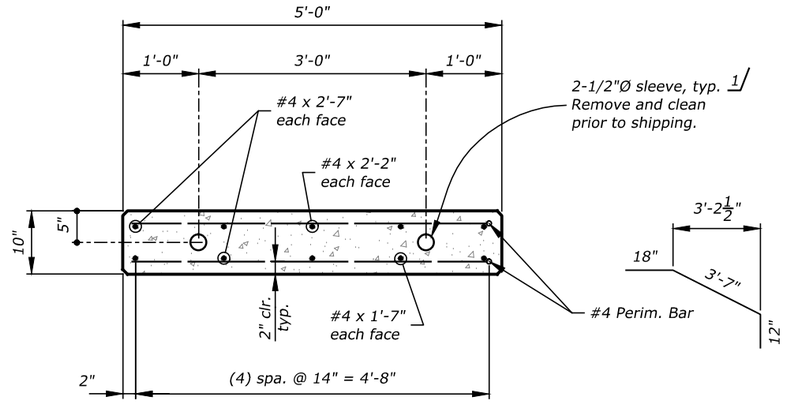


SECTION B - B

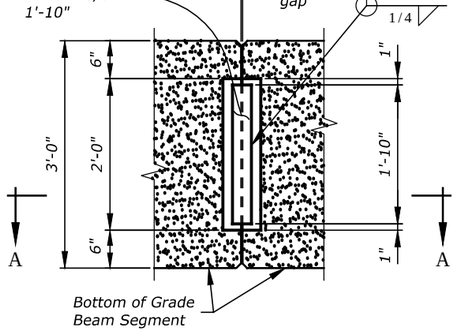


SECTION C - C

1/ Fabricator may use post tensioning duct in lieu of PVC to form blockouts where PVC sleeves are to be removed. P/T duct may be left in place.

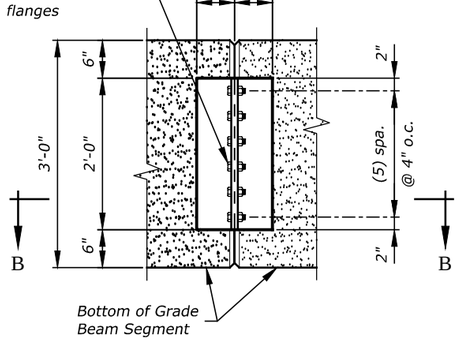


SECTION D - D



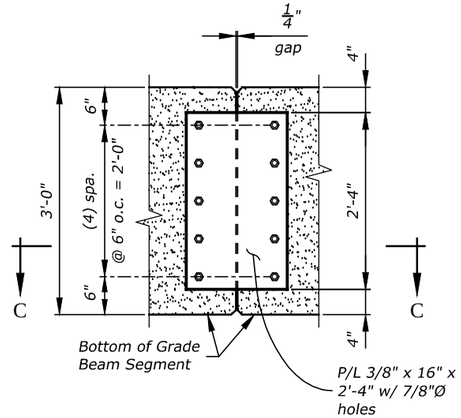
ELEVATION

FIELD WELD ALTERNATE



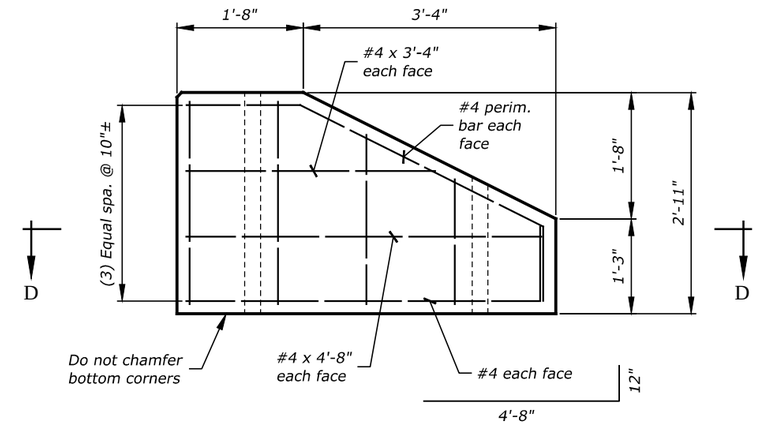
ELEVATION

FIELD BOLT ALTERNATE



ELEVATION

POST-INSTALLED ANCHOR ALTERNATIVE



ELEVATION

PRECAST WINGWALL DETAIL

Scale: 1/2" = 1'-0"

OPTIONAL GRADE BEAM SPLICE DETAIL

Scale: 1/2" = 1'-0"

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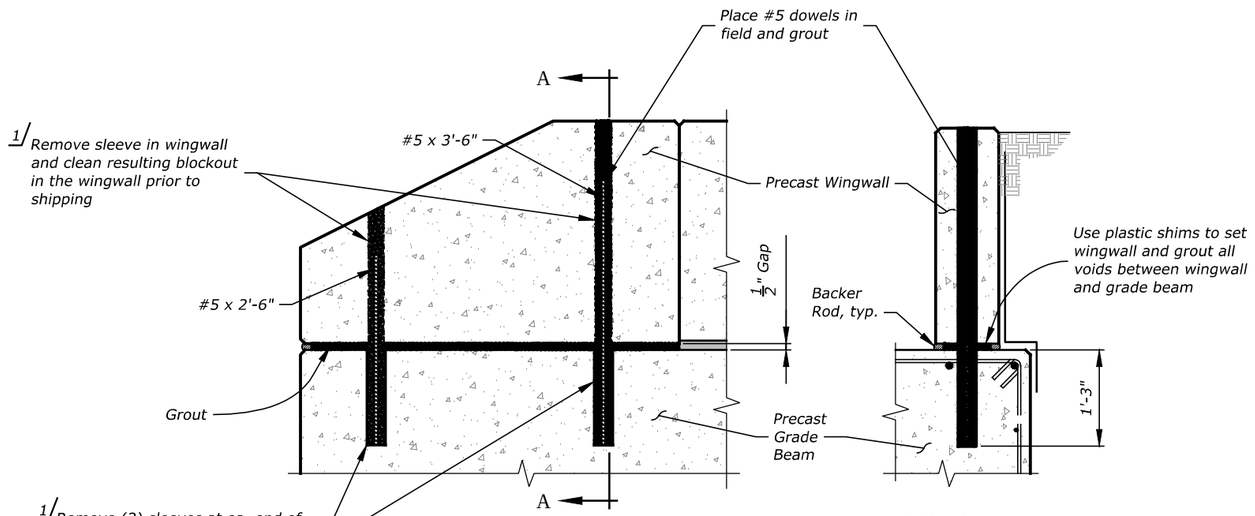
ABUTMENT DETAILS

SHEET 10 OF 18

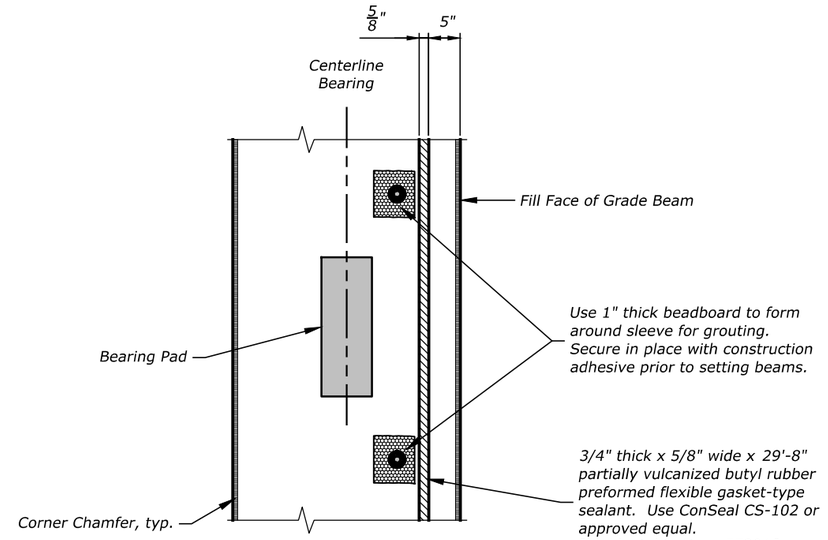


SECTION A - A

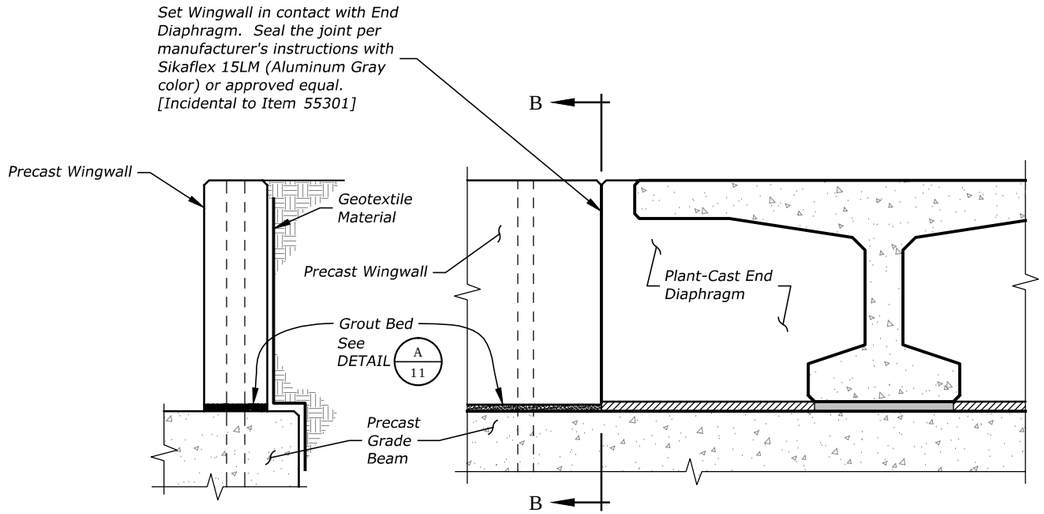
A/11 DETAIL *GRADE BEAM TO WINGWALL CONNECTION*

Scale: 1/2" = 1'-0"

1/ *Fabricator may use post tensioning duct in lieu of PVC to form blockouts where PVC sleeves are to be removed. P/T duct may be left in place.*



