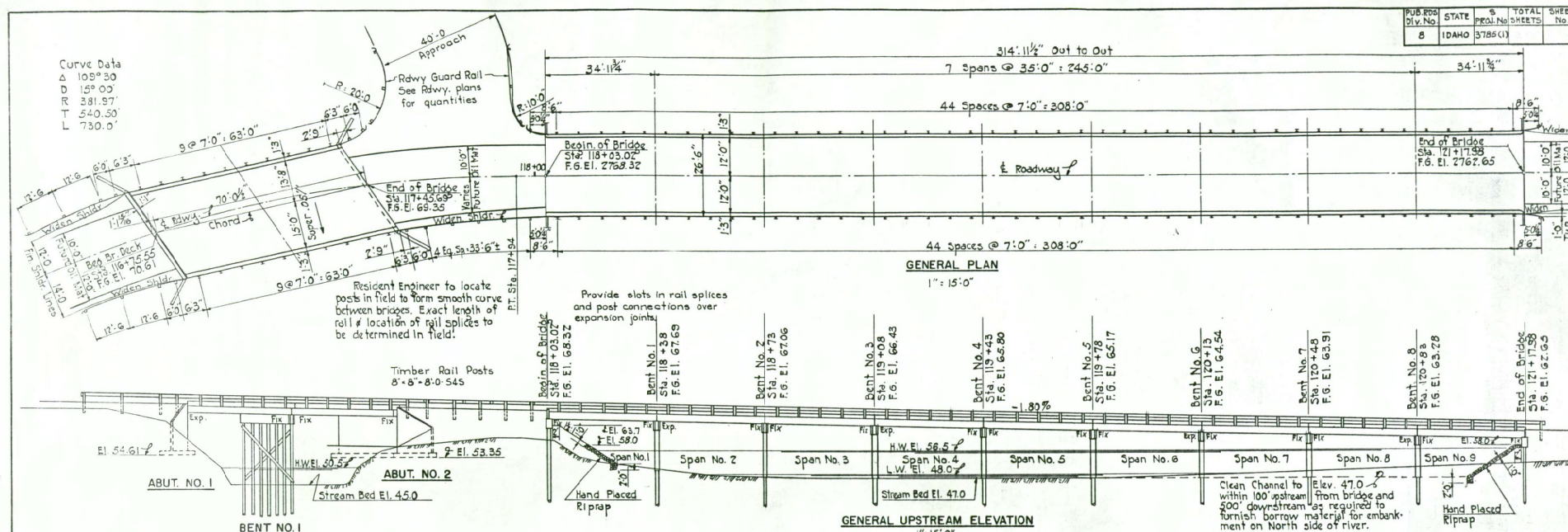




DESIGN NOTES

Structure designed in accordance with A.A.S.H.O. Specifications of 1953.
Live Load: 415-517-44 loading, variable impact.
Roadway Slab designed for a future wearing surface of 25"±.
Abutments designed for a 60' live load archbridge. No surcharge was considered in design of Wyes.
Unit Stresses: Concrete, f_c 3000 ψ /in²; In 28 days; f_t 1700 ψ /in²;
reinforcing steel f_s 20,000 ψ /in².
Timber piles in Bents shall be 14" minimum butt diameter and shall be driven to a bearing value of not less than 21 tons per pile and to a penetration of not more than 15 feet below bridge bed.
Timber piles in Abutments shall be 12" minimum butt diameter and shall be driven to a bearing value of not less than 16 tons per pile.
Maximum bearing pressure under A.A.S.H.O. footings: 4250 ψ /in².

GENERAL NOTES

Use Idaho Department of Highways Standard Specifications, 1950 Edition unless otherwise noted.

All concrete to be Class "A", No. 1 coarse aggregate.

All reinforcing steel bars shall be deformed bars of intermediate grade and shall conform to A.A.S.H.O. Specification M-31 and A.S.T.M. Specification A-305-50.

All reinforcing steel to have a "Z" covering outside of bars unless otherwise noted. Dimensions refer to rod centers.

3" x 6" steel bars shall be placed away from the bridge side, but prior to handling or erecting. Tests must indicate that the concrete has a strength of 90' 3000 psi.

Cost of furnishing and placing the following are to be included in the unit price bid for Item 506-A: Premolded joint filler, galvanized pipe drains, lead bearing plates and galvanized rail post anchor bolts.

All timber shall be Coast Douglas Fir and shall pass the requirements as defined in the Revised Grading Rules of the West Coast Lumbermen's Association, dated Nov. 1, 1947.

Timber piles shall be placed in pile caps and sway braces shall be treated by the empty cell process to contain not less than 8 lbs. per cubic foot of creosote or 50-50 creosote-petroleum oil. Enclosure

GENERAL NOTES (CONTINUED)

plank and sway braces shall pass the requirements of W.C.L.A. Paragraph 202.

End timber rail posts to be Salts Treated and shall pass the requirements of W.C.L.A. Paragraph 212.

