FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	489-A	1928

1/6

Ashtabula Co.
S.H. (I.C.H.) 15.
Sec. E. Bridge.
SR 322
Rec 3/5/25

STATE OF OHIO
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DIVISION OF HIGHWAYS

STANDARD STEEL TRUSS BRIDGE
OVER
ROCK CREEK
ON
CLEVELAND-MEADVILLE ROAD
S.H. (I.C.H.) NO. 15 SEC. E PET. NO. 6278
ASHTABULA COUNTY
ORWELL TWP.
1928

SCALES

LOCATION PLAN	1" = 1 Mi.
PROFILE	Vert. 1" = 10' - Hor. 1" = 20'
PLAN	1" = 20'
CROSS SECTIONS	1" = 5'
DETAILS	AS SHOWN

INDEX

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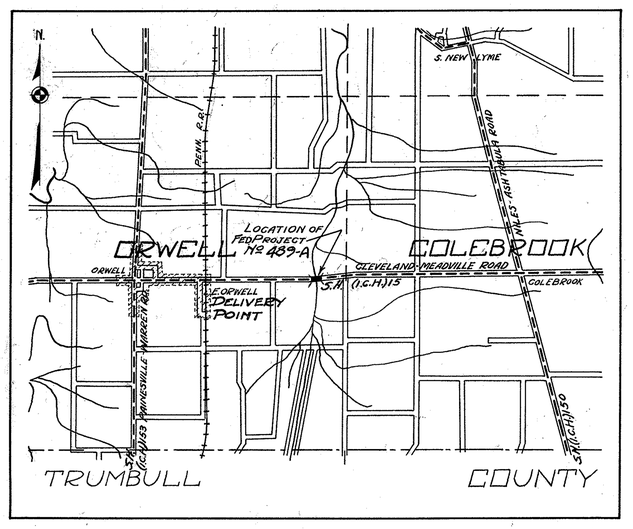
PLAN & PROFILE	P-2
CROSS SECTIONS	P-3
DETAILS	P-4 & 5
SUMMARY SHEET	P-4
STANDARD STEEL TRUSS BRIDGE DRAWING No. Sc. 75-24-S.	P-6



LOCATION PLAN

PORTION TO BE IMPROVED
IMPROVED ROADS

The Standard Specifications of the State of Ohio, Division of Highways, in force on date of contract will govern this improvement.

I hereby approve these plans, and declare that the making of this improvement will not require the closing to traffic of the highway, and that a temporary bridge will be provided as shown on plans and estimates

Approved: D. W. Leggett
Date: 1-5-1928 Resident Engineer.

Approved: L. A. Bruce
Date: 1-18-28 Division Engineer.

Approved: J. P. Burkey.
Date: 1-28-28 Chief Engineer of Bridges.

Approved: Carl J. Brighton
Date: 3-2-28 Chief Engineer of Construction.

Approved: Harry J. Kite
Date: 3-3-28 Chief Engineer.

Approved: S. F. Ahlemeyer
Date: 3-3-28 Director of Highways.

Recommended for Approval: _____
Date: _____ District Engineer
Bureau of Public Roads.

Recommended for Approval: _____
Date: _____ Chief Engineer
Bureau of Public Roads.

Approved: _____
Date: _____ Chief of Bureau.

We, the Commissioners of Ashtabula County, hereby approve these plans and certify that the right of way 60' wide is available for the construction, maintenance and repair of the above structure.

W. A. Wheeler
O. P. Beckwith
G. A. Gloading
Date: 2-3-28 County Commissioners.

CONSTRUCTION BUREAU
SEP 16 1955
GROUND PHOTOLAB

6

Ashtabula - 15 - E. Bridge
1928

Note No. 4.–Traffic will be maintained at the site of this project by building and maintaining a cinder roadway and temporary bridge; the temporary bridge shall be ample for one-way traffic and shall be designed to carry 12 tons on two axles, 10 ft. c.to.c. and 6 ft gauge; the material in the present covered bridge may be used for building the temporary bridge, provided said material is not damaged; The design of said bridge is subject to the approval of the Department. The temporary bridge and roadway shall be maintained in good condition during the construction of this project.
After the project is completed the temporary bridge shall be removed and all material from the old covered bridge shall be stored in a convenient place for the use of Ashtabula County and the site cleared of all rubbish and debris.