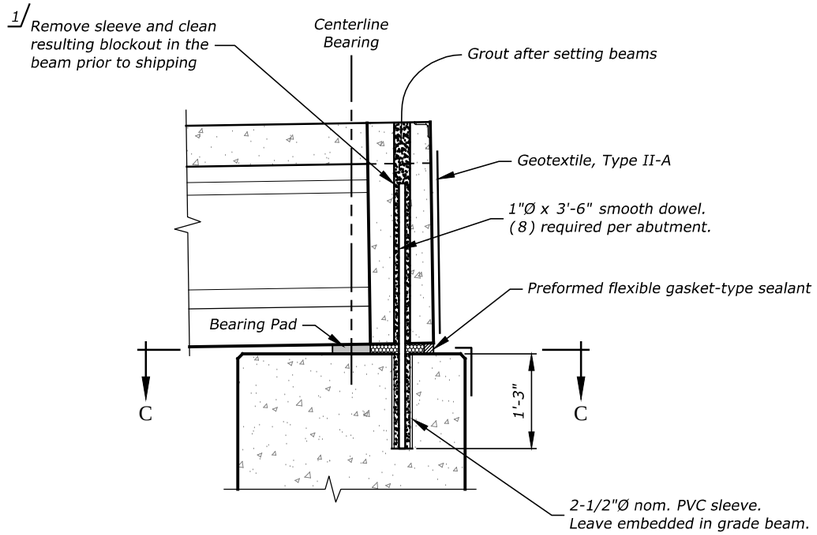
SECTION C - C



SECTION B - B

B/11 DETAIL

Scale: 1/2" = 1'-0"



C/11 DETAIL *GRADE BEAM TO GIRDER CONNECTION*

Scale: 1/2" = 1'-0"

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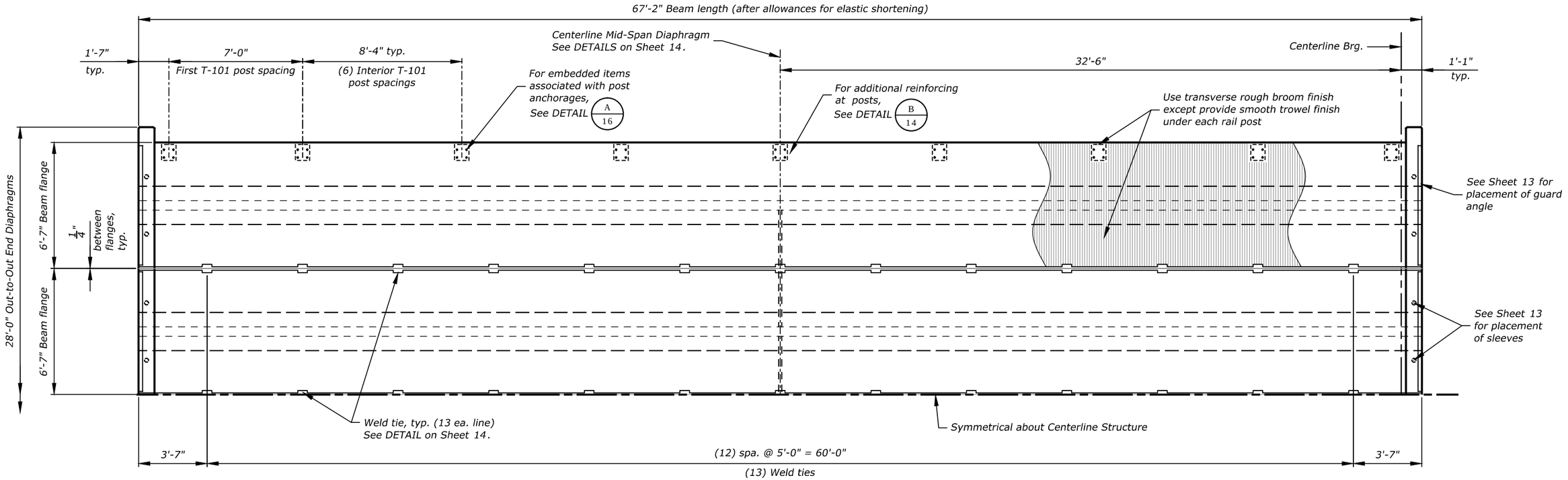
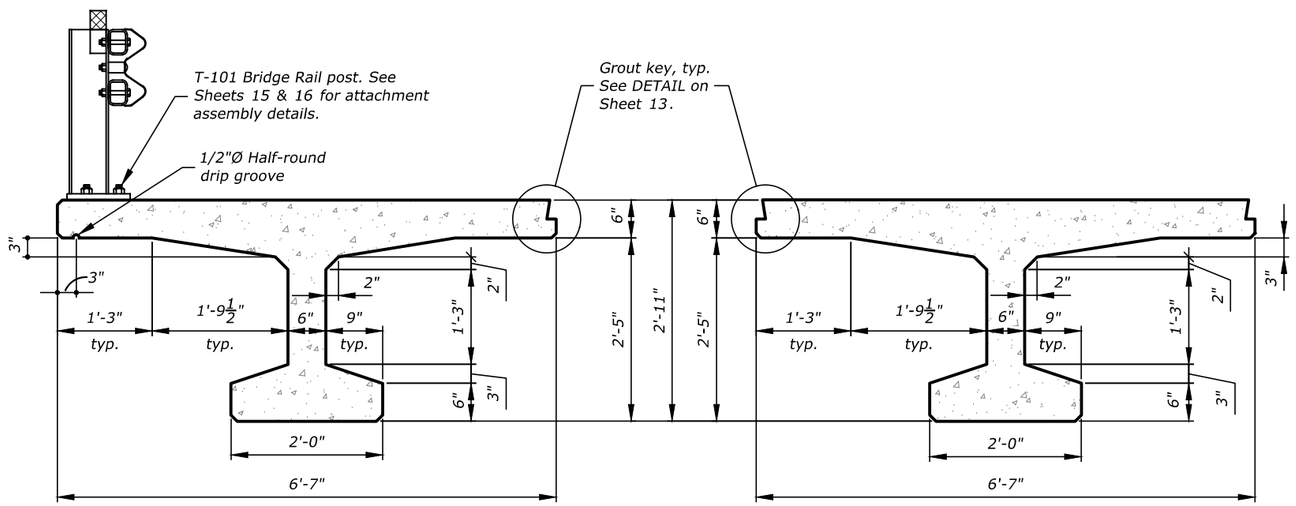
ABUTMENT DETAILS

SHEET 11 OF 18



SUPERSTRUCTURE HALF-PLAN

Scale: 3/16" = 1'-0"



EXTERIOR BEAM

Scale: 1/2" = 1'-0"

INTERIOR BEAM

Scale: 1/2" = 1'-0"

PRESTRESSED BEAM NOTES

Pretensioning is the only acceptable method of prestressing for this project. Provide the final design for all prestressed reinforcement and non-prestressed reinforcement in the section shown on this sheet. Verify that the allowable stress and ultimate strength requirements are met at all stages of construction. Assume moderate corrosive conditions for tensile stress limits at Service Limit State after losses. The design documents must bear the seal of a Professional Engineer licensed in Montana. Submit calculations and shop drawings in accordance with Section 553 of the Standard Specifications at least 30 days prior to casting any members. See GENERAL NOTES on Sheet 2 for additional design and material specifications.

Design in accordance with the AASHTO LRFD Bridge Design Specifications, 7th Edition. Design notes are as follows:

1. *HL-93 Live Load with Impact*
2. *Superimposed dead load is 35 PSF for a future wearing surface. Superimposed dead load may be assumed to be equally distributed to all four beams.*

FINISHING CONCRETE: Finish the bottoms of all beams and the exterior face of all exterior beams in accordance with the specifications except a concrete gray epoxy mortar using AASHTO M235 Class II Epoxy Resin Adhesive may be used instead of the specified sand-cement mortar to reduce curing time. Rub the epoxy mortar with cement prior to hardening. Finish the beam ends so that all holes or acceptable rock pockets are patched and the strands are cut off flush or burned back.

PAINTING OF WELD TIE CONNECTIONS AND GUARD ANGLES: Galvanize or paint guard angles or weld ties not covered by 1 inch or more of concrete. If painting, use one primer coat and two field coats of aluminum paint conforming to AASHTO M69, Type II.

ALTERNATE SUPERSTRUCTURE SECTION: An alternate section of precast, prestressed concrete only may be proposed. The alternate section must provide the minimum clear opening between curb shown on Sheet 5 but may deviate up to 3" maximum in overall depth. Maintain the finished grade elevations and make any elevation adjustments to the grade beam elevations. The Contractor is responsible for revisions required to the details shown in these drawings. Submit all revisions with the shop drawings and design calculations.

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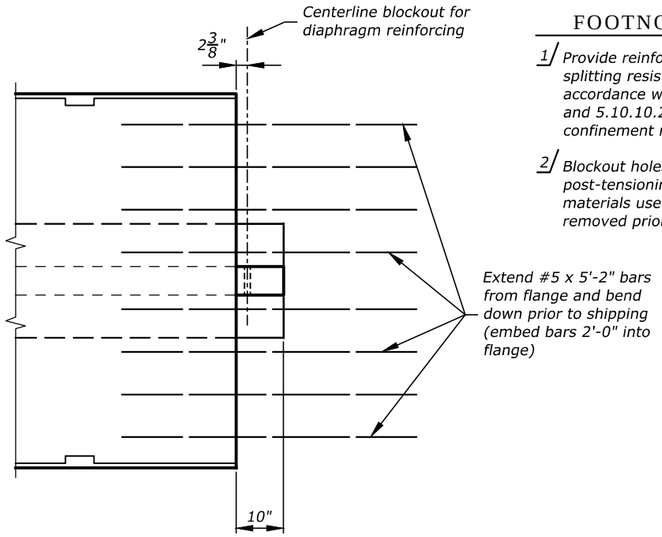
SUPERSTRUCTURE DETAILS

SHEET 12 OF 18

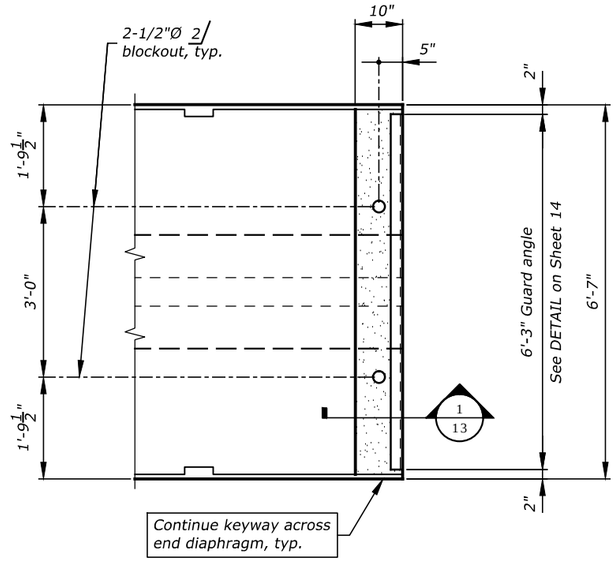


PLAN

FOOTNOTES

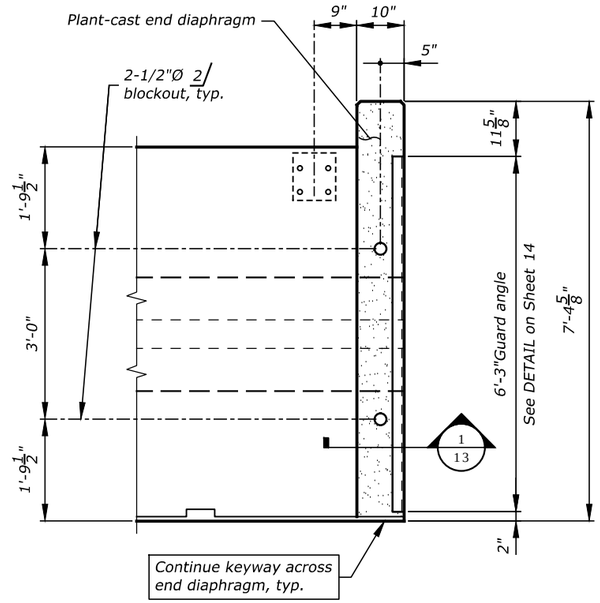
1/ Provide reinforcing in the anchorage zone for splitting resistance and confinement in accordance with AASHTO LRFD 5.10.10.1 and 5.10.10.2, respectively. Use min. confinement reinforcement of #3 bars @ 6".

