

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISC. YE.
10	OHIO		

S.H. 405 SEC. F-2
GALLIA COUNTY

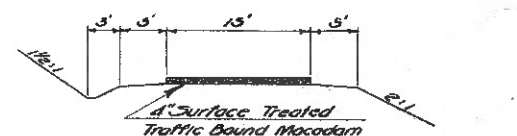
Item No.	Station	Location	Corr. M. Pipe		E-1 Exc. Cu. Yds.	Borrow Cu. Yds.	I-17 Mat'ial Cu. Yds.
			12" Lin. Ft.	15" Lin. Ft.			
1-A	32+00	South E.	16				3.0
2-A	36+18	North E.	200				12.0
3-A	39+58	South E.				1134	26.3
4-A	40+38	North E.	450		444	172	30.5
5-A	42+50	North E.					3.0
Totals			216	30	444	1306	33.0

* From 18.38' Left of Sta. 0+32.57 to 1322' Right of Sta. 0+31.71 (Stations measured along County Road)

PROPOSED STRUCTURE
Conc. Br. with Continuous Steel Beams
Span + 64'-00" - 64'-00" Brgs (208' Total)
24' Roadway

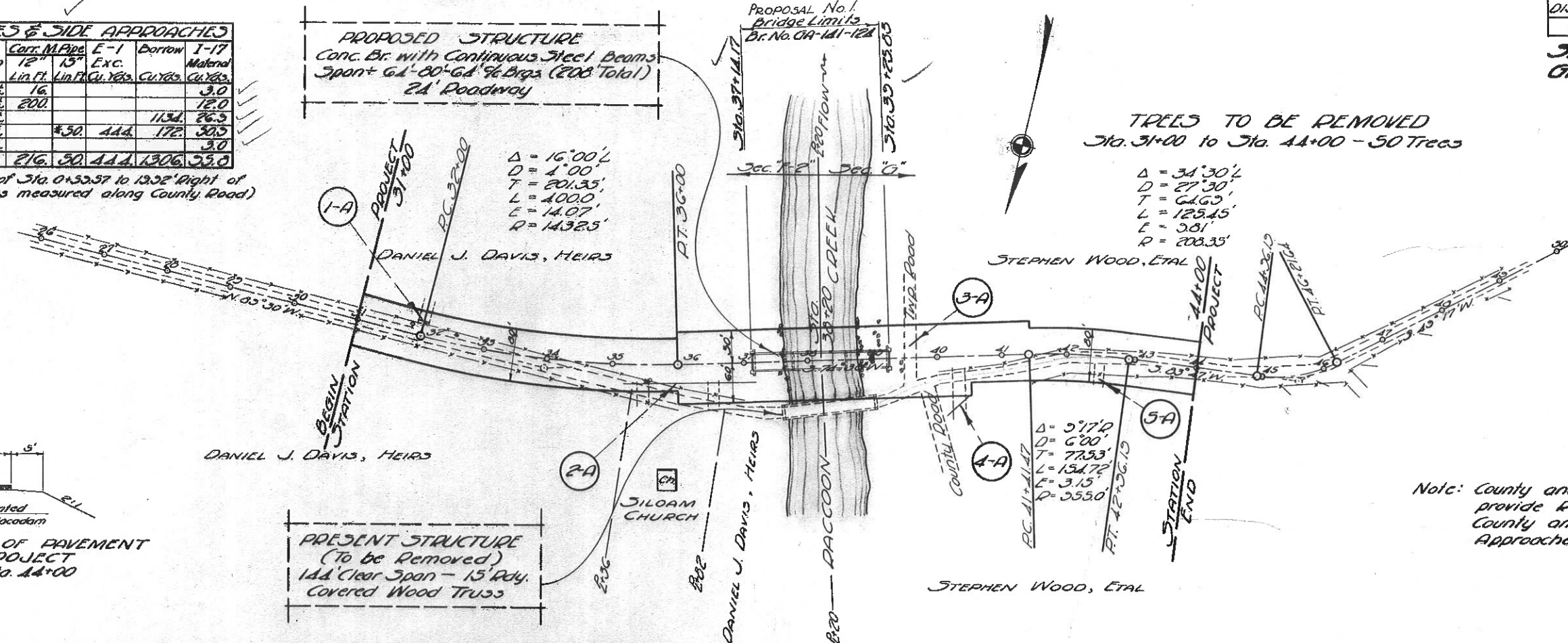
PROPOSAL No. 1
Bridge Limits
Dr. No. GA-141-124

TREES TO BE REMOVED
Sta. 31+00 to Sta. 44+00 - 50 Trees



TYPICAL SECTION OF PAVEMENT ADJOINING PROJECT
Sta. 31+00 & Sta. 44+00

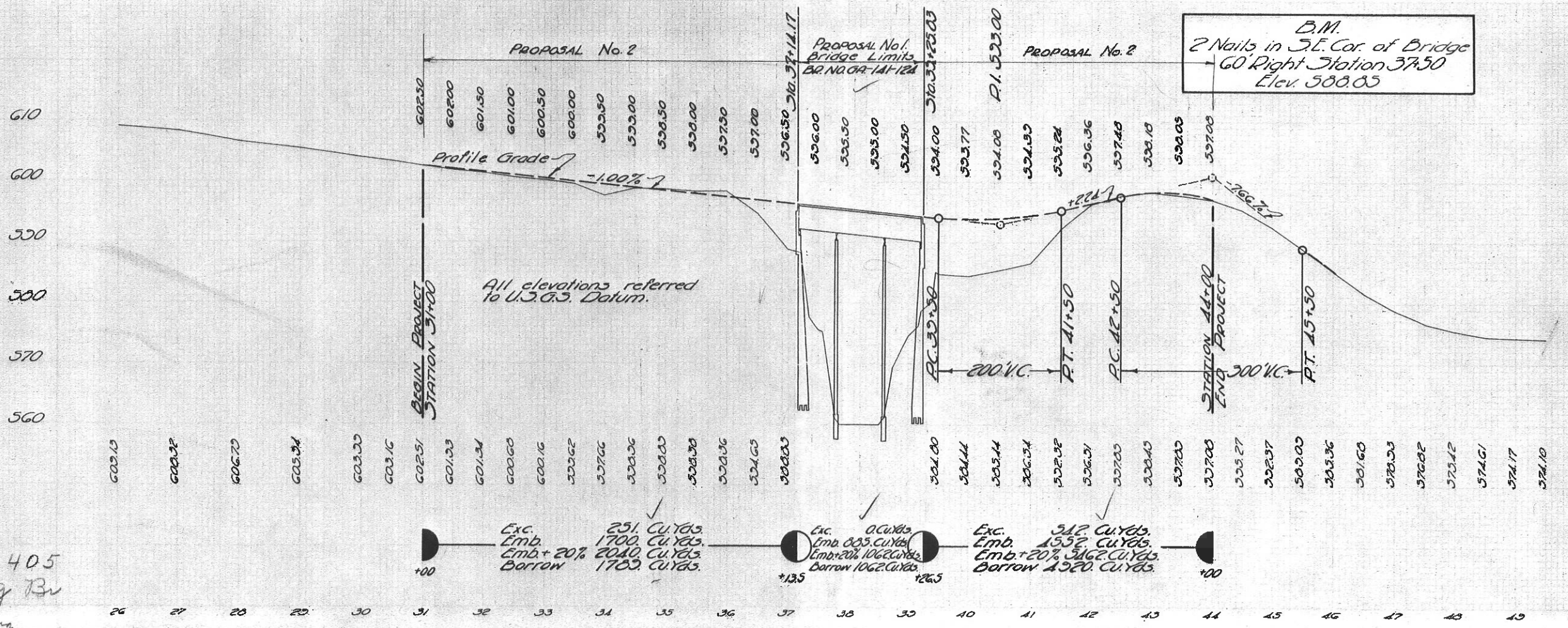
PRESENT STRUCTURE
(To be Removed)
144' Clear Span - 15' Rdwy.
Covered Wood Truss



$\Delta = 34.30'$
 $D = 27.30'$
 $T = 64.63'$
 $L = 125.45'$
 $E = 3.81'$
 $R = 208.35'$

$\Delta = 57.70'$
 $D = 6.00'$
 $T = 77.53'$
 $L = 154.72'$
 $E = 3.15'$
 $R = 355.0'$

Note: County and Township to provide Right-of-Way for County and Township Road Approaches, respectively.



