

2062

STATE OF OHIO

DEPARTMENT OF HIGHWAYS

HEN-110-2.22, HEN-109-16.55

HENRY COUNTY

HARRISON TOWNSHIP

S-331(4)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	S-331(4)	1/79

HEN-110-2.22
HEN-109-16.55

504

Conventional Signs

Section Lines	-----
Right of way	=====
Fence Line	-----x-----x-----x-----
Center Line	----- ----- ----- -----
Pipe Line	----- ----- ----- -----
Pole Line	Power ♀ Telephone ♀
Guard Rail	Existing ----- Proposed -----
Continuous Hedge	~~~~~
Trees or Stumps (Existing)	⊙ ⊙ ⊙ ⊙
Trees or Stumps (To be removed)	⊗ ⊗ ⊗
Railroads	----- ----- ----- -----

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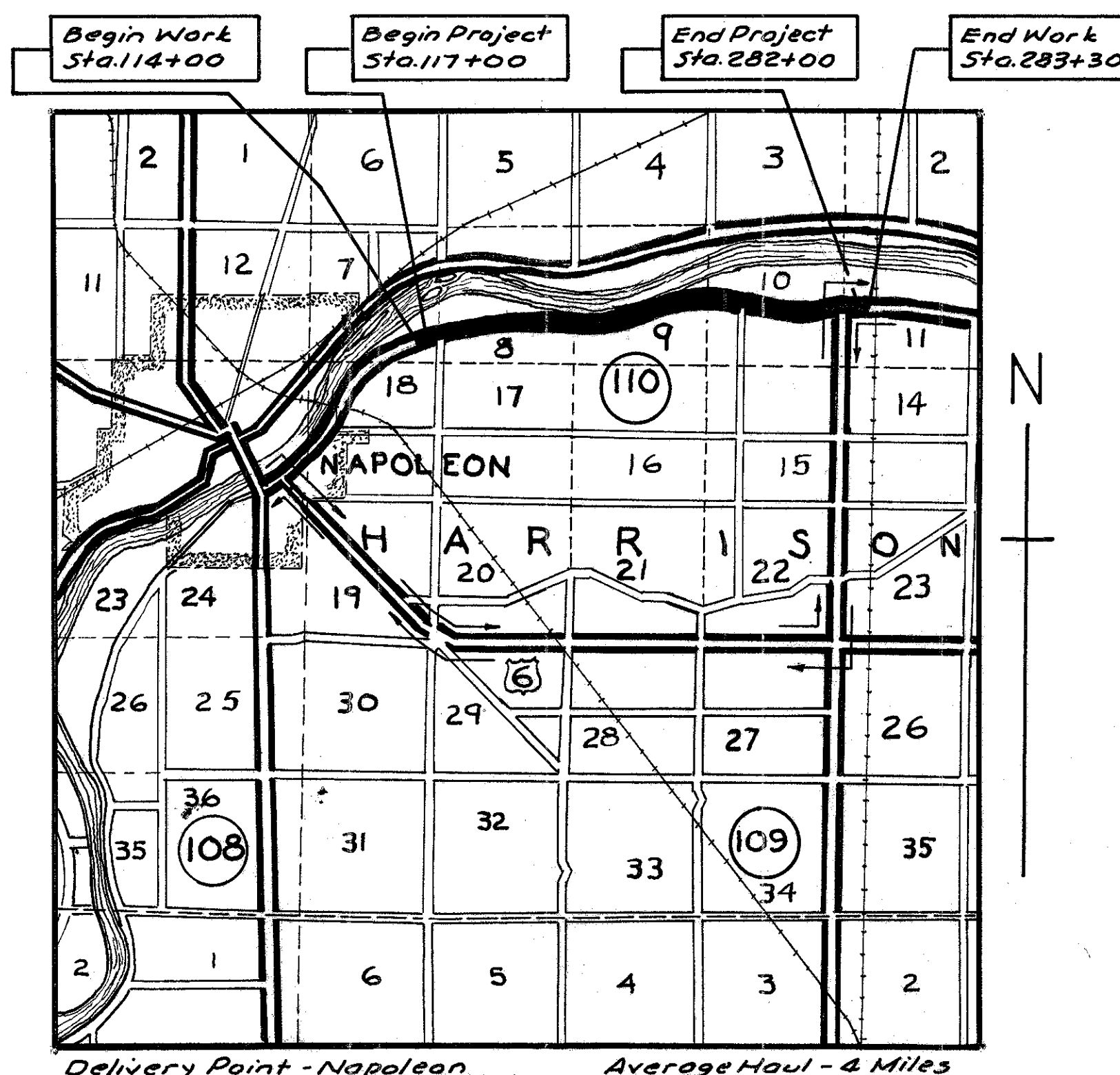
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LINE DATA