Note No. 1. The superstructure plans for this project shall be State of Ohio Standard Steel Truss Bridge with Reinforced Concrete floor Drawing No. Sc. 75-24 s.
No. 2. The wearing course shall be composed of cement concrete 1–5 Mix 4" in thickness
No. 3 The approaches shown in the estimate as Item B-2 & Special - 15" W. B. Macadam shall be built in 3 courses, each course being compacted to 5" and thoroughly filled with screenings
No. 4 - Remove old Covered Timber Lattice Truss - Span 55' - Rdwy. 16' - Vert. Clearance 14'

Cleveland-Meadville Road S.H.(I.C.H.)15 Sec. E Bridge Ashtabula County Orwell Twp. 1928	2 / 6

FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
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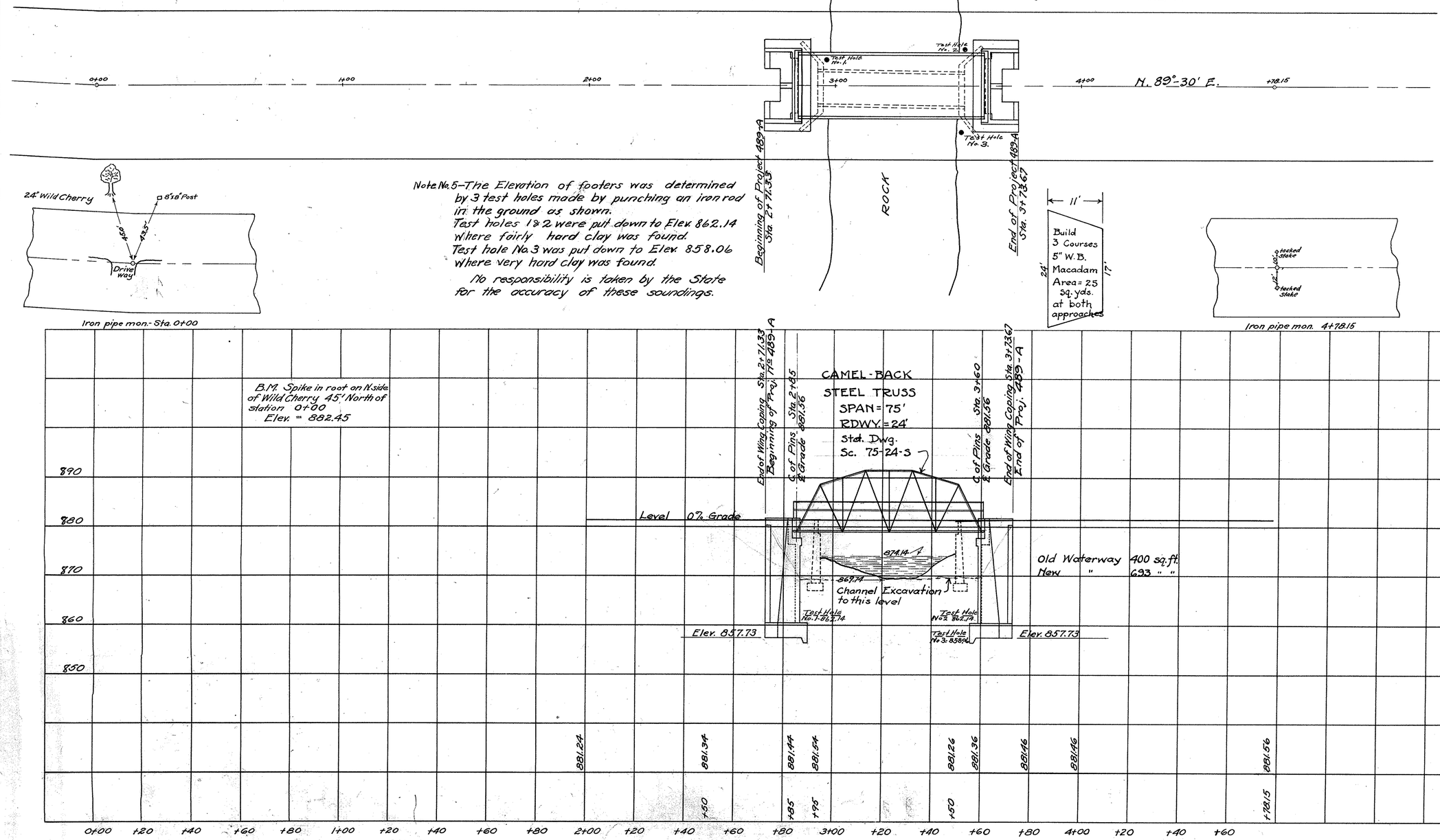

Note No. 5–The Elevation of footers was determined by 3 test holes made by punching an iron rod in the ground as shown.
Test holes 1 & 2 were put down to Elev. 862.14 where fairly hard clay was found.
Test hole No. 3 was put down to Elev. 858.06 where very hard clay was found.
No responsibility is taken by the State for the accuracy of these soundings.