B.M.
2 Nails in S.E. Cor. of Bridge
60' Right Station 37.50
Elev. 588.85

All elevations referred to U.S.G.S. Datum.

Exc. 0 Cu. Yds. Emb. 805 Cu. Yds. Emb. + 20% 1062 Cu. Yds. Borrow 1062 Cu. Yds.

Exc. 312 Cu. Yds. Emb. 1552 Cu. Yds. Emb. + 20% 3162 Cu. Yds. Borrow 1520 Cu. Yds.

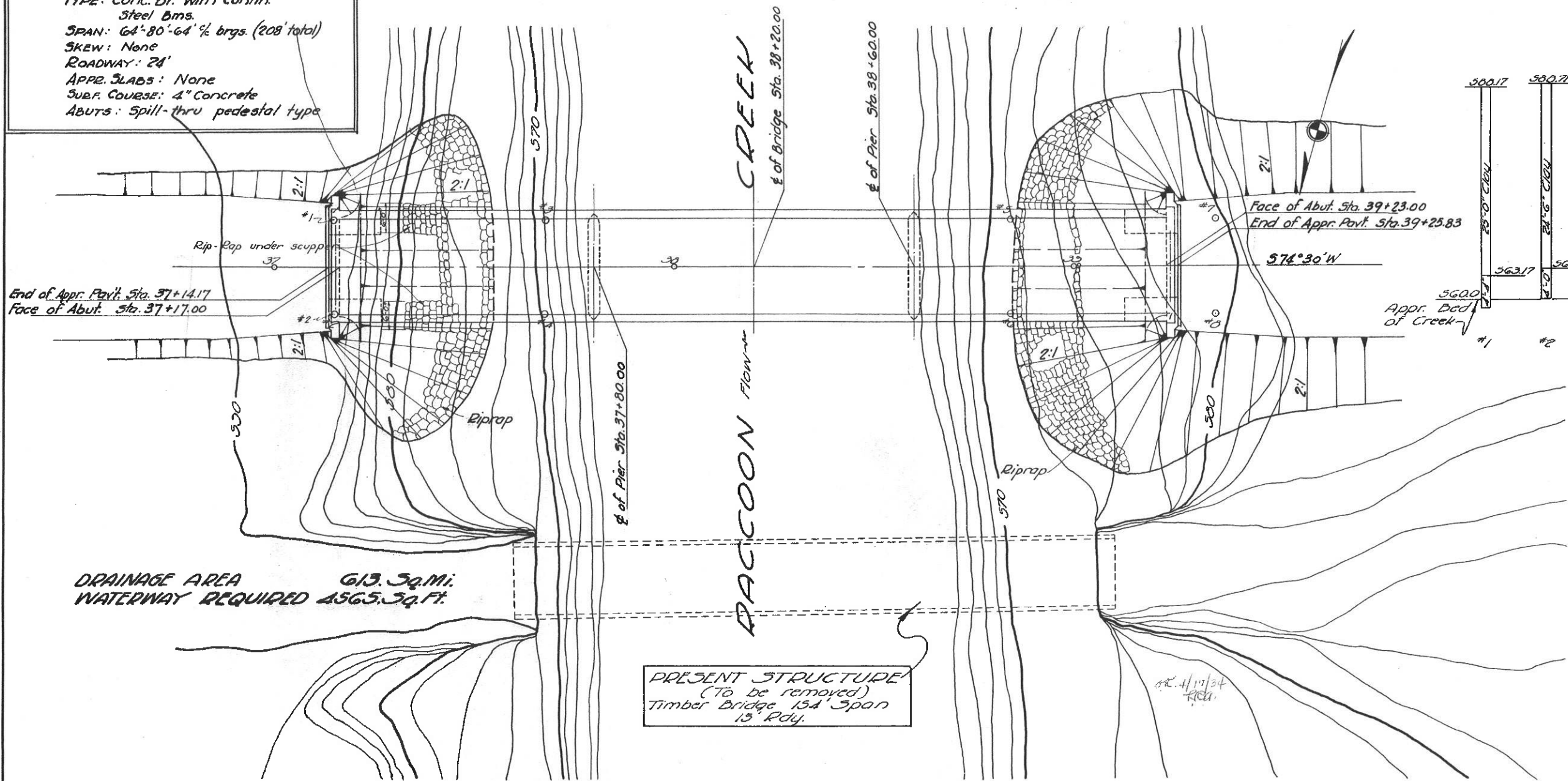
1/31/52
gallia S. H. 405
Sec F-2 + g Br
2 pages missing

FED. RD. DIST. NO.	STATE	FED. AID PROJECT
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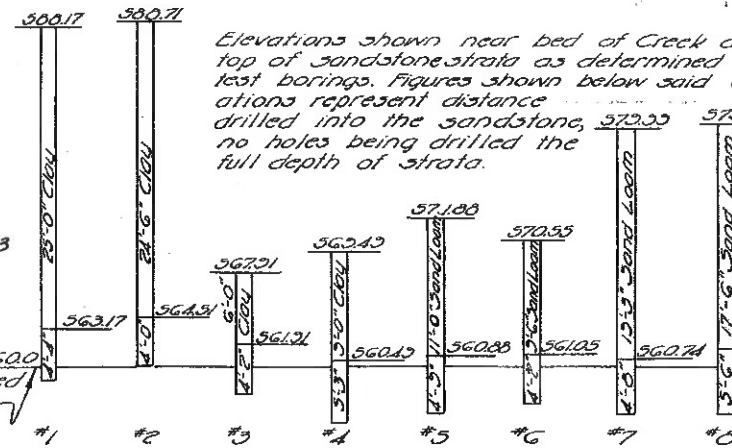
GALLIA COUNTY
S.H. 405 SEC. F2

PROPOSED STRUCTURE

TYPE: Conc. Br. with contin. Steel Bms.
SPAN: 64'-80'-64' brgs. (208' total)
SKEW: None
ROADWAY: 24'
APPR. SLABS: None
SUBF. COURSE: 4" Concrete
ABUTS: Spill-thru pedestal type



Elevations shown near bed of Creek at top of sandstone strata as determined test borings. Figures shown below said elevations represent distance drilled into the sandstone, 379.00' no holes being drilled the full depth of strata.

