

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	190-Re.	1930

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8

MADISON CO. S.H.(I.C.H.) 1 SEC. "D-2" BRIDGE

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
**BRIDGE OVER DEER CREEK;
AND APPROACHES**
S.H.(I.C.H.) 1 SEC. D2 BRIDGE" PET. NO. 6451
MADISON CO. DEER CREEK TWP.

INDEX

- Sheet No.
1 - Title Page
2 - Typical Roadway Section
2 - Summary of Quantities.
3 - Alignment Plan and Profile
4 - Plan and Profile of Existing Bridge and Approaches
5&6 - Roadway Cross Sections
7 - General Plan and Elevation
8 - Abutment and Pier Details.

SUPPLEMENTARY PRINTS OF STRUCTURAL STANDARDS

Dr. No. B-40-2430
Dr. No. AS-2430
Dr. No. RR-A

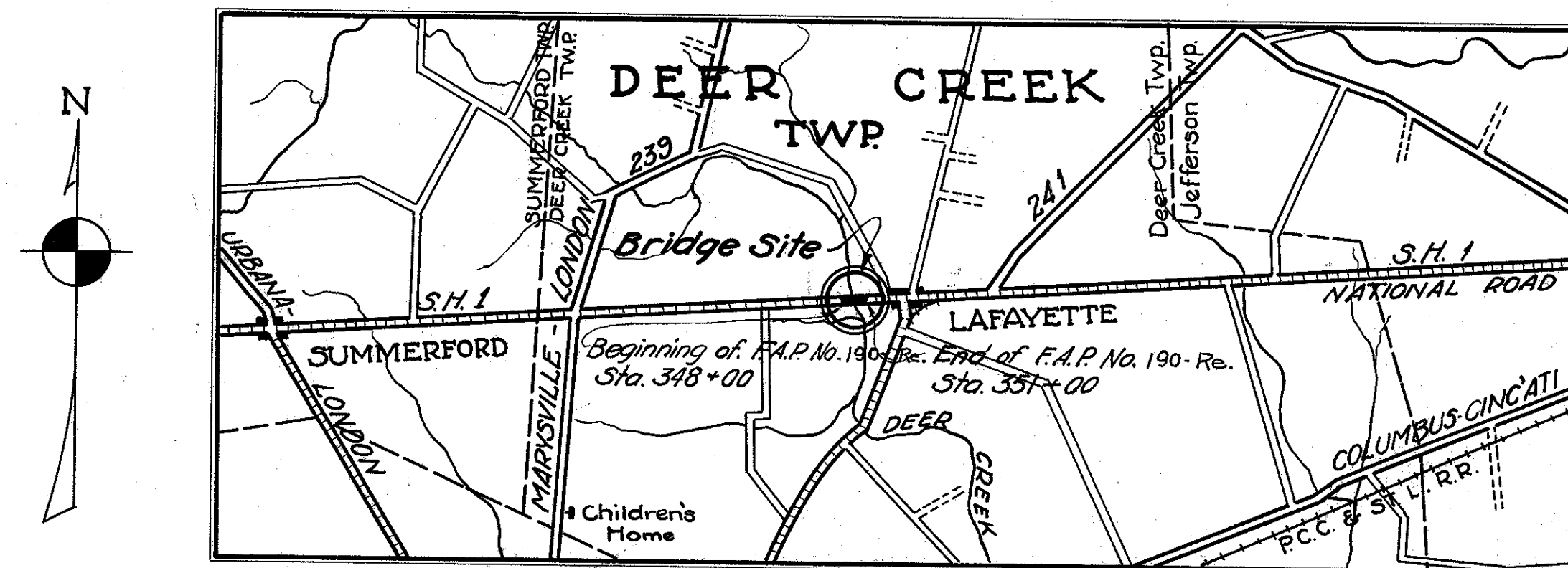
We, the Commissioners of Madison County, hereby approve these plans and certify that the right-of-way is available for the construction, maintenance and repair of the above highway.

Geo. P. Guy

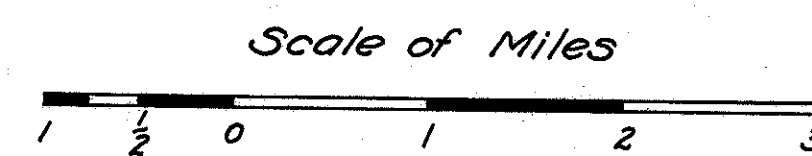
R. H. Graham

R. W. Armstrong

Date 5/20/29 County Commissioners.



LOCATION MAP



The Standard Specifications of the State of Ohio, Department 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 and approaches will be provided as shown on the plans and estimate.

Approved: *H. M. Coffey*
Date 5/20/29 Resident District Deputy Director.

Approved: *H. D. Mitchell*
Date 5/29/29 Resident Division Deputy Director.

Approved: *J. Burkey*
Date 5-27-29 Chief Engineer, Bureau of Bridges

Approved: *Robt. S. Beightler*
Date 6/16/29 Chief Engineer, Bureau of Construction.

Approved: _____
Date _____ Chief Engineer, Bureau of Maintenance.

Approved: *Amos R. Pasch*
Date 6-6-29 Chief Engineer.

Approved: *Robert Newaid*
Date 6-6-29 Director of Highways

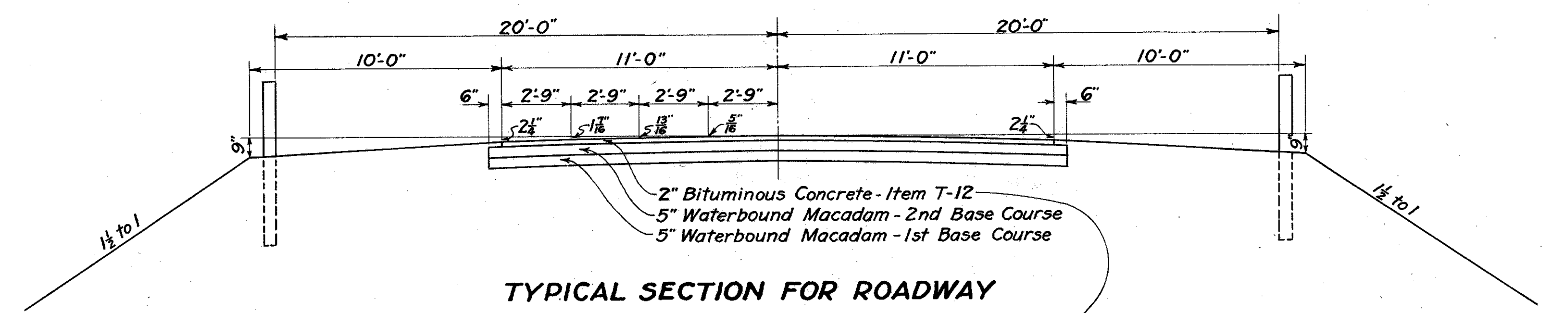
Recommended for Approval: _____
Date _____ District Engineer, Bureau of Public Roads.

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

Approved: _____
Date _____ Chief of Bureau.