Reviewed by W.H.R. - 1/23/28

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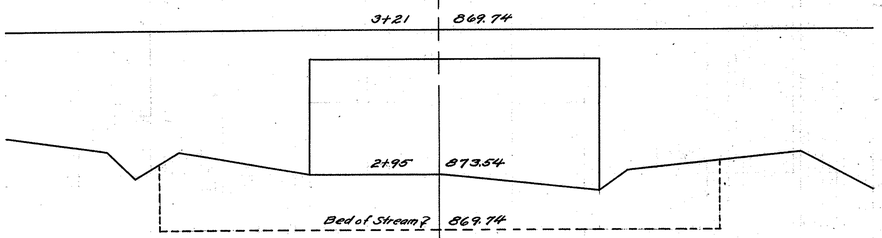
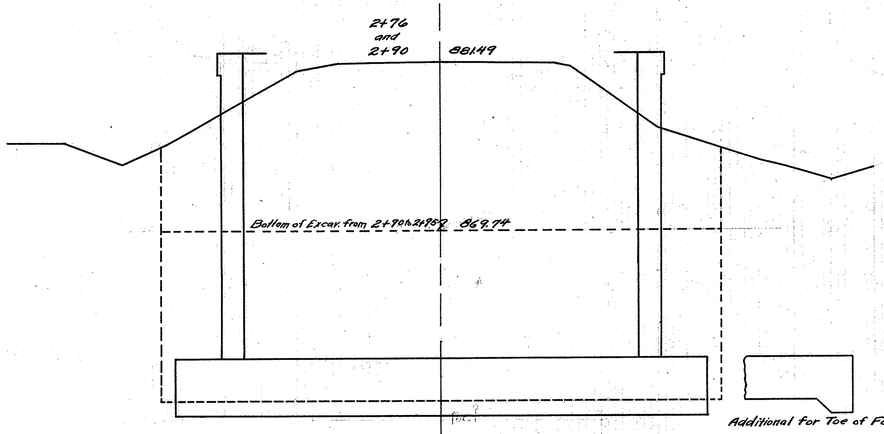
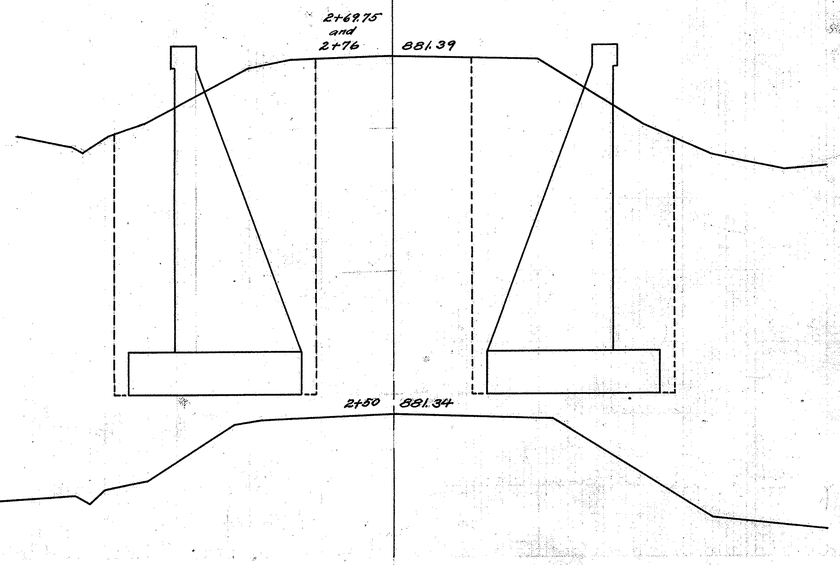
Cleveland-Meadville Road
S.H.(I.CH.)15 Sec. E
Bridge
Ashtabula County Orwell Twp.
1928