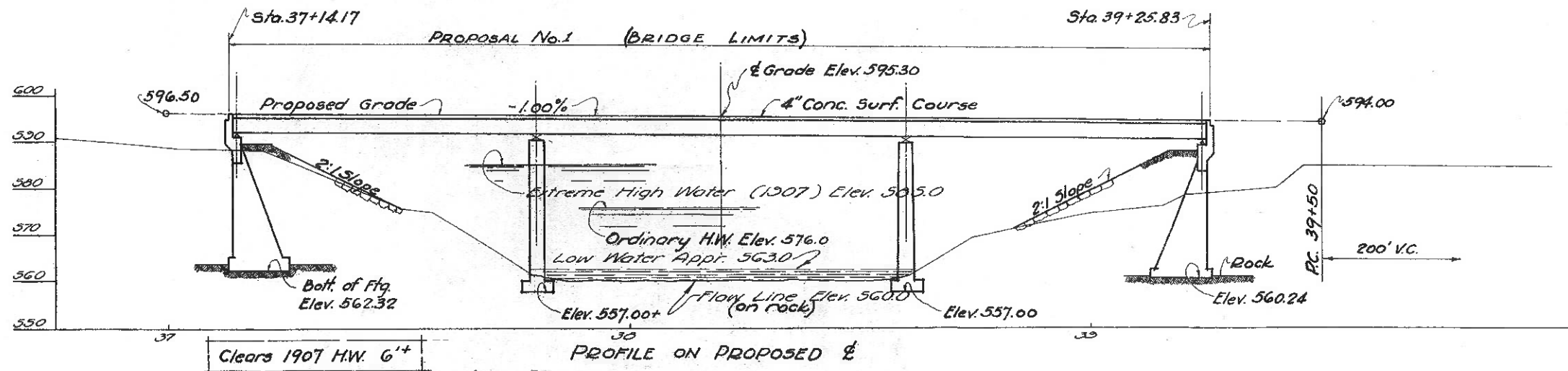


TEST HOLE DATA

The test holes shown hereon represent the best information obtainable, but the State of Ohio does not guarantee the correctness thereof.

DRAINAGE AREA 613.5 sq. mi.
WATERWAY REQUIRED 4565.5 sq. ft.

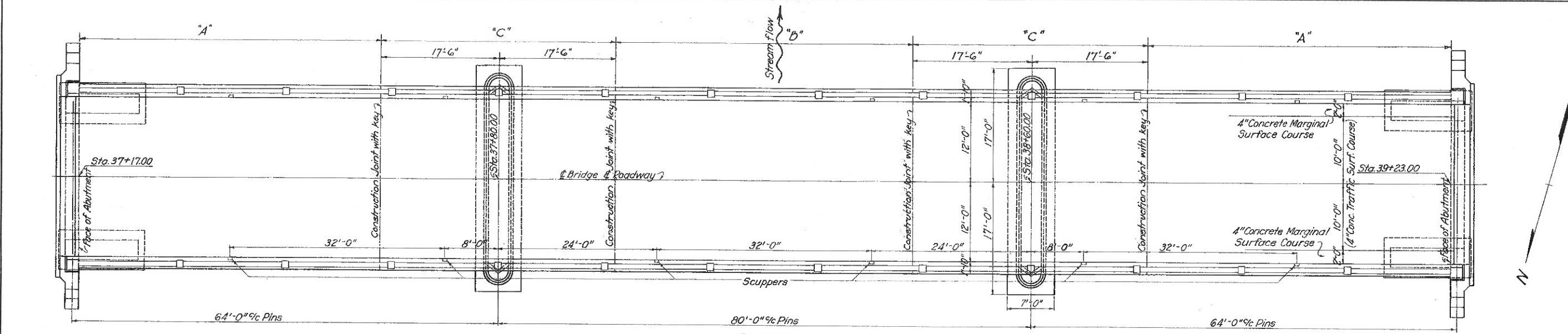
PRESENT STRUCTURE
(To be removed)
Timber Bridge 154' Span
15' Rdy.



PROPOSAL No. 1

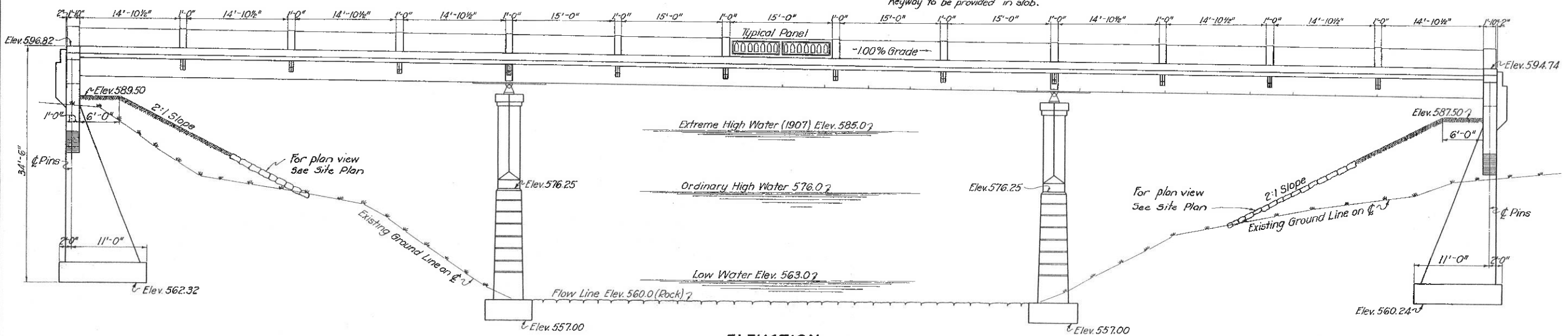
SITE PLAN & TEST HOLE
S.H. 405 SEC. F2
GALLIA COUNTY
RACCOON CREEK
BR. NO. GA-1A
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
SCALE 1"=15' STA.

PREP. TOPOG.	PROPOSED
SURVEY DRAWN C.C.C.	DESIGN DRAWN R.L.K.



PLAN

NOTE:-
Superstructure concrete to be placed between indicated construction joints in the following sequence Section A, B & C. Section A or C may be placed one at a time.
Keyway to be provided in slab.



ELEVATION

GENERAL NOTES

PROPOSED STRUCTURE is a Concrete Bridge with continuous steel beams, 3 spans of 64'-80'-64' bearings, 24' roadway, no skew, 4" plain concrete surface course.

FOR DETAILS NOT SHOWN on these drawings, reference shall be made to Standard Drawing C.55-34 which is supplemental to these drawings.

LOADING: This bridge is designed for H-15-33 loading.

EXISTING SUPERSTRUCTURE when no longer needed for traffic purposes shall be carefully dismantled, match marked, small parts boxed and stored at roadside at disposal of State's forces.

EXISTING ABUTMENTS to be removed to Elev. 570 or lower, and used as rip-rap. Payment for removal included with rip-rap.

EXCAVATION: Rock excavation will be closed as such. Dividing plane between wet and dry foundation excavation is Elev. 563. All excavation above and below this elevation, except rock excavation, shall be classified as "Foundation Excavation, Dry" and "Foundation Excavation, Wet" respectively.

ABUTMENT FOOTINGS shall extend at least to elevations shown or a minimum of 1'-0" into rock. Pier Footings shall extend to elevation 557.0 or a minimum of 2'-6" into rock.

ROCK EXCAVATION area shall be sufficient to accommodate footings of the dimensions specified and the excavated portion in rock, below tops of footings shall be completely filled with concrete.

HAND LAID RIP-RAP shall be placed where shown on site plan and otherwise as directed by the Engineer.

CHAMFER all exposed edges 3/4" unless otherwise shown.

CONCRETE MIX to be 1:5 1/2 for superstructure and 1:6 1/2 for abutment and pier walls & footings.

CONSTRUCTION JOINTS: No construction joints in substructure other than those shown will be permitted. Concrete deck shall be placed full width out to out of curbs between transverse construction joints indicated in PLAN VIEW at top of this sheet.

ANCHOR BOLT HOLES shall be drilled after structural steel is in place. Special care shall be taken in placing reinforcing steel in the bridge seats to avoid interference when drilling holes.