CONSTRUCTION BUREAU
MAY 3 1929
GROUND PHOTOGRAPH

File D-2



TYPICAL SECTION FOR ROADWAY

STA. 348 + 00 TO STA. 349 + 14.5
 Bitum. Wearing Course = 282.7 sq. yds. 282.7
 Waterbound Macadam = 296.7 sq. yds.
 STA. 350 + 81.66 TO STA. 351 + 00
 Bitum. Wearing Course = 48.3 sq. yds. 48.3
 Waterbound Macadam = 52.3 sq. yds.

Either natural or Scioto sandstone rock asphalt
 Using 200 lbs. of material per sq. yd.

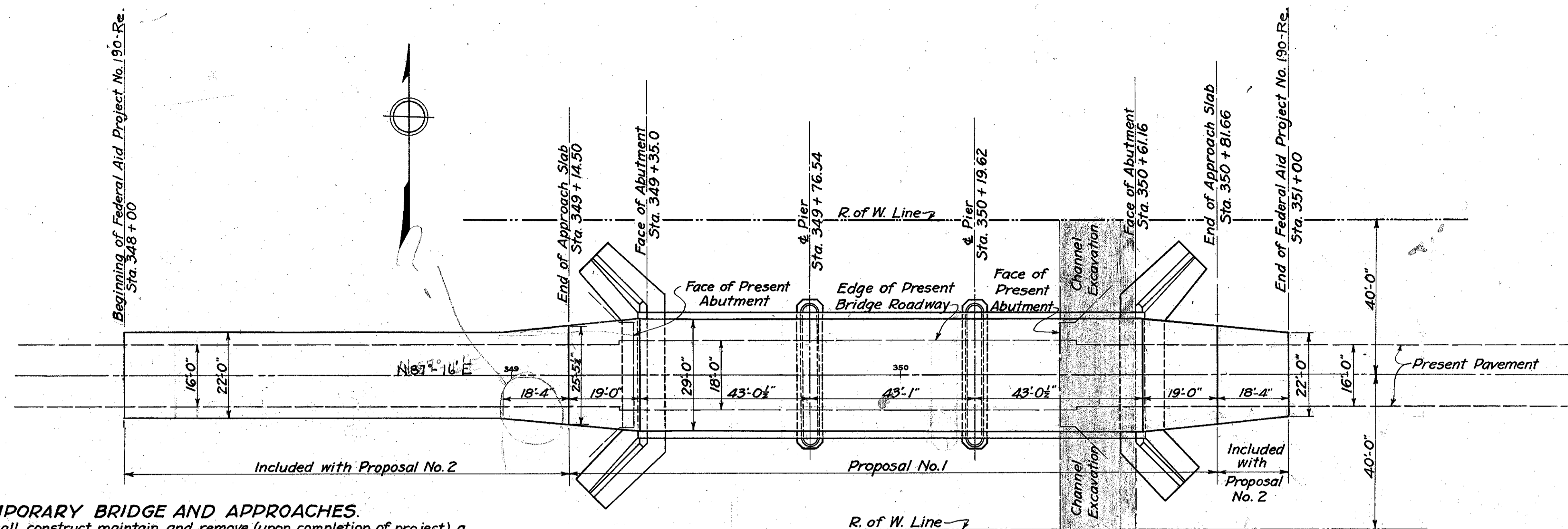
SUMMARY OF QUANTITIES

BRIDGE (PROPOSAL NO. 1)		APPROACHES (PROPOSAL NO. 2)	
Excavation - Wet	950 Cu. Yds. x	Excavation without Classification	202 Cu. Yds. x
Excavation - Dry	450 Cu. Yds. x	Borrow	100 Cu. Yds. x
1:6 1/2 Concrete - Footings	308.2 Cu. Yds. x	5" Waterbound Macadam - 1st Base Course	346 Sq. Yds. x
1:6 1/2 Concrete - Pier and Abutment Walls	320.2 Cu. Yds. x	5" Waterbound Macadam - 2nd Base Course	346 Sq. Yds. x
1:5 1/2 Concrete - Superstructure	204.1 Cu. Yds. x	2" Bituminous Wearing Course	331 Sq. Yds. x
Concrete Railing - Type RR-1	259 Lin. Ft. x	Guard Rail (Type D-1, D-2, D-3 or D-4)	320 Lin. Ft. x
2" Bituminous Wearing Course	530.1 Sq. Yds. x	Finishing Shoulder Slopes and Ditches, both sides	169.84 Lin. Ft.
Reinforcing Steel	74,925 Lbs. x	Removing Present Guard Rail	330 Lin. Ft. x
3/8" Phosphor Bronze Plates	174 Lbs. x		
Cast Iron Scuppers	8 x		
1/4" Premolded Expansion Joint Filler	225 Sq. Ft. x		
1" Premolded Expansion Joint Filler	295 Sq. Ft. x		
Copper Expansion Joint (Complete)	77.3 Lin. Ft. x		
Concrete Approach Slabs (12" thick)	114.4 Sq. Yds. x		
Timber Piling (to establish unit price)	1 Lin. Ft. x		
Temporary Bridge and Approaches	Lump		
Removal of Existing Superstructure	Lump		
Channel Excavation	415 Cu. Yds. x		
Cofferdams and pumping	Lump		

TYPICAL ROADWAY SECTION AND
 SUMMARY OF QUANTITIES
 BRIDGE OVER DEER CREEK
 MADISON CO., S.H. 1, SEC. "D-2 BRIDGE"
 Drawn Traced Checked Reviewed
 W.W.F. R.B.K. J.M.M. M.X.W.
 W.H.E. 5/23/29

FED. ROAD DIST. No.	STATE	FED. AID PROJECT	FISCAL YEAR	3 8
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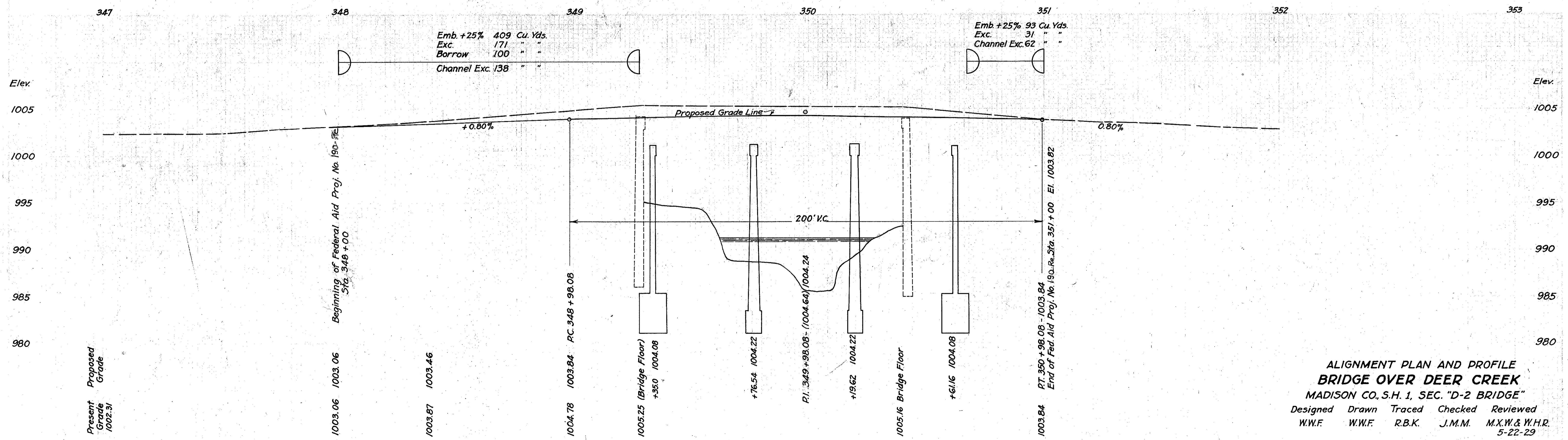
MADISON CO., S.H. (I.C.H.) 1, SEC. "D-2 BRIDGE"



