STATE OF MONTANA

DEPARTMENT OF HIGHWAYS

BRIDGE PLANS & QUANTITIES (FINAL)

FEDERAL AID PROJECT NO. F-256(28)P.E. F-RF-256(36)U2 CONST.

MUSSELSHELL RIVER-E. & W.

PETROLEUM & GARFIELD COUNTIES

LIST OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE	SHEET NO.	DWG. NO.	TITLE
1	10815	GENERAL LAYOUT STA. 751+67.50	9	10823	BENTS NO.1 & NO.3
2	10816	FOOTING PLAN	10	10824	PIER NO.2
3	10817	BENTS NO.1 & NO.5	11	10825	ERECTION PLAN
4	10818	PIERS NO.2 & NO.4	12	SL-1(REV.7-31-72)	STANDARD SLAB,CURB,DIAPHRAGM,& END POST DETAILS
5	10819	PIER NO.3	13	B-A(REV.3-31-72)	STANDARD PRESTRESSED CONCRETE BEAM-TYPE A
6	10820	ERECTION PLAN	14	B-4(REV.3-31-72)	STANDARD PRESTRESSED CONCRETE BEAMS-TYPE IV
7	10821	GENERAL LAYOUT STA. 903+24.75	15	SBR-T5(REV.7-31-72)	STANDARD STEEL BRIDGE RAIL-TYPE NO.5
8	10822	FOOTING PLAN	16	D-2(APP.9-1-72)	STANDARD BRIDGE DRAIN DETAILS

ESTIMATED BRIDGE PLAN QUANTITIES (DOES NOT INCLUDE ANY CONTINGENCIES)

	LOCATION	LENGTH IN FEET	REINFORCING STEEL LBS.	STRUCTURAL STEEL LUMP SUM	*CLASS "AD" CONCRETE CU. YDS.	STRUCTURE EXC. TYPE 1 CU. YDS.	STRUCTURE EXC. TYPE 2 CU. YDS.	STEEL BRIDGE RAIL-TYPE NO.5 LIN. FT.	PRESTRESSED CONCRETE BEAMS TYPE "A" EACH 60'	PRESTRESSED CONCRETE BEAMS TYPE IV EACH 90'	PRESTRESSED CONCRETE BEAMS TYPE IV EACH 95'	STEEL BEARING PILES FURNISHING LIN. FT.	STEEL BEARING PILES DRIVING LIN. FT.	PROTECTIVE COATING SQ. YDS.	SHORING AND CRIBS LUMP SUM	EXPANSION JOINT LUMP SUM	BRIDGE DRAINS EACH
STRUCTURE AT STA. 751+67.50	BENT NO. 1		~~2,136~~ 2132		~~26.1~~ 26.238	~~20~~ 10.34						~~310~~ 294.58	~~300~~ 284.58				
	PIER NO. 2		6,167		~~174.5~~ 174.524		~~210~~ 210.22										
	PIER NO. 3		5,115	.61	~~174.5~~ 174.504		~~215~~ 215.19								1.0	1.0	
	PIER NO. 4		6,167	.62	~~174.5~~ 174.524		~~205~~ 204.68										
	BENT NO. 5		~~2,136~~ 2132	@ 1,054.00	~~26.1~~ 26.238	~~20~~ 10.61						~~310~~ 285.58	~~300~~ 275.58				
	SUPERSTRUCTURE	374.50	114,567		~~372.1~~ 372.369			739.33		10	10			~~1,586~~ 1,586			4
	SUB-TOTAL	374.50	~~136,288~~ 136,280	.61 .62	~~947.8~~ 948.397	40 20.95	~~630~~ 630.09	739.33		10	10	~~620~~ 580.16	~~600~~ 560.16	~~1,586~~ 1,586	1.0 @ 30,000.	1.0 @ 3200.	4
STRUCTURE AT STA. 903+24.75	BENT NO. 1		~~2,371~~ 2,369		~~25.2~~ 25.117	~~20~~ 13.14						~~156~~ 150.17	~~150~~ 144.17				
	PIER NO. 2		5,474	.39	~~45.0~~ 44.981	~~115~~ 113.39											
	BENT NO. 3		~~2,371~~ 2,369	.38	~~25.2~~ 25.250	~~20~~ 12.10						~~156~~ 154.16	~~150~~ 148.16				
	SUPERSTRUCTURE	121.50	39,909	@ 646.00	~~117.9~~ 117.870			235.67	10					~~522~~ 522			
	SUB-TOTAL	121.50	~~50,125~~ 50,121	~~39~~ .38	~~213.3~~ 213.221	~~155~~ 138.63		235.67	10			~~312~~ 304.33	~~300~~ 292.33	~~522~~ 522			
PETROLEUM COUNTY TOTAL		187.25	~~68,144~~ 68,140	.31 @ 527.00	~~473.9~~ 474.199	20 10.34	~~315~~ 317.81	369.67		5	5	~~310~~ 294.58	~~300~~ 284.58	~~793~~ 793	0.5 @ 15,000	0.5 @ 1600.	2
GARFIELD COUNTY TOTAL		308.75	~~118,269~~ 118,261	.69 @ 1,173.00	~~687.2~~ 687.419	~~175~~ 149.24	~~315~~ 312.28	605.33	10	5	5	~~622~~ 589.91	~~600~~ 567.91	~~1,315~~ 1315	0.5 @ 15,000	0.5 @ 1600.	2
PROJECT TOTAL		496.00	~~186,413~~ 186,401	1.00 @ 1,700.00	~~1,161.1~~ 1161.618	~~195~~ 159.58	~~630~~ 630.09	975.00	10	10	10	~~932~~ 894.49	~~900~~ 852.49	~~2,108~~ 2,108	1.0 @ 30,000	1.0 @ 3200.	4

* CLASS 'DD' CONCRETE SUBSTITUTED AS PER ART. 40.02 PAGE 226 SEC. 40 OF STD. SPECS. FOR Road + BRIDGE CONS'T. 1970 EDITION.

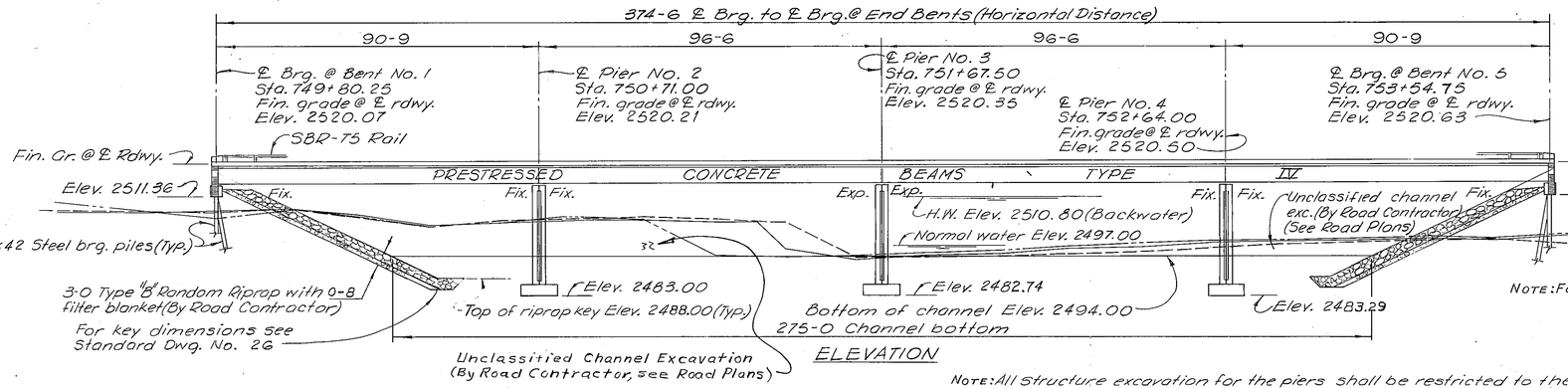
MADE BY: J.R.G. 9-15-72 CHECKED BY: N.H.R. 9-15-72

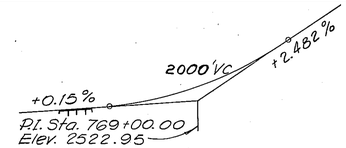
HED.

DRAWING NO. 10815Q

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	1	16

NOTE: For location of utilities see appropriate road plans sheets.

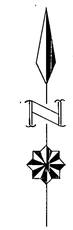


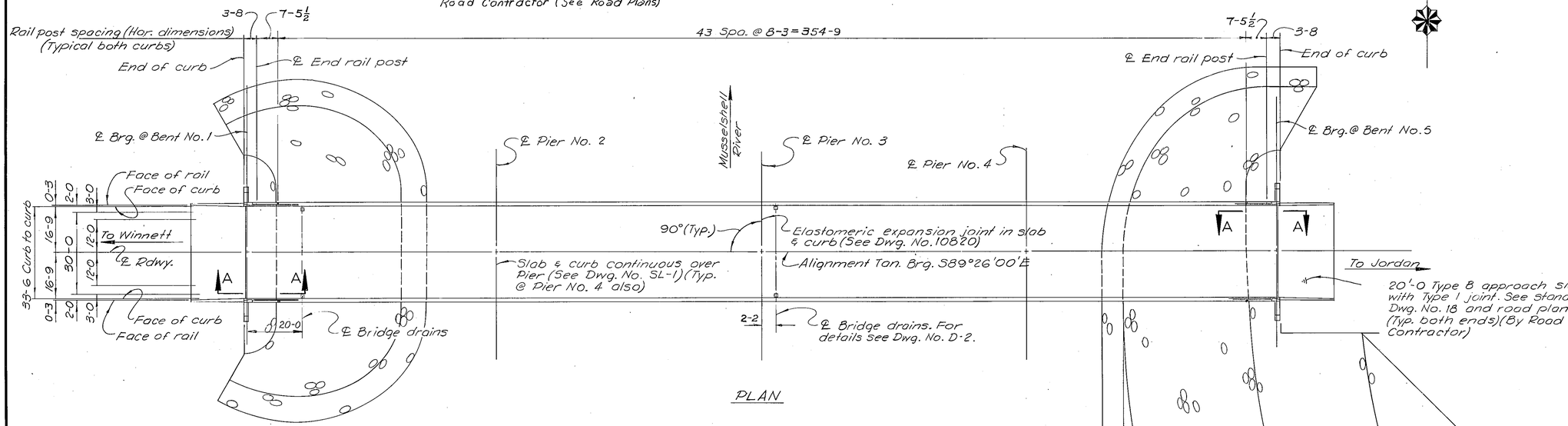


Note: For sequence of work see Special Provisions.

Note: Removal of existing structure and maintenance of traffic by Road Contractor (See Road Plans)

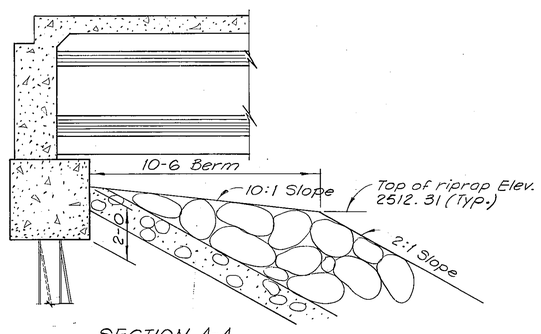
Note: All Structure excavation for the piers shall be restricted to the area inside the coffer dams. All boulders and large rocks removed when excavating shall be placed back around the piers from which they were removed in such a manner as to provide the best protection against scour. The cost of this backfill shall be included in the unit price bid for structure excavation.





STREAM DATA

ICE: Some
DRIFT: Some
SCOUR: Moderate
SUBSOIL: See Log of Borings, Dwg. No. 10816
DESIGN FLOOD FREQUENCY: 50 yrs.
DESIGN FLOW: 22400 c.f.s.
DESIGN VELOCITY: 5.9 f.p.s.
DRAINAGE AREA: 7846 sq. mi.



SECTION A-A
Scale: ⅜" = 1'-0"

NOTE

FINISHED GRADE: FINISHED PLAN GRADE OF BRIDGE IS SAME AS PROFILE GRADE SHOWN ON ROAD PLANS.

LIVE LOAD: STANDARD HS20-44 LOADING.

SPECIFICATIONS: MONTANA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1970 EDITION, AND ANY AMENDMENTS THERETO, AND SPECIAL PROVISIONS SHALL GOVERN UNLESS OTHERWISE NOTED. DESIGN PREPARED IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATIONS, 1969 EDITION, AND ANY AMENDMENTS THERETO.

CAST IN PLACE CONCRETE: UNLESS OTHERWISE APPROVED, ALL CONCRETE SHALL BE CLASS "AD". AN "AIR ENTRAINING AGENT" SHALL BE ADDED TO ALL CONCRETE EXCEPT CLASS "AS". CHAMFER ALL EXPOSED EDGES OF CONCRETE WITH ENCLOSED ANGLE LESS THAN 120°, 3/4" AND FILLET ENTRANT ANGLES 3/4" UNLESS OTHERWISE NOTED. ALL FORMS FOR DECK SLAB SHALL BE REMOVED.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL BE MEASURED AND PAID FOR ON THE LUMP SUM BASIS AS SET FORTH IN THE STANDARD SPECIFICATIONS.
ESTIMATED WEIGHT = 1792 POUNDS.

FOR REQUIREMENTS GOVERNING THE FABRICATION OF "STRUCTURAL STEEL" SEE THE STANDARD SPECIFICATIONS. TO AVOID OVERSIGHT THESE REQUIREMENTS SHALL BE CLEARLY NOTED ON THE SHOP DRAWINGS.

STRUCTURAL STEEL SHALL RECEIVE ONE (1) SHOP COAT OF RED LEAD OR BASIC LEAD SILICO CHROMATE PRIMER AND TWO (2) FIELD COATS CONSISTING OF FIRST FIELD OR PRIMER COAT AND ONE (1) COAT OF ALUMINUM PAINT AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

APPROVAL: SHOP PLANS SHALL BE APPROVED BY THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS BEFORE FABRICATION IS BEGUN.