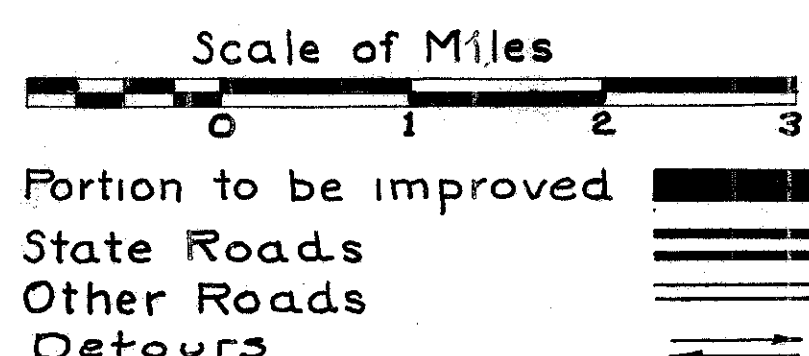
Begin Work	-	Sta. 114+00.00
Begin Project	-	Sta. 117+00.00
End Project	-	Sta. 282+00.00
End Work	-	Sta. 283+30.00
Gross Length of Work	=	16,930.00 Lin. Ft.
Gross Length of Project	=	16,500.00 Lin. Ft.
Deduct for Station Equations	-	6.75 Lin. Ft.
Net Length of Work	=	16,923.25 Lin. Ft. = 3.205 Miles
Net Length of Project	=	16,493.25 Lin. Ft. = 3.123 Miles

SUPPLEMENTAL SPECIFICATIONS

E-101	1-1-57	
B-119	Rev. 8-11-57	
B-219	Rev. 7-23-58	
9	6-24-58	



LOCATION MAP



Plan	1" = 50'
Profile: Horizontal	1" = 50'
Profile: Vertical	1" = 5'
Cross Sections	1" = 5'

APR 20 1961
GROUND PHOTOLAB

Sheets 73, 76 & 77-R/W
Parcels revised 10-31-58
AWG

The Standard Specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway, except as noted on Sheet 4, and that detours will be provided as indicated on the plans.

Approved L. P. Roush
Date 8-8-58 Division Deputy Director

Approved C. H. Makover, Jr.
Date 9-10-58 Deputy Director of Planning and Programming.

Approved J. J. DeLaney
Date 9-2-58 Engineer of Bridges

Approved P. E. Shultz
Date 9-5-58 Engineer of Location & Design

Approved C. S. Medsker
Date 7-5-58 Deputy Director of Design & Construction

Approved George J. Shannon
Date 9/10/58 First Assistant Director.

Approved Charles M. Noble
Date 9/10/58 Director of Highways

STANDARD DRAWINGS					
G-7.07	6-1-56	S-27 RC.3	2-20-45	I-8 M.H. No.1	5-1-52
L-1	4-1-50	S-27 RC.4	1-4-54	I-8 M.H. No.1-A	1-3-55
L-3	4-1-50	I-1,2,3,4 & 5	4-24-58	I-12	7-1-54
L-3-A	4-1-50	I-8 C.B.1-2-A & B	5-1-52	I-14 G	1-22-52
DR-1	1-3-55	I-8 C.B.1-3 & 4	5-1-52	I-15 No.1	8-1-55
RI-1	7-15-58	I-8 C.B.2-2-A & B	8-1-56	I-15 No.2-A	6-1-57
T-35	1-2-56	I-8 C.B. No.3	5-1-52	SP-53	7-21-53