GUARD RAIL NOTE.
 Remove present guard rail on both sides of road, from Sta. 348+05 to Sta. 349+20, and from Sta. 350+50 to Sta. 351+00. Total Length, 330 lin. ft.
 Construct new guard rail, Type D-1, D-2, D-3 or D-4, on both sides of road, from Sta. 348+05 to Sta. 349+33 and from Sta. 350+68 to Sta. 351+00. Total Length, 320 ft.

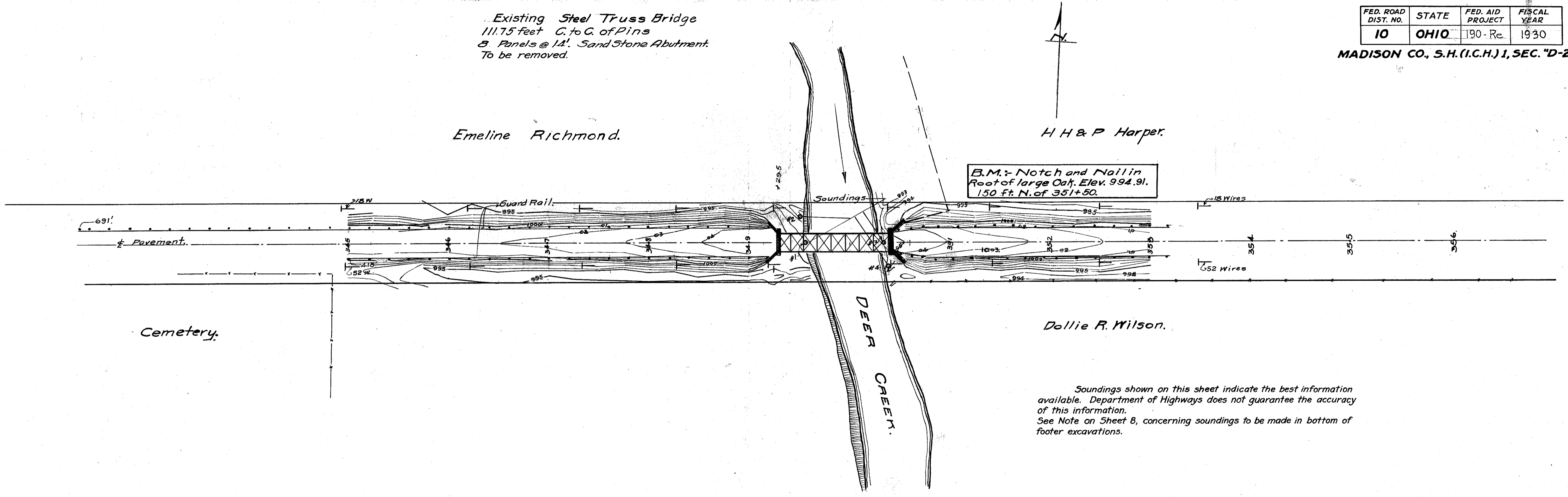
TEMPORARY BRIDGE AND APPROACHES.
 The contractor shall construct, maintain, and remove (upon completion of project) a temporary bridge on right-of-way provided by the State, on the south side of the road.
 The bridge shall have a roadway width of not less than 18 feet, a loading capacity of 10 tons, an adequate waterway opening, adequate supports, and a floor elevation not lower than Elevation 1001.0. The existing bridge may be used for this purpose if it is made to conform to these requirements, and on condition that the road be closed to traffic not longer than 48 hours while moving is being done.
 The approaches shall have suitable alignment and grade, a width of not less than 24 feet, and a smooth gravel or crushed stone surface 20 feet wide. The approaches shall be free from sharp turns and suitable for two lanes of traffic.
 After the present steel span is no longer needed as a temporary bridge, it shall be carefully dismantled and piled near the site, at the disposal of the State of Ohio.

CHANNEL EXCAVATION.
 Channel excavation to consist of the following:
 Removal of the present east abutment.
 Removal of all earth between face of new east abutment and low water's edge, down to Elev. 991.4, within the limits of the right of way.
 Average depth of channel excavation, 7.0 ft.
 Area of channel excavation, 1600 sq. ft.
 Total Channel Excavation, 415 cu. yds., 200 cu. yds. of which is available for Approach Embankment.
 The remaining channel excavation is stone from the old abutments, which will be disposed of along banks, as directed by the Engineer.



**ALIGNMENT PLAN AND PROFILE
 BRIDGE OVER DEER CREEK
 MADISON CO., S.H. 1, SEC. "D-2 BRIDGE"**
 Designed Drawn Traced Checked Reviewed
 W.W.F. W.W.F. R.B.K. J.M.M. M.X.W. & W.H.R.
 5-22-29

Existing Steel Truss Bridge
 111.75 feet C. to C. of Pins
 8 Panels @ 14'. Sand Stone Abutment.
 To be removed.



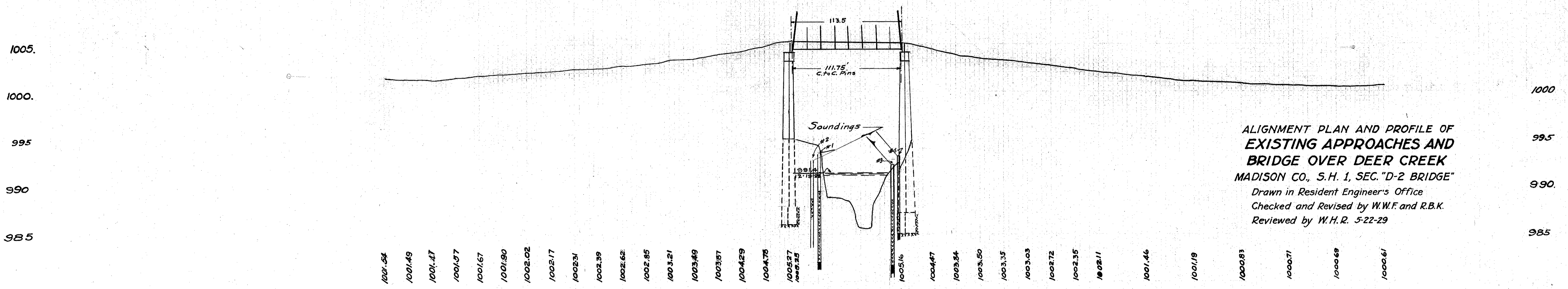
H H & P Harper.