SETTING OF MASONRY PLATES: CARE SHALL BE TAKEN IN PLACING REINFORCING STEEL SO AS TO CLEAR ANCHOR BOLTS. MASONRY PLATES SHALL BE PLACED ON THREE LAYERS OF CANVAS THOROUGHLY SWABBED WITH RED LEAD AS CALLED FOR IN THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL FINISH CONCRETE UNDER MASONRY PLATES TO THE EXACT ELEVATION SHOWN. BUSH HAMMERING WILL BE PERMITTED AND USED ONLY AS A MEANS OF LEVELING THE CONCRETE SURFACE TO ASSURE FULL AND LEVEL BEARING AND TO REMOVE LAITANCE. LOOSE AND FOREIGN MATERIAL. STEEL SHIMS SHALL BE USED TO BRING THE MASONRY PLATES UP TO GRADE IF NECESSARY. STEEL SHIMS SHALL BE THE SAME SIZE EXCEPT FOR THICKNESS, AS THE MASONRY PLATE. MINIMUM THICKNESS OF ANY SHIMS SHALL BE 1/8". THE COST OF BUSH HAMMERING AND SHIMS, IF ANY, SHALL BE INCLUDED IN THE UNIT PRICES BID FOR CLASS "AD" CONCRETE.

BACKFILL: THE BACKFILL AT END BENTS MAY BE COMPLETE UP TO THE BOTTOMS OF THE BACKWALLS BEFORE SUPERSTRUCTURE IS IN PLACE. THE BACKFILL AGAINST THE BACKWALLS SHALL NOT BE PLACED UNTIL AFTER THE CONCRETE ROADWAY SLAB HAS BEEN PLACED.

FOOTINGS: ELEVATIONS SHOWN FOR BOTTOM OF FOOTINGS ARE APPROXIMATE ONLY. FINAL ELEVATIONS TO BE DETERMINED BY THE ENGINEER.

PROTECTIVE COATING: DECK, CURBS AND CONCRETE END POSTS SHALL BE GIVEN A PROTECTIVE COATING OF BOILED LINSEED OIL. "SEE STANDARD SPECIFICATIONS".

FOUNDATION FILES: FOR BIDDING PURPOSES ONLY, PILE LENGTHS HAVE BEEN ESTIMATED AS SHOWN ON DRAWINGS.

COVERING: THE MINIMUM COVERING, MEASURED FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY REINFORCEMENT BAR, SHALL BE NOT LESS THAN 2 INCHES EXCEPT AS FOLLOWS OR OTHERWISE NOTED:

BOTTOM OF SLAB	1 INCH
STIRRUPS AND TIES	1½ INCHES

IN ALL FOOTINGS AND PIER SHAFTS, THE MINIMUM COVERING SHALL BE 3 INCHES.

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS SHALL BE MADE ON A TRUE HORIZONTAL LINE AT THE SURFACE OF THE BENTS AND PIERS AND LEFT ROUGH IN THE INTERIOR WITH SATISFACTORY SHEAR KEYS.
STRUCTURE EXCAVATION: STRUCTURE EXCAVATION FOR PIERS NO. 2, NO. 3 SHALL BE COMPUTED FROM BELOW THE UNCLASSIFIED CHANNEL EXCAVATION.

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER MUSSELSHELL RIVER
AT STA. 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES

GENERAL LAYOUT

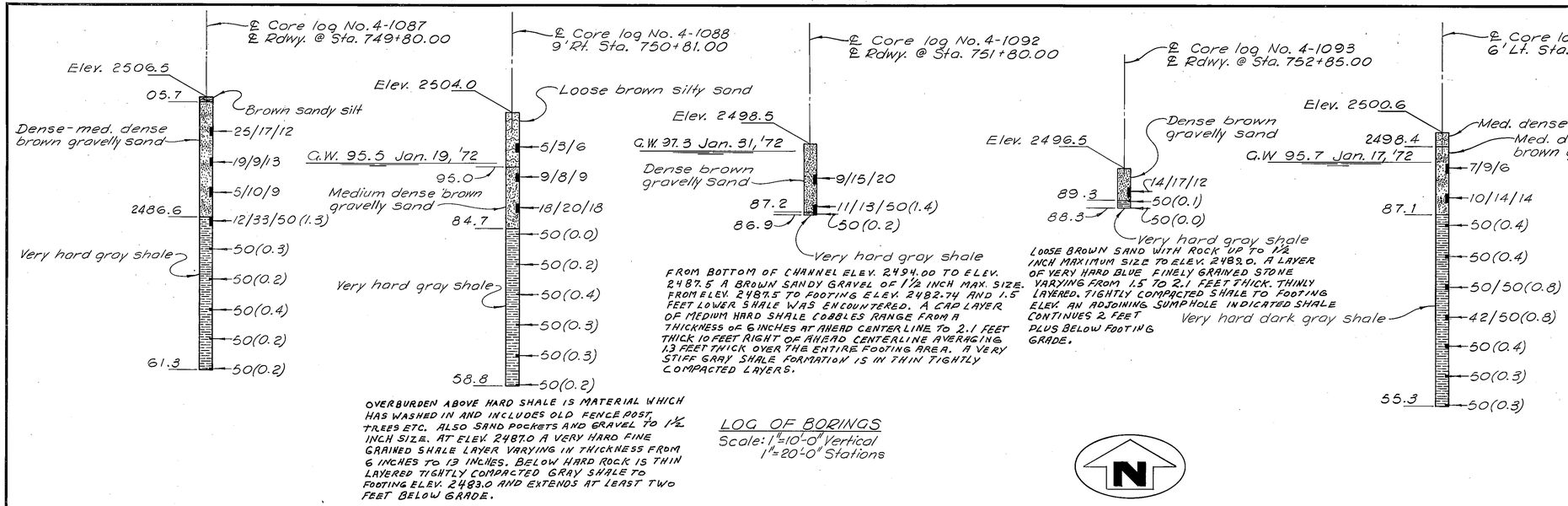
Scale: 1" = 20'-0" Except as noted

DESIGNED		
DRAWN	G. Knudson	5-15-72
CHECKED	N. Rognlie	9-8-72
APPROVED	Hes.	9-15-72
REVISED		
REVISED		

DRAWING NO. 10815

Hes.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	2	16



LOG OF BORINGS
Scale: 1"=10'-0" Vertical
1"=20'-0" Stations

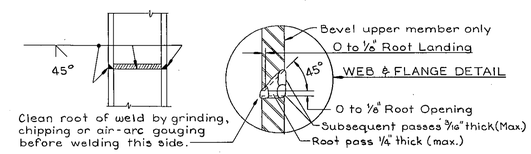
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NOTES

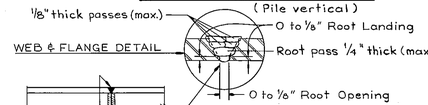
SOILS AND FOUNDATION MATERIALS: BORINGS WERE TAKEN BY THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS AT THE POINTS SHOWN ON THE GENERAL LAYOUT OR FOOTING PLAN.

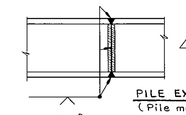
THE SERIES OF NUMBERS SHOWN ON THE LOG OF BORINGS INDICATES THE NUMBER OF BLOWS PER 6" PENETRATION FOR EACH NUMBER OF THE SERIES OF A 2" SAMPLE TUBE WHICH WAS DRIVEN IN ACCORDANCE WITH THE STANDARD PENETRATION TEST MADE WITH A 2" SPLIT TUBE SAMPLER USING A 140# HAMMER HAVING A 30" DROP. THE TOTAL PENETRATION OF THE SAMPLER TUBE IS INDICATED ON THE CORE LOGS AFTER EACH SERIES IF 6" PENETRATION WAS NOT ACHIEVED IN 50 BLOWS.

THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS DOES NOT ASSUME ANY RESPONSIBILITY FOR ANY VARIATION OR MISINTERPRETATION OF THE CLASSES OF MATERIALS, AND ADJUSTMENT IN BID PRICES WILL NOT BE MADE IF THE MATERIALS FOUND DO NOT AGREE WITH THOSE SHOWN IN THE LOG OF BORINGS.



PILE EXTENSION AFTER DRIVING
(Pile vertical)





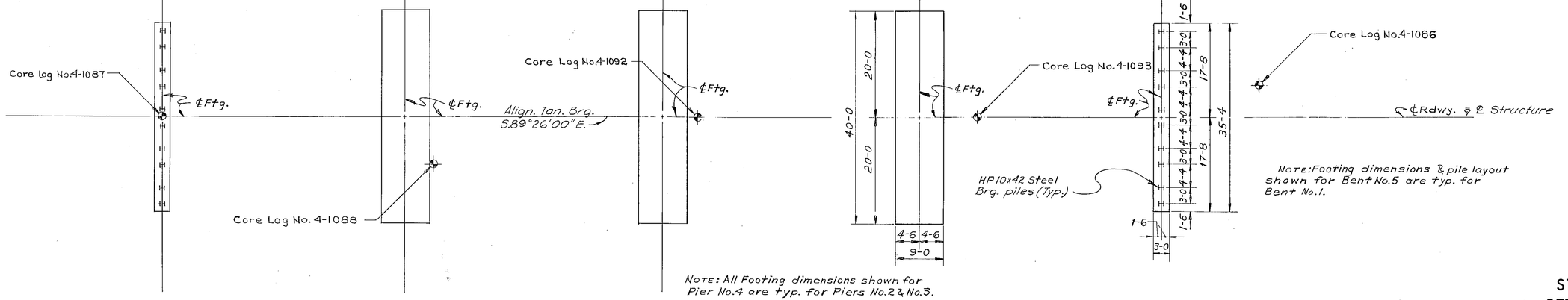
PILE EXTENSION BEFORE DRIVING
(Pile must be rotated so that all welding is done in the flat position)

PERMISSIBLE WELDED SPLICE DETAILS FOR 8", 10" & 12" STEEL BEARING PILES
No Scale

Note: Only E60 or E70 series electrodes shall be used.
Maximum electrode size shall be 5/16".
Surfaces to be welded shall be smooth, uniform and free from fins, tears, loose scale, slag, rust, grease, moisture or other material that would prevent proper welding.

374'-6 ℄Brg. to ℄Brg. - End Bents - Hor. Dist.

90'-9 | 96'-6 | 96'-6 | 90'-9



Note: All Footing dimensions shown for Pier No.4 are typ. for Piers No.2 & No.3.

Note: Footing dimensions & pile layout shown for Bent No.5 are typ. for Bent No.1.

FOOTINGS: Footings of the piers shall be keyed into undisturbed material a minimum of 1'-6. The area excavated for keying footings into undisturbed material shall be completely filled with concrete. The quantity of concrete deposited outside of neat lines because of this requirement depends upon the contractors procedure, therefore it will vary and its cost shall be considered a part of the cost of the concrete inside of the neat lines. The quantity of concrete for piers to be paid for shall be the amount only within the neat lines shown on the details. If changes in the details of the piers are ordered by the Engineer, the quantities will be revised according to the revised details.

FOOTING PLAN
Scale: Stations = 1"=20'-0"
Footings = 1"=10'-0"

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER MUSSELSHELL RIVER
AT STA. 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES

FOOTING PLAN

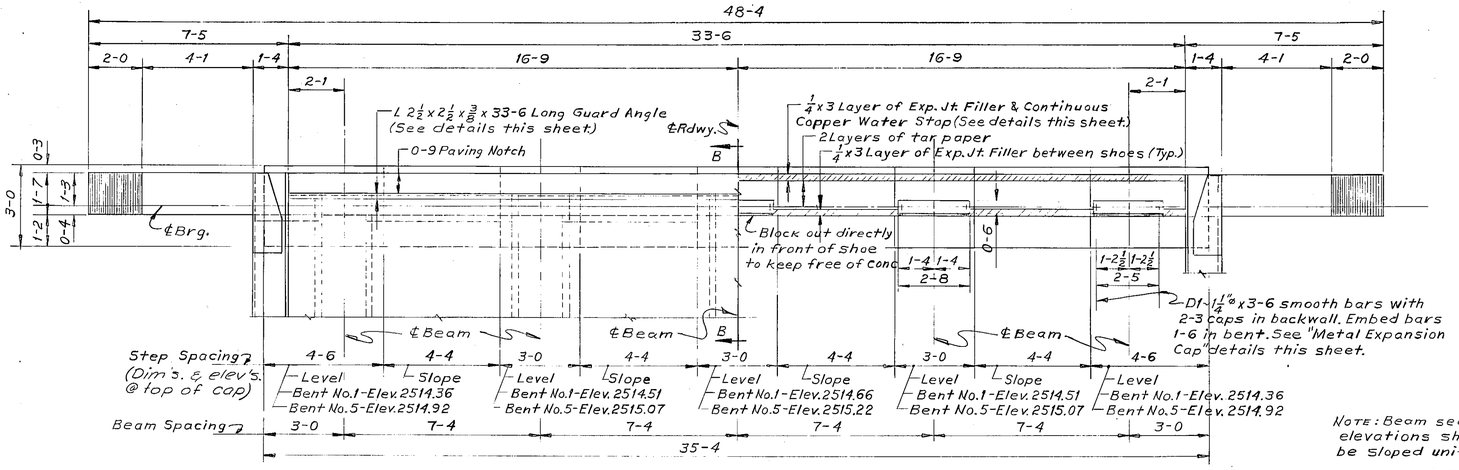
Scale: As noted

DESIGNED		
DRAWN	8-1-72	J.R.G.
TRACED		
CHECKED	9-8-72	N.H.R.
REVISED		
REVISED		

DRAWING NO. 10816.

H.E.S.
K&E 19 1133 3-69

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	3	16



PLAN

NOTE: See Dwg. No. SBR-T5 for rail connections & details. For location of Bridge Rail Posts see "General Layout."

NOTE: Beam seat areas shall be finished level to the elevations shown. The area between beam seats to be sloped uniformly as required.

NOTE: Cost of furnishing & placing expansion joint filler, tar paper, copper water stop, & metal expansion caps to be included in the unit price bid for class "AD" concrete.