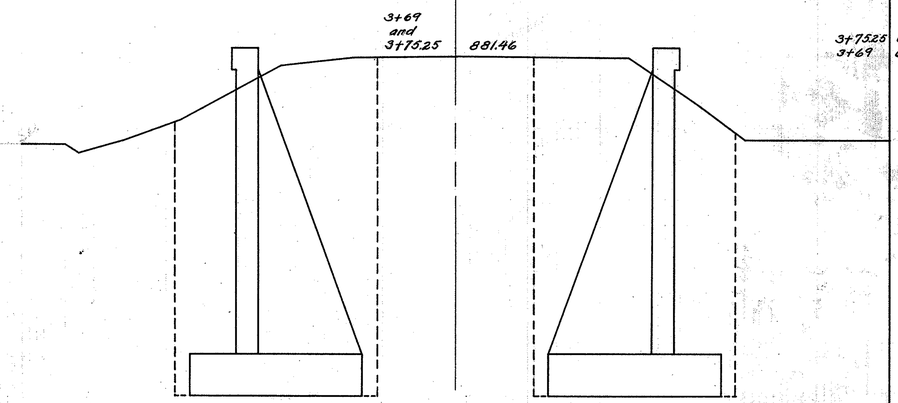
3
6

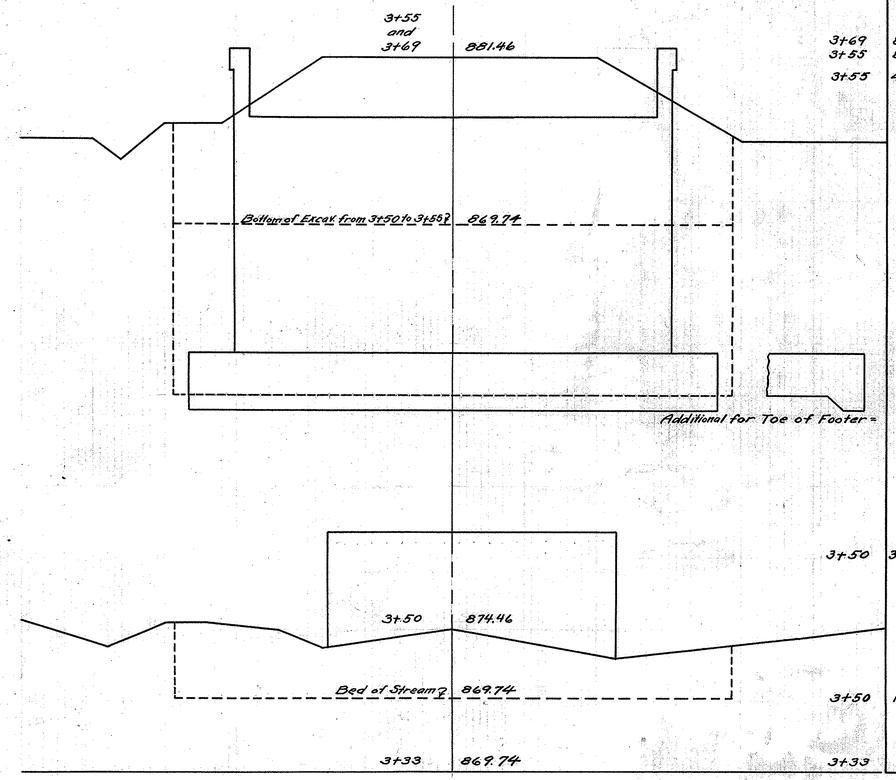






	End Area Cut	End Area Fill	Cu. Yd. Cut	Cu. Yd. Fill
3+21	0		(75.3) Channel Excavation	
2+95	156			
2+95	322			
			657	
2+90	388			
2+90	856			
2+76	856		443.8	
			4.5	
2+76	602			
2+69.75	602		139.4	





	End Area Cut	End Area Fill	Cu. Yd. Cut	Cu. Yd. Fill
3+75.25	629			
3+69	629		145.6	
3+69	863			
3+55	863		447.5	
3+55	400			
			66.0	
			4.5	
3+50	313			
3+50	157			
			(49.4) Channel Excavation	
3+33	0			

Reviewed by W. H. R. - 1/23/28

Cleveland-Meadville Road
S.H.(I.C.H)15 Sec. E
Bridge
Ashtabula County Orwell Twp.
1928