SHEET LEAD, Cast Iron Name Plates, and Anchor Bolts included with Structural Steel for payment.

ROCKERS shall be so placed that when the bridge is completed the rockers will stand in a vertical position at average temperatures.

ERECTION NOTE: Riveting procedure for field splices of main beams shall be as follows:

1. Lightly pin and bolt together all structural steel.
 2. Thoroughly pin, bolt and rivet bottom flange splice at first pier.
 3. Raise end of beam at first abutment 2 1/4 inches.
 4. Rivet top flange splice at first pier.
 5. Thoroughly pin, bolt and rivet bottom flange splice at second pier.
 6. Raise end of beam at second abutment 2 1/4 inches.
 7. Rivet top flange splice at second pier.
 8. Lower ends of beams at both abutments.
- The placing of the concrete deck shall not be started until all of the main beam splices have been completed.

ESTIMATED QUANTITIES

Cofferdams Sheeting and Pumping	Lump Sum
Foundation Excavation, Dry	375 Cu. Yds.
Foundation Excavation, Wet	25 Cu. Yds.
Foundation Excavation, Rock	80 Cu. Yds.
Concrete 1:5 1/2 mix, Superstructure	157 Cu. Yds.
Concrete 1:6 1/2 mix, Walls	377 Cu. Yds.
Concrete 1:6 1/2 mix, Footings	89 Cu. Yds.
Type "B" Waterproofing 36" wide	50 Sq. Yds.
Reinforcing Steel	51,580 Lbs.
Reinforced Concrete Railing 1:5 1/2 mix, Type RR-12	419.3 Lin. Ft.
Structural Steel (except steel castings)	191,000 Lbs.
Steel Castings	8,150 Lbs.
Removal of Existing Superstructure	Lump Sum
Cast Iron Scuppers (special type)	12 Pieces
Hand-laid Riprap (including removal of Existing Abutments)	320 Sq. Yds.
4" Plain Concrete Surface Course 1:5 1/2 mix	552 Sq. Yds.

PROPOSAL No. 1

STATE OF OHIO
DEPARTMENT OF HIGHWAY
BUREAU OF BRIDGES

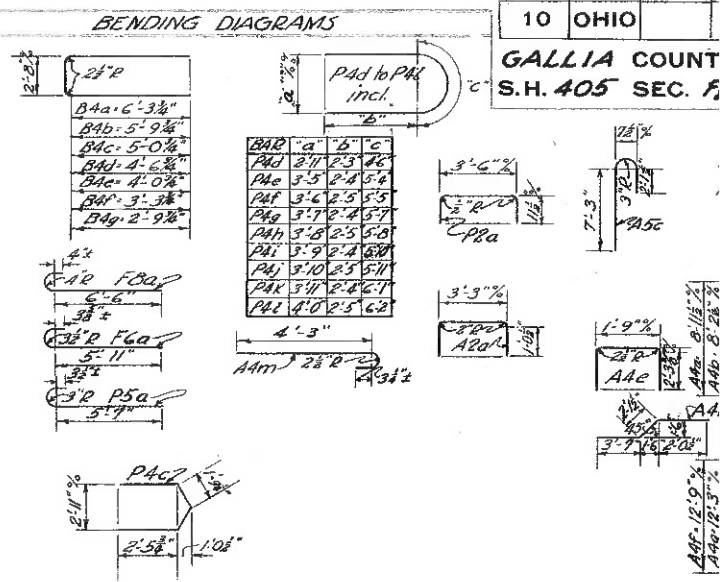
**GENERAL PLAN & ELL
NOTES AND QUANT.**
BRIDGE NO. GA-141-
OVER RACCOON CREE

GALLIA COUNTY
SECTION F2 & G

DESIGNED	DRAWN	TRACED	CHECKED	REVIEW
A. J. F.	A. J. F.	R. K. C.	J. L. M.	H. K. O.

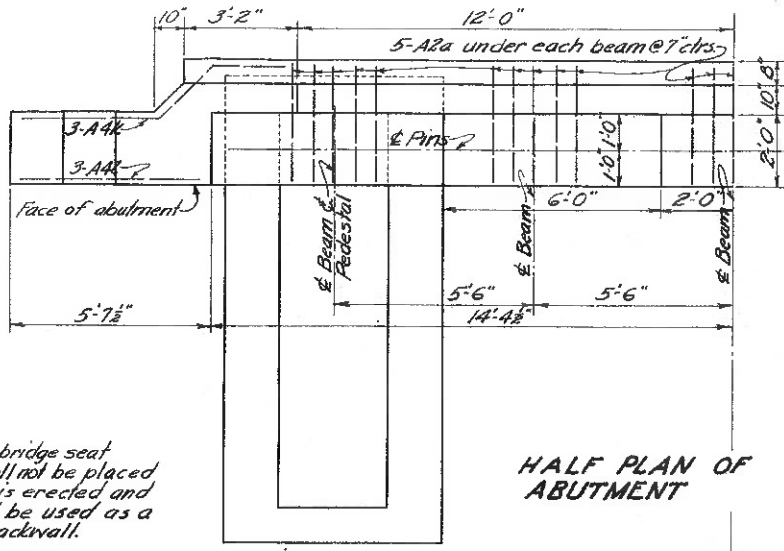
STEEL LIST

MARK	SIZE	SHAPE	NO.	LENGTH	WEIGHT	MARK	SIZE	SHAPE	NO.	LENGTH	WEIGHT	MARK	SIZE	SHAPE	NO.	LENGTH	WEIGHT
A9a	1 1/2"	St	8	39'-6"	1360	A2a	3/8"	Bt	50	5'-6"	180	PIERS					
A8a	1"	St	8	39'-6"	1080	B8a	1"	St	24	25'-6"	2080	P5a	3/4"	Bt	68	6'-9"	690
A5a	3/4"	St	16	28'-0"	670	B8b	1"	St	16	10'-0"	540	P5b	3/4"	St	68	19'-3"	1970
A5b	1/2"	St	32	15'-0"	720	B6a	3/8"	St	20	25'-6"	1040	P5c	3/4"	St	30	13'-3"	600
A5c	3/4"	Bt	60	10'-3"	930	B6b	3/8"	St	8	20'-0"	330	P5d	3/4"	St	30	12'-6"	560
A5d	3/4"	Bt	60	8'-6"	770	B6c	3/8"	St	8	16'-0"	260						
A4a	3/8"	Bt	8	19'-6"	160	B6d	3/8"	St	8	12'-0"	200	P4a	3/8"	St	36	27'-6"	1040
A4b	3/8"	Bt	8	18'-0"	150	B6e	3/8"	St	8	8'-0"	130	P4b	3/8"	St	24	24'-9"	620
A4c	3/8"	Bt	4	16'-6"	70	B4a	3/8"	Bt	16	15'-6"	260	P4c	3/8"	Bt	24	8'-6"	210
A4d	3/8"	Bt	24	15'-0"	380	B4b	3/8"	Bt	16	14'-6"	240	P4d	3/8"	Bt	4	9'-0"	40
A4e	3/8"	Bt	44	6'-0"	280	B4c	3/8"	Bt	16	13'-0"	220	P4e	3/8"	Bt	4	10'-0"	40
A4f	3/8"	Bt	8	14'-3"	120	B4d	3/8"	Bt	16	12'-0"	200	P4f	3/8"	Bt	4	10'-3"	40
A4g	3/8"	Bt	16	13'-9"	230	B4e	3/8"	Bt	16	11'-0"	180	P4g	3/8"	Bt	4	10'-3"	40
A4h	3/8"	Bt	8	12'-9"	110	B4f	3/8"	Bt	16	9'-6"	160	P4h	3/8"	Bt	4	10'-6"	40
A4i	3/8"	Bt	16	11'-9"	200	B4g	3/8"	Bt	16	8'-6"	140	P4i	3/8"	Bt	4	10'-9"	40
A4k	3/8"	Bt	12	7'-9"	100	F8a	1"	Bt	24	8'-0"	650	P4j	3/8"	Bt	4	10'-9"	40
A4l	3/8"	St	12	5'-3"	70	F6a	3/8"	Bt	60	7'-3"	890	P4k	3/8"	Bt	4	11'-0"	50
A4m	3/8"	Bt	20	5'-3"	110							P2a	1/2"	Bt	50	5'-3"	180
A3a	3/8"	St	10	13'-6"	120												
A3b	3/8"	St	20	8'-0"	140												
A3c	3/8"	St	20	30'-0"	510												