All piling shall be supplied with American All Steel Pile Shoes as manufactured by the American Piling Co., Philadelphia, Pa., or equal.

One test pile shall be driven in Bent No. 1 on the Canal Bridge Bent No. 1 and Bent No. 7 on the Boise River Bridge in a location so that they may be used as part of the finished structure.

Item 508-A shall include the cost of furnishing and placing steel bearing plates and steel rail posts.

Item 509-A shall include the cost of furnishing and installing the steel beam handrail and its fastenings only.

Steel posts and steel beam handrail shall be painted in accordance to Specification 509.07(c) except that the portion of the posts below the curb shall be painted the same as above the curb.

Cost of furnishing and placing galvanized nose plates and hardware for pile bracing posts and sway braces to be included in Unit Price bid for Item 514-A-1.

Contractor shall provide an approved method for supporting deck slab forms in precast stringers.

Two sets each of shop details for the following items shall be submitted to the designers for approval: Steel Beam handrail and Reinforcing Steel.

The lump sum bid for Item 204-A-1 will include the cost of removing this portion of the structure South of the South end of the Boise River Bridge truss. See Special Provisions for description of Items 204-A-1 & 204-A-2.

QUANTITIES

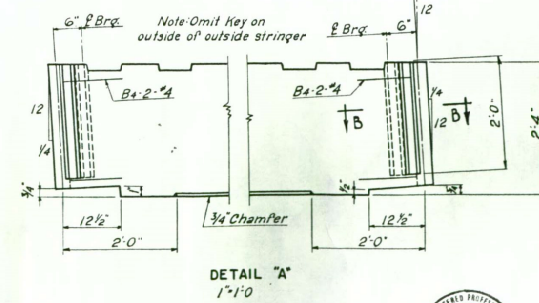
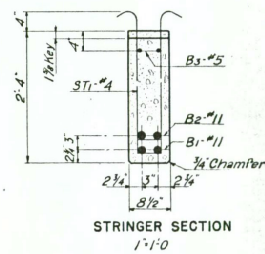
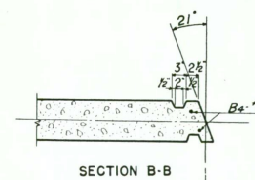
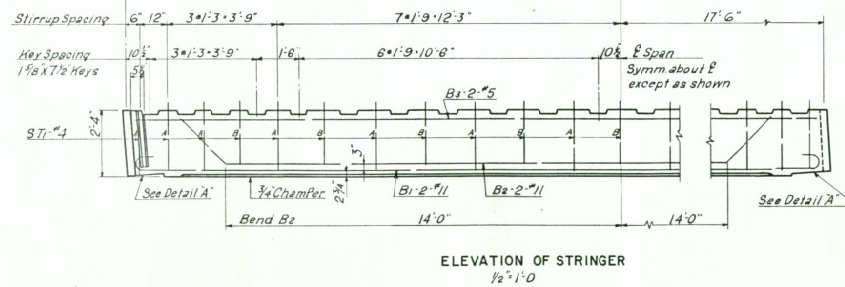
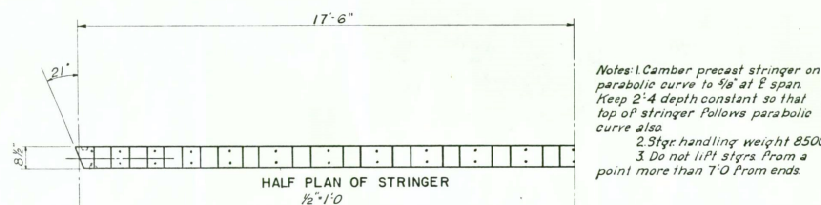
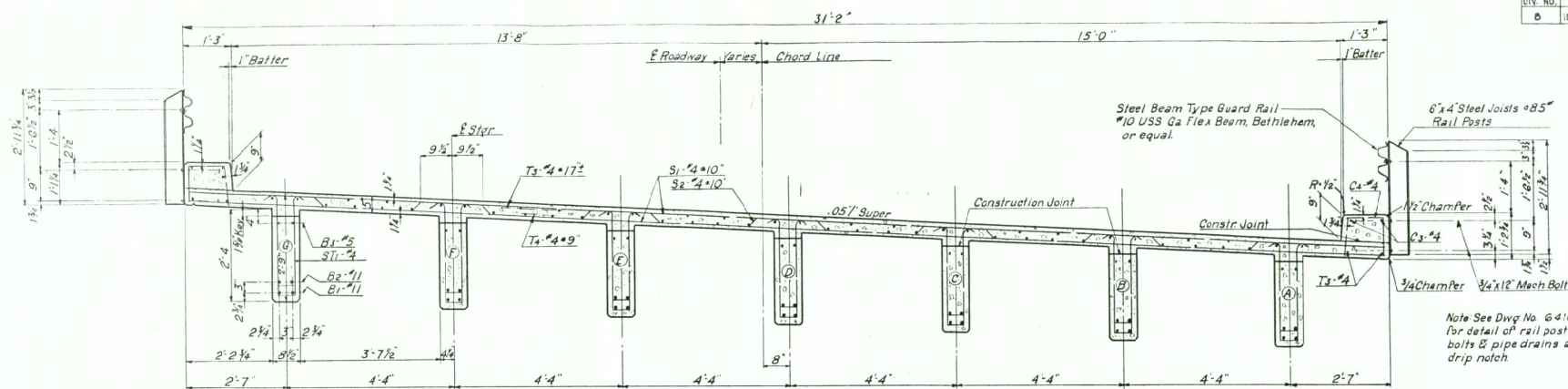
			Each	
204-A-1	Removal of Bridge		--	Each
204-A-2	Removal of Bridge		--	1 Each
207-B	Excavation for Structure	230 Cu.Yds.	30	Cu Yds.
214	Mechanical Tamping	360 Cu.Yds.	55	Cu Yds.
506-A-1	Concrete, Class "A", for Precast Slabs	30 Cu.Yds.	114	Cu.Yds.
506-A-2	Concrete, Class "A", Poured in Place	154 Cu.Yds.	278	Cu.Yds.
507	Metal Reinforcement	33160 Lbs.	86670	Lbs.
508-A	Structural Steel	676 Lbs.	279	Lbs.
508-C	Steel Beam Handrail for Con. Str.(10 Be.)	75.8 Lin.Ft.	650	Lin.Ft.
FUMC	Piling Drilling Equipment	Lump Sum		
510-A-2	Furnishing Pipe Driving Equipment			Lump Sum
510-B	Furnishing Timber Piles, Treated	266 Lin.Ft.	744	Ln. Ft.
510-F	Driving Timber Piles, Treated	216 Lin.Ft.	1682	Ln. Ft.
510-I	Driving Test Piles	50 Lin.Ft.	82	Ln. Ft.
514-A-1	FI900 #4 or Stress Gr.Timber, Creosote Treated	0.136 M.F.B.M.	9600	M.F.B.M.
514-A-2	FI900 #6 " " , Salts Treated	0.641 M.F.B.M.	0.71	M.F.B.M.
G07	Hand Placed Riprap		700	Cu.Yds.