4
6

FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
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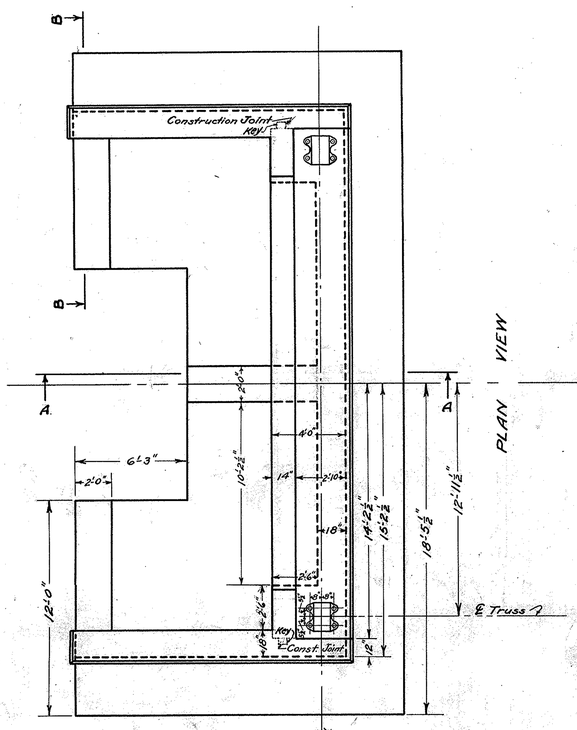
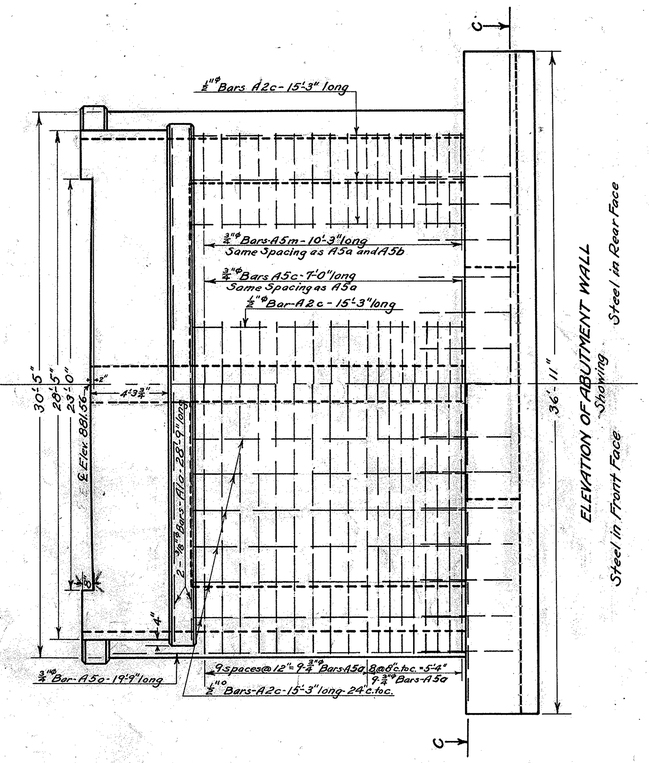
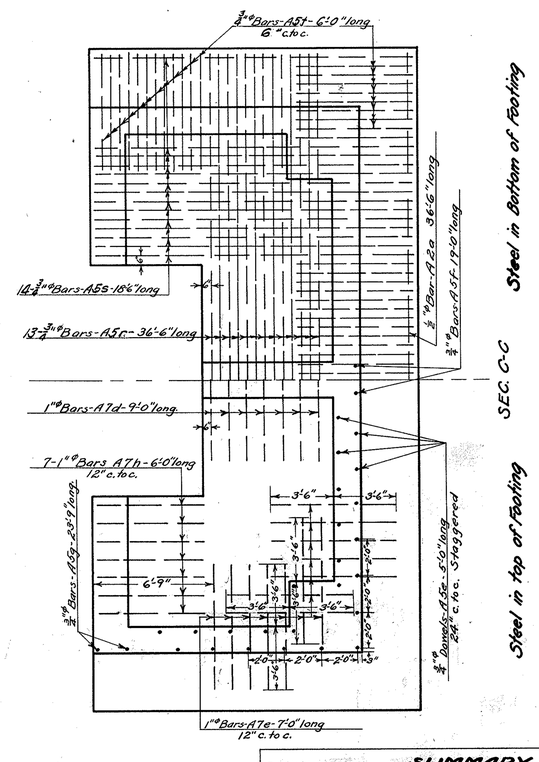