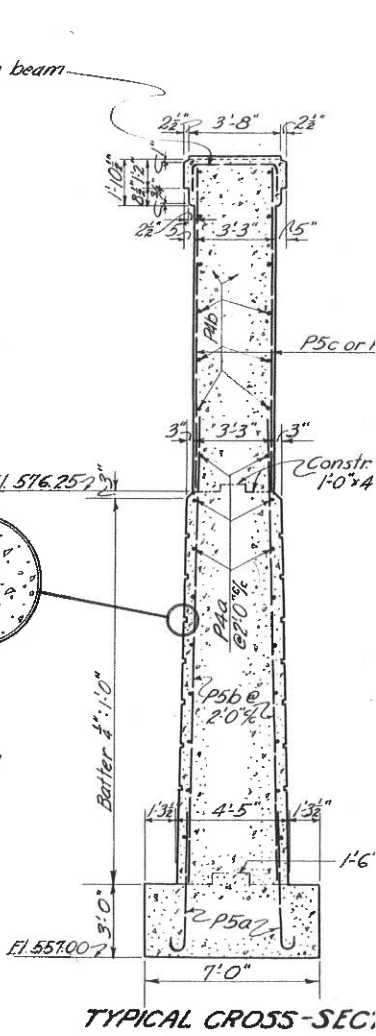
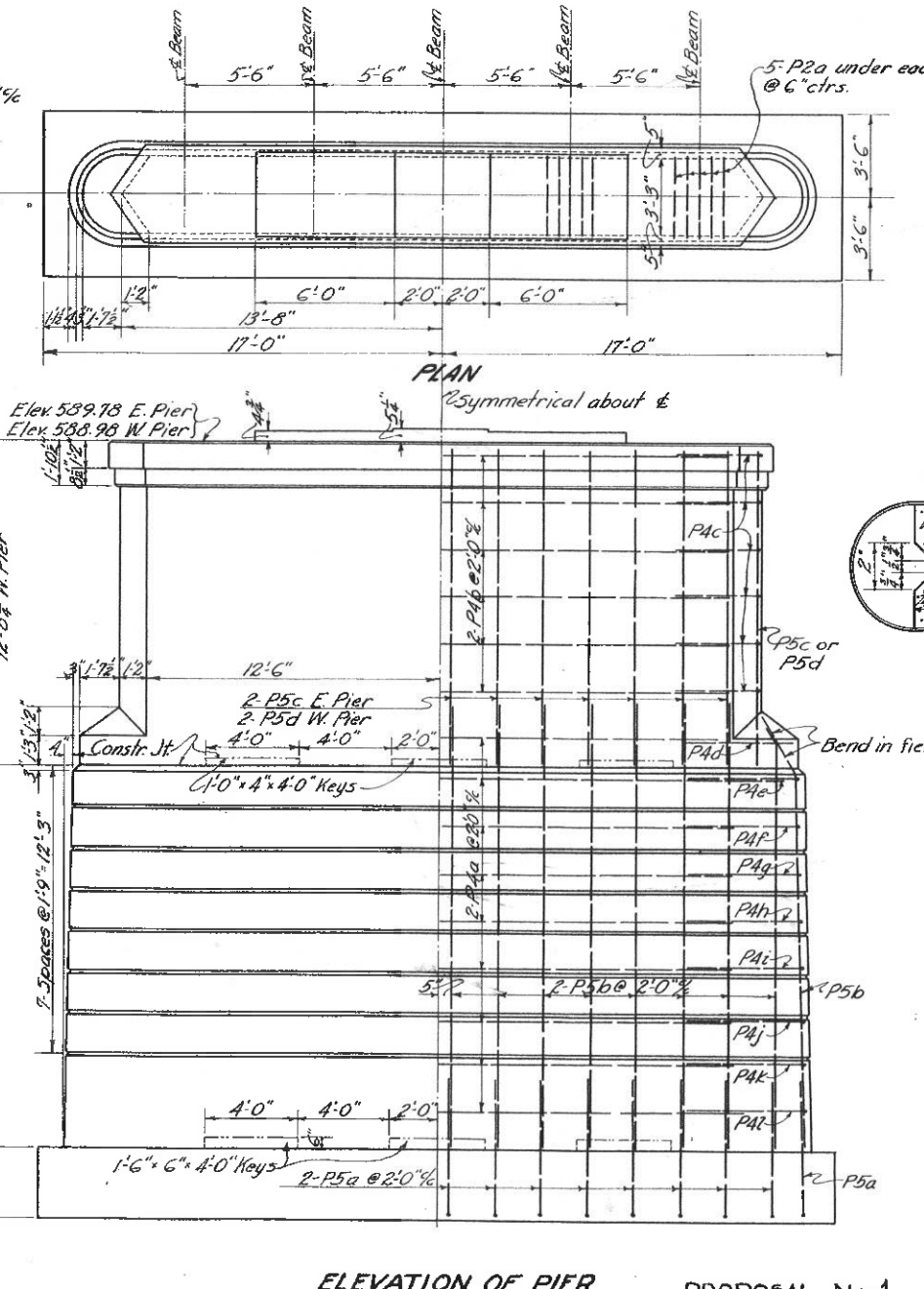