Emeline Richmond.

Dollie R. Wilson.

Soundings shown on this sheet indicate the best information available. Department of Highways does not guarantee the accuracy of this information. See Note on Sheet 8, concerning soundings to be made in bottom of footer excavations.

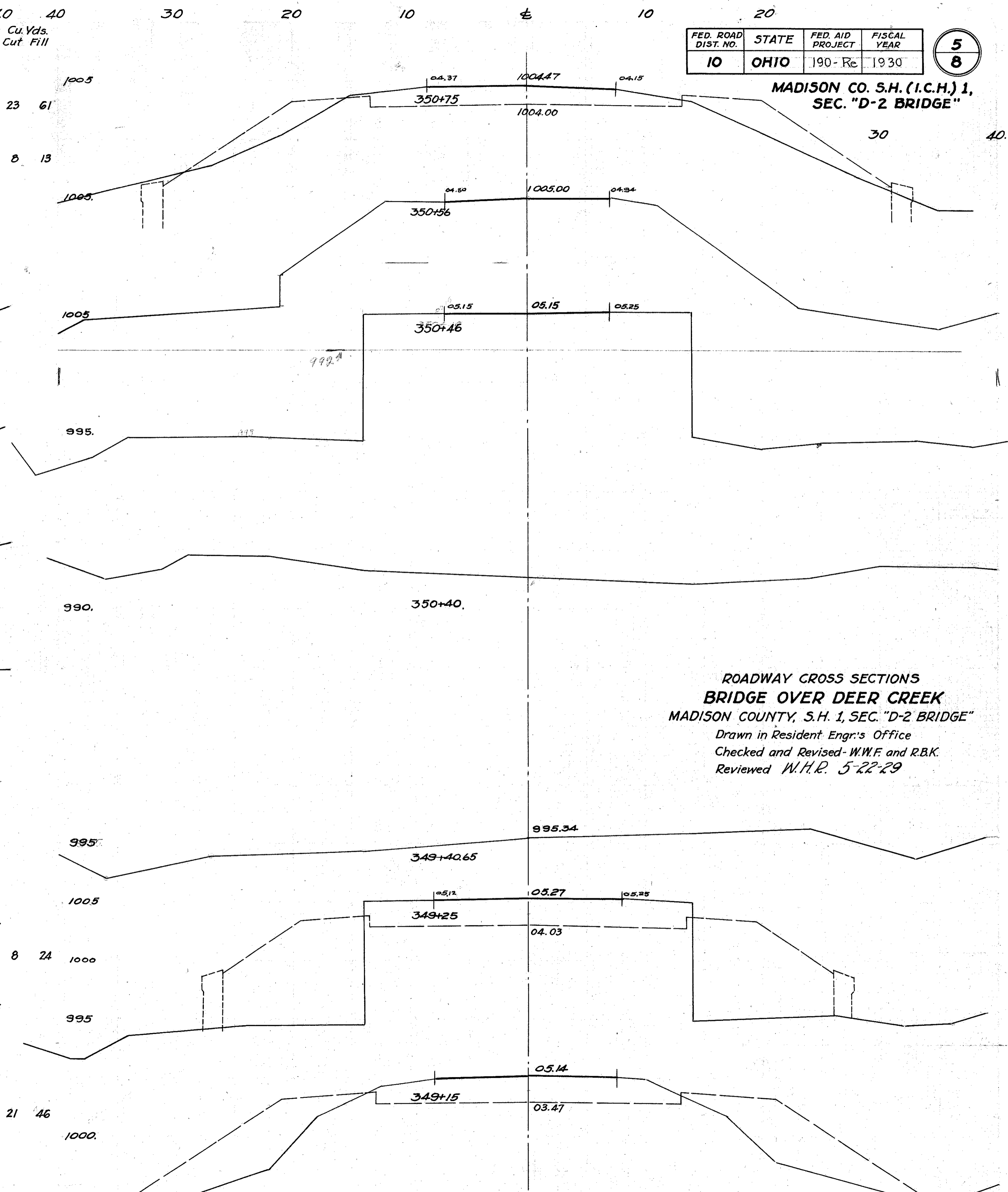
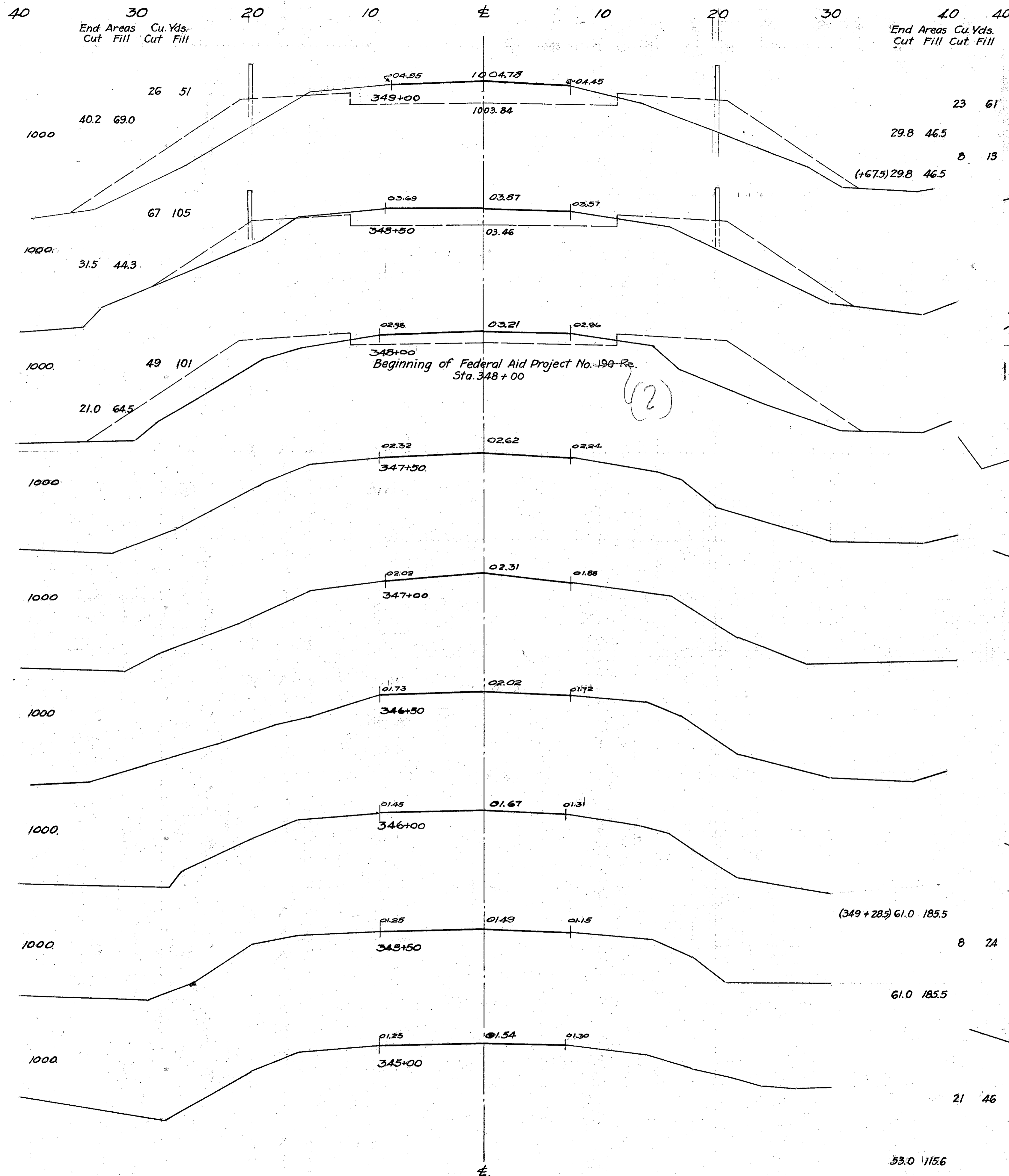
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ALIGNMENT PLAN AND PROFILE OF
 EXISTING APPROACHES AND
 BRIDGE OVER DEER CREEK
 MADISON CO., S.H. 1, SEC. "D-2 BRIDGE"
 Drawn in Resident Engineer's Office
 Checked and Revised by W.W.F. and R.B.K.
 Reviewed by W.H.R. 5-22-29