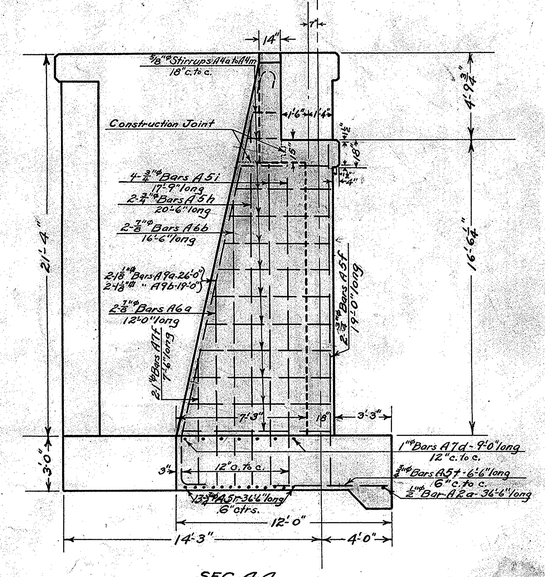




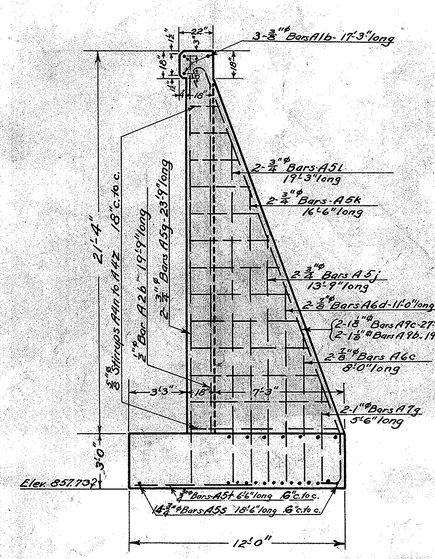
Scale 1/4" = 1'

Note: Apply Type "A" waterproofing to the back of the abutments above El. 780. and between the floor slab and the wearing surface of the superstructure.

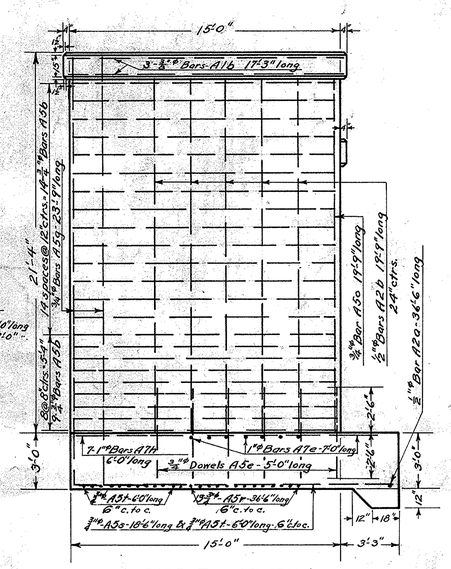
Provide Type "B" waterproofing at all construction joints, above Elev. 780.



SEC. A-A
Showing
Steel in Abut. Counterfort



SEC. B-B
Showing
Steel in Wing Counterfort



SIDE ELEVATION
Showing
Wing Wall Steel

SUMMARY OF QUANTITIES

Specification Item Reference		
		SUBSTRUCTURE
R-2	1320.0	Cu. Yds. Excavation (Unclassified) incl. Backfill,
R-2	Lump	Cofferdams, Sheathing, Bracing and Pumping.
R-3	125.0	" " Excavation (Unclassified) Channel.
S-1	137.3	" " 1-6 1/2 Concrete (Footers).
"	187.0	" " 1-5 1/2 " (Walls).
S-4	21180	Lbs. Reinforcing Steel in place.
S-3	210	Sq. Yds. Type "A" Waterproofing.
"	40.0	" " " "B" "
B-2 and Special	50.0	" " 15" W.B. Macadam (3-5" Courses).
S-12	46.0	Lin. Ft. Type "R.R.4" Concrete Railing.
Special		Removing & Storing Old Bridge for use of County.
		SUPERSTRUCTURE
S-5	89000	Lbs. Structural Steel in Place.
S-4	7010	" Reinforcing " " "
S-1	38.3	Cu. Yds. 1-5 Concrete (Floor Slab).
T-7	185.3	Sq. Yds. 1-5 " Wearing Surface 4" Thick.
S-3	190.6	" " Type "A" Waterproofing Floor Slab One Coat.
		Erecting & Maintaining Temporary Bridge and
		Roadway including Right of Way Rental.
		Maintaining Lights, Signs & Barricades.
		Premium on Industrial Insurance.

DESIGNED BY	DR. & TR. BY	CHECKED BY	REVIEWED BY
A.G. BIXLER	R.E. JEROME	C.S. DEMOS	M.H. RABE

FED AID DIST NO.	STATE	FED AID PROJECT	FISCAL YEAR
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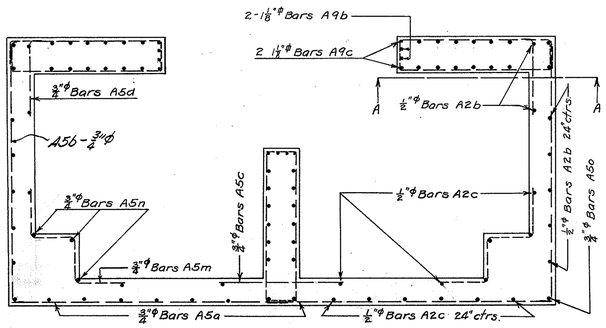
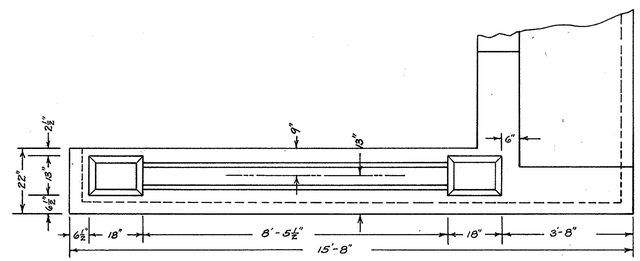
Cleveland Meadville Road
S.H.(I.C.H) 15. Sec. E.
Bridge
Ashtabula County Orwell Twp
1928