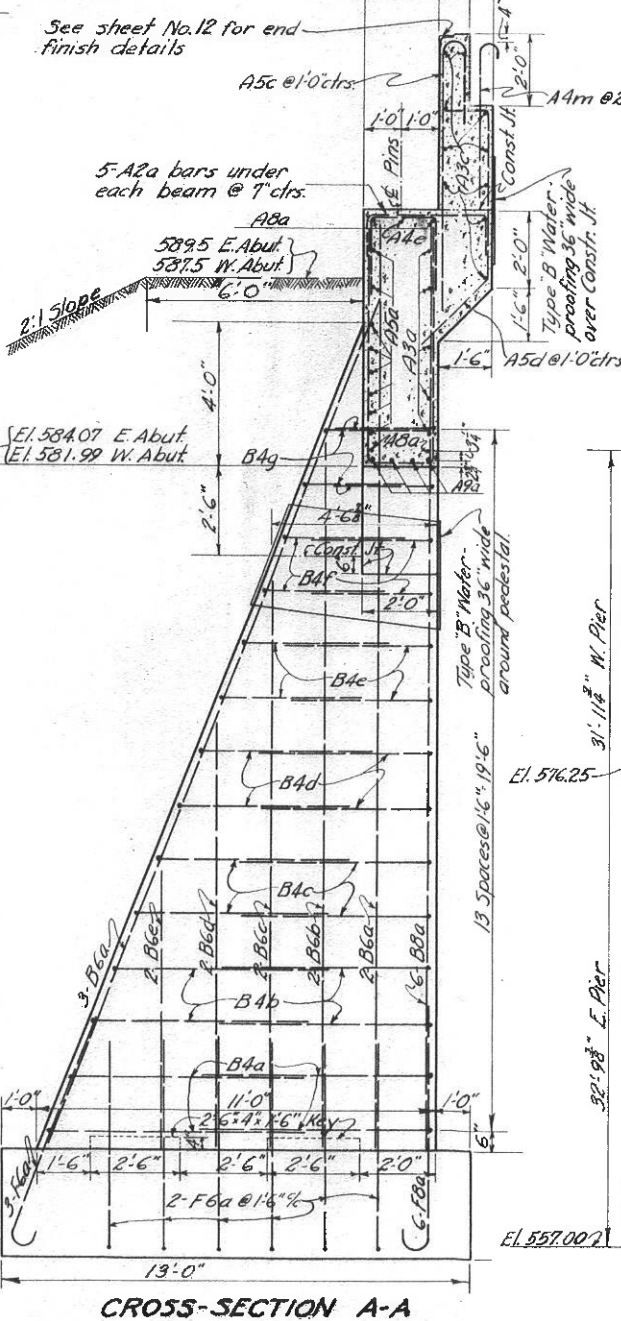
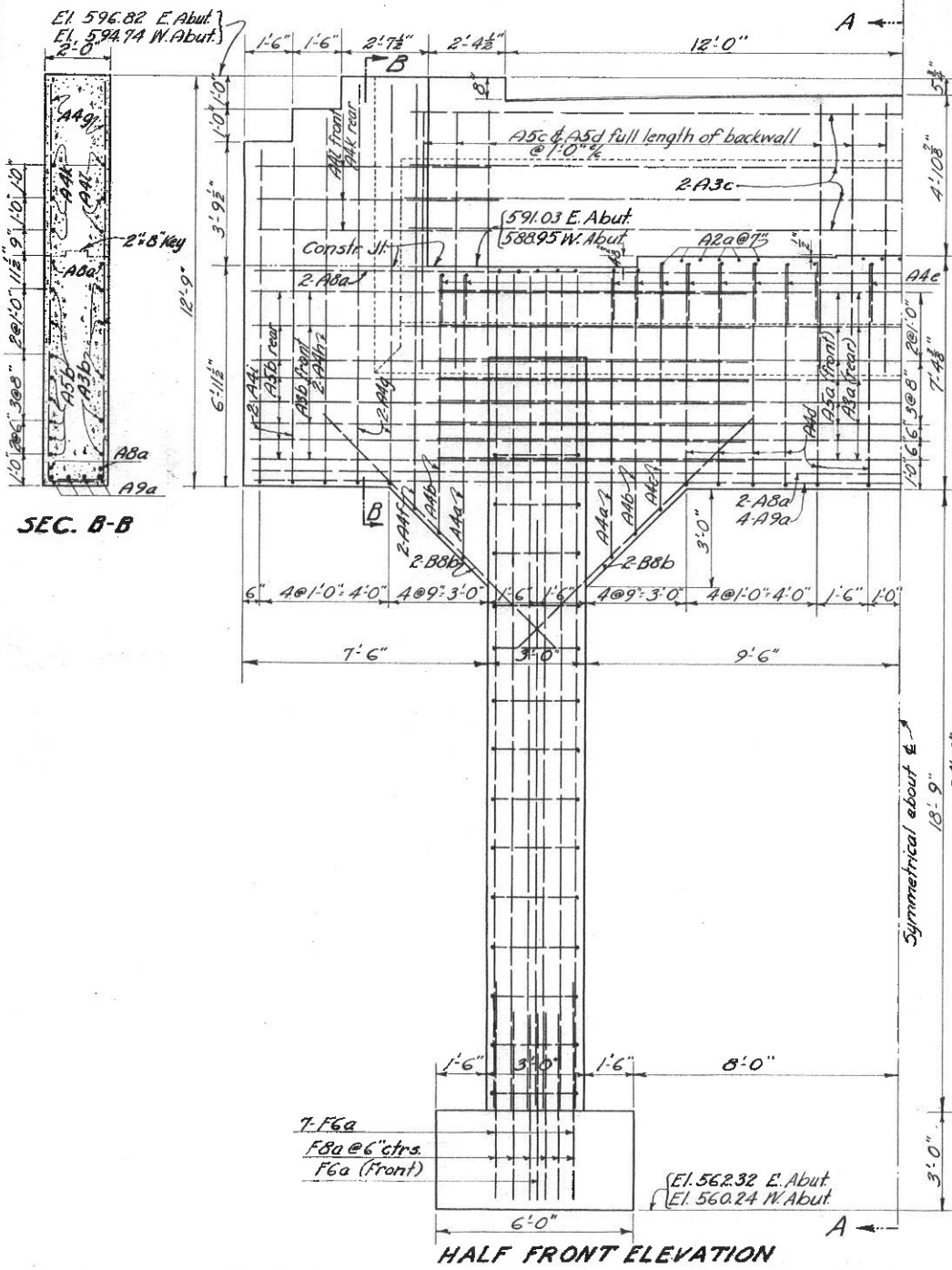