DRAWINGS

General Plan & Elevation, Notes & Quantities	_____
Canal Bridge	- Slab Details & Rail Elevation _____
" "	- Abutment Section & Stringer Details _____
" "	- Abutment No. 1 Details _____
" "	- Abutment No. 2 Details _____
" "	- Bent Details _____
River Bridge	- Slab & Stringer Details _____
" "	- Abutment Details _____
" "	- Bent Details _____
Contour Map & E. Profile	_____

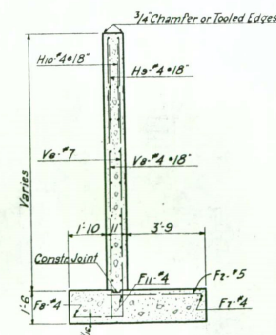
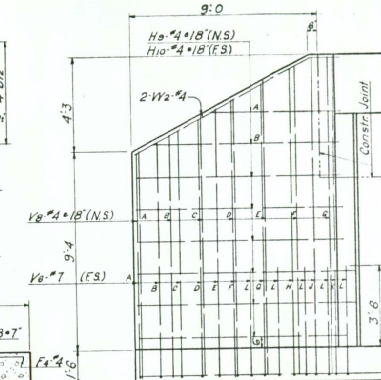
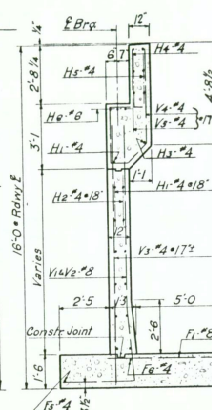
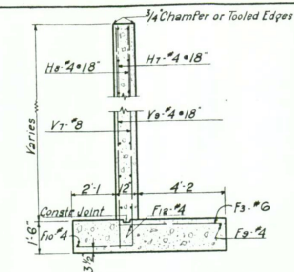
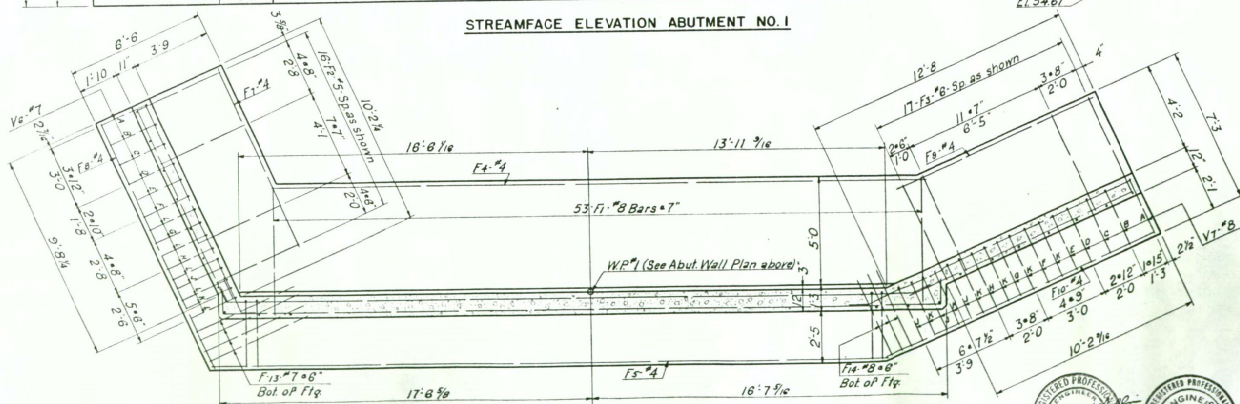