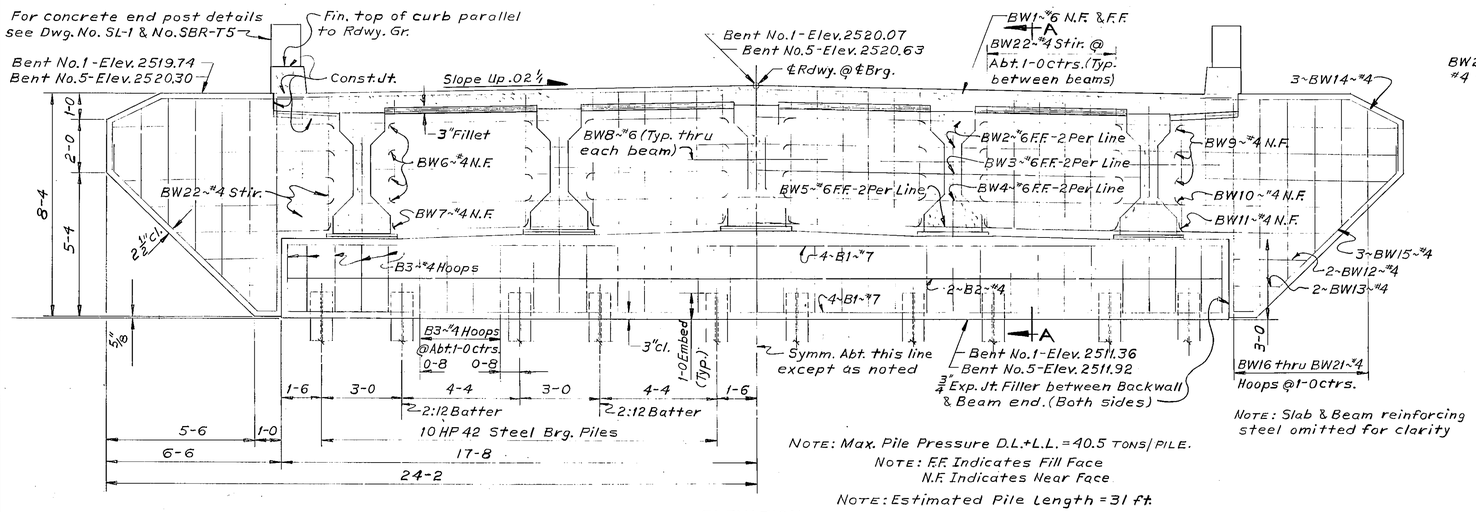
BILL OF REINFORCING STEEL (FOR ONE BENT ONLY)



TYPE 1 TYPE 2 TYPE 3 TYPE 4

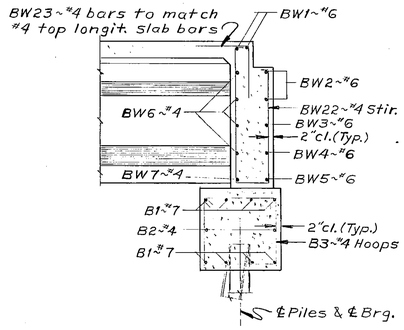
BENT BARS (ALL DIMENSIONS ARE OUT TO OUT)											STRAIGHT BARS			
MARK	SIZE	NO.	TYPE	LENGTH	A	B	C	D	E		MARK	SIZE	NO.	LENGTH
B3	#4	35	1	11'-3"	2'-8"	2'-7"	0-4½				B1	#7	8	35'-0"
											B2	4	2	35-0
BW14	4	6	4	9-0	5-2	2-1	1-9	1'-7"	2'-3"					
15		6	4	10-1	0-9	8-4	1-0	0-9	0-6		BW1	6	2	35-7
16		2	1	19-1	1-3	7-11	0-4½				2	6	4	24-9
17				18-7		7-8					3	6	2	24-1
18				16-7		6-8					4	6	2	23-1
19				14-7		5-8					5	6	2	22-1
20				12-7		4-8					6	4	16	5-4
21		2	1	10-1	1-3	3-5	0-4½				7	4	4	4-10
22		28	2	10-10	4-0	1-3	5-0	0-3½			8	6	5	5-4
BW23	#4	26	3	4-0	2-0	2-0					9	4	6	7-6
											10	4	2	7-0
											11	4	2	5-8
											12	4	4	2-9
											BW13	#4	4	1-9
											*D1	1¼"ø	10	3-6

* 1¼"ø Smooth bar shall conform to A.S.T.M. designation A36

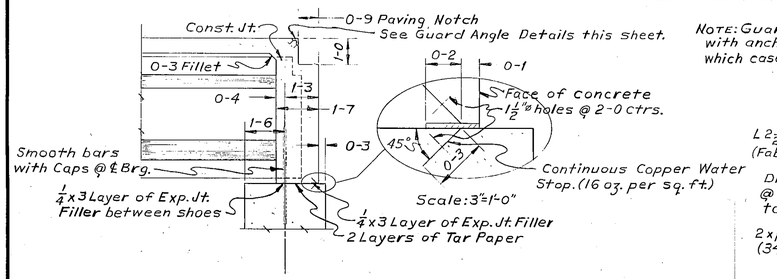


NOTE: Max. Pile Pressure D.L.+L.L. = 40.5 TONS/PILE.
NOTE: F.F. Indicates Fill Face
N.F. Indicates Near Face
NOTE: Estimated Pile Length = 31 ft.

ELEVATION
BENT No.1 - BACK ON LINE
BENT No.5 - AHEAD ON LINE



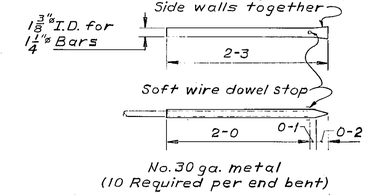
SECTION A-A



Scale: 3"=1'-0"

SECTION B-B
Scale: ⅜"=1'-0"

NOTE: Guard Angle may be furnished in two pieces with anchor bars 0-6 maximum from each end in which case the angles shall be field welded together.



GUARD ANGLE DETAIL
Scale: 1½"=1'-0"

No. 30 ga. metal
(10 Required per end bent)

METAL EXPANSION CAP
Scale: 1"=1'-0"

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS
BRIDGE OVER MUSSELSHELL RIVER
AT STA. 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES
BENTS NO.1 & NO.5

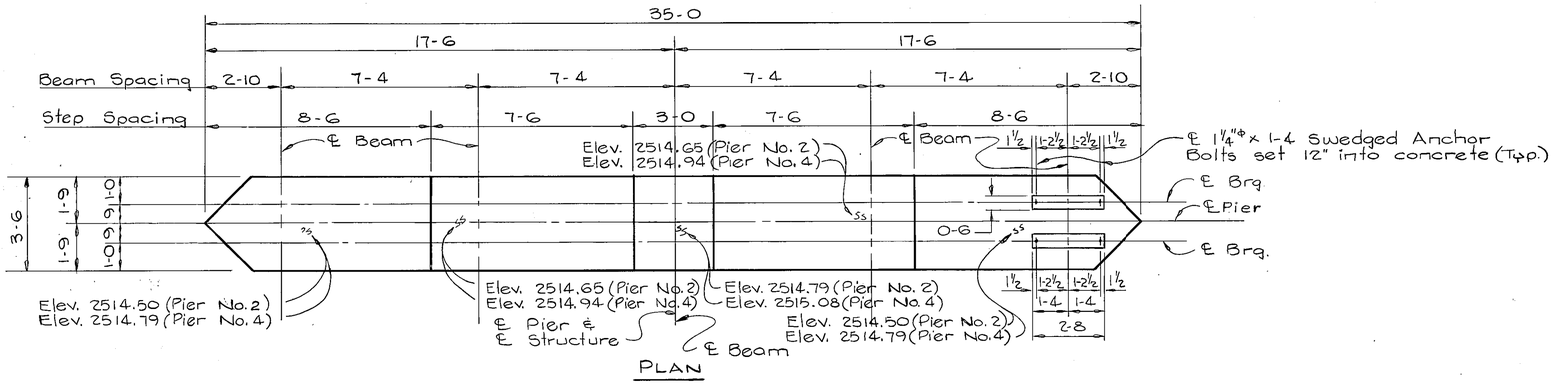
Scale: ⅜"=1'-0" Except As Noted

DESIGNED	7-11-72	S.A.N.
DRAWN	8-2-72	J.R.G.
CHECKED	9-8-72	N.H.R.
REVISED		
REVISED		
REVISED		

DRAWING NO. 10817

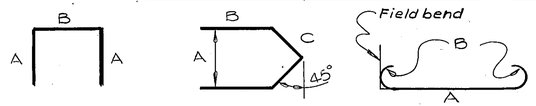
Hrs.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	4	16



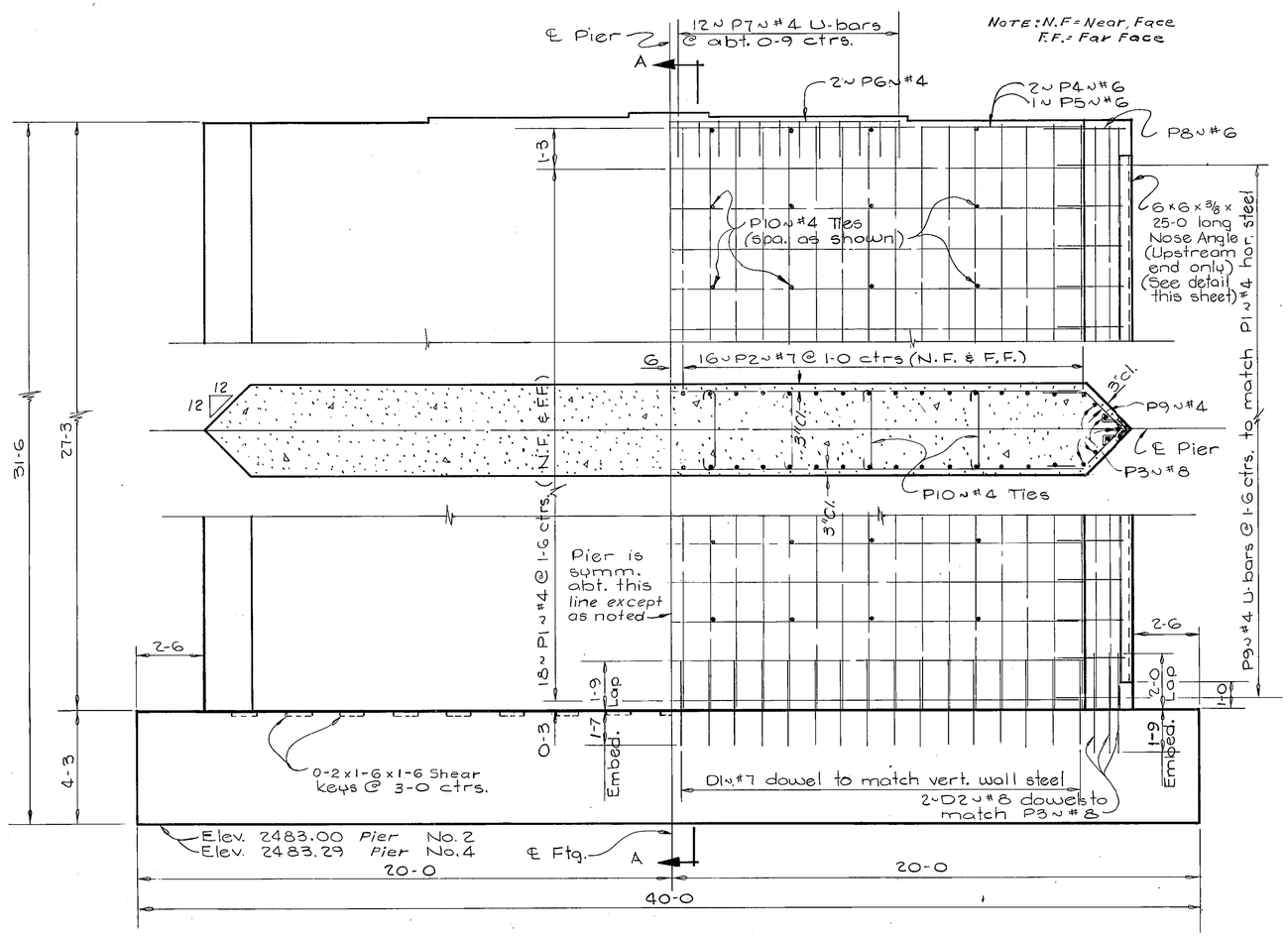
PLAN

BILL OF REINFORCING STEEL (FOR ONE PIER ONLY)



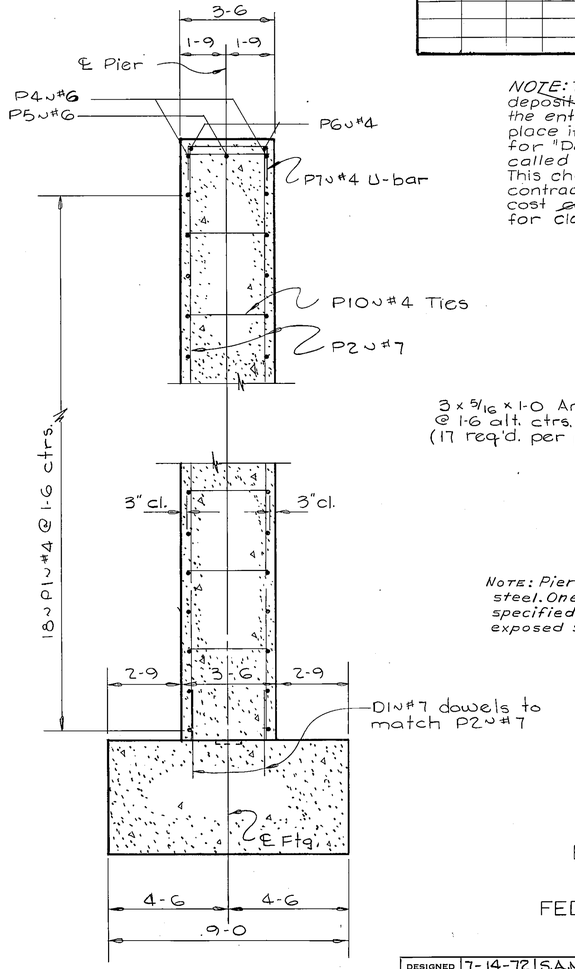
STRAIGHT BARS				BENT BARS (All dim. are out to out)							
Mark	Size	No.	Length	Mark	Size	No.	Type	Length	A	B	C
P1	#4	36	31'-6"	P7	#4	24	1	5'-6"	1'-3"	3'-0"	
P2	7	64	27-0	P8	6	2	2	7-2	3-0	1-6	2'-1"
P3	8	10	27-0	P9	4	36	2	6-2	3-0	1-0	2-1
P4	6	2	31-6	P10	#4	72	3	4-0	3-0	0-6	
P5	6	1	34-6								
P6	4	2	17-6								
D1	7	64	3-4								
D2	#8	10	3-9								

NOTE: The contractor will be permitted to deposit Class "AS" concrete seal course for the entire pier footing in which case he shall place it in accordance with the requirements for "Depositing Concrete Under Water," as called for in the Standard Specifications. This change in the mix for the seal will be for the contractors convenience and he shall include all cost connected therewith in the unit price bid for class "AD" concrete.