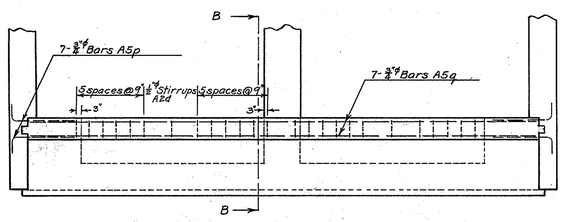
5/6



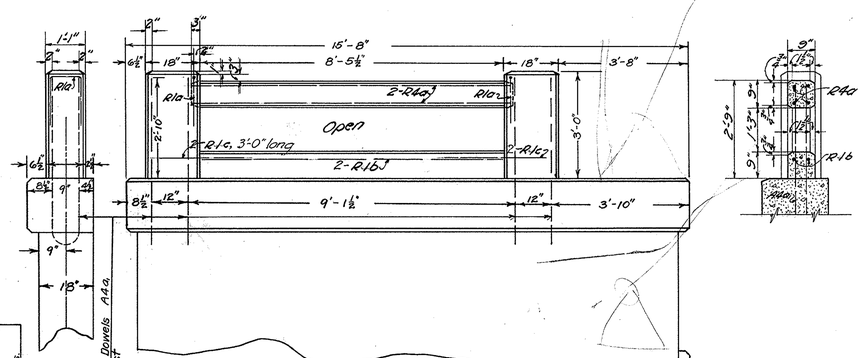
Horizontal section through wall at top of footer.
Scale ¼"=1'



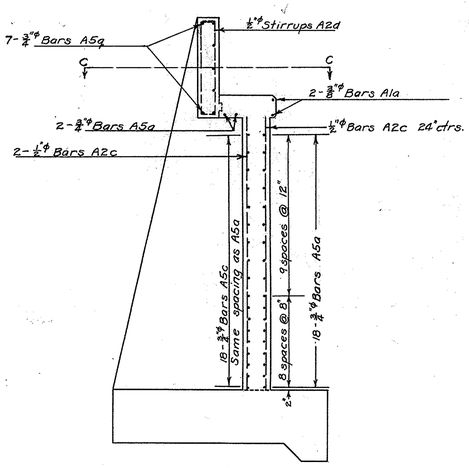
PLAN OF WING
Showing Standard Railing (Type RR-4) Scale ¼"=1'



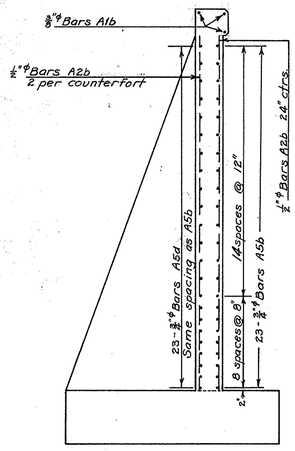
SECTION CC
Showing Backwall steel. Scale ¼"=1'



SIDE AND END ELEVATIONS OF WING
Showing position of railing dowels, panel length etc.
Scale ¼"=1'



SECTION BB
Scale ¼"=1'



SECTION AA
Scale ¼"=1'