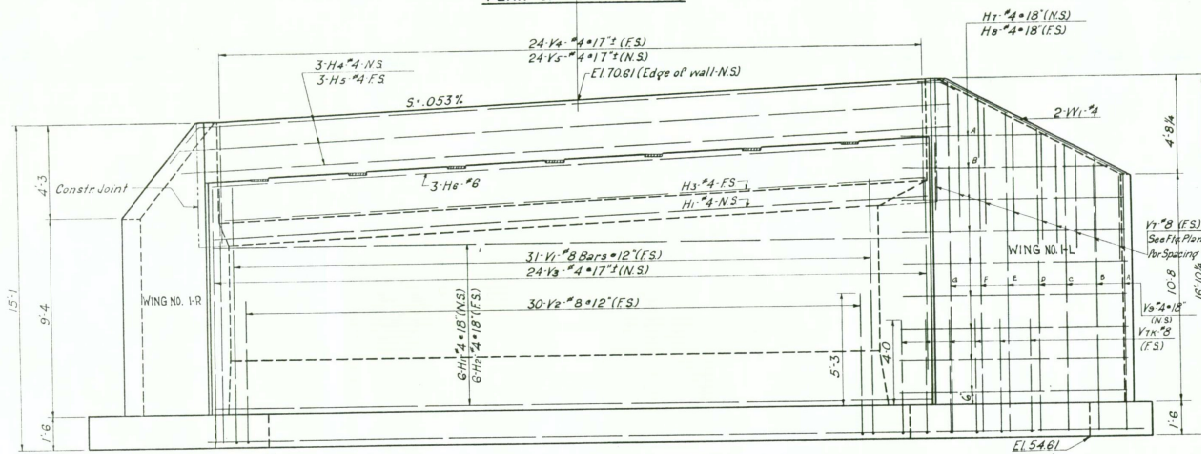
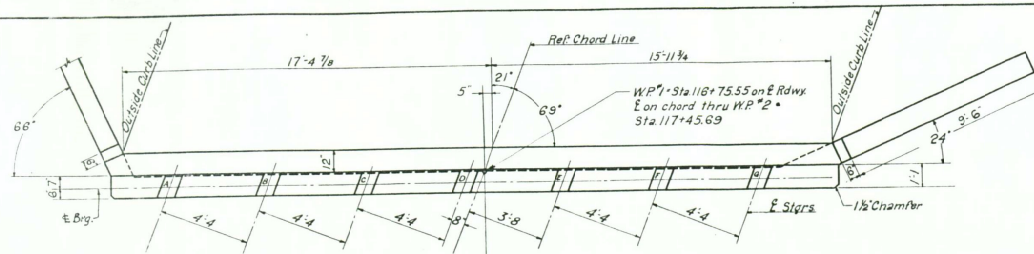
71' CONCRETE BRIDGE OVER RIDENBAUGH CANAL STA. 117 +10	
BARBER ROAD	ADA CO
315' CONCRETE BRIDGE OVER BOISE RIVER STA. 119 + 60	
BARBER ROAD	ADA CO
DESIGNED BY SMITH & MILLHOLLIN STRUCTURAL ENGINEERS	
BOISE	IDAHO
For COUNTY OF ADA <i>W. B. Anderson</i> Date <i>7/20/53</i>	
STATE OF IDAHO DEPARTMENT OF HIGHWAYS BOISE - IDAHO	
APPROVED: <i>W. B. Anderson</i> BRIDGE ENGR. DATE <i>7-2-53</i>	
FILE NO. 1166 DRAWING NO. 6404	

PUB. RES. DIV. NO.	STATE	S	TOTAL SHEETS	SHEET NO.
6	IDAHO	3785 (1)		