2/ Blockout holes may be formed with post-tensioning duct left in place. Other materials used to form holes must be removed prior to shipping.



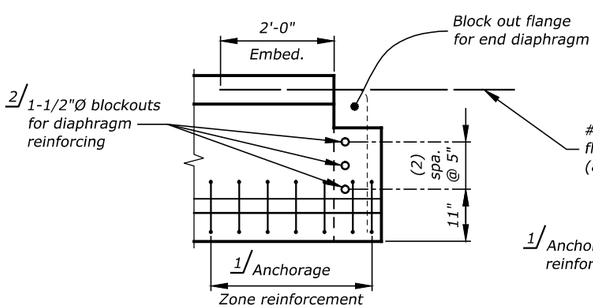
INTERIOR BEAM PLAN

Scale: 3/8" = 1'-0"

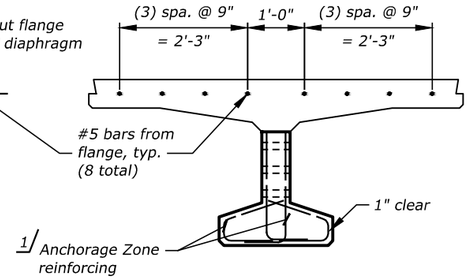


EXTERIOR BEAM PLAN

Scale: 3/8" = 1'-0"



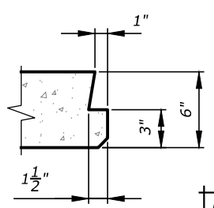
ELEVATION



SECTION

TYPICAL BEAM END DETAIL

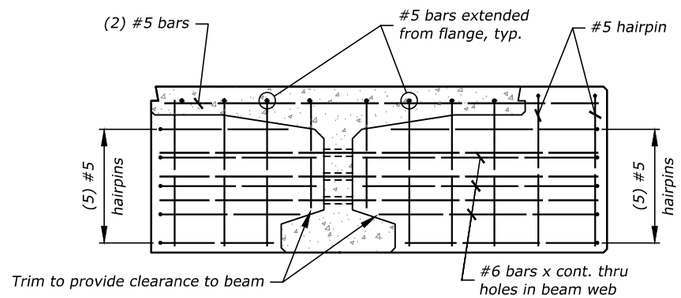
Scale: 3/8" = 1'-0"



GROUT KEY

Not to Scale

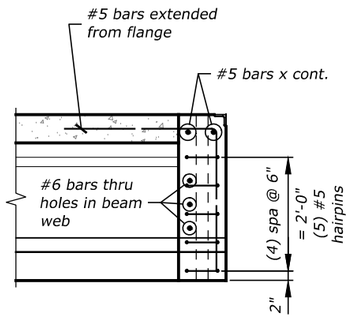
NOTE: BEAM FABRICATOR MAY SUBMIT ALTERNATE GROUT KEY DETAIL FOR APPROVAL



END DIAPHRAGM REINFORCING

EXTERIOR BEAM SHOWN
INTERIOR BEAM SIMILAR

Scale: 3/8" = 1'-0"



1/13 SECTION

Not to Scale

#5 HAIRPIN

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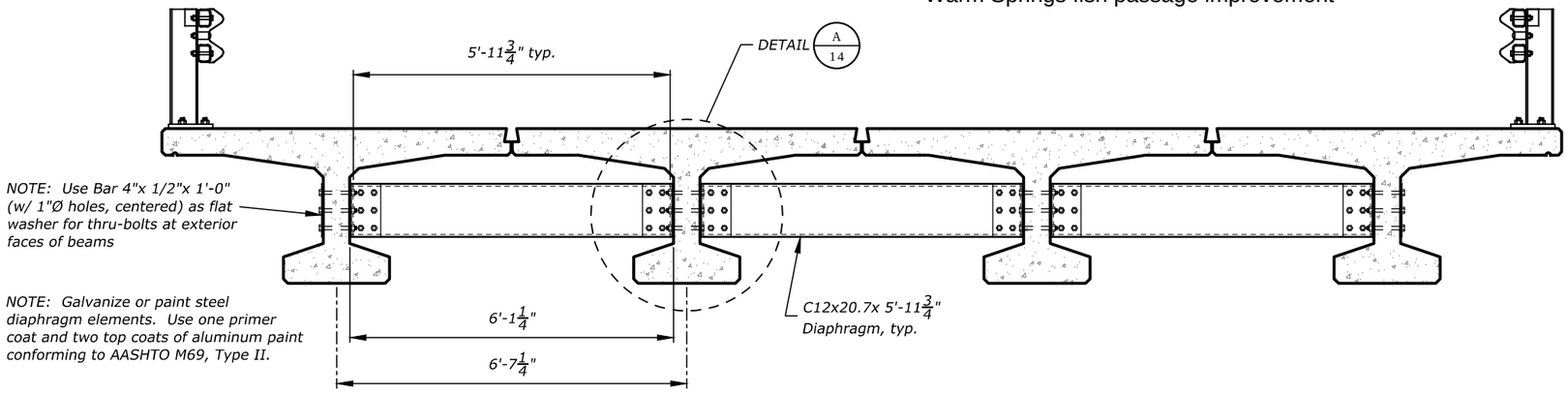
3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

USFS BEAVERHEAD-DEERLODGE NF
WARM SPRINGS CULVERTS
NFSR 170 MP 0.9

SUPERSTRUCTURE DETAILS

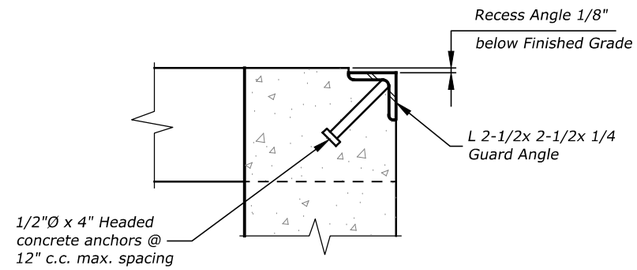
SHEET 13 OF 18



MID-SPAN DIAPHRAGM DETAIL

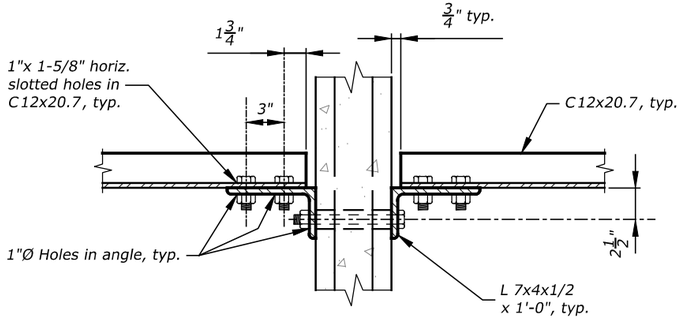
Not to Scale

Beam Fabricator may submit alternate diaphragm details for approval.

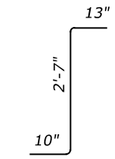


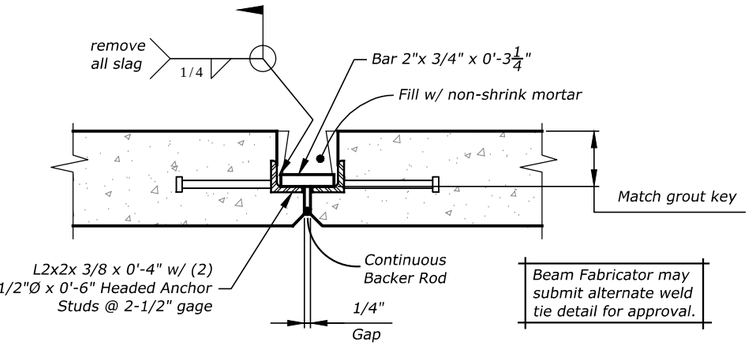
1/14 SECTION

Not to Scale



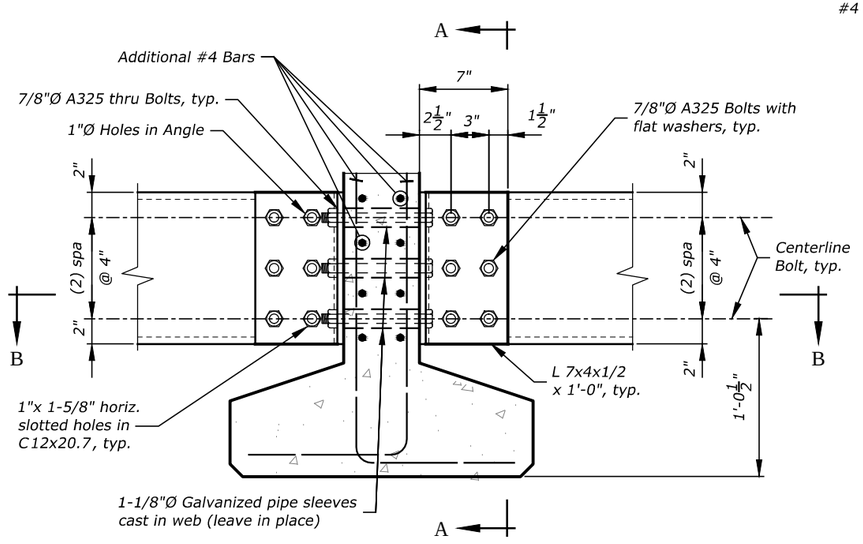
SECTION B - B





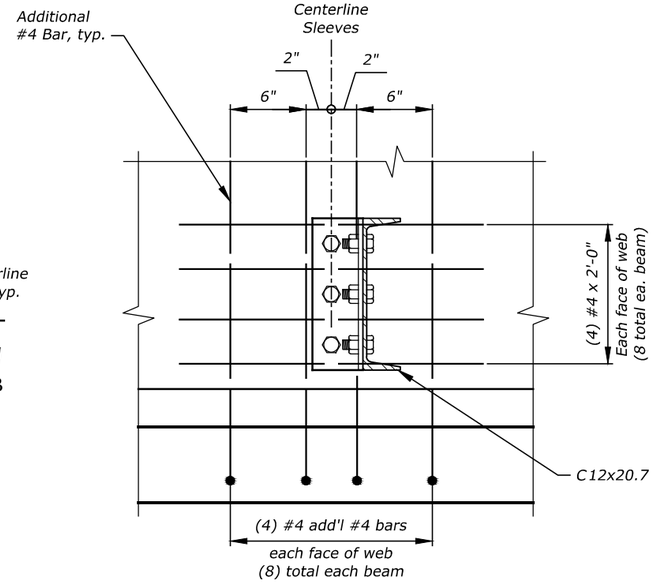
WELD TIE DETAIL

Not to Scale

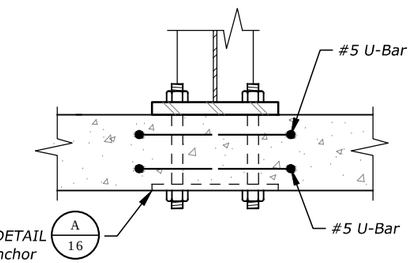


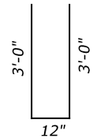
A/14 DETAIL

Scale: 1" = 1'-0"