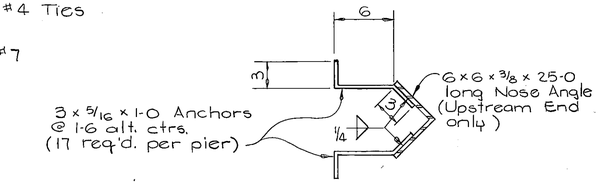


ELEVATION
(Ahead on line)

Note: Max. Footing Pressure Under:
D.L. + L.L. + .3W + L.F. + W.L. = 3.40 T/sq. ft.



SECTION A-A



NOSE ANGLE DETAIL
Scale ν 1½" = 1-0

NOTE: Pier nose angles shall be paid for as structural steel. One shop coat & two field coats of paint as specified for structural steel shall be applied to exposed surfaces of nose angles before erection.

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER MUSSELSHELL RIVER
AT STA. 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES

PIERS NO. 2 & NO. 4

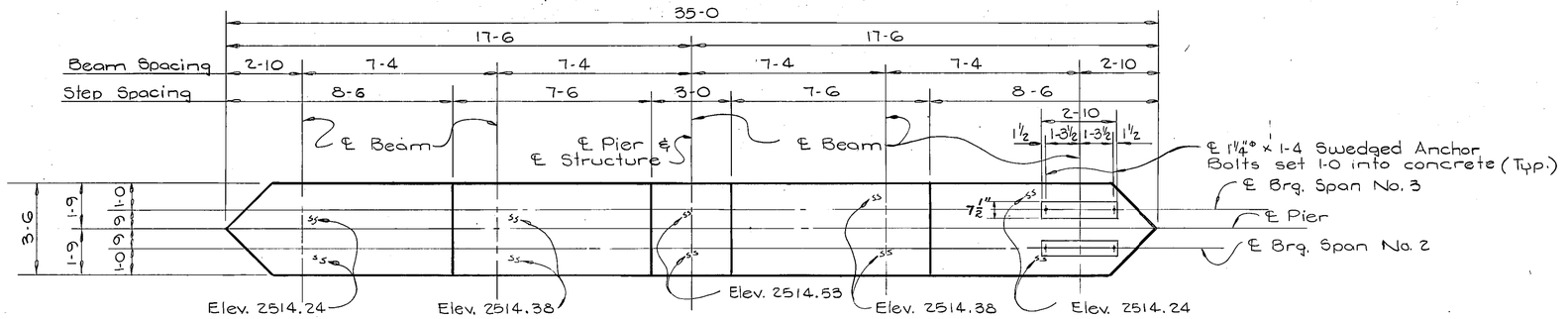
DESIGNED	7-14-72	S.A.N.
DRAWN	7-27-72	K.H.L.
CHECKED	9-8-72	N.H.R.
REVISED		
REVISED		
REVISED		

Scale: ⅜" = 1-0 (Except as noted)

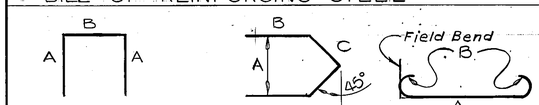
DRAWING NO. 10818

Hes.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	5	16



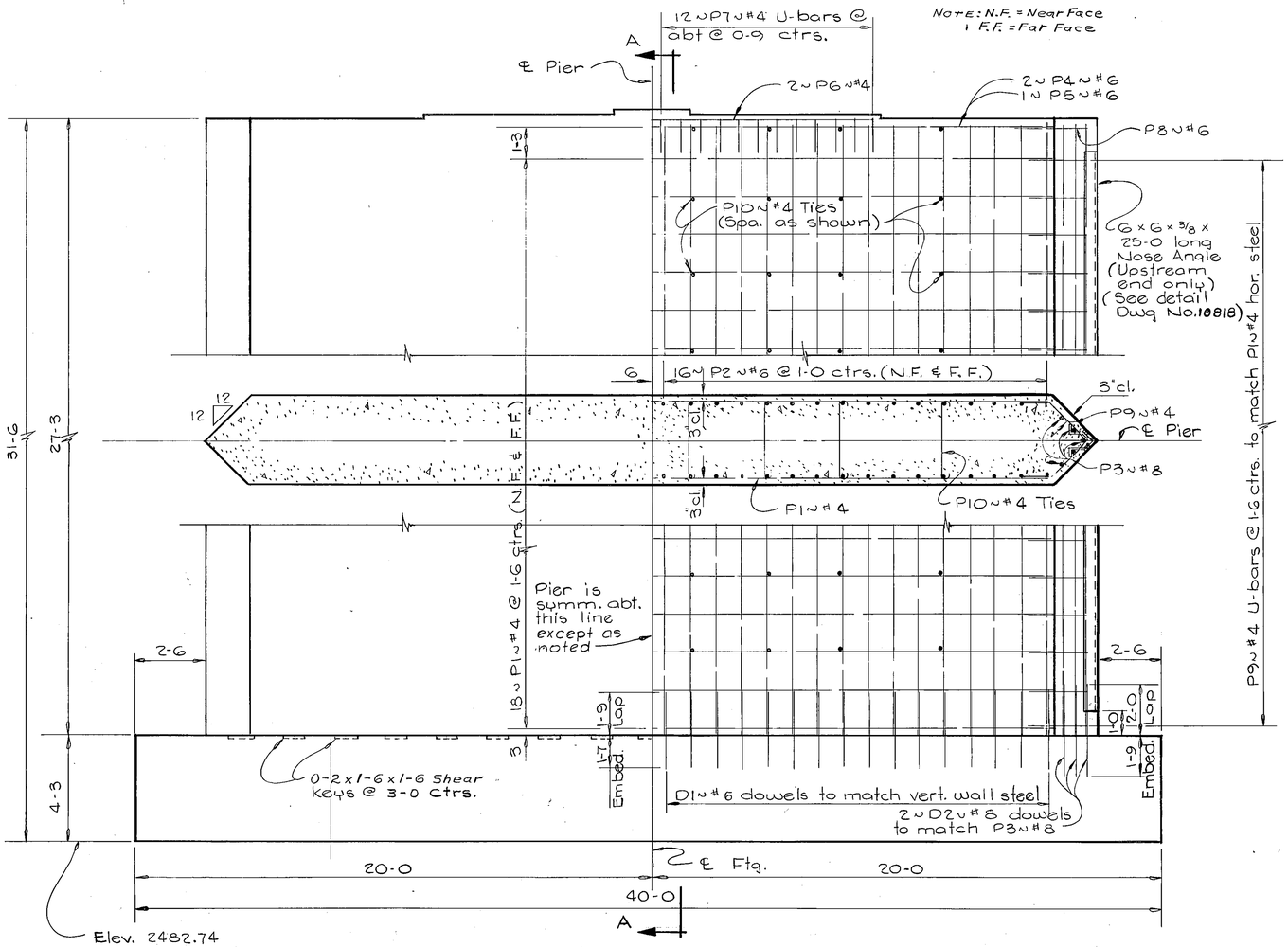
BILL OF REINFORCING STEEL



STRAIGHT BARS			
Mark	Size	No.	Length
P 1	#4	36	31'-6"
P 2	6	64	27-0
P 3	8	10	27-0
P 4	6	2	31-6
P 5	6	1	34-6
P 6	4	2	17-6
D 1	6	64	3-4
D 2	#8	10	3-9

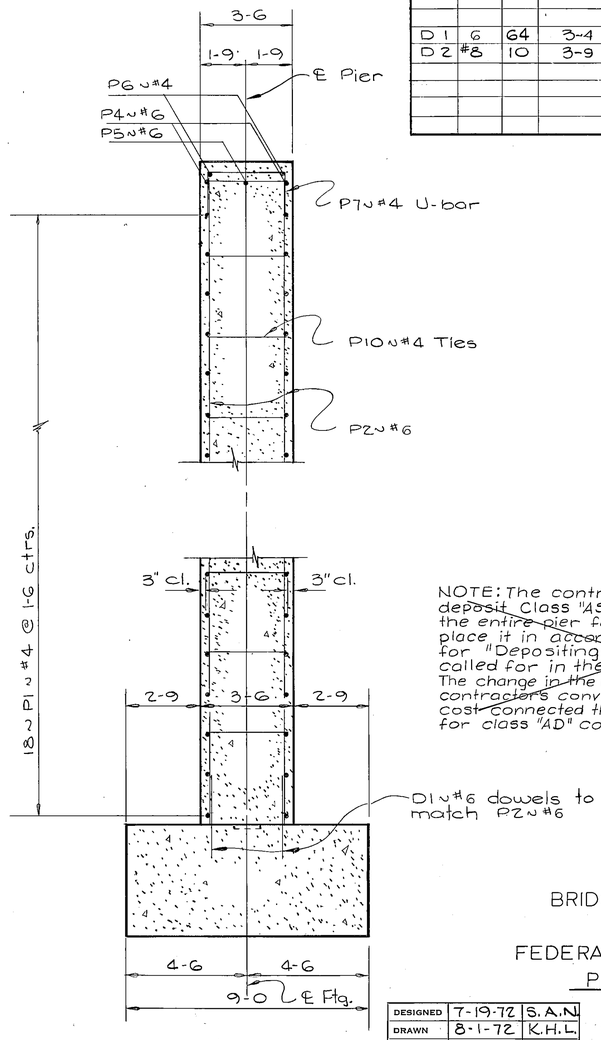
BENT BARS (All dim. are out to out)							
Mark	Size	No.	Type	Length	A	B	C
P 7	#4	24	1	5'-6"	1'-3"	3'-0"	
P 8	6	2	2	7-2	3-0	1-6	2'-1"
P 9	4	36	2	6-2	3-0	1-0	2-1
P 10	#4	72	3	4-0	3-0	0-6	

PLAN



ELEVATION
(Ahead on line)

Note: Max. Footing Pressure Under:
D.L. + L.L + S.F + E = 3.32 T/sq. ft.



SECTION A-A

NOTE: The contractor will be permitted to deposit Class "AS" concrete seal course for the entire pier footing in which case he shall place it in accordance with the requirements for "Depositing Concrete Under Water" as called for in the Standard Specifications. The change in the mix for the seal will be for the contractors convenience and he shall include all cost connected therewith in the unit price bid for class "AD" concrete.

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER MUSSELSHELL RIVER
AT STA 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES

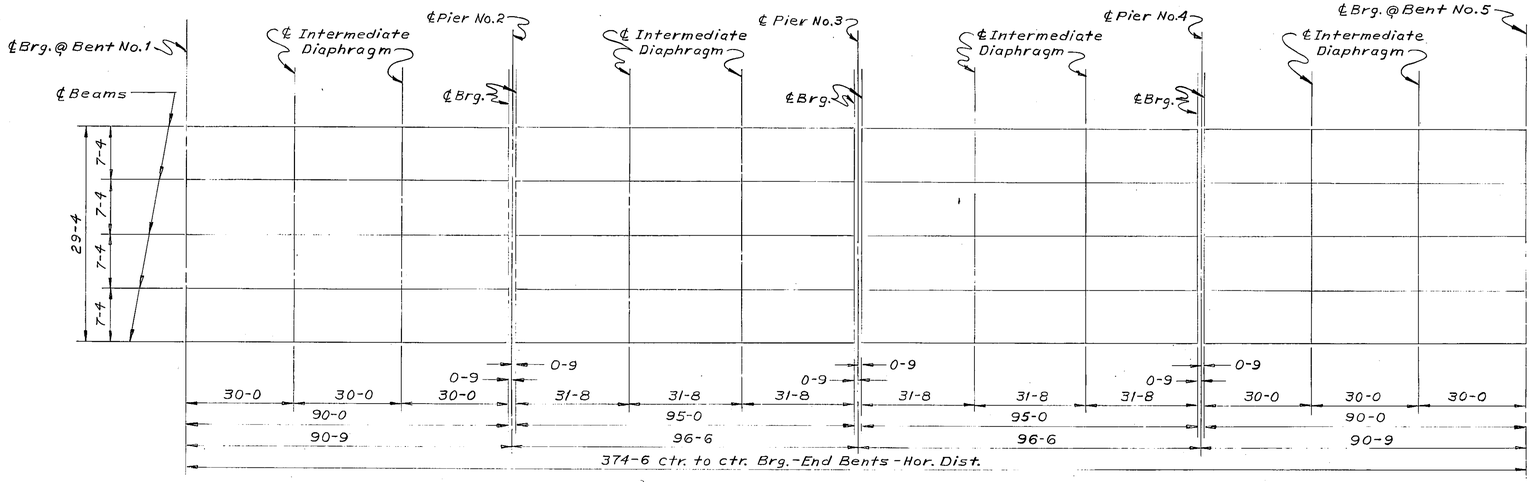
PIER NO. 3

DESIGNED	7-19-72	S.A.N.
DRAWN	8-1-72	K.H.L.
CHECKED	9-8-72	N.H.R.
REVISED		
REVISED		
REVISED		

Scale: ⅜" = 1-0

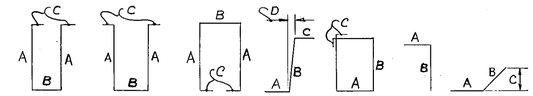
DRAWING NO. 10819

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	6	16



ERECTION PLAN
No Scale

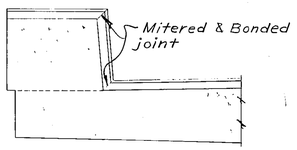
BILL OF REINFORCING STEEL



BENT BARS (ALL DIMENSIONS ARE OUT TO OUT)								
MARK	SIZE	NO.	TYPE	LENGTH	A	B	C	D
C 1	#4	1004	3	3'-4"	0'-9"	1'-0"	0'-5"	
C 2	4	988	4	2-6	1-0	1-0	0-6	0'-1"
C 3	4	184	5	3-7	0-8	0-10	0-3½	
C 4	5	200	4	4-9	3-3	1-0	0-6	0-1
C 5	4	4	6	2-0	1-0	1-0		
P 2	5	16	7	2-9	1-1½	1-7½	0-6	
P 3	4	12	5	6-3	0-10	2-0	0-3½	
P 4	4	4	5	6-1	0-9			
P 5	4	4	5	5-11	0-8			
P 6	4	4	5	5-9	0-7			
P 7	4	4	5	5-7	0-6			
P 8	4	4	5	5-5	0-5			
P 9	4	4	5	5-3	0-4	2-0	0-3½	
D 4	4	144	1	4-10	1-10	0-7	0-3½	
D 7	#4	192	2	8-0	3-5	0-7	0-3½	