Department of Commerce
Bureau of Public Roads

Approved: _____
Division Engineer Date _____

FILE NO.	HENRY COUNTY HEN-110-2.22, HEN-109-16.55
Date of Letting	_____ 19__
Contract No.	_____

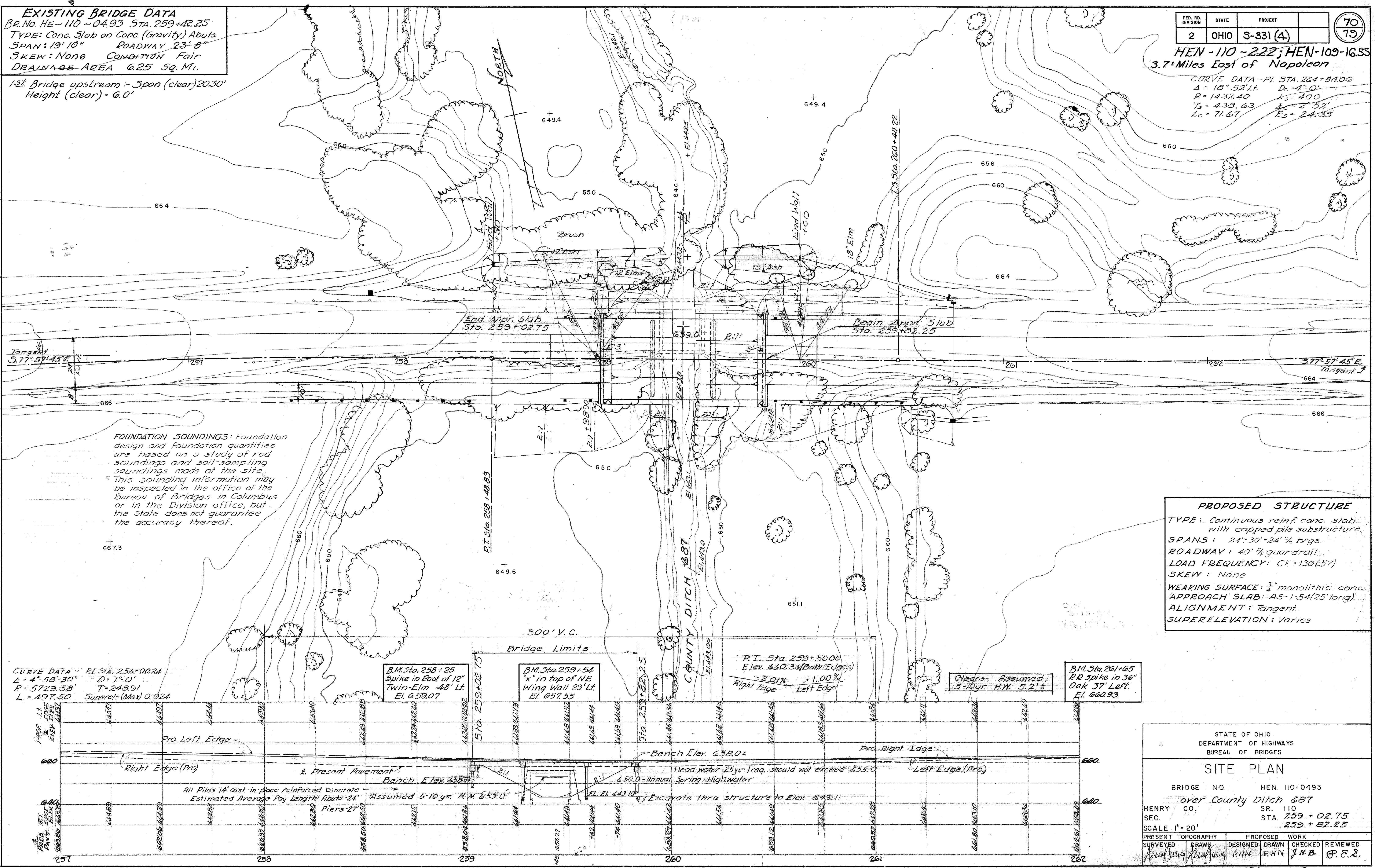
EXISTING BRIDGE DATA
 Br. No. HE-110-0493 STA. 259+42.25
 TYPE: Conc. Slab on Conc. (Gravity) Abuts
 SPAN: 19' 10" ROADWAY 23'-8"
 SKEW: None CONDITION Fair
 DRAINAGE AREA 6.25 Sq. Mi.