SECTION A - A





#5 U-BAR

Place (2) U-Bars under each post

B/14 DETAIL ADDITIONAL REINFORCING AT BRIDGE RAIL POSTS

Not to Scale

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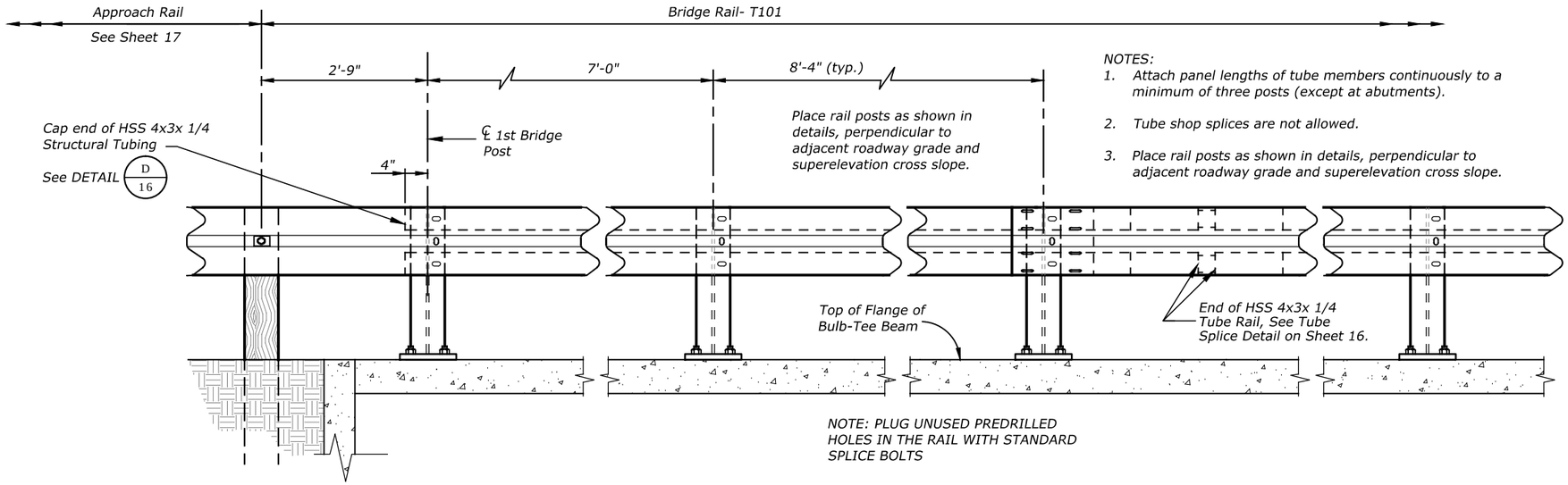
SUPERSTRUCTURE DETAILS

SHEET 14 OF 18



INSIDE ELEVATION OF RAIL

Scale: 1/2" = 1'-0"

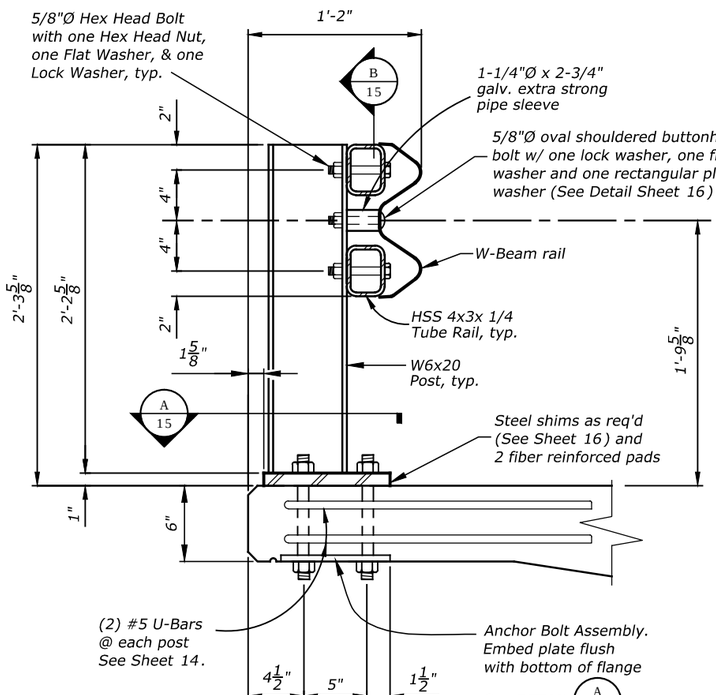
BRIDGE RAIL NOTES

MATERIALS: Furnish posts and plates conforming to ASTM A36 or ASTM A572, Grade 50 except for structural tubing use ASTM A500 Grade B, or ASTM A501. Galvanize steel shapes, plates and bars in accordance with AASHTO M111 (ASTM A123) if not covered by 1 inch or more of concrete. Furnish metal guardrail conforming to AASHTO M 180, Class A, Type I, and lap in direction of traffic. Furnish HSS Tube Rails conforming to ASTM A500. Furnish hardware conforming to AASHTO M 180.

ERECTION: Set the rail parallel to the roadway grade. Adjust rail to proper height using vertical slots in rail post or rail post shims. Furnish shims as necessary to adjust rail to grade. Place shims between fiber reinforced pads. Place shims with slots toward roadway centerline.

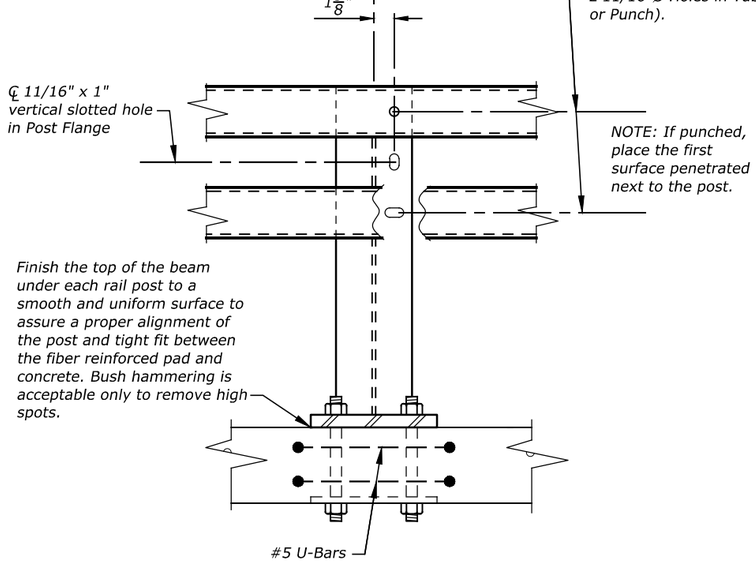
Use fiber reinforced pads meeting the requirements of subsection 725.30 of the Special Project Specifications. Size and position the pads so that not less than 1/2" of the pad protrudes on all sides of the base plate. Punch slotted holes in the pads to match base plate.

REFLECTORS: Place a reflector on each end rail post and at approximately equal spacing (every third rail post but not to exceed 25 feet) between end rail posts. Mount reflectors with reflectorized face toward oncoming traffic. See Sheet 17 for reflector detail. Mount reflector to W-beam post web with an approved adhesive. Include the cost of the reflector in the unit price bid for Bridge Rail.



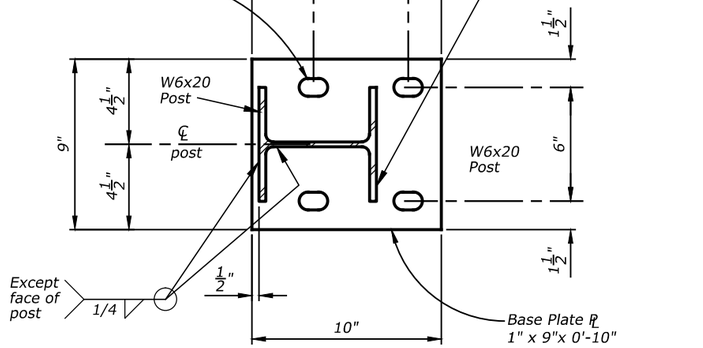
A 15 DETAIL

Scale: 1" = 1'-0"



B 15 SECTION

Scale: 1" = 1'-0"



A 15 SECTION

Scale: 1-1/2" = 1'-0"

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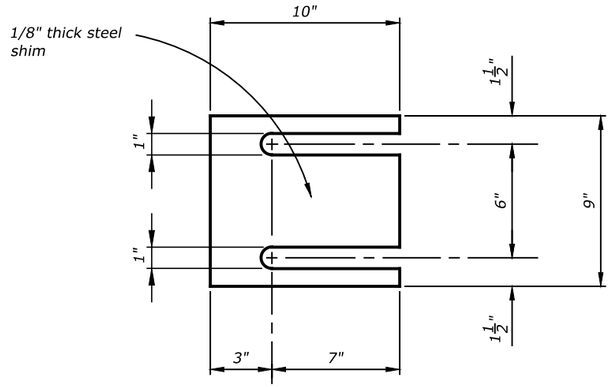
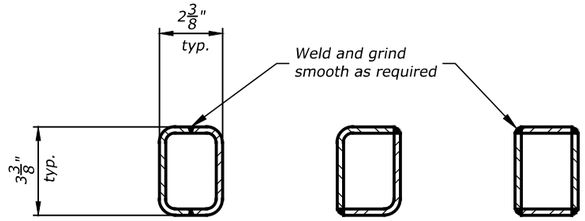
T-101 BRIDGE RAIL DETAILS

SHEET 15 OF 18



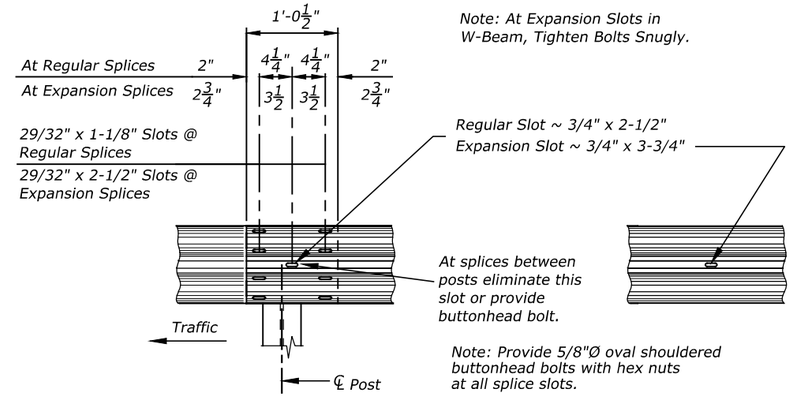
NOTE: See BRIDGE RAIL NOTES on Sheet 37.