1001.54 1001.49 1001.47 1001.37 1001.67 1001.90 1002.02 1002.17 1002.31 1002.39 1002.62 1002.85 1003.21 1003.49 1003.87 1004.29 1004.78 1005.37 1005.35 1005.16 1004.47 1003.84 1003.50 1003.35 1003.03 1002.72 1002.35 1002.11 1001.46 1001.19 1000.83 1000.71 1000.69 1000.61

Soundings	Thru Gravel	Elev. of H. Pin
No 1	"	982.00
" 2	"	982.50
" 3	"	985.24
" 4	"	
Bottom of Abutments		
S. End N. Abutment	In Gravel	986.00
N. " E. " "	"	985.00.



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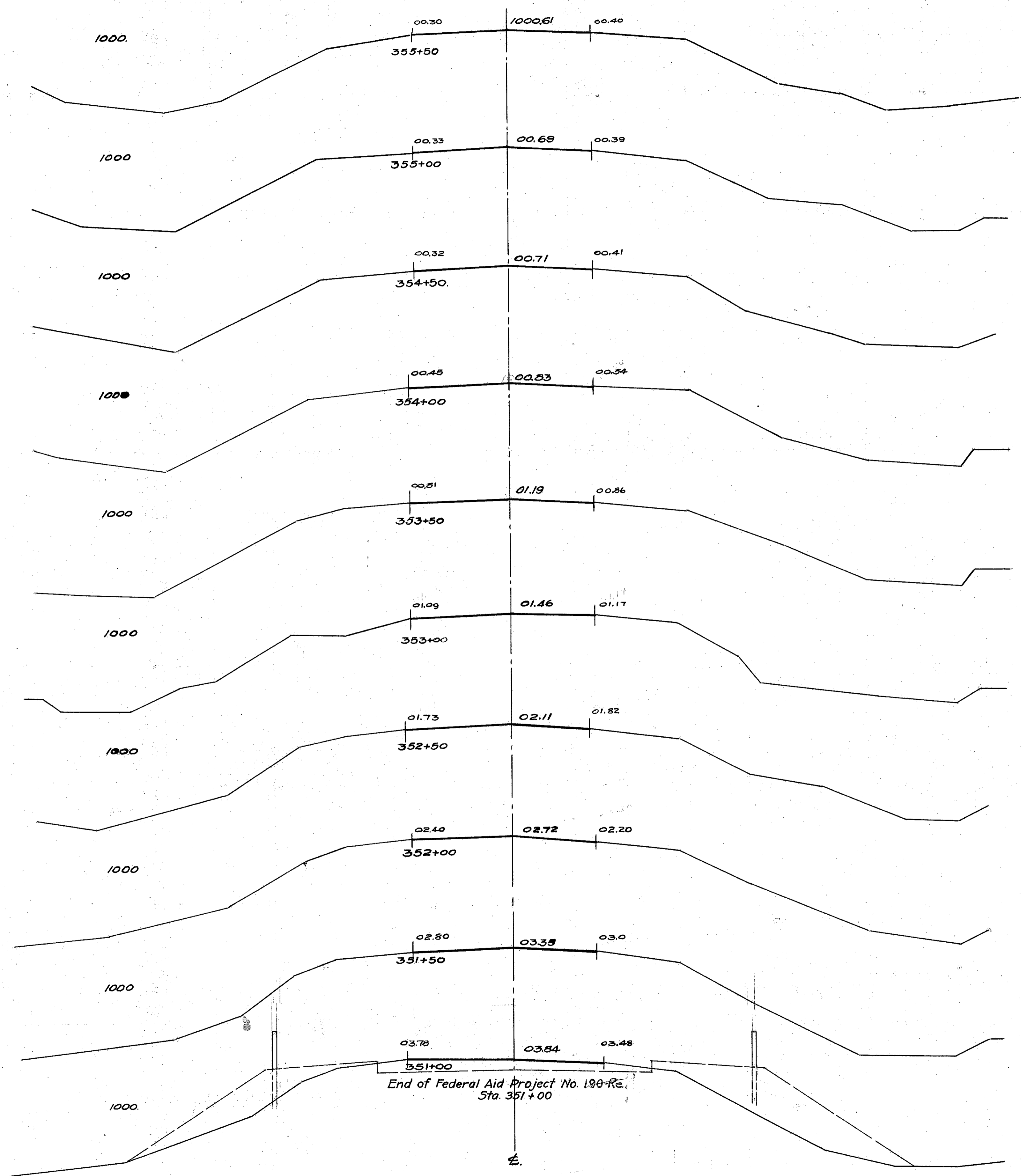
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40. 30. 20 10 0 10 20 30 40

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MADISON CO. S.H.(I.C.H.) 1, SEC. "D-2 BRIDGE"



Total Fill = 402 + 25% = 502 Cu. Yds.
 Total Excavation 202 Cu. Yds.
 Total Borrow 100 Cu. Yds.
 Channel Excavation 200 Cu. Yds.