71' CONCRETE BRIDGE OVER RIDENBAUGH CANAL STA. 117 + 10	
BARBER ROAD	ADA CO.
DESIGNED BY SMITH & MILHOLLIN STRUCTURAL ENGINEERS	
BOISE	IDAHO
For COUNTY of ADA Approved: <i>H. H. Hendrix</i> Date: 7/1/53 <i>Heath Selman</i>	
STATE of IDAHO DEPARTMENT of HIGHWAYS BOISE - IDAHO	
APPROVED: <i>H. H. Hendrix</i> BRIDGE ENGR. DATE: 7-4-53	
FILE NO. 1166 DRAWING NO. 6406	

MICROFILM RECORD	DATE	FILE NO.	APPROVED BY	FRAME NO.
	1/22/77	14	SS	
METRIC 2	3	4	5	6
INCHES	1	2	3	4



PJ8 RDS DIV. NO.	STATE	5	TOTAL SHEETS	SHEET NO.
8	IDAHO	3785 (1)		

STGRSEAT	ELEV
A	6714
B	6739
C	6764
D	6788
E	6812
F	6837
G	6862

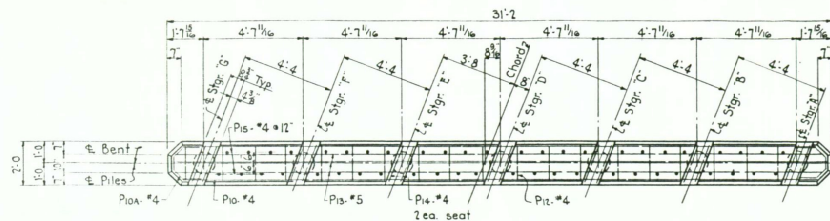
All Elevations are at the top surface of the $\frac{3}{4}$ " steel seat R's which are to be set level.

71' CONCRETE BRIDGE
OVER RIDENBACH CANAL
STA. 117 +10

BARBER ROAD	DESIGNED BY SMITH & MILHOLLIN STRUCTURAL ENGINEERS	ADA CO.
BOISE	For COUNTY OF ADA <i>Th. Hendrix</i> Dated 1/17/73 <i>7373 Alida Nelson</i>	IDAHO
STATE OF IDAHO DEPARTMENT OF HIGHWAYS BOISE - IDAHO		
APPROVED <i>Th. Hendrix</i>	DRAWING ENGR. DATE <i>2-4-73</i>	
FILE NO. 1166	BRIDGE NO. 6407	

Note: Scale of all views $\frac{1}{8}''=1'-0$

PUB. NOS.	STATE	S	TOTAL SHEETS	SHEET NO.
8	IDAHO	3785 (1)		

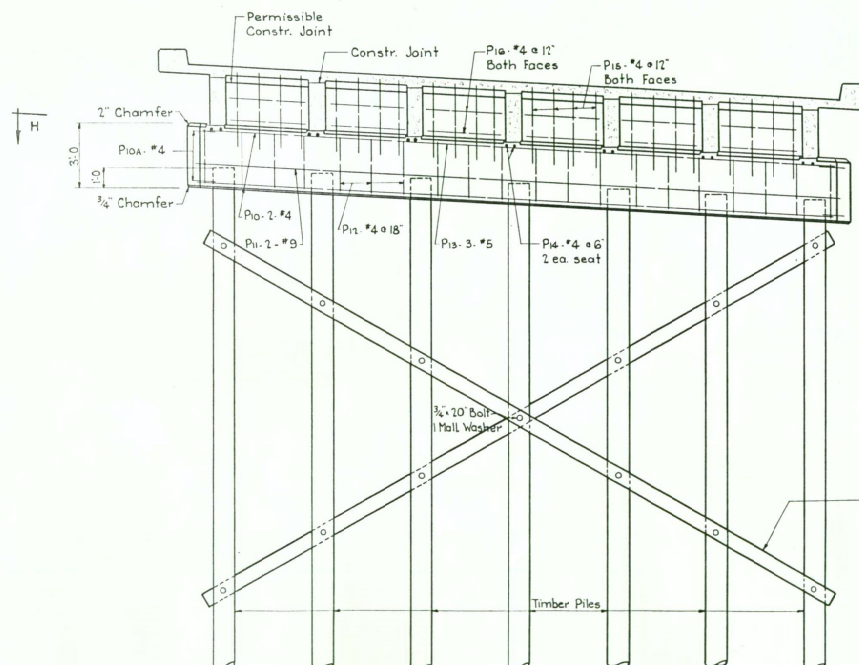


SECTION H-H
PLAN OF BENT CAP

3/8" = 1'-0"

BENT STRINGER
SEAT ELEVATIONS

Star	Elev.
A	66.51
B	66.76
C	67.01
D	67.25
E	67.49
F	67.74
G	67.99

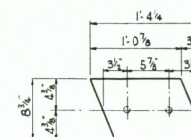


ELEVATION OF BENT

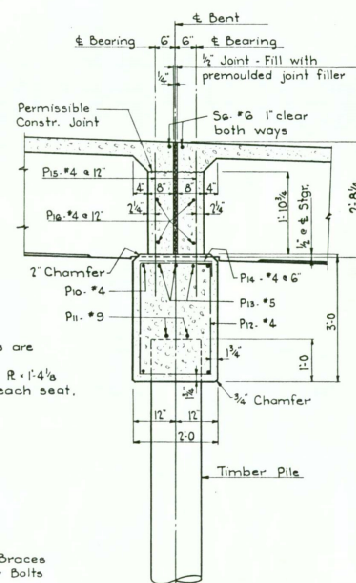
3/8" = 1'-0"

Note: All strg seats are to be level.
8 1/2" x 1/8" Lead R. 1'-4 1/8" to be placed in each seat.