B 16 DETAIL *RAIL POST SHIM*
Scale: 1-1/2" = 1'-0"



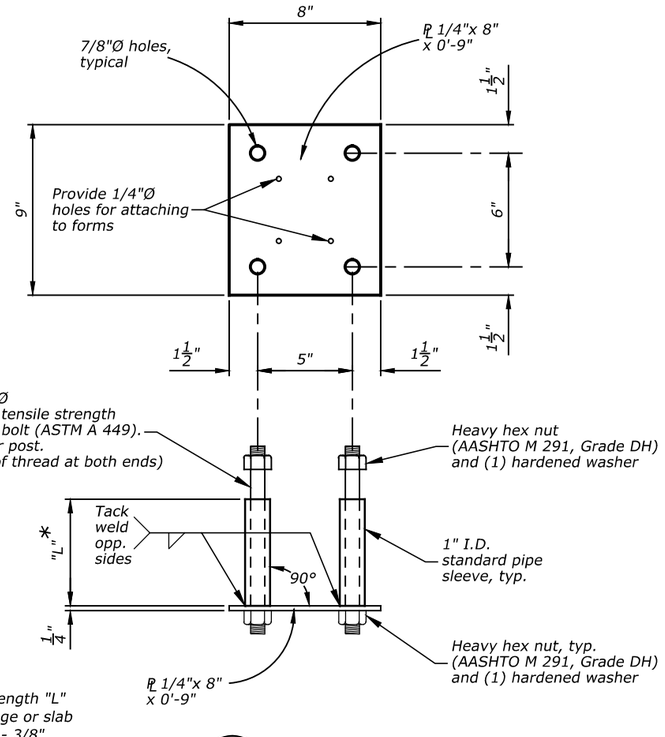
NOTE: Fabricate sleeves using channels, angles, plates, or bent plates meeting the dimensions shown. Other sections of equal or greater strength with a minimum wall thickness of 1/4" are acceptable.

C 16 DETAIL *SLEEVE FABRICATION OPTIONS*
Not to Scale

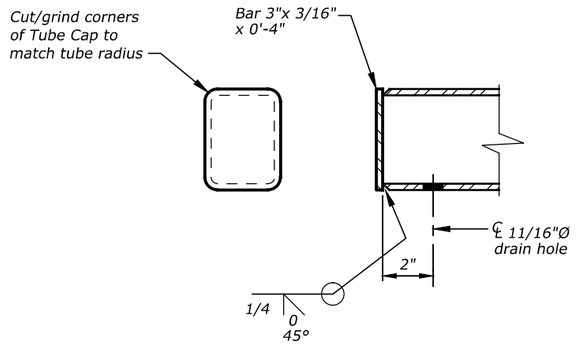


RAIL SPLICE

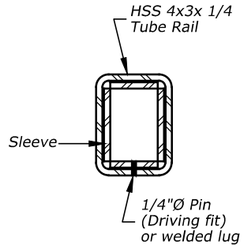
POST CONNECTION



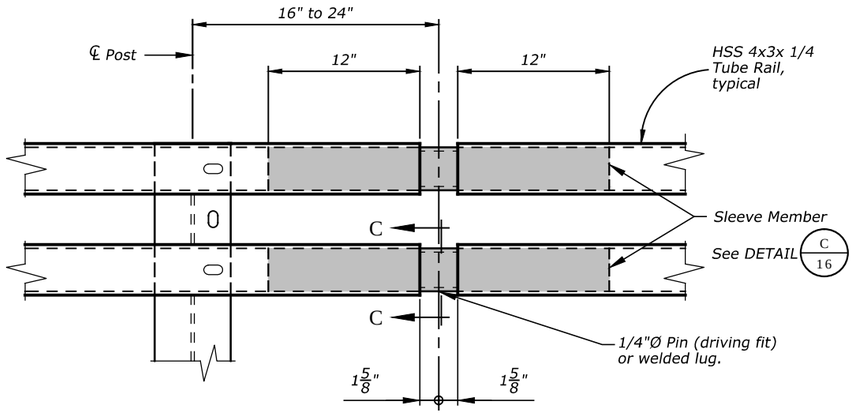
A 16 DETAIL *ANCHOR BOLT ASSEMBLY*
Scale: 1-1/2" = 1'-0"



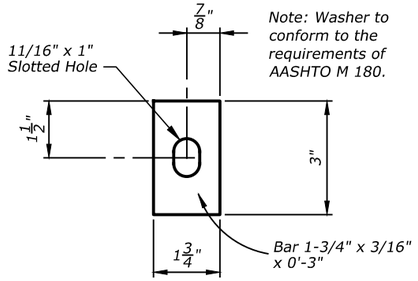
D 16 DETAIL *TUBE CAP*
Not to Scale



SECTION C-C



TUBE SPLICE DETAIL



E 16 DETAIL *RECTANGULAR PLATE WASHER*
Not to Scale

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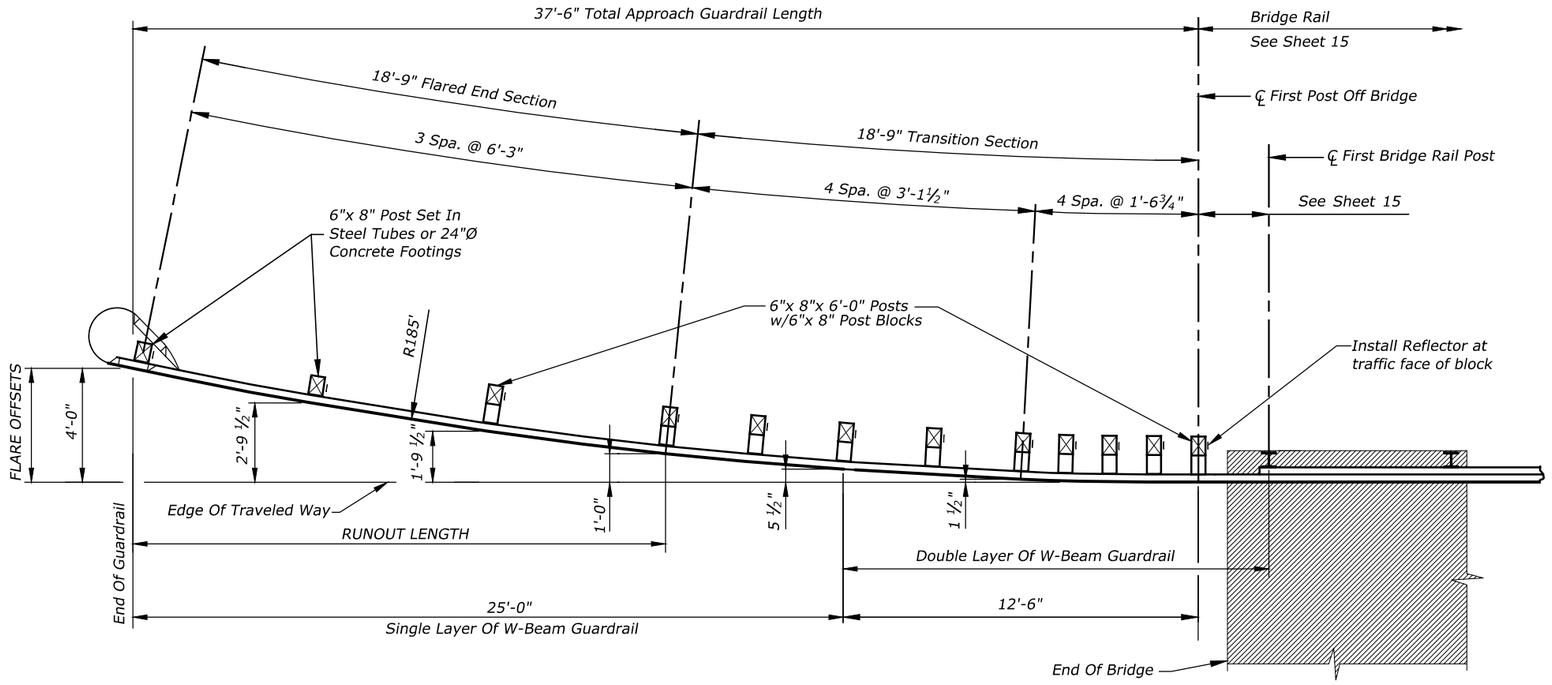
T-101 BRIDGE RAIL DETAILS

SHEET 16 OF 18



APPROACH GUARDRAIL PLAN

Scale: 3/16" = 1'-0"

APPROACH GUARDRAIL NOTES

MATERIALS: Use steel shapes, plates and bars made of structural steel conforming to AASHTO M270, Grade 36, except for structural tubing use ASTM A500 Grade B, or ASTM A501. Galvanize steel shapes, plates and bars in accordance with AASHTO M111 (ASTM A123) if not covered by 1 inch or more of concrete. Use W-Beam guardrail and associated hardware meeting AASHTO M180, Class A, Type I (Galvanized). Use Class B W-Beam terminal. Use bolts, nuts and washers (except buttonhead bolts) conforming to AASHTO M164 (ASTM A325 or A449) and galvanized in accordance with AASHTO M232 (ASTM A153). Galvanize Cable Assembly in accordance with AASHTO M30 (ASTM A741).

Use Western Wood (No. 1 Grade) Timbers conforming to the current WWPA Or WCLIB grading rules for Western Lumber.