End Areas Cu. Yds.
 Cut Fill Cut Fill

200 86.0

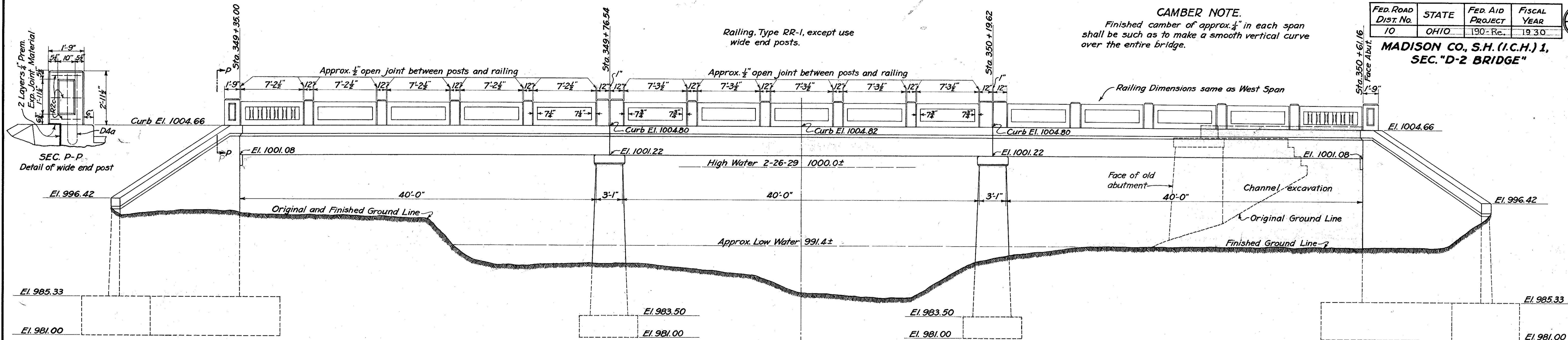
ROADWAY CROSS SECTIONS
 BRIDGE OVER DEER CREEK
 MADISON COUNTY, S.H. 1, SEC. "D-2 BRIDGE"

Drawn in Resident Engr.'s Office
 Checked and Revised- W.W.F. & R.B.K.
 Reviewed: W.H.R. 5-22-29

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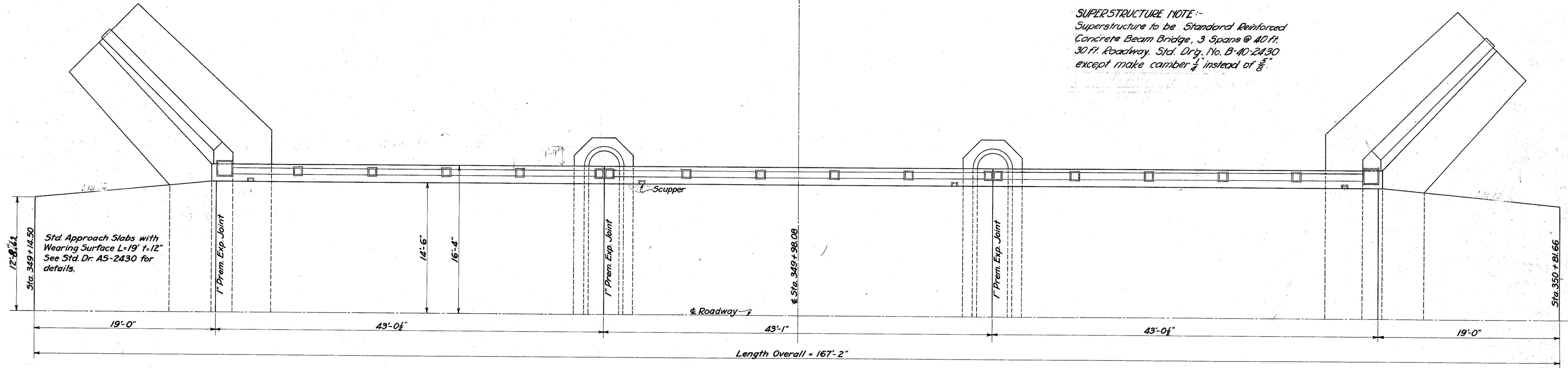
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**MADISON CO., S.H. (I.C.H.) 1,
SEC. "D-2 BRIDGE"**



GENERAL SIDE ELEVATION

SUPERSTRUCTURE NOTE:-
Superstructure to be Standard Reinforced Concrete Beam Bridge, 3 Spans @ 40 Ft. 30 Ft. Roadway. Std. Drig. No. B-40-2430 except make camber $\frac{1}{4}$ " instead of $\frac{5}{8}$ ".



HALF GENERAL PLAN

GENERAL NOTES:-

Superstructure is to be composed of three Standard Concrete Beam Spans - Span 40 Ft - Roadway 30 Ft. For details not shown in these drawings see the following Standard Drawings Nos. B-40-2430; AS-2430 and RR-A.

All concrete in abutments, piers and footers to be 1:6½. All remaining concrete to be 1:5½.

Wearing Surface over bridge and approach slabs is to be 2" of Bituminous Concrete (Item T-23) including Seal Coat. For details of Approach Pavement see Sheets Nos. 3, 4, 5 and 6.

Construction specifications in force on date of contract shall govern.

No horizontal construction joints will be permitted above the footers in either the piers or the abutments. If any construction joints, other than those shown in the wings, are necessary, they shall be made truly straight and vertical, shall extend from top of footer to top of pier or abutment, and shall be keyed in a manner acceptable to the engineer in charge.