3'-8" x 34'-0" Sway Braces
3/4" x 18" Galv. Safety Bolts
1 Mall. Washer.
Threads to be checked after tightening.



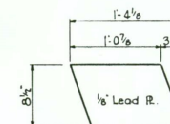
DETAIL OF STEEL BRG. R.
FOR ABUTMENT NO. 1
Make 1 thus
1 1/2" = 1'-0"



SECTION THRU BENT

3/8" = 1'-0"

Note: If premoulded joint filler is properly supported, concrete may be poured in adjacent spans during the same pour.



DETAIL OF LEAD BRG. PLATE

Make 28 thus
1 1/2" = 1'-0"

MICROFILM RECORD	DATE	FILE NO.	FRAME NO.
	1/22/71	A	58

METRIC	2	3	4	5	6	7	8	9	10
INCHES	1	2	3	4	5	6	7	8	9

71' CONCRETE BRIDGE
OVER RIDENBAUGH CANAL
STA. 117 + 10

BARBER ROAD ADA CO

DESIGNED BY
SMITH & NICHOLLIN
STRUCTURAL ENGINEERS

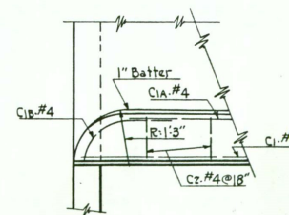
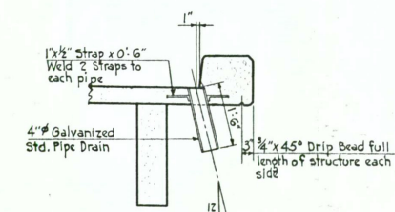
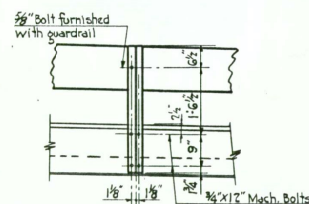
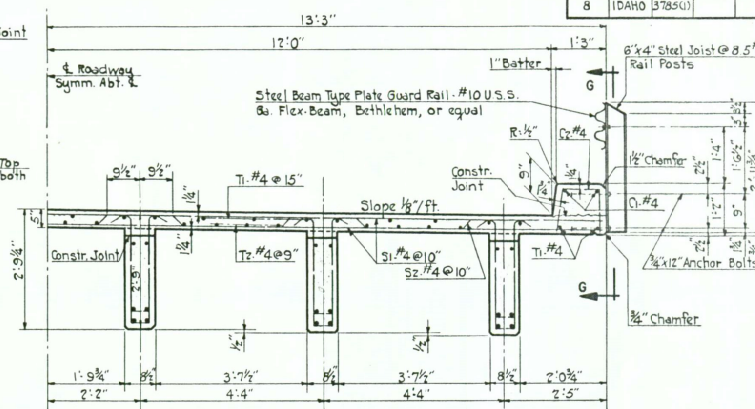
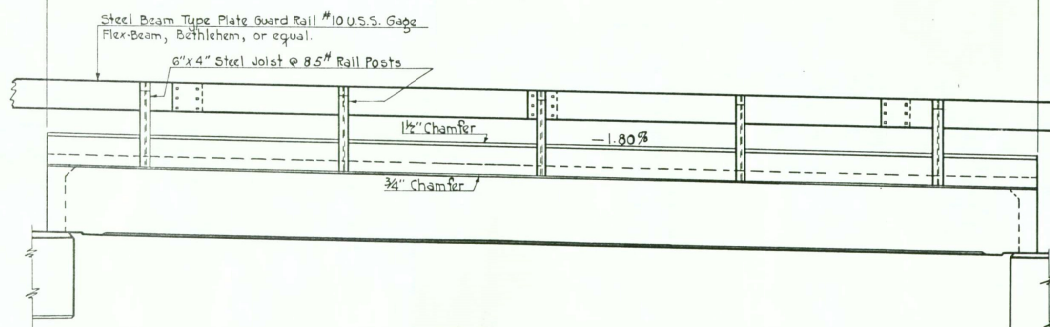
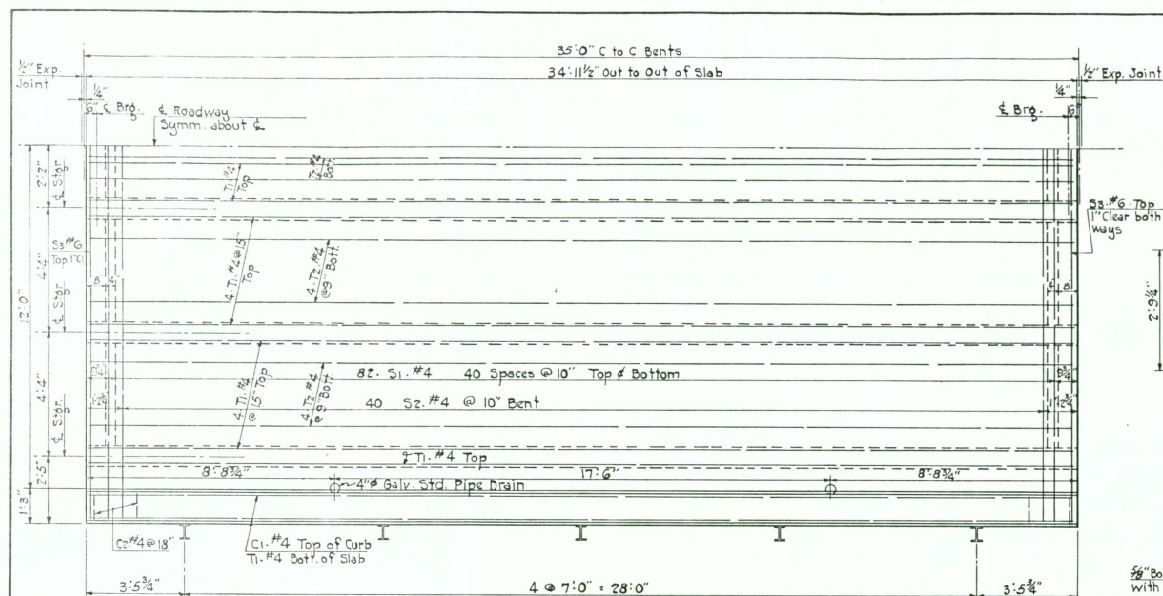
BOISE IDAHO