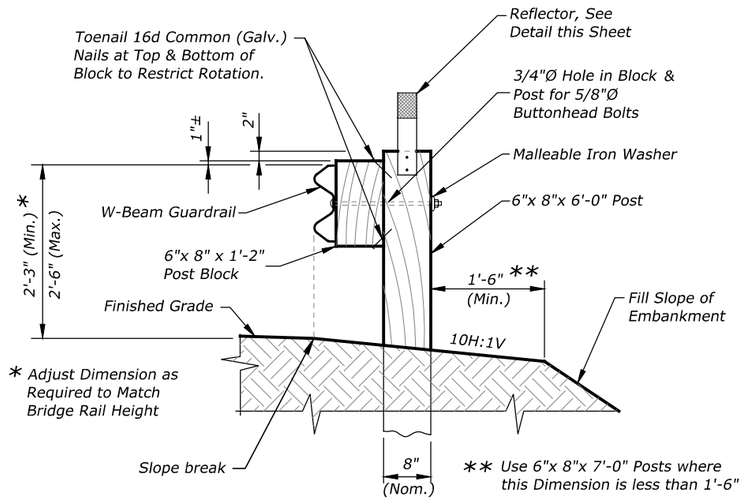
Galvanized steel W6x9 Guardrail posts are an acceptable alternative to timber posts shown.

Use concrete for end anchors with a minimum 28-day compressive strength of 3000 psi. Use Welded Wire Fabric conforming to AASHTO M55 (ASTM A185).

FABRICATION: Complete all lumber fabrication before treatment. All structural steel must be shop fabricated. Weld in accordance with AWS structural welding code D1.1. A certified welder is required. Fabricate all steel prior to galvanizing, except minor shop cutting. Drilling and welding is permitted on galvanized metal, provided these areas are cleaned and repaired with 2 coats of zinc dust-zinc oxide paint meeting federal specification TT-P-641 or military specification MIL-P-21035. Make all rail splices at posts. Shop bend curved rail sections.

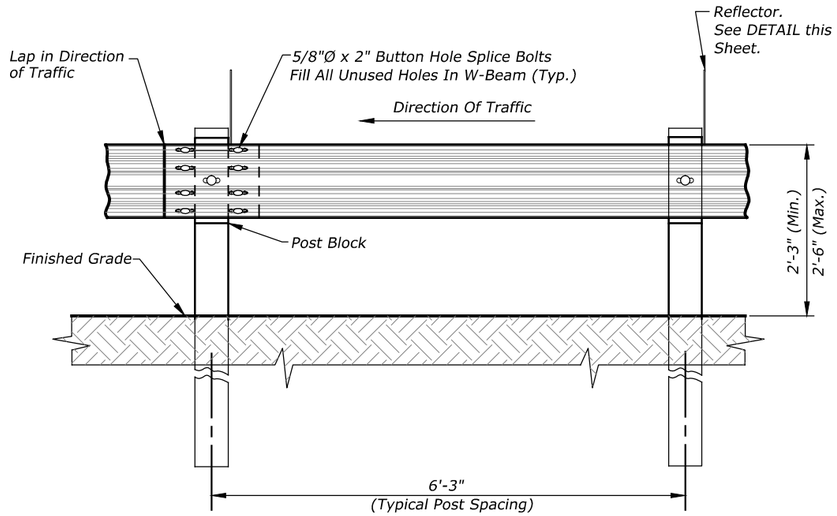
TREATMENT: After fabrication, incise and pressure treat all timber in accordance with AWPA U1, use category UC4A. Provide treatment in compliance with the requirements of the current edition of WWPA's "Best Management Practices for the use of Treated Wood in Aquatic Environments." Provide a certificate of compliance upon delivery of materials.

ERECTION: No field cutting or welding is permitted on galvanized metal unless approved by the Contracting Officer. Set all rail posts vertically and erect the railing parallel to grade. Furnish galvanized steel shim plates as required to align railing. Make approach guardrail post holes a minimum of 18" in diameter, unless augered or driven. Thoroughly clean the bottom of excavated holes and compact backfill in 4-inch lifts. Fill all unused holes in W-Beam with standard buttonhead bolts and nuts. After erection is complete, burr threads of all rods and bolts to prevent backing off of nuts. Repair all damaged galvanized surfaces with 2 coats of zinc paint as specified in the fabrication note above. Do not use more than one rail splice per post when double-layer W-Beam guardrail elements are specified.



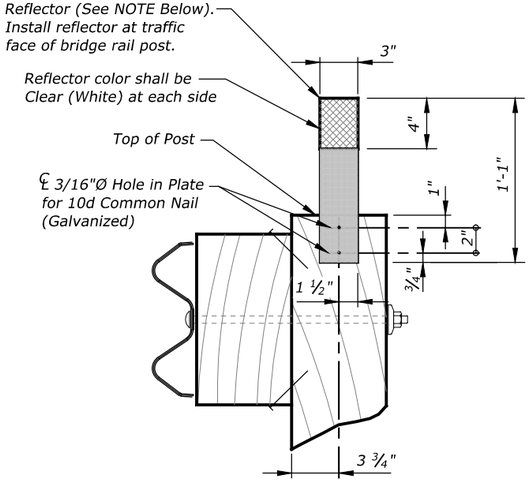
TYPICAL GUARDRAIL CROSS SECTION

Scale: 1/2" = 1'-0"



GUARDRAIL SPLICE DETAIL

Scale: 1/2" = 1'-0"



GUARDRAIL REFLECTORS

Scale: 1" = 1'-0"

NOTE:
Reflectors Manufactured by Roadside Safety Devices in Gilford, Montana, or by Carsonite will meet the requirements detailed above. Reflectors made by other manufacturers may be submitted to the C.O. for review.

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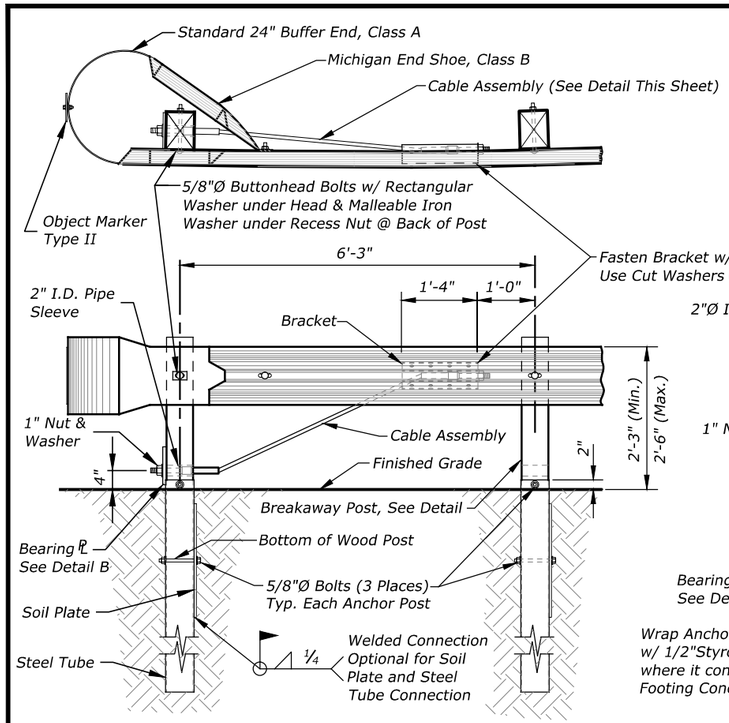
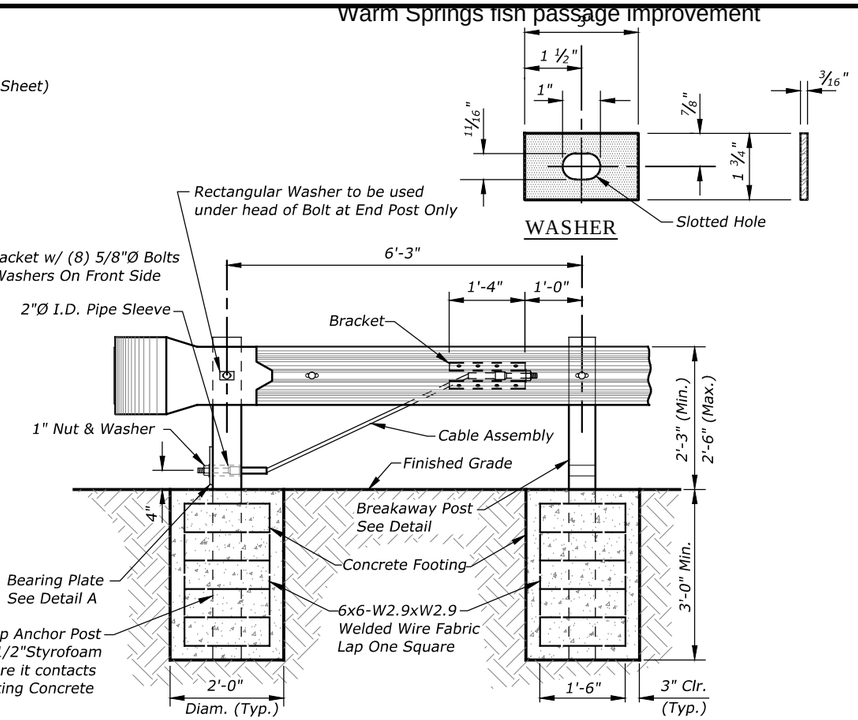
T-101 BRIDGE RAIL DETAILS

SHEET 17 OF 18



END ANCHOR DETAIL *STEEL PLATES*

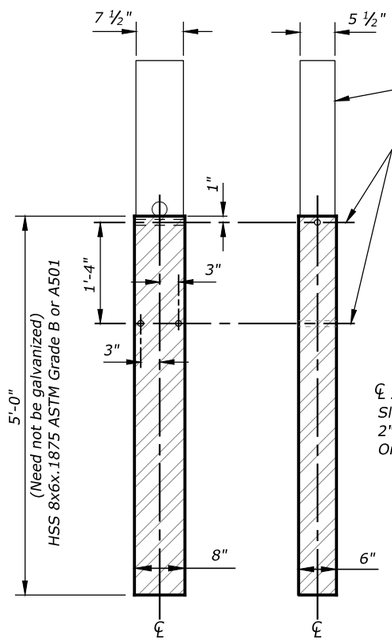
Scale: 3/8" = 1'-0"



ALTERNATE END ANCHOR DETAIL *CONCRETE FOOTINGS*

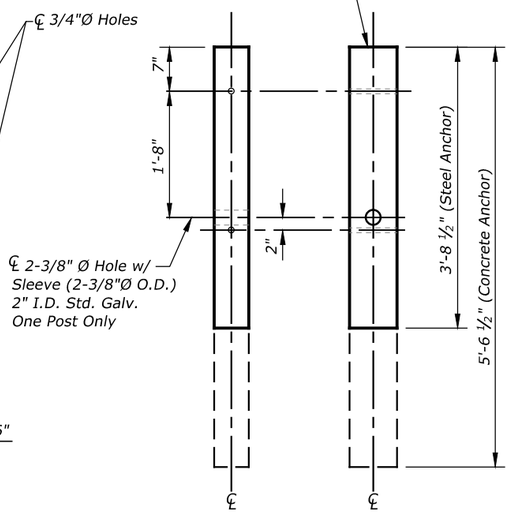
Scale: 3/8" = 1'-0"