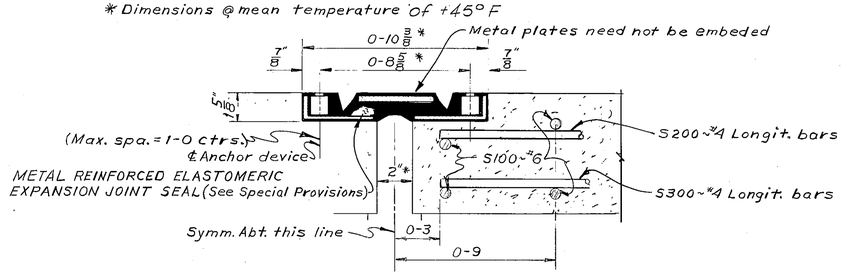
STRAIGHT BARS			
MARK	SIZE	NO.	LENGTH
S 5	# 5	36	15'-0"
S 6	5	42	10-0
S100	6	1496	35-7
S200	4	260	38-3
S300	4	640	38-3
C 300	4	80	38-4
P 1	5	24	2-9
D 3	6	48	5-6
D 5	4	64	5-6
D 6	6	64	5-6
D 8	# 6	42	5-4

NOTE: The anchorage system for the expansion joint shall be as recommended by the manufacturer & shall be installed under his direct supervision.

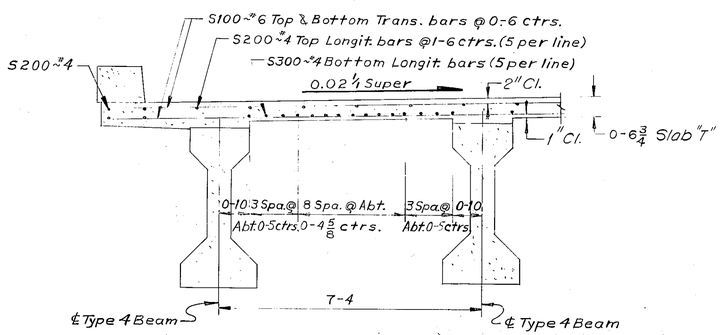


CURB JOINT DETAILS
Scale: 1"=1'-0"

* Dimensions @ mean temperature of +45° F



EXPANSION JOINT DETAIL
(FOR PIER No.3)
Scale: 3"=1'-0"



TRANSVERSE SECTION
Scale: 1½"=1'-0"

PRESTRESSED CONCRETE BEAMS: Prestressed Concrete Beams shall be fabricated in accordance with Dwg. No. B-4. Maximum f'c (Compressive strength of concrete at 28 days) for design shall be 6,000 p.s.i. Design stresses before prestress are as follows.

SPAN No.	BEAM LENGTH CTR. TO CTR. Brg.	D.L. BEAM STRESSES P.S.I.		D.L.+L.L. STRESSES P.S.I.		ULT. DESIGN MOM. 1.5 D.L.+2.5(L.L+I.) Ft. KIPS
		Ft.	Fb.	Ft.	Fb.	
1 & 4	90-0	1121	-947	2737	-2816	5363.
2 & 3	95-0	1249	-1055	3016	-3085	5826.

NOTE: For additional Slab, Curb, End Diaphragm, End Post, & Intermediate Diaphragm details see Dwg. No. SL-1.

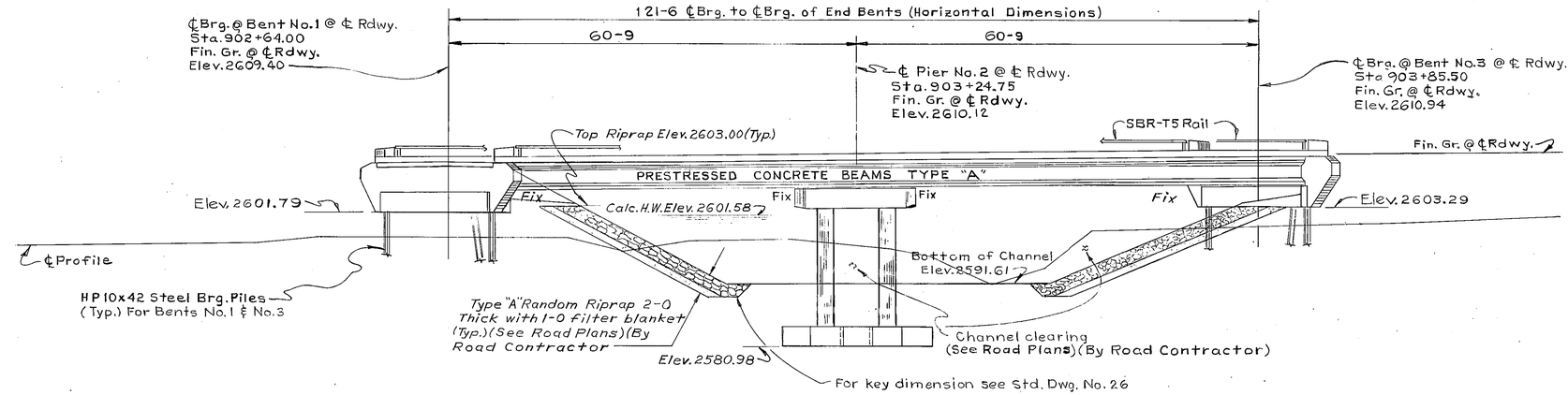
DESIGNED	7-5-72	S.A.N.
DRAWN	8-9-72	J.R.G.
CHECKED	9-8-72	N.H.P.
REVISED		
REVISED		
REVISED		

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS
BRIDGE OVER MUSSELSHELL RIVER
AT STA. 751+67.50
FEDERAL AID PROJECT NO. F-RF-256(36)
PETROLEUM & GARFIELD COUNTIES
ERECTION PLAN
Scale: As Noted

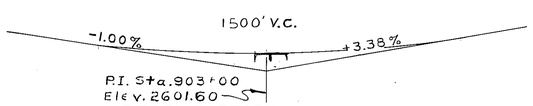
DRAWING NO. 10820

Hes.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	7	16



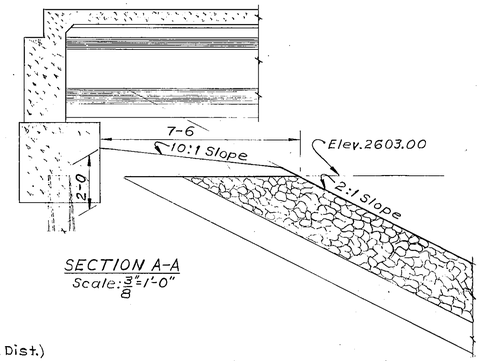
ELEVATION



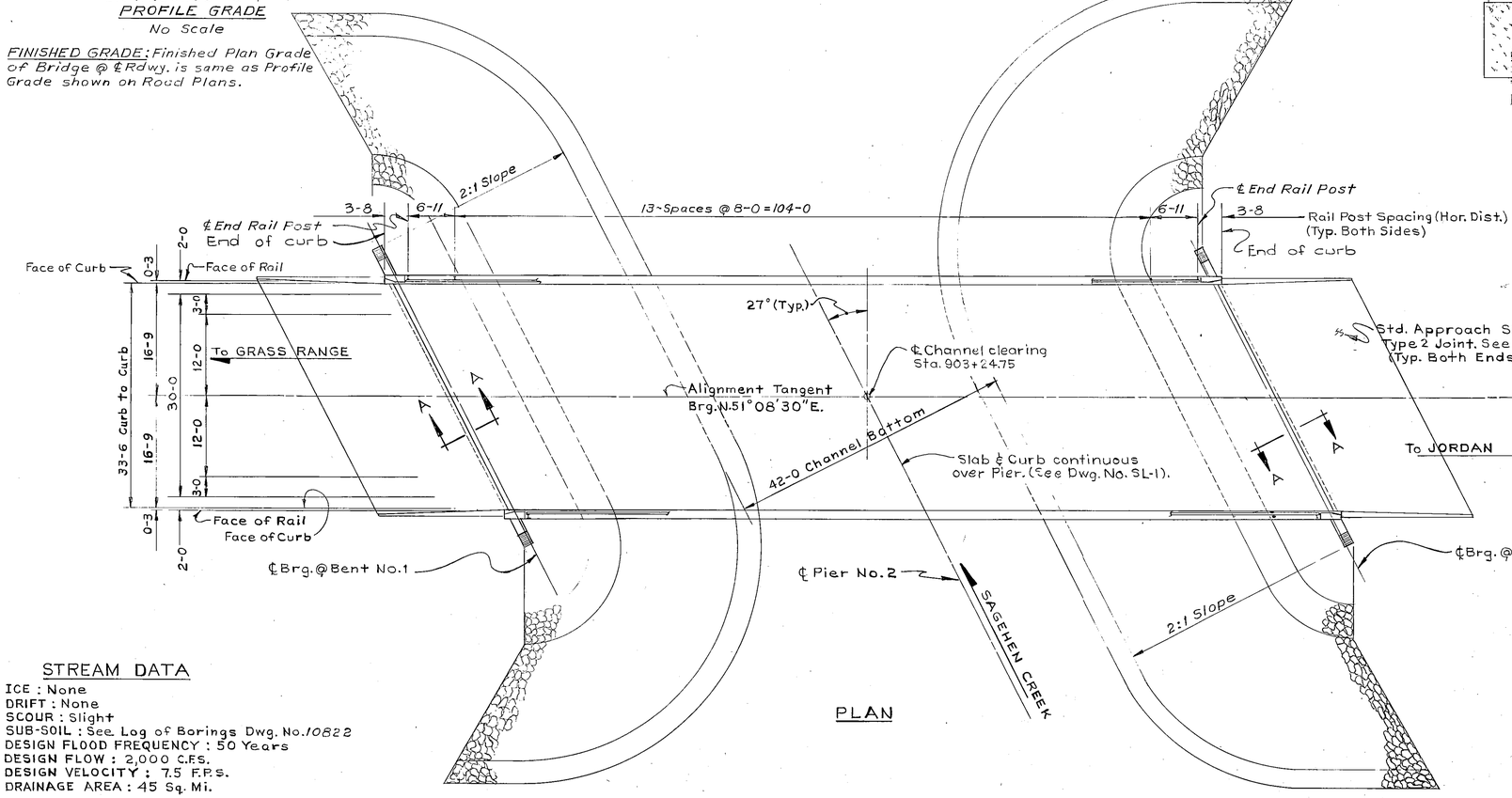
PROFILE GRADE
No Scale

FINISHED GRADE: Finished Plan Grade of Bridge @ ℄Rdwy. is same as Profile Grade shown on Road Plans.

NOTE: For Maintaining of Traffic & Removal of Existing Structure see Road Plans & Road Plans Special Provisions. (By Road Contractor).



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



PLAN

* BRIDGE APPOACH SECTION UPDATED SEE NO. 18746 FOR DETAILS.

STREAM DATA

ICE : None
DRIFT : None
SCOUR : Slight
SUB-SOIL : See Log of Borings Dwg. No. 10822
DESIGN FLOOD FREQUENCY : 50 Years
DESIGN FLOW : 2,000 C.F.S.
DESIGN VELOCITY : 7.5 F.P.S.
DRAINAGE AREA : 45 Sq. Mi.

H.E.S.

NOTES

SPECIFICATIONS: MONTANA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1970 EDITION, AND ANY AMENDMENTS THERETO, AND SPECIAL PROVISIONS SHALL GOVERN UNLESS OTHERWISE NOTED. DESIGN PREPARED IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATIONS, 1969 EDITION, AND ANY AMENDMENTS THERETO.

CAST IN PLACE CONCRETE: UNLESS OTHERWISE APPROVED, ALL CONCRETE SHALL BE CLASS "AD", AN "AIR ENTRAINING AGENT" SHALL BE ADDED TO ALL CONCRETE EXCEPT CLASS"AS".CHAMFER ALL EXPOSED EDGES OF CONCRETE WITH ENCLOSED ANGLE LESS THAN 120º, 3/4" AND FILLET ENTRANT ANGLES 3/4" UNLESS OTHERWISE NOTED. ALL FORMS FOR DECK SLAB SHALL BE REMOVED.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL BE MEASURED AND PAID FOR ON THE LUMP SUM BASIS AS SET FORTH IN THE STANDARD SPECIFICATIONS.
ESTIMATED WEIGHT = 1132 POUNDS.

FOR REQUIREMENTS GOVERNING THE FABRICATION OF "STRUCTURAL STEEL" SEE THE STANDARD SPECIFICATIONS. TO AVOID OVERSIGHT THESE REQUIREMENTS SHALL BE CLEARLY NOTED ON THE SHOP DRAWINGS.

STRUCTURAL STEEL SHALL RECEIVE ONE (1) SHOP COAT OF RED LEAD OR BASIC LEAD SILICO CHROMATE PRIMER AND TWO (2) FIELD COATS CONSISTING OF FIRST FIELD OR PRIMER COAT AND ONE(1) COAT OF ALUMINUM PAINT AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

APPROVAL: SHOP PLANS SHALL BE APPROVED BY THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS BEFORE FABRICATION IS BEGUN.