TABLE OF STEEL

BENDS	SIZE	Length	MARK	LOCATION	NO.	WEIGHT
Straight	⅜"φ	28'-9"	A1a	Bridge Seat Coping	4	43.2
R=14" 15'-4" 2½"	"	17'-3"	A1b	Wing Copings	12	77.8
Straight	½"φ	36'-6"	A2a	Abut. footer cantilever	2	48.8
"	"	19'-9"	A2b	Vertical in wings	28	369.4
"	"	15'-3"	A2c	" " abutment	36	366.7
10" 17" 8'-0"	"	12'-3"	A2d	Backwall hoops	52	425.5
X=8'-2½"	⅝"φ	20'-9"	A4a	Abut. Counterfort Hoops	2	43.3
X=7'-10"	"	20'-0"	A4b	" " "	2	41.7
X=7'-7"	"	19'-6"	A4c	" " "	2	40.7
X=7'-2½"	"	18'-9"	A4d	" " "	2	39.1
X=6'-10"	"	18'-0"	A4e	" " "	2	37.5
X=6'-7"	"	17'-6"	A4f	" " "	2	36.5
X=6'-2½"	"	16'-9"	A4g	" " "	2	34.9
X=5'-10"	"	16'-0"	A4h	" " "	2	33.4
X=5'-7"	"	15'-6"	A4i	" " "	2	32.3
X=5'-2½"	"	14'-9"	A4j	" " "	2	30.8
X=4'-10"	"	14'-0"	A4k	" " "	2	29.2
X=1'-8½"	"	7'-9"	A4l	" " "	2	16.2
X=1'-4"	"	7'-0"	A4m	" " "	2	14.6
X=8'-2½"	"	20'-9"	A4n	Wing " "	4	86.6
X=7'-8½"	"	19'-9"	A4o	" " "	4	82.4
X=7'-2½"	"	18'-9"	A4p	" " "	4	78.2
X=6'-7"	"	17'-6"	A4q	" " "	4	73.0
X=6'-1"	"	16'-6"	A4r	" " "	4	68.8
X=5'-7"	"	15'-6"	A4s	" " "	4	64.7
X=4'-11½"	"	14'-3"	A4t	" " "	4	59.4
X=4'-5½"	"	13'-3"	A4u	" " "	4	55.3
X=3'-10"	"	12'-0"	A4v	" " "	4	50.1
X=3'-4"	"	11'-0"	A4w	" " "	4	45.9
X=2'-10"	"	10'-0"	A4x	" " "	4	41.7
X=2'-2½"	"	8'-9"	A4y	" " "	4	36.5
X=1'-7"	"	7'-6"	A4z	" " "	4	31.3
9" π=4½" 4'-3½"	"	9'-9"	A4a,	Railing Dowels	16	162.7
14'-0" R=3" 4½"	¾"φ	15'-6"	A5b	Wing Walls - Front Face	92	2141.9
Straight	"	7'-0"	A5c	Abut. " Rear "	36	378.5
4'-0" R=3" 4½"	"	4'-9"	A5d	Wing " " "	92	656.4
Straight	"	30'-0"	A5a	Abut. " Front "	40	1802.4
"	"	5'-0"	A5e	Wall dowels in footer	96	721.0
"	"	19'-0"	A5f	Vert. in abut. counterfort	4	114.2
"	"	23'-9"	A5g	" " wing "	8	285.4
"	"	20'-6"	A5h	" " abut. "	4	123.2
"	"	17'-9"	A5i	" " " "	8	213.3
"	"	13'-9"	A5j	" " wing "	8	165.2
"	"	16'-6"	A5k	" " " "	8	198.3
"	"	19'-3"	A5l	" " " "	8	231.3
R=3" 12" 4½"	"	10'-3"	A5m	Corner Buttress	72	1108.5
Straight	"	16'-0"	A5n	" "	12	288.4
Straight	"	19'-9"	A5o	" "	4	118.7
3'-0" R=3" 4½"	"	4'-6"	A5p	Back wall studs	28	189.3
Straight	"	28'-0"	A5q	" "	14	588.8
Straight	⅜"φ	12'-0"	A6a	Vert. in Abut. Counterfort	4	98.1
"	"	16'-6"	A6b	" " " "	4	134.9
"	"	8'-0"	A6c	" " Wing "	8	130.8
"	"	11'-0"	A6d	" " " "	8	179.9
"	⅝"φ	36'-6"	A5n	Abut. Footer - Rear Bottom	26	1425.4
R=4" 17'-5"	"	18'-6"	A5s	Wing " Bottom	56	1536.1
Straight	"	6'-0"	A5t	Footer Cantilever	138	1243.7
"	1"φ	9'-0"	A7d	Top of Footer - Abut. C'fort	14	336.4
"	"	7'-0"	A7e	" " "	56	1046.6
"	"	7'-6"	A7f	Vert. in Abut. counterfort	4	80.1
"	"	5'-6"	A7g	" " wing "	8	117.5
5½" 5'-0"	"	6'-0"	A7h	Top of footer.	28	448.6
R=44½" X A9a; X=20'-6" A9c; X=21'-6" R=22½" 16½"	1⅛"φ	26'-0"	A9a	Rear of Abut. C'fort.	4	447.5
2-44½" R=44½" 15'-2½" 16½"	1⅛"φ	27'-0"	A9c	" " Wing "	8	929.4
	"	19'-0"	A9b	" " all "	12	981.1
				Total Steel in Abutments		21173.1

DESIGNED BY	DR. & TR. BY	CHECKED BY	REVIS
A.G. BIXLER	T.W. KINNEAR	C.S. DEMOS	W.M.