1st Bridge upstream - Span (clear) 20.30'
 Height (clear) = 6.0'

FED. RD. DIVISION	STATE	PROJECT	70 75
2	OHIO	S-331(4)	

HEN-110-222; HEN-109-16.55
 3.7 Miles East of Napoleon

CURVE DATA - PI STA. 264+84.06
 $\Delta = 18^\circ 52' 14''$ $D_c = 4'-0"$
 $R = 1432.40$ $L_s = 400$
 $T_s = 438.63$ $L_c = 2^\circ 52'$
 $L_c = 71.67$ $E_s = 24.35$



FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

PROPOSED STRUCTURE
 TYPE: Continuous reinf. conc. slab with capped pile substructure.
 SPANS: 24'-30" - 24' % brgs.
 ROADWAY: 40' % guardrail.
 LOAD FREQUENCY: CF = 130(57)
 SKEW: None
 WEARING SURFACE: $\frac{3}{4}$ " monolithic conc.
 APPROACH SLAB: A5-1.54(25' long)
 ALIGNMENT: Tangent.
 SUPERELEVATION: Varies

CURVE DATA - PI STA. 254+00.24
 $\Delta = 4^\circ 58' 30''$ $D = 1^\circ 0'$
 $R = 5729.58'$ $T = 248.91$
 $L = 497.50$ Superelev. (Max) 0.024

B.M. Sta. 258+25
 Spike in Root of 12" Twin-Elm 48' Lt.
 El. 659.07

B.M. Sta. 259+54
 'x' in top of NE Wing Wall 29' Lt.
 El. 657.55

P.I. Sta. 259+50.00
 Elev. 640.36 (Both Edges)
 -2.01% Right Edge +1.00% Left Edge

Clears Assumed
 5-10 yr. H.W. 5.2' ±

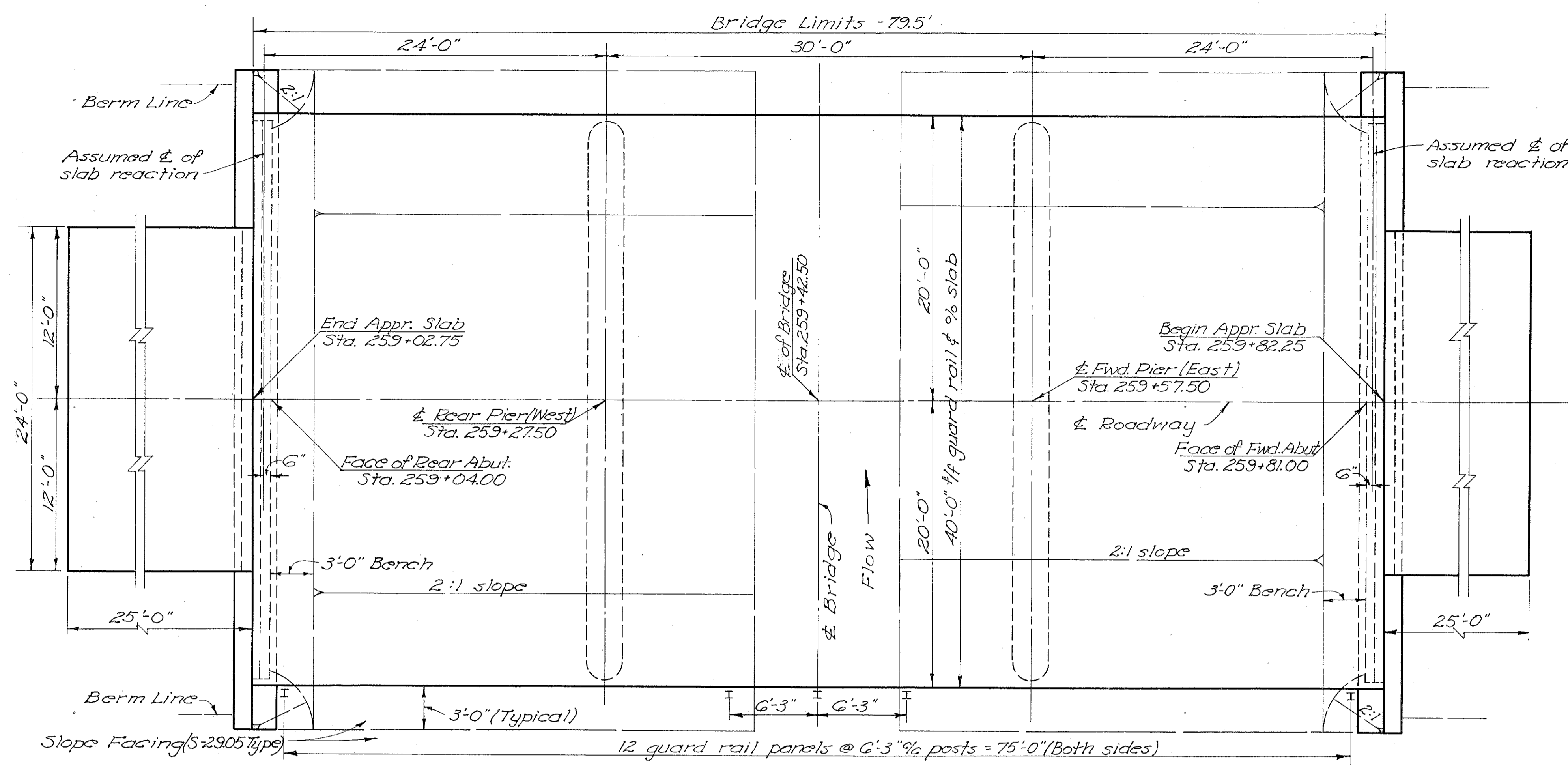
B.M. Sta. 261+65
 RR spike in 36" Oak 37' Left.
 El. 660.93