SETTING OF MASONRY PLATES: CARE SHALL BE TAKEN IN PLACING REINFORCING STEEL SO AS TO CLEAR ANCHOR BOLTS. MASONRY PLATES SHALL BE PLACED ON THREE LAYERS OF CANVAS THOROUGHLY SWABBED WITH RED LEAD AS CALLED FOR IN THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL FINISH CONCRETE UNDER MASONRY PLATES TO THE EXACT ELEVATION SHOWN. BUSH HAMMERING WILL BE PERMITTED AND USED ONLY AS A MEANS OF LEVELING THE CONCRETE SURFACE TO ASSURE FULL AND LEVEL BEARING AND TO REMOVE LAITANCE. LOOSE AND FOREIGN MATERIAL. STEEL SHIMS SHALL BE USED TO BRING THE MASONRY PLATES UP TO GRADE IF NECESSARY. STEEL SHIMS SHALL BE THE SAME SIZE EXCEPT FOR THICKNESS, AS THE MASONRY PLATE. MINIMUM THICKNESS OF ANY SHIMS SHALL BE 1/8". THE COST OF BUSH HAMMERING AND SHIMS, IF ANY, SHALL BE INCLUDED IN THE UNIT PRICES BID FOR CLASS "AD" CONCRETE.

BACKFILL: THE BACKFILL AT END BENTS MAY BE COMPLETE UP TO THE BOTTOMS OF THE BACKWALLS BEFORE SUPERSTRUCTURE IS IN PLACE. THE BACKFILL AGAINST THE BACKWALLS SHALL NOT BE PLACED UNTIL AFTER THE CONCRETE ROADWAY SLAB HAS BEEN PLACED.

FOOTINGS: ELEVATIONS SHOWN FOR BOTTOM OF FOOTINGS ARE APPROXIMATE ONLY. FINAL ELEVATIONS TO BE DETERMINED BY THE ENGINEER.

PROTECTIVE COATING: DECK, CURBS AND CONCRETE END POSTS SHALL BE GIVEN A PROTECTIVE COATING OF BOILED LINSEED OIL. "SEE STANDARD SPECIFICATIONS".

LIVE LOAD: STANDARD HS20-44 LOADING.

COVERING: THE MINIMUM COVERING, MEASURED FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY REINFORCEMENT BAR, SHALL BE NOT LESS THAN 2 INCHES EXCEPT AS FOLLOWS OR OTHERWISE NOTED:

BOTTOM OF SLAB	1 INCH
STIRRUPS AND TIES	1½ INCHES

IN ALL FOOTINGS AND PIER SHAFTS, THE MINIMUM COVERING SHALL BE 3 INCHES.

UTILITIES: FOR LOCATION OF UTILITIES, SEE APPROPRIATE ROAD PLANS SHEET.

SEQUENCE OF WORK: FOR SEQUENCE OF WORK SEE SPECIAL PROVISIONS.

STRUCTURE EXCAVATION: STRUCTURE EXCAVATION FOR PIER NO. 2 SHALL BE COMPUTED FROM BELOW THE LIMITS OF THE CHANNEL CLEARING.

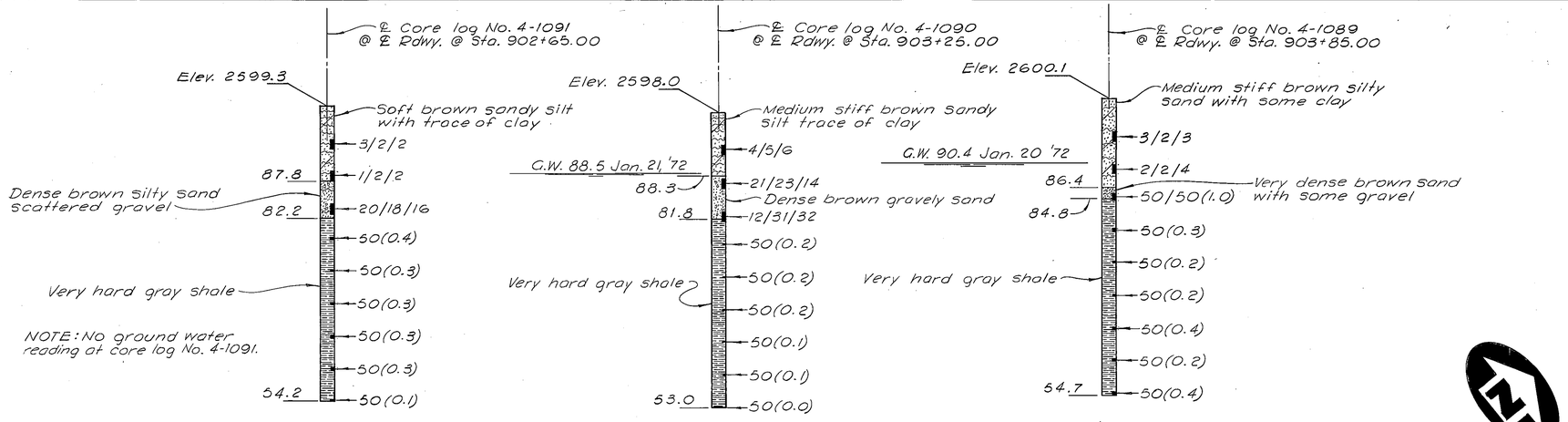
DESIGNED		
DRAWN	3-23-72	J.R.G
CHECKED	9-12-72	N.H.R.
APPROVED	9-15-72	H.E.S.
* REVISED	6-19-03	L.M.S
REVISED		

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER SAGEHEN CREEK
AT STA. 903+24.75
FEDERAL AID PROJECT NO. F-RF-256(36)
GARFIELD COUNTY
GENERAL LAYOUT
Scale: 1"=10'-0" Except As Noted

DRAWING NO. 10821

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	8	16



LOG OF BORINGS

LEFT FOOTING:
BROWN SILTY SAND TO ELEV. 81.0 AT AHEAD LEFT CORNER AND ELEV. 81.4 AT BACK RIGHT CORNER. MEDIUM STIFF FINELY LAYERED GRAY SHALE BELOW INDICATED ELEV.

RIGHT FOOTING:
BROWN SILTY SAND TO ELEV. 81.5 ON LEFT EDGE AND ELEV 82.4 ON RIGHT EDGE OF FOOTING. MEDIUM STIFF FINELY LAYERED GRAY SHALE BELOW INDICATED ELEV.

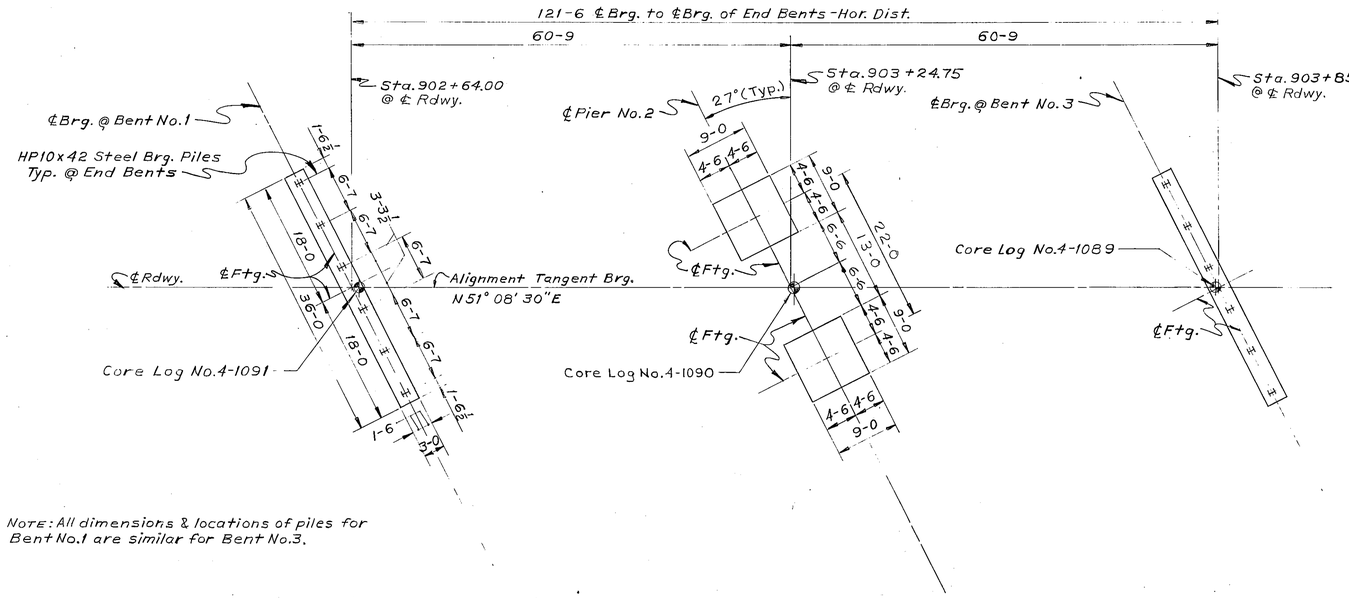
NOTES

SOILS AND FOUNDATION MATERIALS: BORINGS WERE TAKEN BY THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS AT THE POINTS SHOWN ON THE GENERAL LAYOUT OR FOOTING PLAN.

THE SERIES OF NUMBERS SHOWN ON THE LOG OF BORINGS INDICATES THE NUMBER OF BLOWS PER 6" PENETRATION FOR EACH NUMBER OF THE SERIES OF A 2" SAMPLE TUBE WHICH WAS DRIVEN IN ACCORDANCE WITH THE STANDARD PENETRATION TEST MADE WITH A 2" SPLIT TUBE SAMPLER USING A 140# HAMMER HAVING A 30" DROP. THE TOTAL PENETRATION OF THE SAMPLER TUBE IS INDICATED ON THE CORE LOGS AFTER EACH SERIES IF 6" PENETRATION WAS NOT ACHIEVED IN 50 BLOWS.

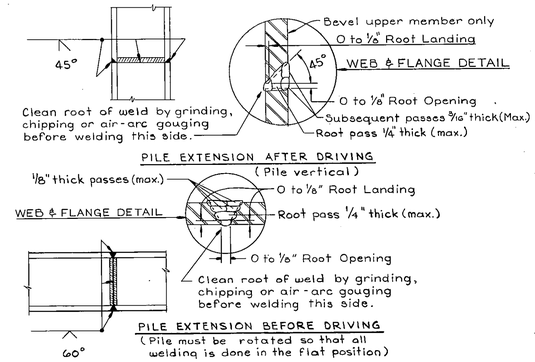
THE STATE OF MONTANA, DEPARTMENT OF HIGHWAYS DOES NOT ASSUME ANY RESPONSIBILITY FOR ANY VARIATION OR MISINTERPRETATION OF THE CLASSES OF MATERIALS, AND ADJUSTMENT IN BID PRICES WILL NOT BE MADE IF THE MATERIALS FOUND DO NOT AGREE WITH THOSE SHOWN IN THE LOG OF BORINGS.

FOUNDATION PILES: For bidding purposes only, pile lengths have been estimated as shown on drawings.



Note: All dimensions & locations of piles for Bent No. 1 are similar for Bent No. 3.

FOOTING PLAN



PERMISSIBLE WELDED SPLICE DETAILS FOR 8", 10" & 12" STEEL BEARING PILES
No Scale

Note: Only E60 or E70 series electrodes shall be used. Maximum electrode size shall be 5/16". Surfaces to be welded shall be smooth, uniform and free from fins, tears, loose scale, slag, rust, grease, moisture or other material that would prevent proper welding.

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

BRIDGE OVER SAGEHEN CREEK
AT STA. 903+24.75
FEDERAL AID PROJECT NO. F-RF-256(36)
GARFIELD COUNTY

FOOTING PLAN

Scale: 1" = 10'-0"

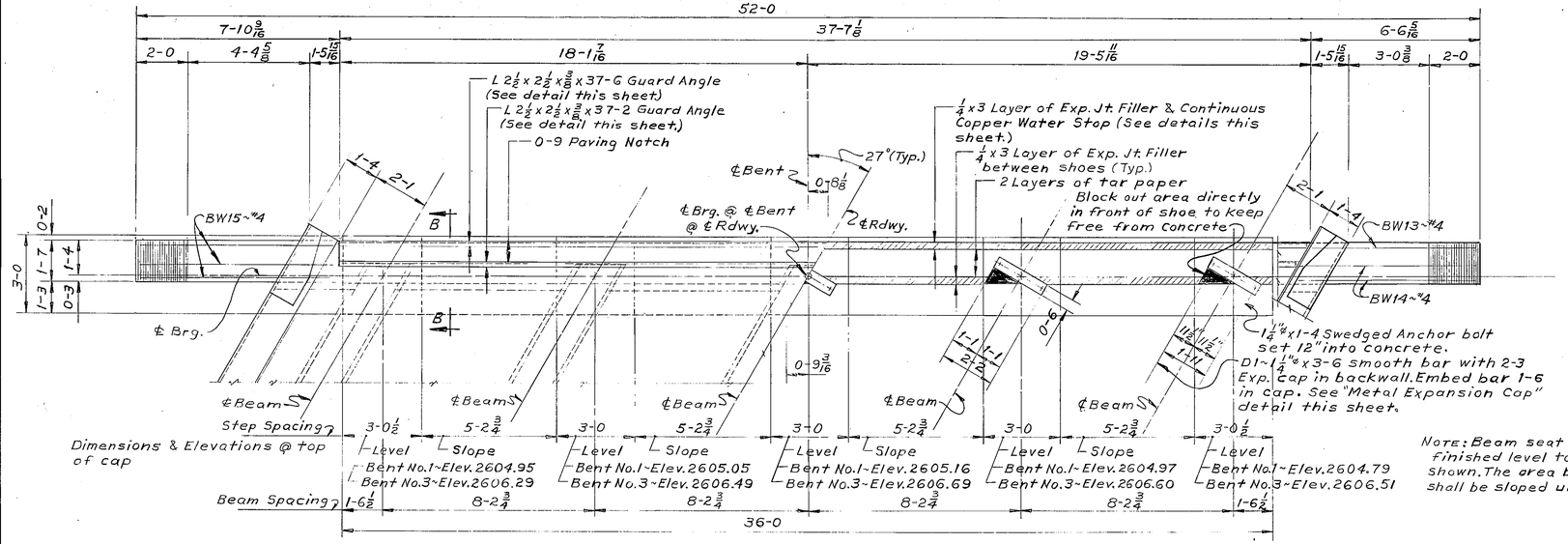
DESIGNED		
DRAWN	3-23-72	J.R.G.
TRACED		
CHECKED	9-12-72	N.H.R.
REVISED		
REVISED		

DRAWING NO. 10822

H.S.