FED. RD. DIST. NO.	STATE	FED. AID PROJECT
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GALLIA COUNTY
S.H. 405 SEC. 4



Note: Concrete above bridge seat construction joint shall not be placed until after steel work is erected and steel end finish shall be used as a template for top of backwall.



STATE OF OHIO
DEPARTMENT OF HIGHWAY
BUREAU OF BRIDGES

ABUTMENT AND PIER
BRIDGE No. GA-141-1
OVER RACCOON CR.

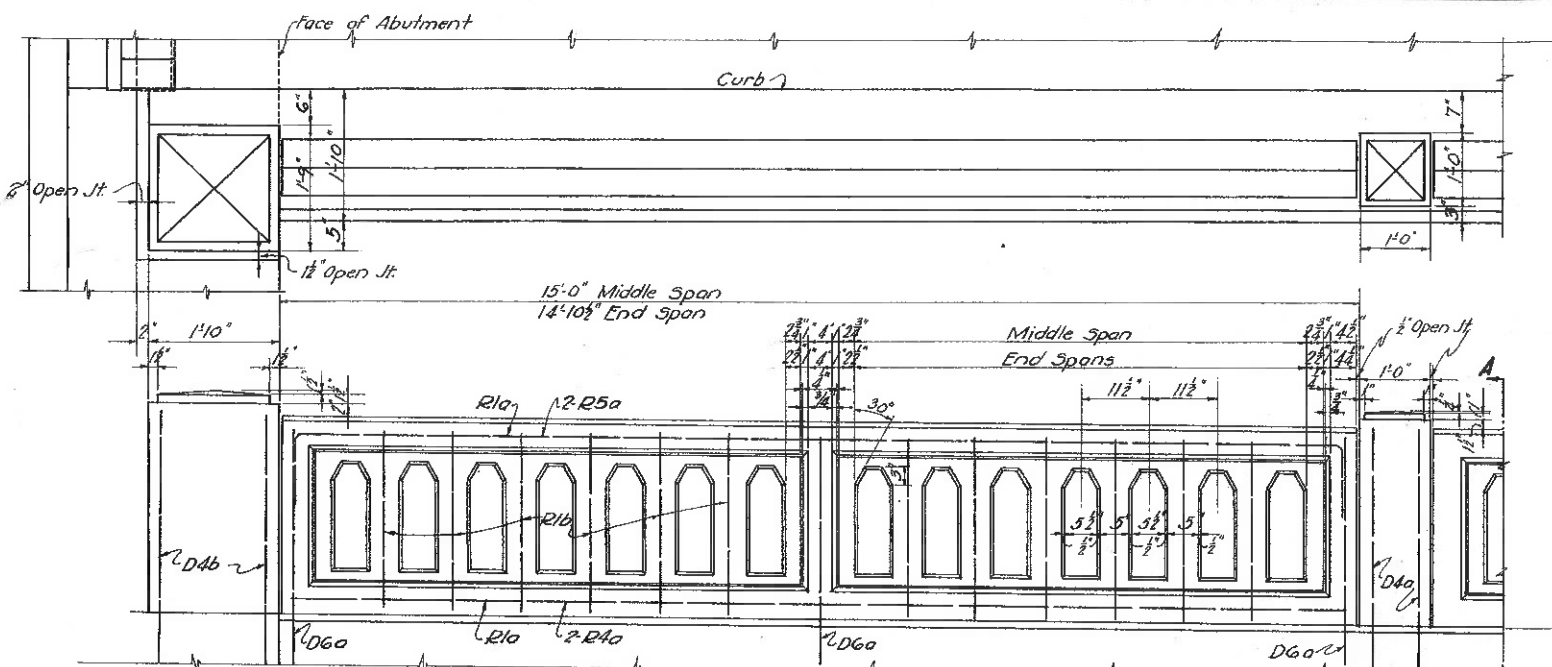
GALLIA COUNTY
S.H. 405

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
apf	apf	msc	j.l.m.	d.o.s. R.H.C. N.W.C.

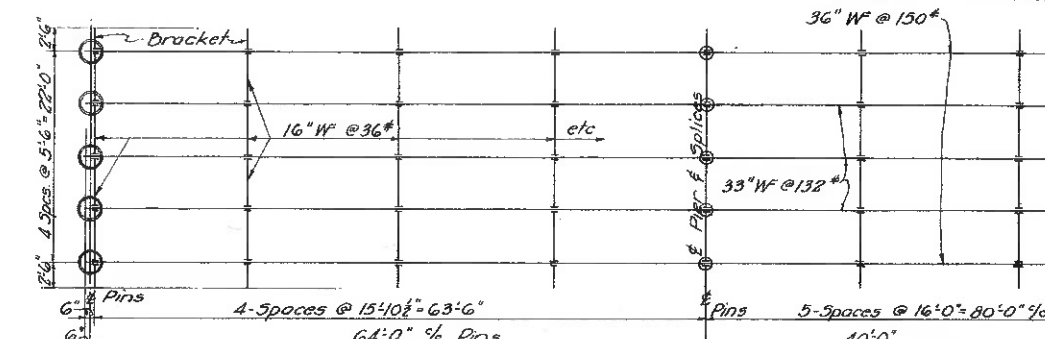
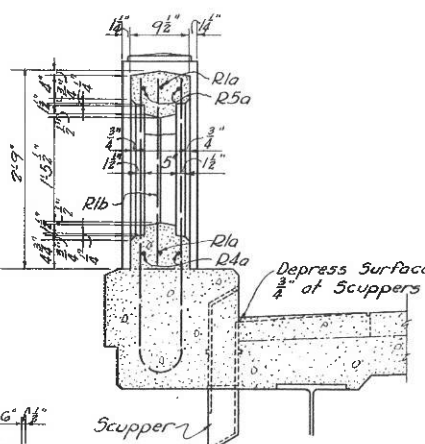
PROPOSAL No 1

FED. RD. DIST. NO.	STATE	FED. AID PROJECT
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GALLIA COUNTY
S.H. 405 SEC. 1/2



NOTE - Sides of all railing posts and spindles shall be vertical. Tops of posts and rail shall be parallel with grade of bridge.



Provide Cast Steel Shoe MK-U-100 and Rocker and Base IR MK-R-100
Provide Cast Steel Shoe MK-U-160-A and Bolster MK-B-160 (See Std. Drawing No. C55-34)

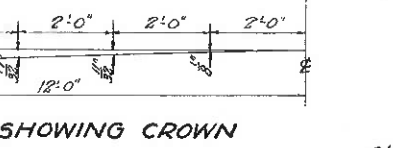
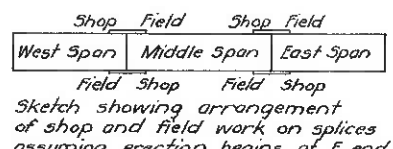
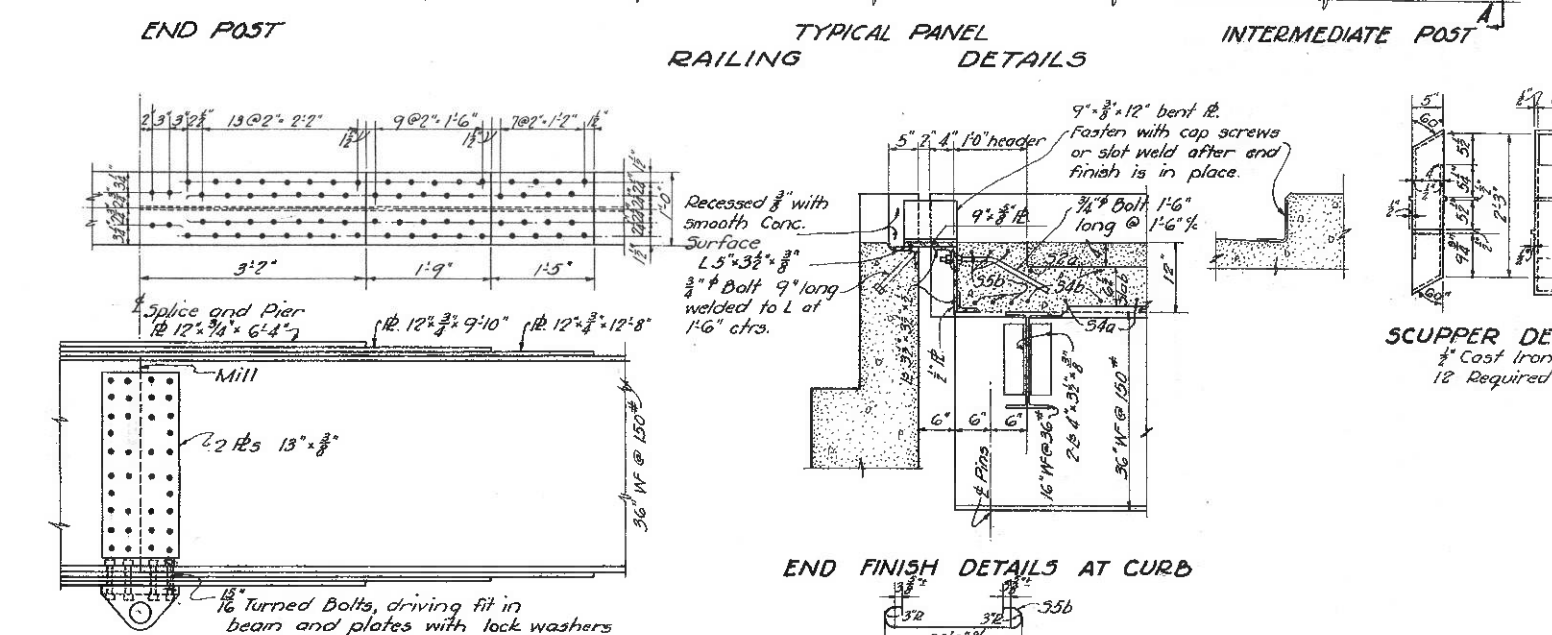
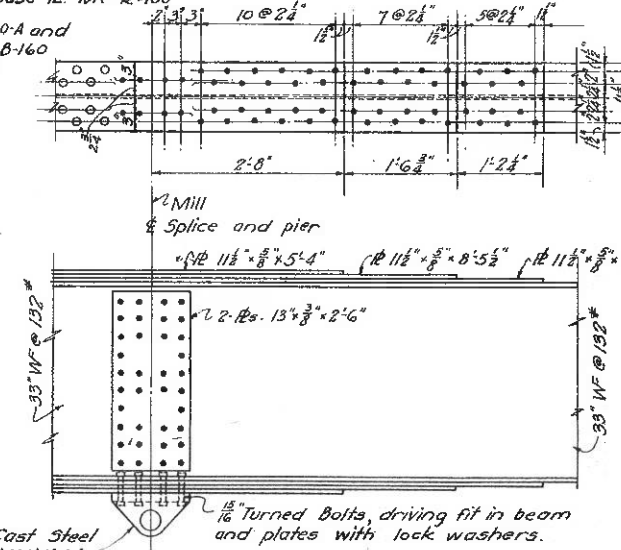