WASHER



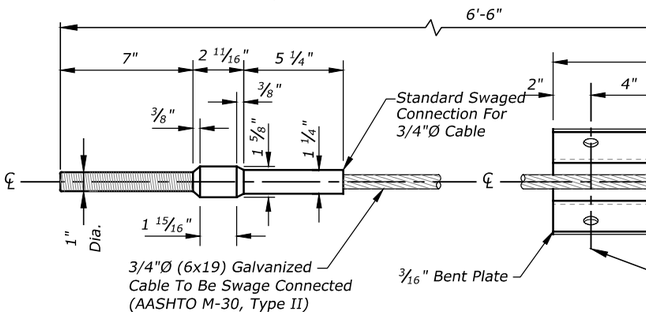
STEEL TUBE

Scale: 1/2" = 1'-0"



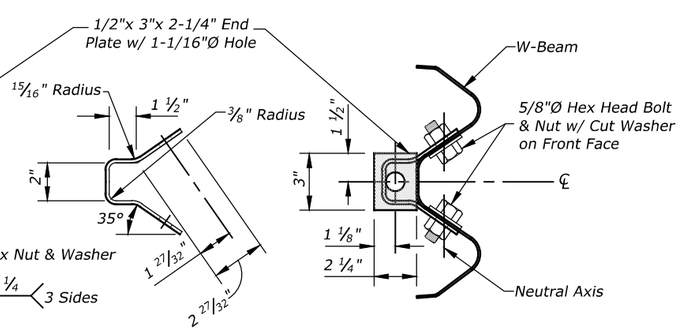
BREAKAWAY POST

Scale: 1/2" = 1'-0"

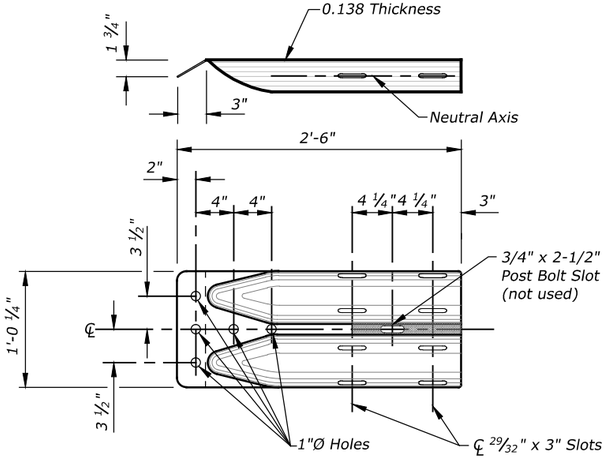


ANCHOR BRACKET & CABLE ASSEMBLY DETAILS

Scale: 1-1/2" = 1'-0"



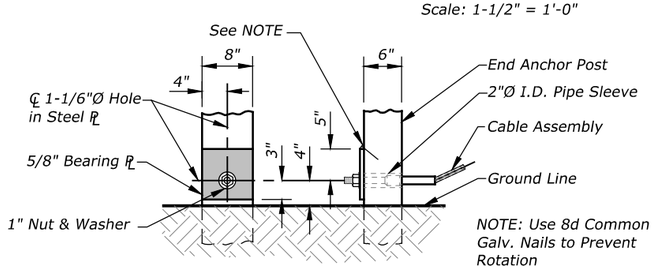
TYPICAL SECTION END VIEW



MICHIGAN END SHOE

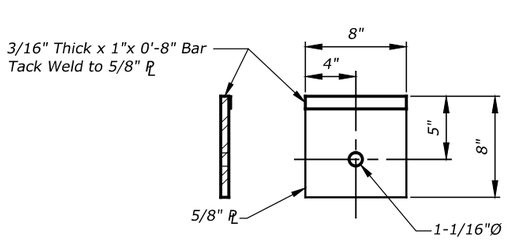
Scale: 3/4" = 1'-0"

NOTE: ⬭ The 4 Interior Slotted Holes Are Optional. These Holes Need Not Be Filled With Bolts



DETAIL "A"

Scale: 1/2" = 1'-0" *Use w/ Concrete Anchor*



DETAIL "B" *BEARING PLATE*

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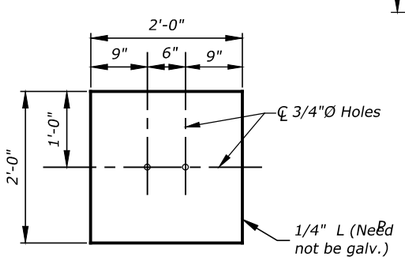


SOIL PLATE

Scale: 1/2" = 1'-0"

BY	DATE	REVISION DESCRIPTION

DESIGN CT PROJ. NO. 6389
DRAWN CT DATE Apr-16
CHECKED MJ SURVEYED DJ&A

DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

USFS BEAVERHEAD-DEERLODGE NF
WARM SPRINGS CULVERTS
NFSR 170 MP 0.9

T-101 BRIDGE RAIL DETAILS

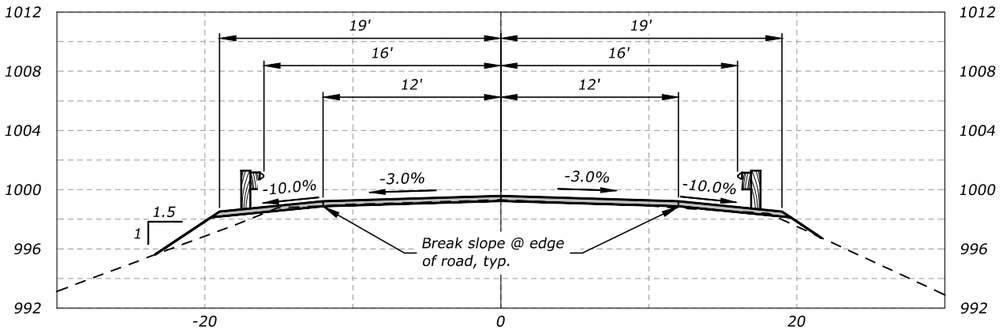
SHEET 18 OF 18

USFS BEAVERHEAD DEERLODGE NF
WARM SPRINGS CULVERTS
ROAD CROSS SECTIONS

PREPARED BY : DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

SHEET XS1 OF XS2

20+80.00



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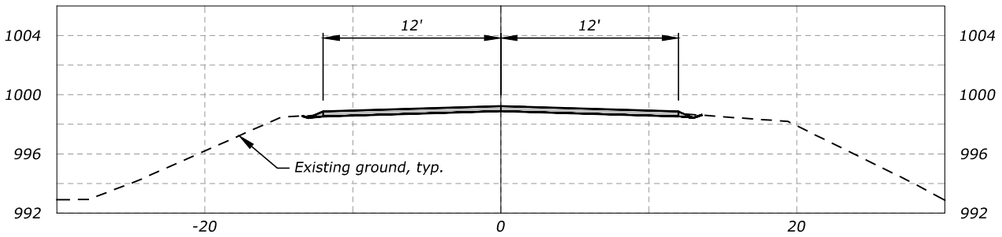

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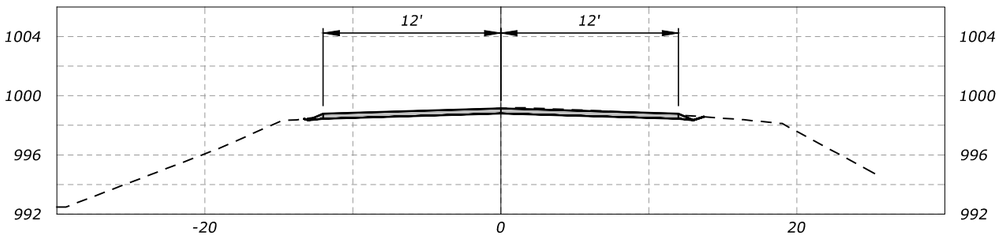

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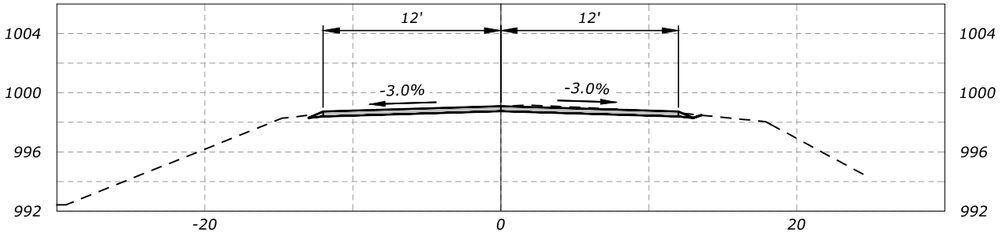

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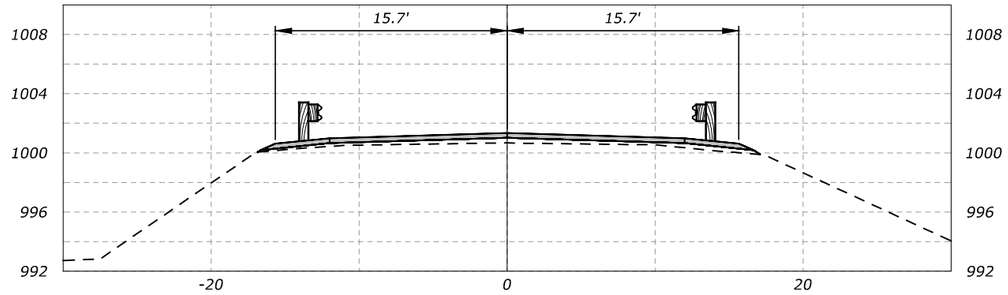

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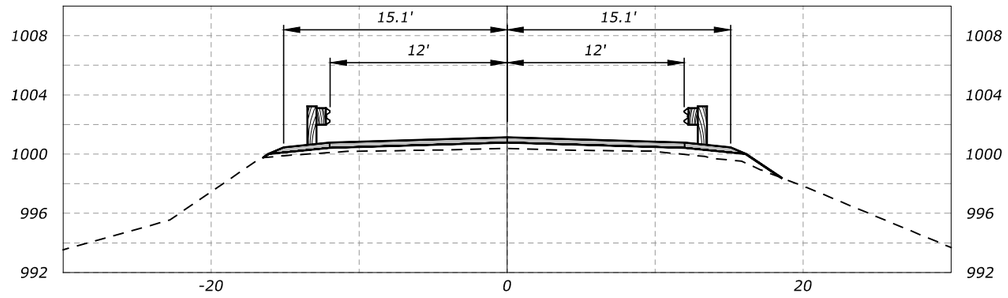