KAE 19 1153 3-69

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	9	16



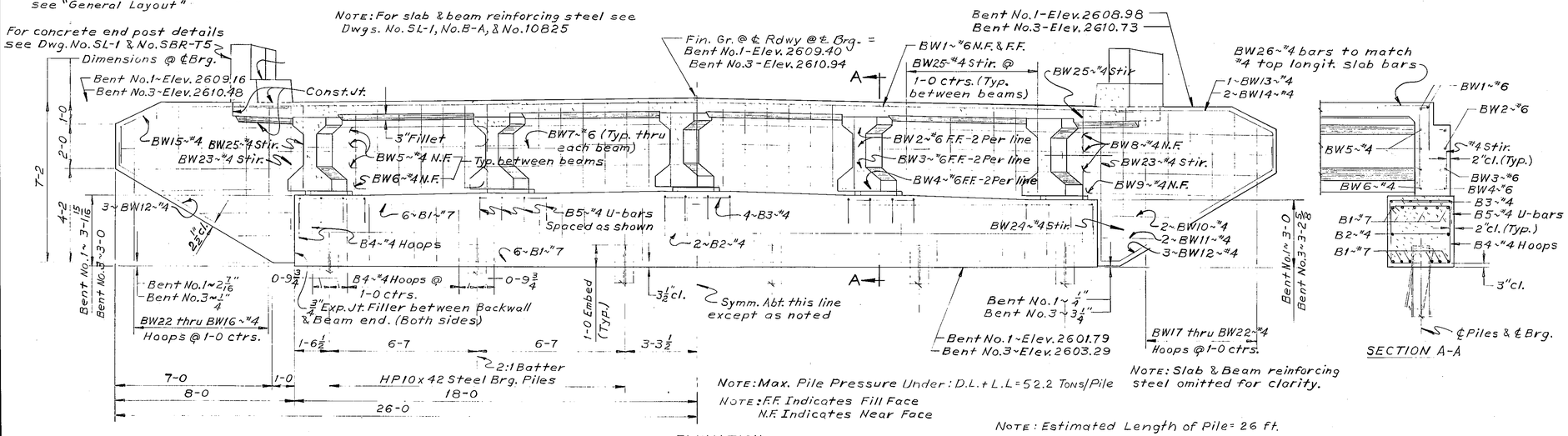
PLAN

NOTE: Beam seat areas shall be finished level to the elevations shown. The area between beam seats shall be sloped uniformly as required.

NOTE: See Dwg. No. SBR-T5 for rail connections & details. For location of Bridge Rail Posts, see "General Layout"

NOTE: For slab & beam reinforcing steel see Dwgs. No. SL-1, No. E-A, & No. 10825

For concrete end post details see Dwg. No. SL-1 & No. SBR-T5

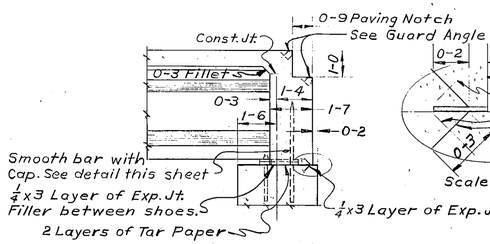


ELEVATION
BENT NO.1 - BACK ON LINE
BENT NO.3 - AHEAD ON LINE

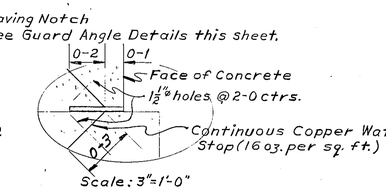
NOTE: Max. Pile Pressure Under: D.L.+L.L. = 52.2 Tons/Pile
NOTE: F.F. Indicates Fill Face
N.F. Indicates Near Face

NOTE: Slab & Beam reinforcing steel omitted for clarity.

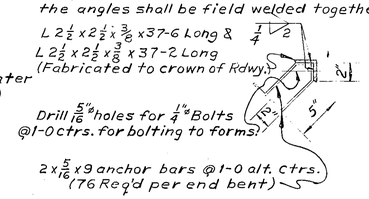
NOTE: Estimated Length of Pile = 26 ft.



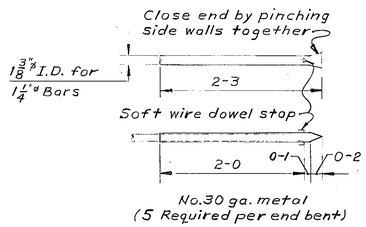
SECTION B-B



NOTE: Guard angle may be furnished in two pieces with anchor bars 0-6 Maximum from each end in which case the angles shall be field welded together.



GUARD ANGLE DETAIL
Scale: 1 1/2" = 1'-0"

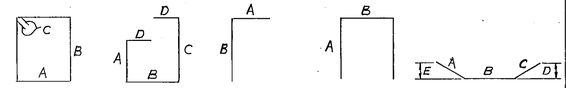


No. 30 ga. metal (5 Required per end bent)

METAL EXPANSION CAP
Scale: 1" = 1'-0"

NOTE: Cost of furnishing & placing expansion joint filler, tar paper, copper water stop, & metal expansion caps, to be included in the unit price bid for class "AD" concrete.

BILL OF REINFORCING STEEL (FOR ONE BENT ONLY)



BENT BARS (ALL DIMENSIONS ARE OUT TO OUT)

MARK	SIZE	NO.	TYPE	LENGTH	A	B	C	D	E
B 4	#4	34	1	11'-3"	2'-8"	2'-7"	0'-4 1/2"		
B 5	4	20	4	5'-2	1'-3	2'-8			
BW12	4	6	5	9'-9	0'-9	8'-0	1'-0	0'-11	0'-5"
13		2	5	8'-3	1'-9	2'-1	4'-5	1'-11	1'-5"
14		4	5	8'-8	1'-9	2'-1	4'-10	2'-2	1'-5"
15		3	5	9'-5	1'-9	2'-1	5'-7	2'-4	1'-5"
16		1	1	16'-7	1'-3	6'-8	0'-4 1/2"		
17		2		15'-3		6'-0			
18				14'-1		5'-5			
19				12'-11		4'-10			
20				11'-9		4'-3			
21				10'-3		3'-6			
22		2	1	8'-1	1'-3	2'-5	0'-4 1/2"		
23		2	2	14'-6	5'-10	1'-3	6'-10	0'-3 1/2"	
24		1	2	14'-2	5'-8	1'-3	6'-8	0'-3 1/2"	
25		26	2	8'-4	2'-9	1'-3	3'-9	0'-3 1/2"	
BW 26	#4	26	3	4'-0	2'-0	2'-0			

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH
B1	#7	12	35'-8"
B2	4	2	35-8
B3	4	16	3'-0
BW1	6	2	40-0
2	6	4	26-4
3	6	2	26-0
4	6	2	24-5
5	4	12	6-6
6	4	4	6-2
7	4	5	4-6
8	4	6	8-6
9	4	2	6-5
10	4	4	4-1
BW11	#4	4	2-6
*D1	1 1/4" ℄	5	3-6

*1 1/4" ℄ Smooth bar shall conform to A.S.T.M. designation A36

STATE OF MONTANA
STATE HIGHWAY COMMISSION

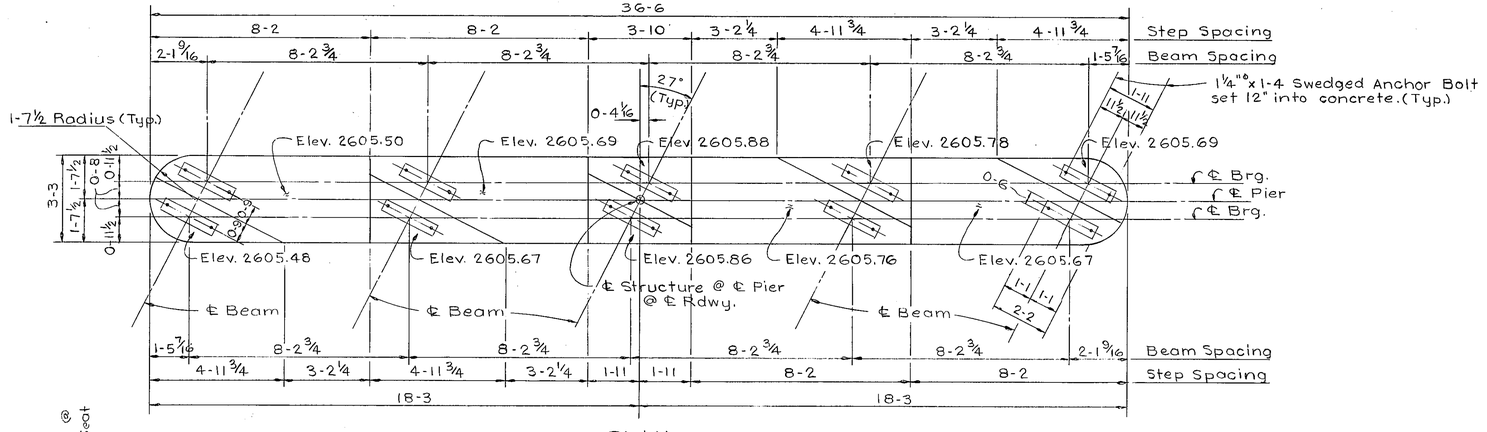
BRIDGE OVER SAGEHEN CREEK
AT STA. 903+24.75
FEDERAL AID PROJECT NO. F-RF-256(36)
GARFIELD COUNTY
BENTS NO. 1 & NO. 3
Scale: 3/8" = 1'-0" Except As Noted

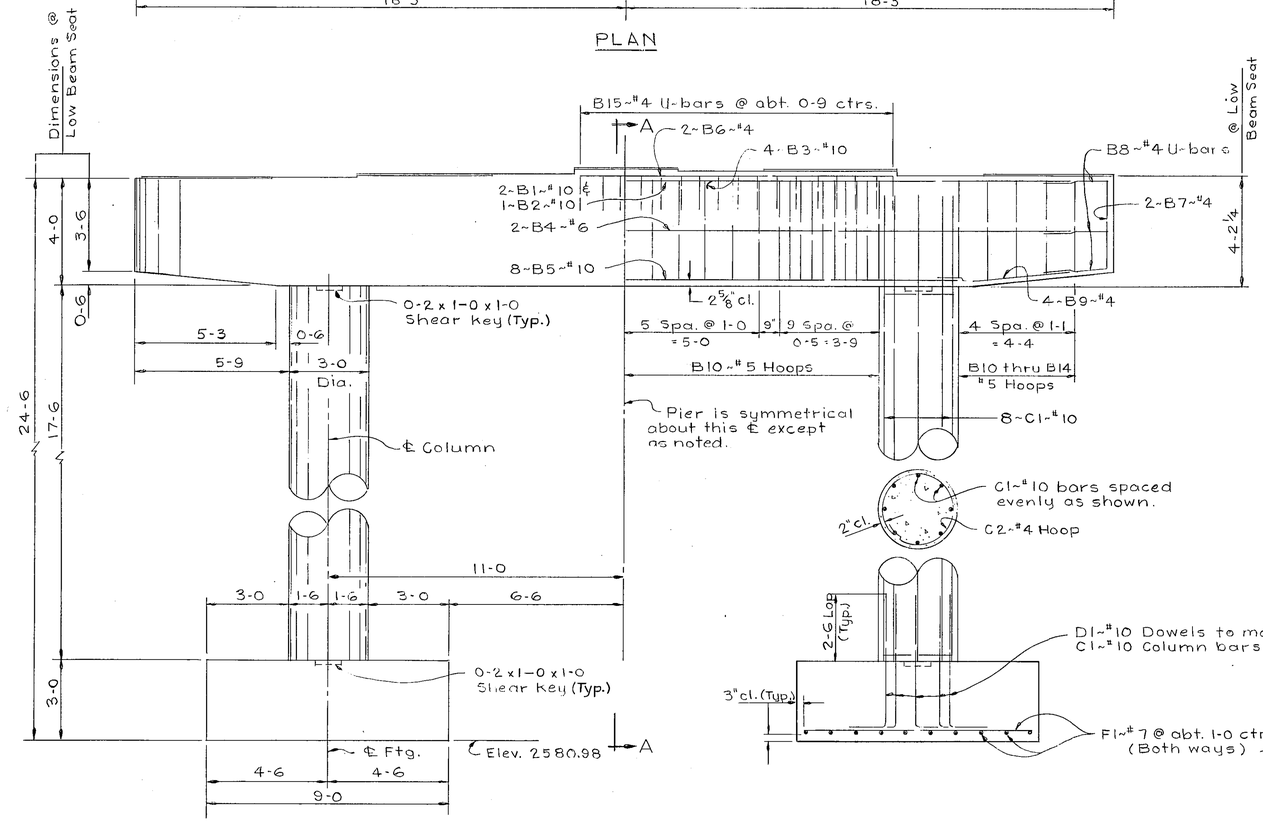
DESIGNED	7-20-72	S.A.N.
DRAWN	9-1-72	J.R.G.
CHECKED	9-12-72	N.H.R.
REVISED		
REVISED		
REVISED		