DIAGRAM SHOWING CROWN



OUTSIDE BEAM SPLICE

Mark	Size	No.	Length	Weight	
58a	1"	12	32'-0"	1310	Str.
55a	3/4"	48	37'-9"	2720	Str.
55b	3/4"	12	29'-9"	540	Bent
54a	3/4"	208	29'-3"	6360	Bent
54b	3/4"	209	28'-3"	6170	Bent
54c	3/4"	26	32'-0"	870	Str.
52a	1/2"	209	26'-9"	3140	Str.
52b	1/2"	182	32'-0"	3900	Str.
52c	1/2"	672	4'-0"	1800	Bent

Railing Steel

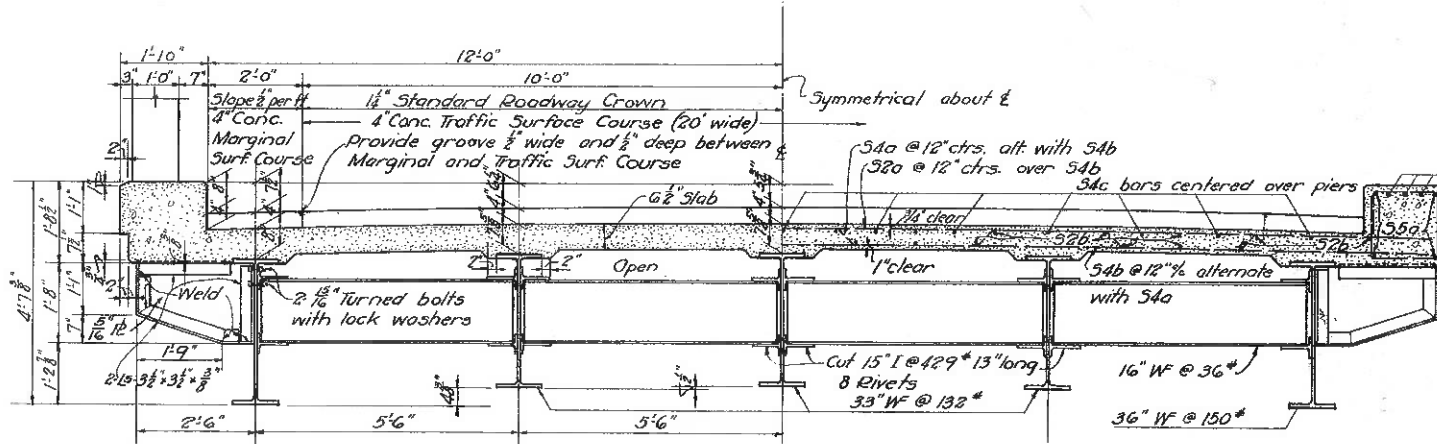
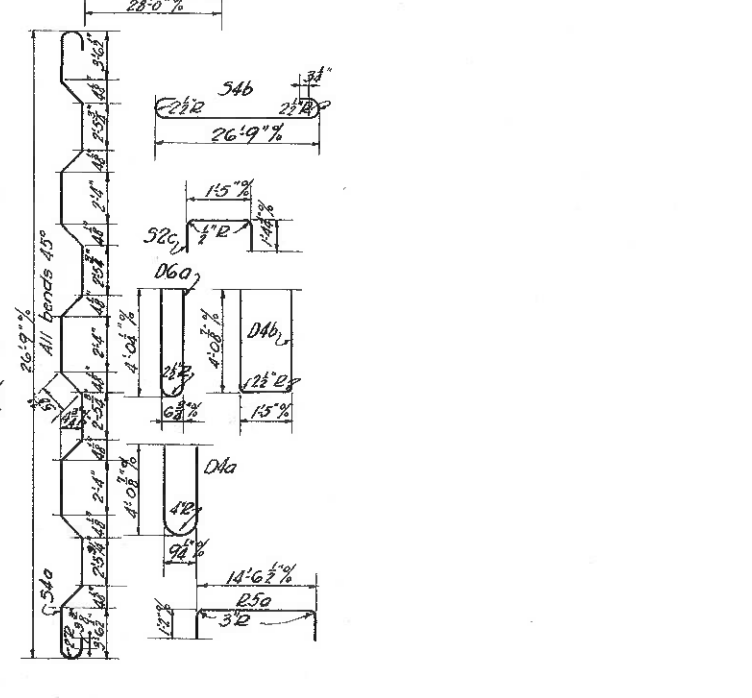
Mark	Size	No.	Length	Weight	
D6a	1/8"	78	8'-3"	1320	Bent
D4a	3/8"	48	8'-6"	430	Bent
D4b	3/8"	8	9'-3"	80	Bent
R5a	3/8"	52	16'-6"		Bent
R4a	3/8"	52	14'-7"		Str.
R1a	3/8"	52	14'-7"		Str.
R1b	3/8"	312	2'-6"		Str.

Included with Railing for payment

Replacement Steel

Mark	Size	No.	Length	Weight	
RE-9	1/2"	1	8'-6"	40	Str.
RE-8	1"	1	8'-0"	30	Str.
RE-6	3/4"	1	7'-6"	20	Str.
RE-5	3/4"	1	8'-0"	10	Str.
RE-4	3/4"	1	8'-6"	10	Str.
RE-3	1/2"	1	6'-0"	10	Str.
RE-2	1/2"	1	6'-0"	-	Str.
RE-1	3/4"	1	5'-6"	-	Str.

Test specimens of reinforcing bars shall be 2'-0" straight sections, cut from as near the ends of the bar as possible, and shall be replaced with the bars marked RE-2, RE-4 etc. Two 2'-0" test specimens should be cut from one bar. Bent reinforcing steel shall be measured along 1/2 of bar unless marked 1/4 or 3/4. All radii to be measured inside.



FOR ADDITIONAL NOTES SEE SHEET No. 9

NOTES: Rivets 3/4"
CAMBER: In order to offset dead load deflection the 64 ft. lengths of rolled beams shall have a minimum camber of 1/4" and the 80 ft. lengths a minimum camber of 1" under no load. The beams shall be cambered in the rolling mill either while hot or else in the straightening gag after cooling. During milling of the ends and fabrication of the splices the beams shall be so supported that this camber is maintained.

PROPOSAL No. 1

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SUPERSTRUCTURE L
BRIDGE No. GA-141-
OVER RACCOON CR

GALLIA COUNTY
SEC 1/2 #6

DESIGNED: a.g.f.
DRAWN: a.g.f.
TRACED: j.p.x.
CHECKED: J.E.M.
REVIEWED: 20.5
DATE: 4.1.26
BY: N.M.G.

5h
5h