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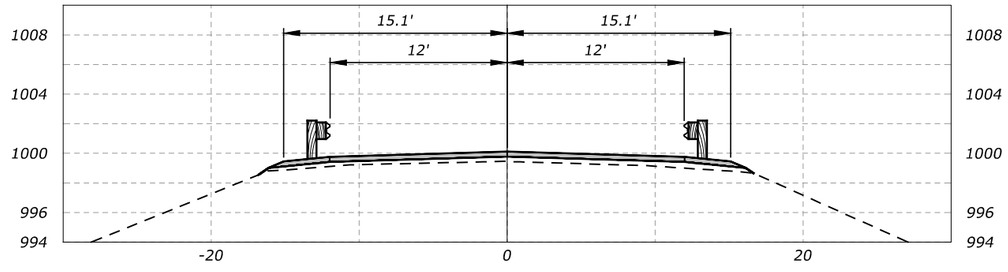

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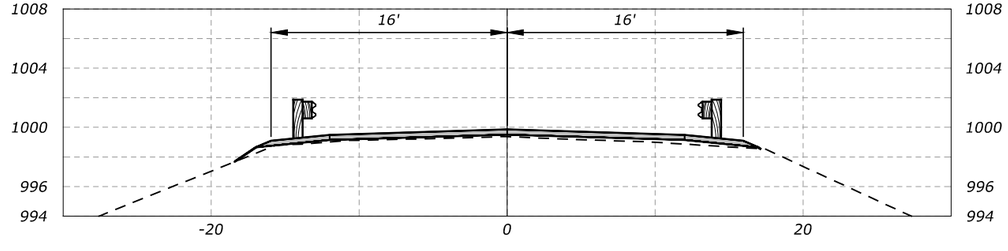
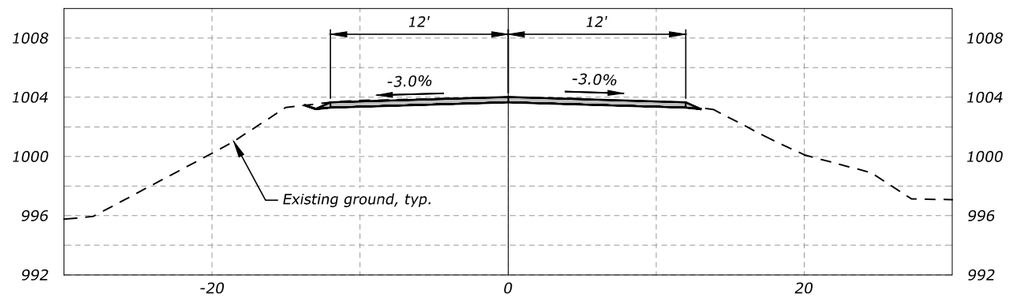


USFS BEAVERHEAD-DEERLODGE NF
WARM SPRINGS CULVERTS
ROAD CROSS SECTIONS

PREPARED BY : DJ&A, P.C.
CONSULTING ENGINEERS & LAND SURVEYORS
3203 Russell Street, Missoula, Montana 59801-8591
Phone 406/721-4320 Fax 406/549-6371

SHEET XS2 OF XS2

23+20.00



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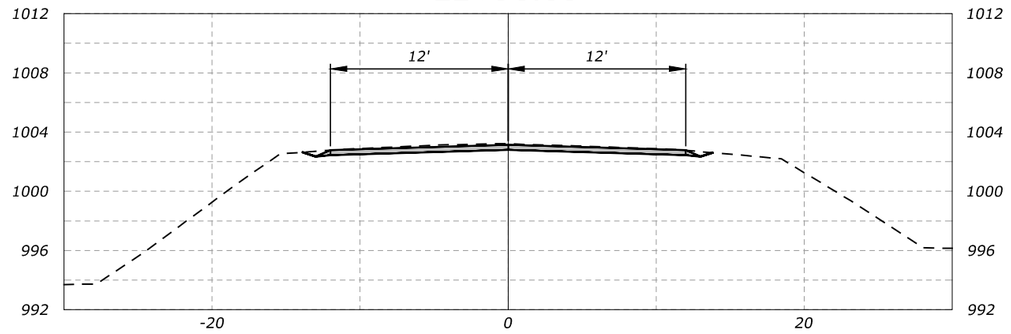

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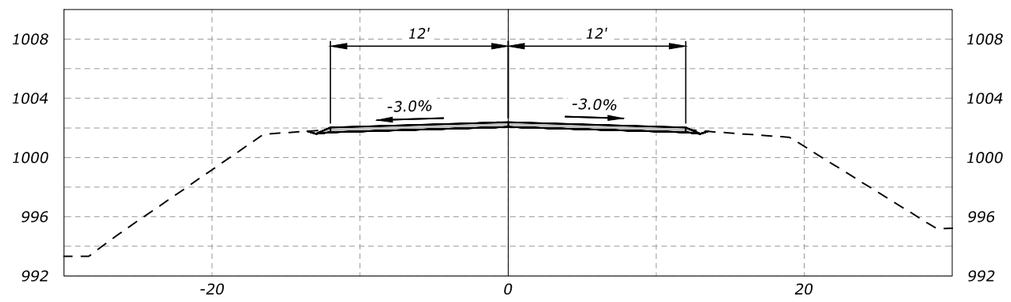

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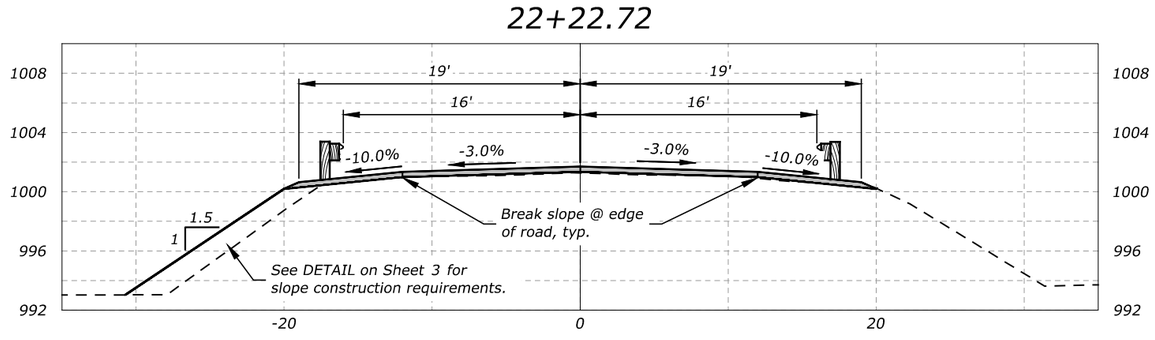

United States Department of the Interior
Fish and Wildlife Service
Montana Ecological Services Office
585 Shepard Way, Suite 1
Helena, Montana 59601-6287
Phone: (406) 449-5225; Fax: (406) 449-5339

Michelle McGree
Future Fisheries Coordinator
Montana Fish, Wildlife and Parks
1420 East Sixth Avenue, PO Box 200701
Helena, MT 59620

November 21, 2023

Dear Ms. McGree

The U.S. Fish and Wildlife Service (Service) would like to provide comments on the Future Fisheries Improvement Program application for the Warm Springs Creek Fish Passage Improvement project, located on the Beaverhead Deerlodge National Forest. Bull trout and its critical habitat were listed under the Endangered Species Act in 1998 and 2010, respectively. Warm Springs Creek supports one of the last remaining bull trout populations within the Upper Clark Fork Bull Trout Recovery Area and is essential for the conservation of the species (USFWS 2015a). The Warm Springs watershed provide a unique opportunity for bull trout recovery because it supports three life history forms (adfluvial, fluvial, and resident) of bull trout making it a high priority watershed for recovery purposes. The Service, Forest Service, Montana Fish, Wildlife and Parks, Trout Unlimited, and Butte-Silver Bow City/County have been partnering to address several fish passage issues throughout the watershed.

Native fish conservation within the Warm Springs system is managed to provide both selective and volitional fish passage. The proposed project will improve fish passage within an important spawning reach for bull trout. This action will not change current species composition and will complement the on-going recovery actions occurring within the system. The proposed action will provide meaningful progress toward addressing the primary threats for bull trout as outlined in the Bull Trout Recovery Unit Implementation Plan (USFWS 2015b)

Therefore, the Service fully supports the actions outlined in the proposal. Improving fish passage within known spawning reaches in Warm Springs Creek is essential for improving resiliency of the Upper Clark Fork River Core Area. Please give this proposal your full consideration. We appreciate your efforts to recover threatened and endangered species. If you have questions or comments related to this letter, please contact Dan Brewer, Montana Bull Trout Recovery Coordinator at dan_brewer@fws.gov or (406) 594-2531.

Sincerely,

Daniel Brewer
Bull Trout Recovery Coordinator

References

U.S. Fish and Wildlife Service. 2015a. Recovery plan for the Coterminous United States Population of Bull Trout (*Salvelinus confluentus*). U.S. Fish and Wildlife Service, Portland, Oregon. xii + 179 pp.

U.S. Fish and Wildlife Service. 2015b. Columbia Headwaters Recovery Unit Implementation Plan for Bull Trout (*Salvelinus confluentus*). U.S. Fish and Wildlife Service, Portland, Oregon. ii + 179 pp.

Forest Service

Beaverhead-Deerlodge National Forest
Pintler Ranger District

88 Business Loop
Philipsburg, MT 59858
406-859-3211

File Code: 2600 **Date:** November 21, 2023
Route To:

Subject: Future Fisheries Letter of Support - Warm Springs AOP

To: Michelle McGree

Dear Future Fisheries Panel:

The Pintler Ranger District of the Beaverhead-Deerlodge National Forest would like to express our support for the proposed Warm Springs Creek AOP project. This project will replace an undersized box culvert on Warm Springs Road #170 with a bridge to provide upstream passage for bull trout and westslope cutthroat trout.

This project complements nearly a decade of work in the Warm Springs Creek watershed to provide upstream fish passage. Nearly all the road-related fish passage barriers on National Forest System lands have been replaced with the support of Trout Unlimited. This is the last remaining project to be implemented. Replacement of this structure would open approximately 10 miles of high-quality bull trout critical habitat in Warm Springs Creek and its tributaries.

Trout Unlimited has been a valued partner to the Beaverhead-Deerlodge National Forest, especially for projects in the Upper Clark Fork River watershed. We appreciate them taking on the workload to contract construction of the bridge, as well as their technical and financial support for the project. The USFS is a large financial contributor to the project and will continue to provide technical support as necessary to ensure that bridge construction is successful.

We appreciate your consideration of this project. Implementation of this project will provide benefits to bull trout and westslope cutthroat trout on the Pintler Ranger District. If I can provide any further information regarding this project, please contact me at 406-859-3211.

X

CAMERON L RASOR
District Ranger