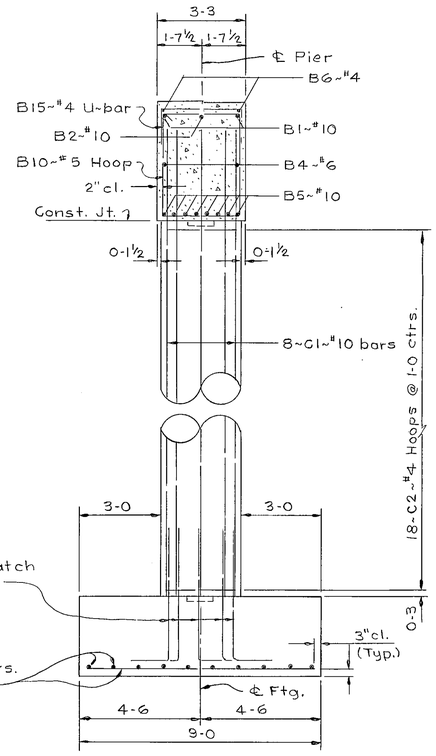
DRAWING NO. 10823

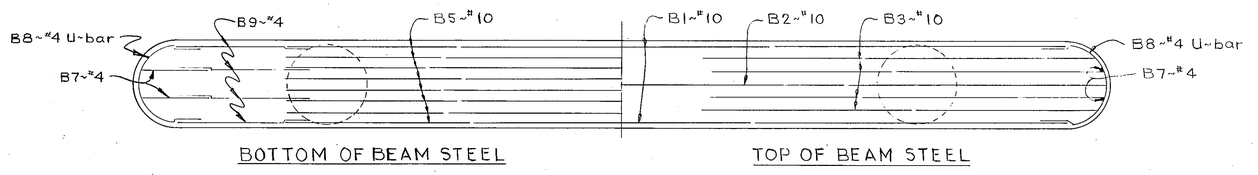
HEG.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	10	16

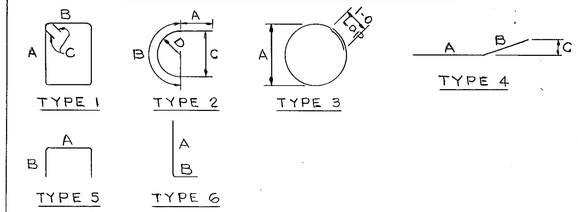








BILL OF REINFORCING STEEL



STRAIGHT BARS				BENT BARS (All dimensions are out to out)							
MARK	SIZE	No.	LENGTH	MARK	SIZE	No.	TYPE	LENGTH	A	B	C	D
B1	#10	2	33'-3"	B8	#4	6	2	6'-5"	1'-0"	4'-5"	2'-10"	1'-5"
B2	10	1	36-2	B9	4	8	4	5-1	1-6	3-7	0-4	
B3	10	8	14-9	B10	5	33	1	14-1	3-8	2-11	0-5½	
B4	6	2	33-3	B11	5	2	1	13-11	3-7	2-11	0-5½	
B5	10	8	25-0	B12	5	2	1	13-9	3-6	2-11	0-5½	
B6	4	2	11-8	B13	5	2	1	13-7	3-5	2-11	0-5½	
				B14	5	2	1	13-5	3-4	2-11	0-5½	
				B15	4	17	5	5-5	2-11	1-3		
				B7	4	4	6	5-8	3-2	2-6		
C1	10	16	21-0	C2	4	36	3	9-2	2-8			
F1	#7	40	8-6	D1	#10	16	6	6-8	5-3	1-5		

NOTE: Maximum Footing Pressure Under:
D.L. + L.L. + 3W + W.L. + L.F. = 3.33 TONS/SQ. FT.

DESIGNED	S.A.N.	7-26-72
DRAWN	F.L.S.	9-1-72
CHECKED	N.H.R.	9-12-72
REVISED		
REVISED		
REVISED		

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

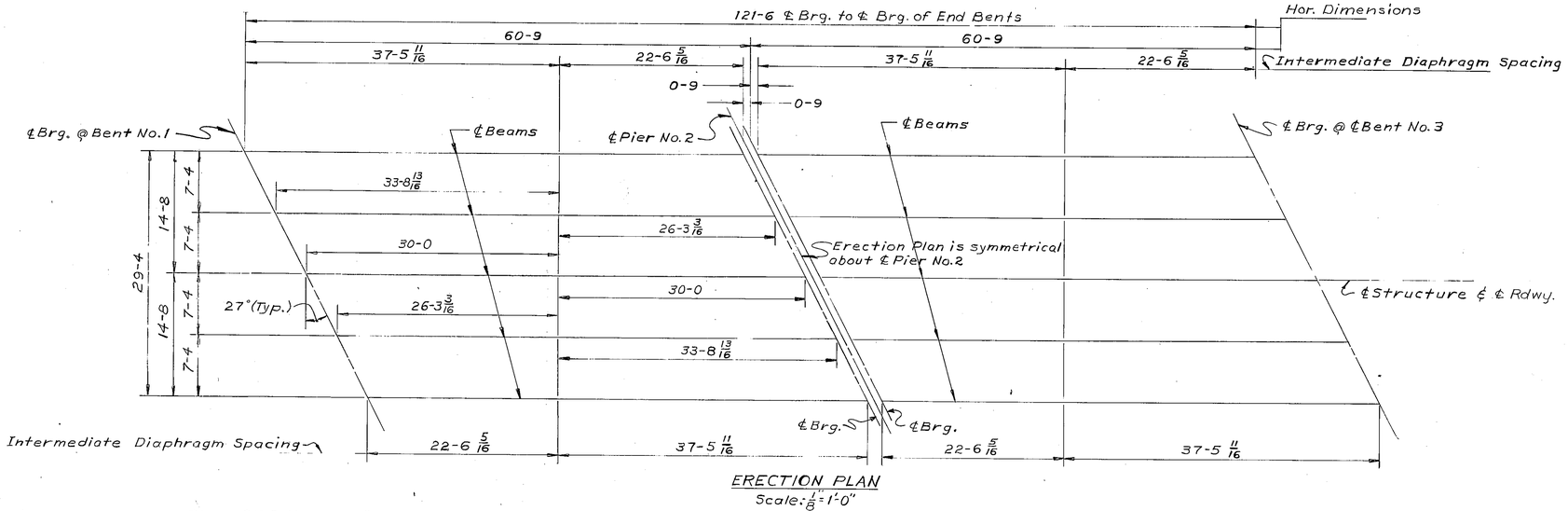
BRIDGE OVER SAGEHEN CREEK
AT STA. 903+24.75
FEDERAL AID PROJECT NO. F-RF-256(36)
GARFIELD COUNTY

PIER NO. 2
Scale ~ ⅜" = 1'-0"

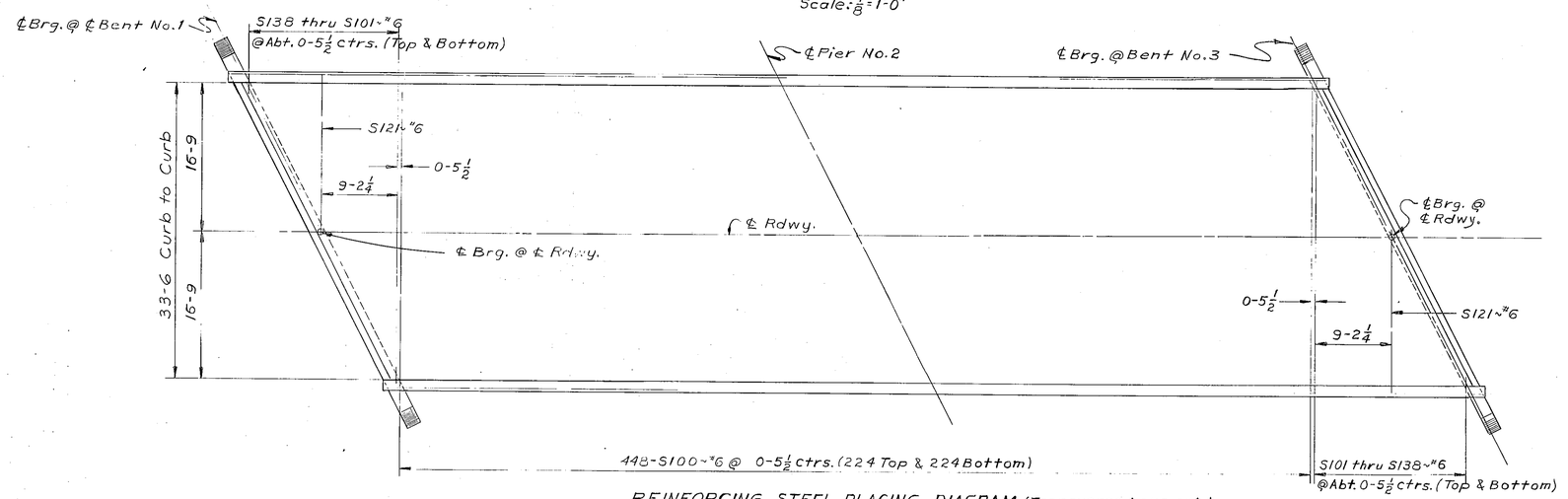
DRAWING NO. 10824

Hts.

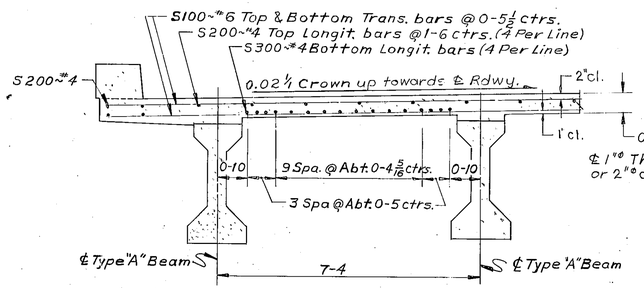
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F-RF-256(36)	11	16



ERECTION PLAN
Scale: 1/8" = 1'-0"

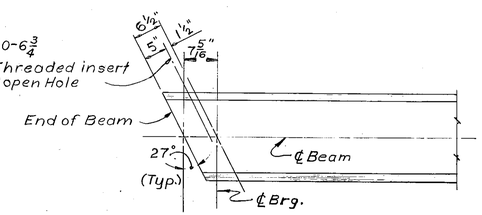


REINFORCING STEEL PLACING DIAGRAM (Transverse bars only)
Scale: 1/8" = 1'-0"



TRANSVERSE SECTION (Normal to ℄ Rdwy.)
Scale: 1/2" = 1'-0"

Note: For additional slab, curb, end diaphragm, end post & intermediate diaphragm details see Dwg. No. SL-1

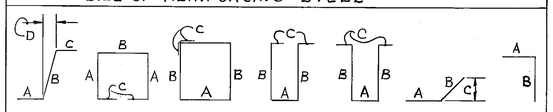


MODIFIED BEAM END
Scale: 3/4" = 1'-0"

PRESTRESSED CONCRETE BEAMS: Prestressed concrete beams shall be fabricated in accordance with Dwg. No. B-A, except as noted hereon. Maximum f'c (compressive strength of concrete at 28 days) for design shall be 6000 p.s.i. Design stresses before prestress are as follows.

SPAN LENGTH		60'
BEAM D.L. STRESSES - P.S.I.	Fb.	-554
	Ft.	684
TOTAL D.L.+L.L. DESIGN STRESSES - P.S.I.	Fb.	-2704
	Ft.	2299
REQUIRED ULTIMATE MOMENT CAPACITY - Ft. KIPS	M	2606

BILL OF REINFORCING STEEL



BENT BARS (ALL DIMENSIONS ARE OUT TO OUT)

MARK	SIZE	NO.	TYPE	LENGTH	A	B	C	D
C1	#4	332	2	3'-4"	0'-9"	1'-0"	0'-5"	
C2	4	316	1	2-6	1-0	1-0	0-6	0'-1"
C3	4	64	3	3-7	0-8	0-10	0-3 1/2	
C4	5	80	1	4-9	3-3	1-0	0-6	0-1
C5	4	4	7	2-0	1-0	1-0		
P2	5	16	6	2-9	1-1 1/2	1-7 1/2	0-6	
P3	4	12	3	6-3	0-10	2-0	0-3 1/2	
P4	↑	4	↑	6-1	0-9	↑	↑	
P5	↑	↑	↑	5-11	0-8	↑	↑	
P6	↑	↑	↑	5-9	0-7	↑	↑	
P7	↑	↑	↑	5-7	0-6	↑	↑	
P8	↓	↓	↓	5-5	0-5	↓	↓	
P9	4	4	3	5-3	0-4	2-0	0-3 1/2	
D4	4	48	4	4-10	0-7	1-10	0-3 1/2	
D7	#4	48	5	6-4	0-7	2-7	0-3 1/2	

STRAIGHT BARS

MARK	SIZE	NO.	LENGTH
S100	#6	448	35'-7"
S101	↓	4	35-2
S102	↓	↓	34-3
S103	↓	↓	33-5
S104	↓	↓	32-6
S105	↓	↓	31-7
S106	↓	↓	30-8
S107	↓	↓	29-9
S108	↓	↓	28-11
S109	↓	↓	28-0
S110	↓	↓	27-1
S111	↓	↓	26-2
S112	↓	↓	25-3
S113	↓	↓	24-5
S114	↓	↓	23-6
S115	↓	↓	22-7
S116	↓	↓	21-8
S117	↓	↓	20-0
S118	↓	↓	19-11
S119	↓	↓	19-0
S120	↓	↓	18-1
S121	↓	↓	17-2
S122	↓	↓	16-4
S123	↓	↓	15-5
S124	↓	↓	14-6
S125	↓	↓	13-7
S126	↓	↓	12-8
S127	↓	↓	11-10
S128	↓	↓	10-11
S129	↓	↓	10-0
S130	↓	↓	9-1
S131	↓	↓	8-2
S132	↓	↓	7-4
S133	↓	↓	6-5
S134	↓	↓	5-6
S135	↓	↓	4-7
S136	↓	↓	3-8
S137	↓	↓	2-10
S138	6	4	1-11
S200	4	96	31-4
S300	4	272	31-4
D3	6	16	6-6
D5	4	16	5-10
D6	6	16	5-10
D8	6	12	4-6
S5	5	17	15-0
S6	5	20	10-0
C300	4	32	32-0
P1	#5	24	2-9

DESIGNED	7-26-72	S.A.N.
DRAWN	8-18-72	J.R.G.
CHECKED	9-12-72	N.H.R.
REVISED		
REVISED		
REVISED		

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS
BRIDGE OVER SAGEHEN CREEK
AT STA. 903+24.75
FEDERAL AID PROJECT NO. F-RF-256(36)
GARFIELD COUNTY
ERECTION PLAN
Scale: As Noted

DRAWING NO. 10825