For COUNTY of ADA
Approved *W. H. H. H.*
Date *7/2/53*

STATE OF IDAHO
DEPARTMENT of HIGHWAYS
BOISE - IDAHO

Approved *W. H. H. H.*
BRIDGE ENGR. Date *7-4-53*

FILE NO. 1166 DRAWING NO. 6409



PUB. RDS DIV. No.	STATE	S	Total SHEETS	SHEET No.
8	IDAHO	3785(1)		

315' CONCRETE BRIDGE
OVER BOISE RIVER
STA 119+60

BARBER ROAD ADA C

DESIGNED BY
SMITH & MOLLHILL
STRUCTURAL ENGINEERS

BOISE IDAHO

For COUNTY OF ADA

Approved: *W. F. Hendrix*

Date: *1-26-66*

STATE OF IDAHO

DEPARTMENT OF HIGHWAYS

BOISE - IDAHO

APPROVED: *H. A. ...*

BRIDGE ENGR. DATE *4-4-66*

FILE NO. 1166 DRAWING NO. 6410

Notes: 1. Camber precast stringer on parabolic curve to $\frac{3}{8}$ " at $\frac{1}{2}$ span. Keep 2'-4" depth constant so that top of stringer follows parabolic curve also.

2. Stgr. handling weight 8500#

3. Do not lift stgrs. from a point more than 7'-0" from ends.



315' CONCRETE BRIDGE
OVER BOISE RIVER
STA. 119 + 60

BARRIER ROAD ADA CO
DESIGNED BY
SMITH & MILHOLLIN
STRUCTURAL ENGINEERS

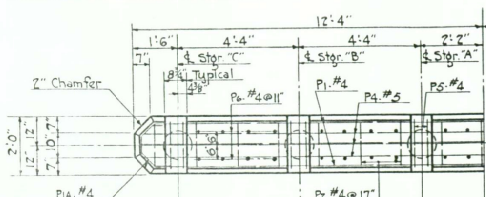
BOISE IDAHO

FOR COUNTY OF ADA
Th. H. Hendrix
Approved
Heath Schum
Date 7/17/53

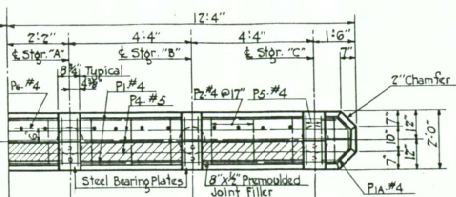
STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED:
H. Atchison BRIDGE ENGR. DATE 7-4-53