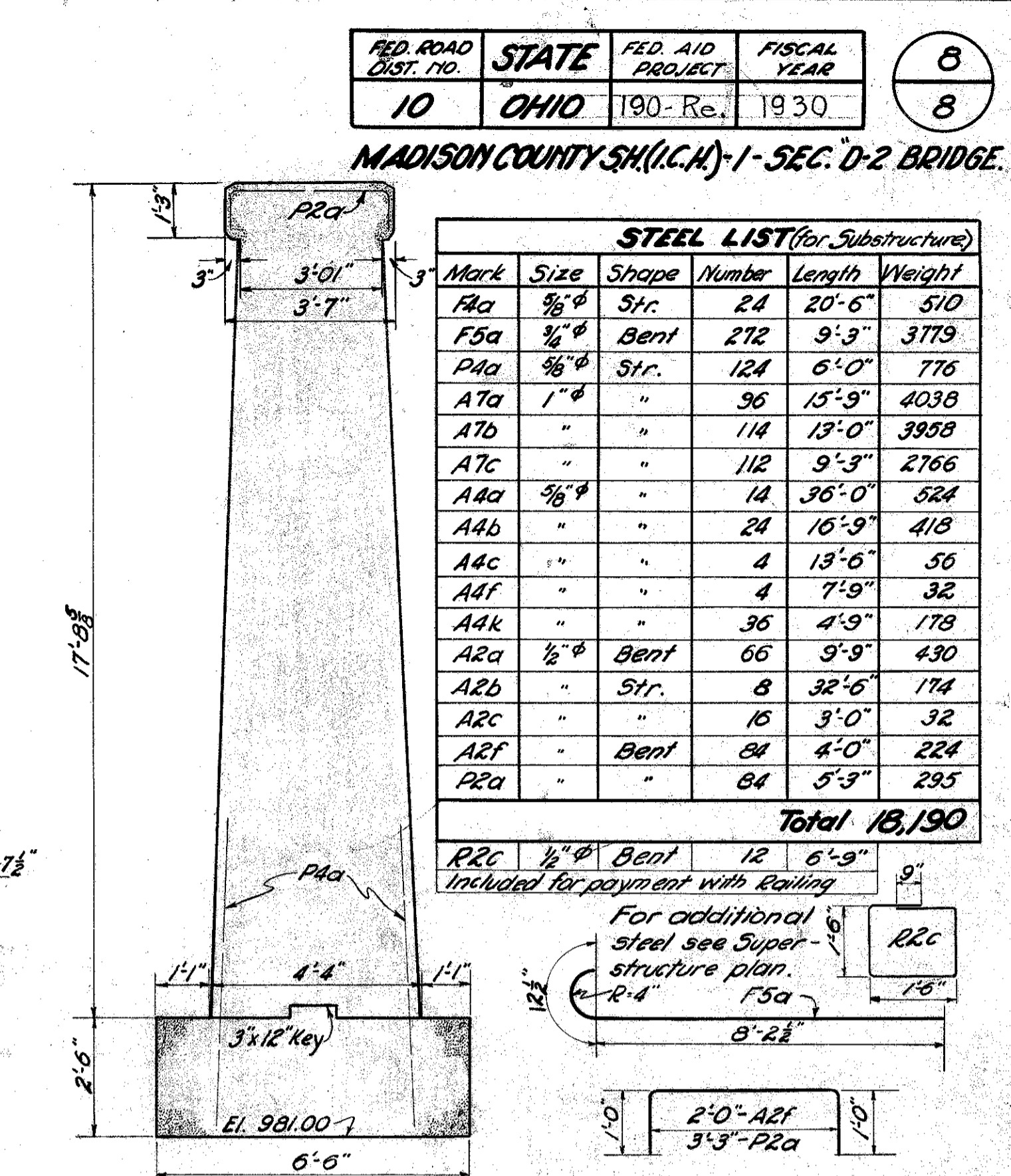
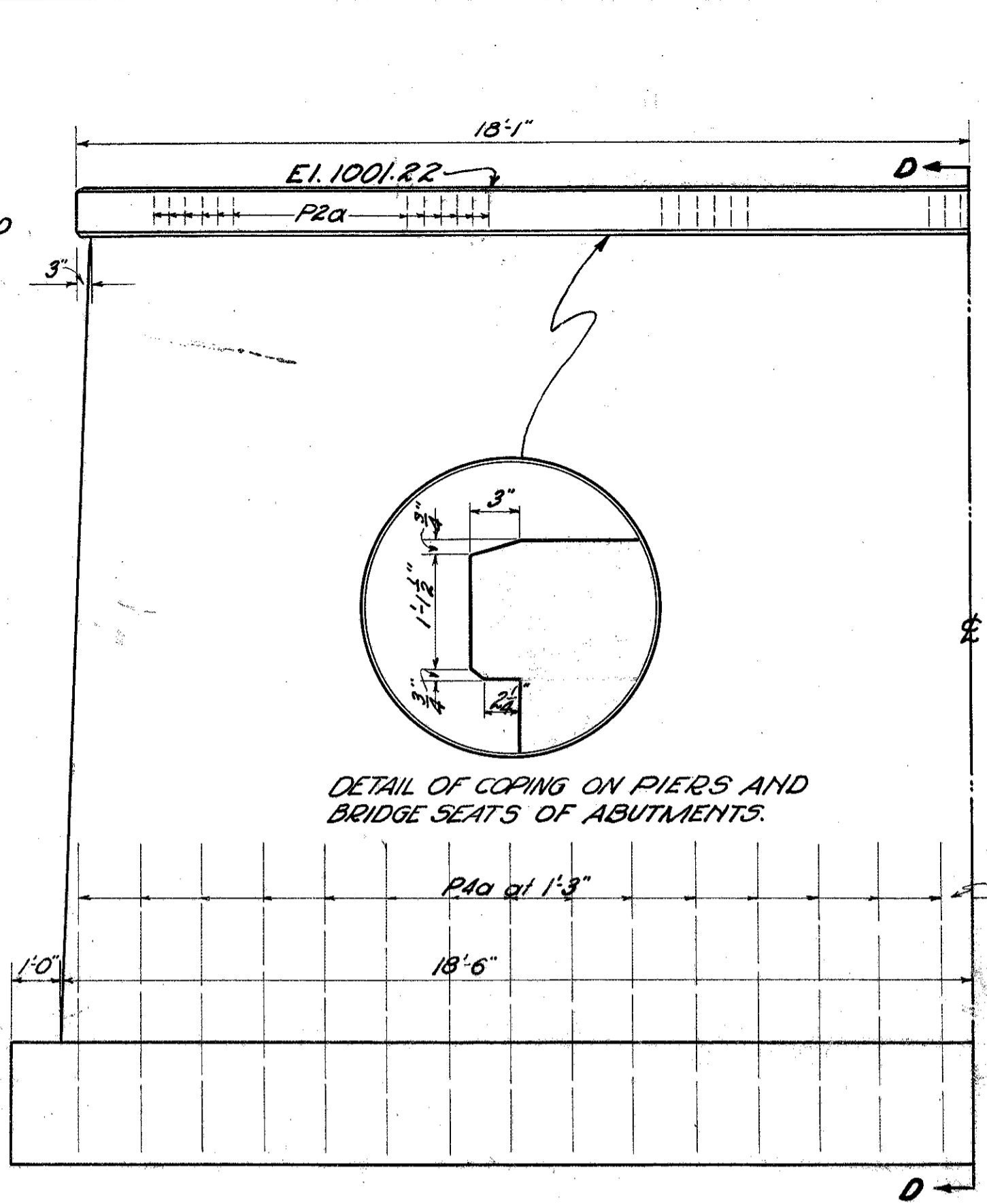
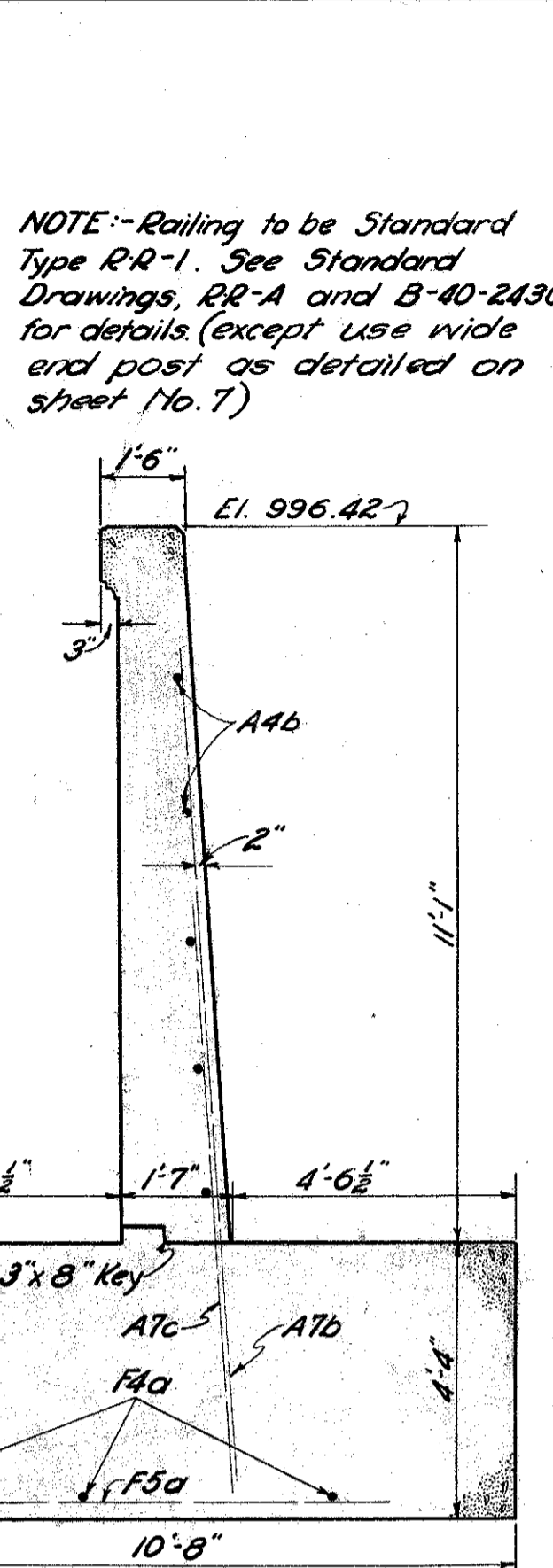
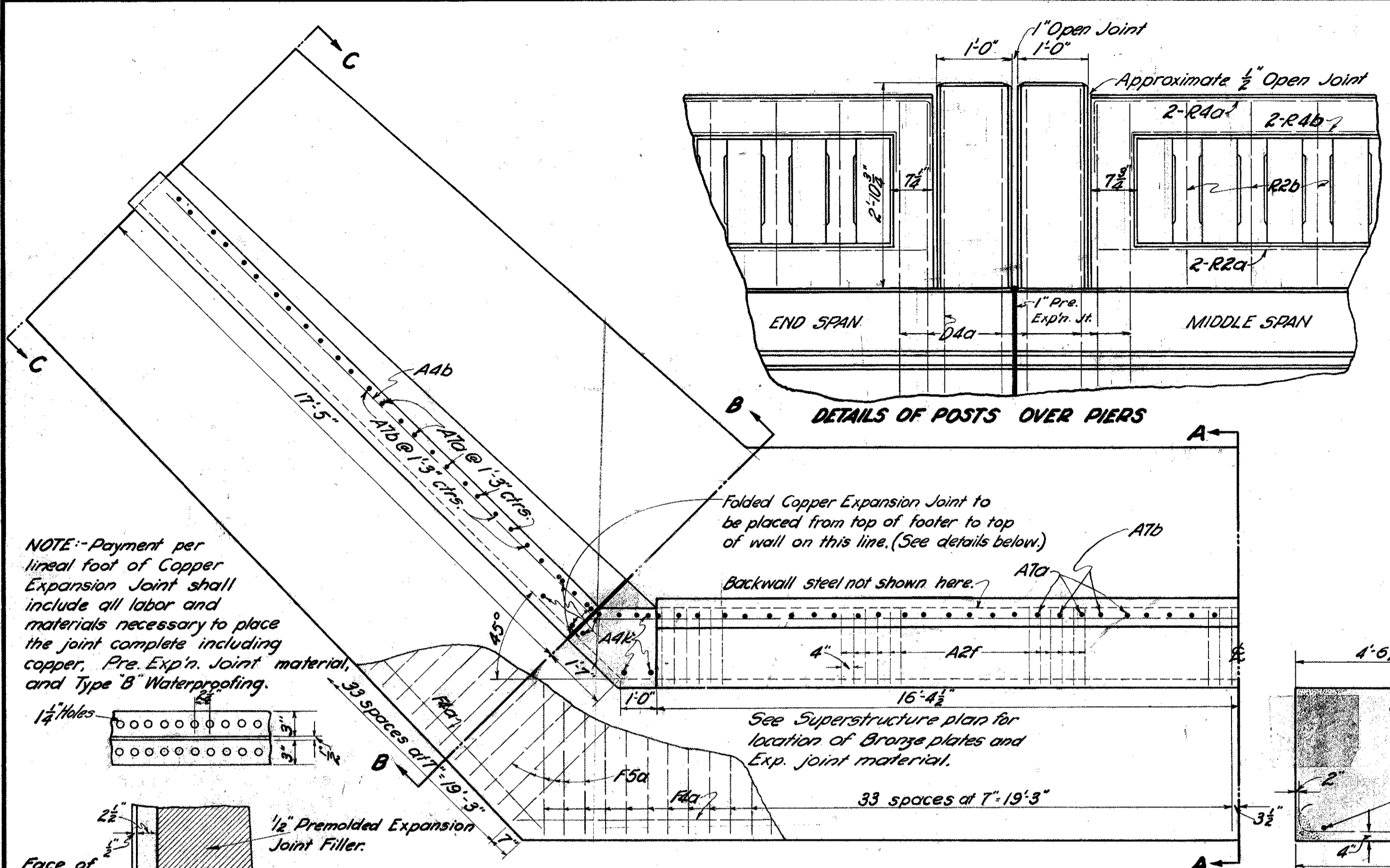
Cast Iron Scuppers as shown on Std. Dr. No. B-40-2430 at all four corners of center span and at corners near the abutments of both end spans.