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
SITE PLAN					
BRIDGE NO. HEN. 110-0493		over County Ditch 687			
HENRY CO. SR. 110	SEC. 259 + 02.75				
SCALE 1" = 20'		STA. 259 + 82.25			
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
<i>Royal Wynn</i>	<i>Royal Wynn</i>	RHN	RHN	J.H.B.	P.E.S.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	5-331(4)	

71
79

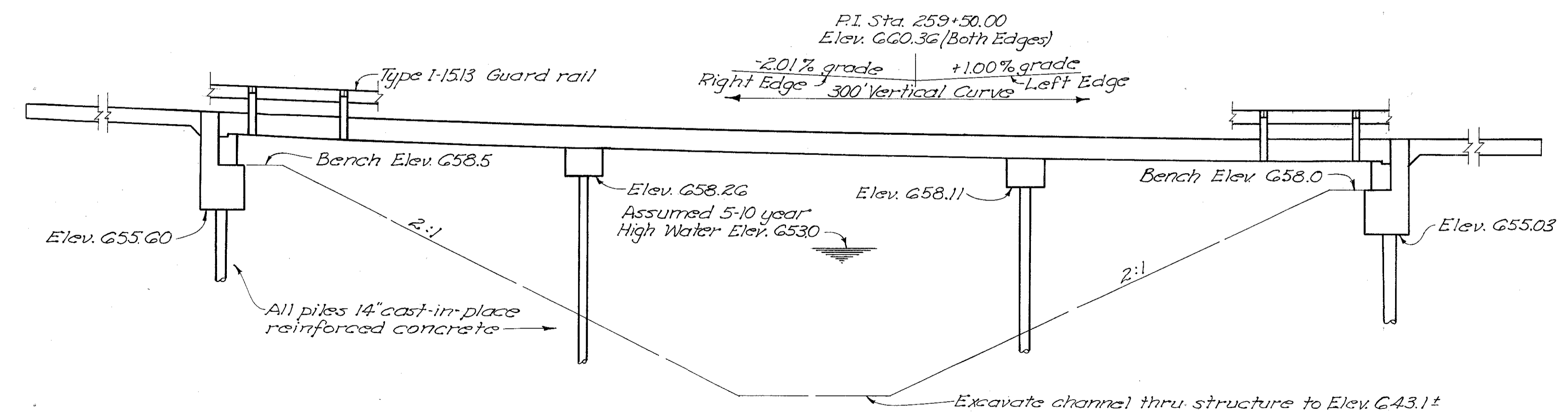
HEN-110-2.22
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GENERAL PLAN