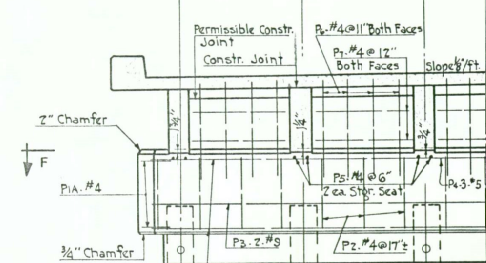
FILE NO. 1166 DRAWING NO. 6411



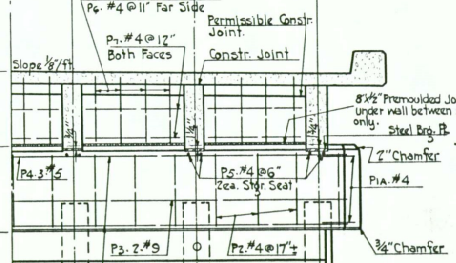
SECTION E-E
HALF PLAN OF FIXED BENT CAP
1/2" : 1'0"



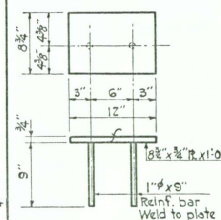
SECTION F-F
HALF PLAN OF EXPANSION BENT CAP
1/2" : 1'0"



HALF ELEVATION BENTS 2, 4, 5, 7
1/2" : 1'0"



HALF ELEVATION BENTS 1, 3, 6, 8
1/2" : 1'0"



DETAIL OF EXPANSION
BEARING PLATE
MAKE 24 THUS
1/2" : 1'0"

This detail typical for downstream end of all bents.

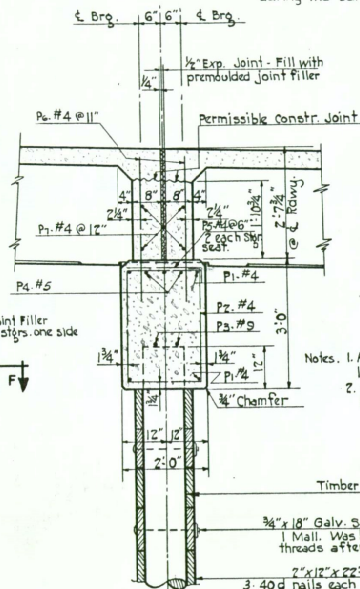
SECTION E-E
1/2" : 1'0"

Top of R.P.
El. 57.0
26" x 11ga. x 10'0" Galv. Bent R. upstream pile only. Locate holes in field.

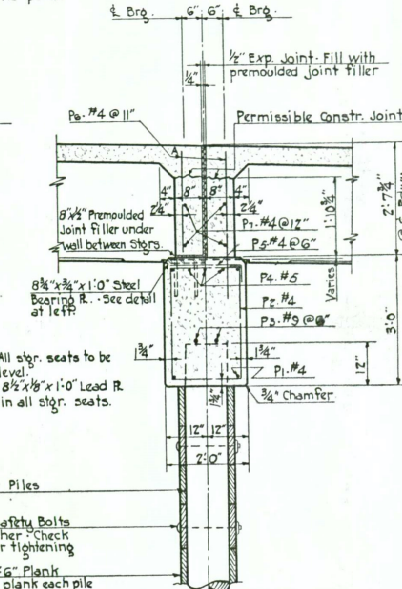
E

This detail typical for upstream end of all bents

Note: If premoulded joint filler is properly supported, concrete may be poured in adjacent spans during the same pour.



SECTION THRU FIXED BENT
3/4" : 1'0"



SECTION THRU EXPANSION BENT
3/4" : 1'0"

Pile Off	Elev. Top of Cap	Elev. Seat 'A'	Elev. Seat 'B'	Elev. Seat 'C'	No. of Pile	No. of Bolts
Abut. 1	63.67	65.67	65.61	65.57	0	0
Bent 1	63.04	65.04	64.98	64.94	26	39
" 2	62.41	64.41	64.35	64.27	28	42
" 3	61.78	63.78	63.72	63.68	28	42
" 4	61.15	63.15	63.09	63.05	26	39
" 5	60.52	62.52	62.46	62.42	26	39
" 6	59.89	61.89	61.83	61.79	24	36
" 7	59.26	61.26	61.20	61.16	22	33
" 8	58.63	60.63	60.57	60.53	20	30
Abut. 2	58.00	60.00	59.94	59.90	0	0

315' CONCRETE BRIDGE
OVER BOISE RIVER
STA. 119 + 60

BARBER ROAD ADA CO.

DESIGNED BY
SMITH & MILHOLLIN
STRUCTURAL ENGINEERS

BOISE IDAHO

For COUNTY OF ADA

Approved: *W. B. Smith*

Date: 7/1/53

STATE OF IDAHO

DEPARTMENT OF HIGHWAYS

BOISE - IDAHO

APPROVED: *W. B. Smith*

BRIDGE ENGR. DATE 7-4-53

FILE NO. 1166 DRAWING NO. 5412