Excavation below Elev. 991.4 shall be classed as Wet Excavation.

Excavation above Elev. 991.4 shall be classed as Dry Excavation.

Excavation above Elev. 991.4 between the face of the east abutment and low water's edge shall be classed as Channel Excavation (see Sheet 3).

**GENERAL PLAN AND ELEVATION
BRIDGE OVER DEER CREEK
MADISON CO., S.H. I, SEC. "D2-BRIDGE"**
Designed and Drawn W.W.F. Traced R.B.K.
Checked J.M.M. Reviewed M.X.W. & W.H.R. 7/22/29



STEEL LIST (for Substructure)

Mark	Size	Shape	Number	Length	Weight
F4a	3/8"	Str.	24	20'-6"	510
F5a	3/8"	Bent	272	9'-9"	3779
P4a	3/8"	Str.	124	6'-0"	776
A7a	1"	"	96	15'-9"	4038
A7b	"	"	114	19'-0"	3958
A7c	"	"	112	9'-3"	2766
A4a	3/8"	"	14	36'-0"	524
A4b	"	"	24	16'-9"	413
A4c	"	"	4	13'-6"	56
A4f	"	"	4	7'-9"	32
A4k	"	"	36	4'-9"	178
A2a	1/2"	Bent	66	9'-9"	430
A2b	"	Str.	8	32'-6"	174
A2c	"	"	15	3'-0"	32
A2f	"	Bent	84	4'-0"	224
P2a	"	"	84	5'-3"	295
Total					18,190

P2c 1/2" Bent 12 6'-9" included for payment with Railing

For additional steel see Superstructure plan.