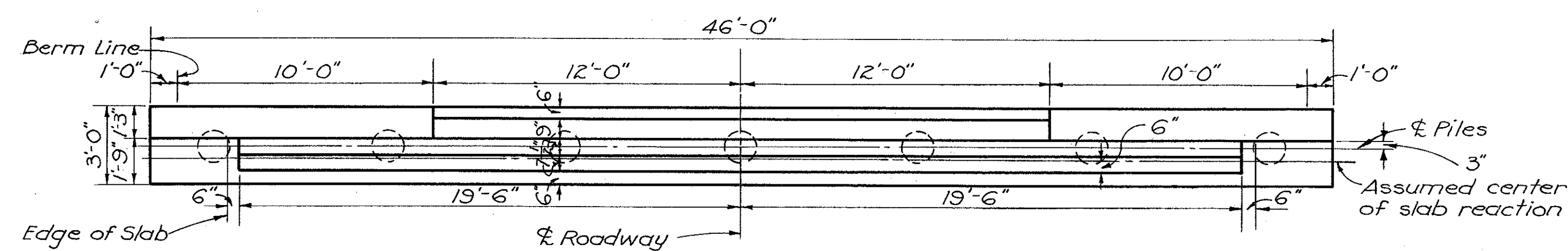
GENERAL NOTES

- REFERENCE** shall be made to Standard Drawings A-1-54 and P-1-54, both revised 12-1-54, and to Standard Drawing G3-1-54, revised 7-16-56.
- REMOVAL OF EXISTING STRUCTURE:** When no longer needed to maintain traffic the existing structure shall be removed. Suitable waste masonry may be placed as bank protection as directed by the Engineer.
- PILES** shall be driven to a minimum bearing capacity of 25 tons per pile for the abutments and 33 tons per pile for the piers.
- PIER PILE ENCASEMENT** as shown on Std. Dwg. No. P-1-54 may be omitted provided that the tapered portion, if any, of all pier piles does not extend above the stream bed or the proposed surface of the ground. If the tapered portion of any pile extends above these limitations, the encasement will be required for all the pier piles. If the encasement is omitted the pile casings shall have a thickness of metal not less than No. 7 gauge, and the painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, the painting shall extend to at least one foot below the proposed surface of the ground.
- SLOPE FACING** (S-2905 type) shall be provided under the structure at both abutments. The porous drain material shall be 12" thick and shall extend from the face of the abutment down to Elev. G43 and transversely to 3 ft outside the edge of the superstructure.

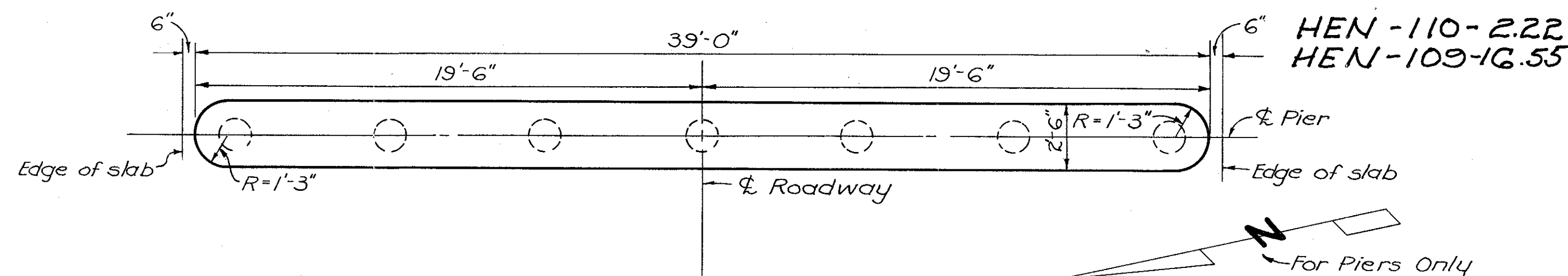


ELEVATION

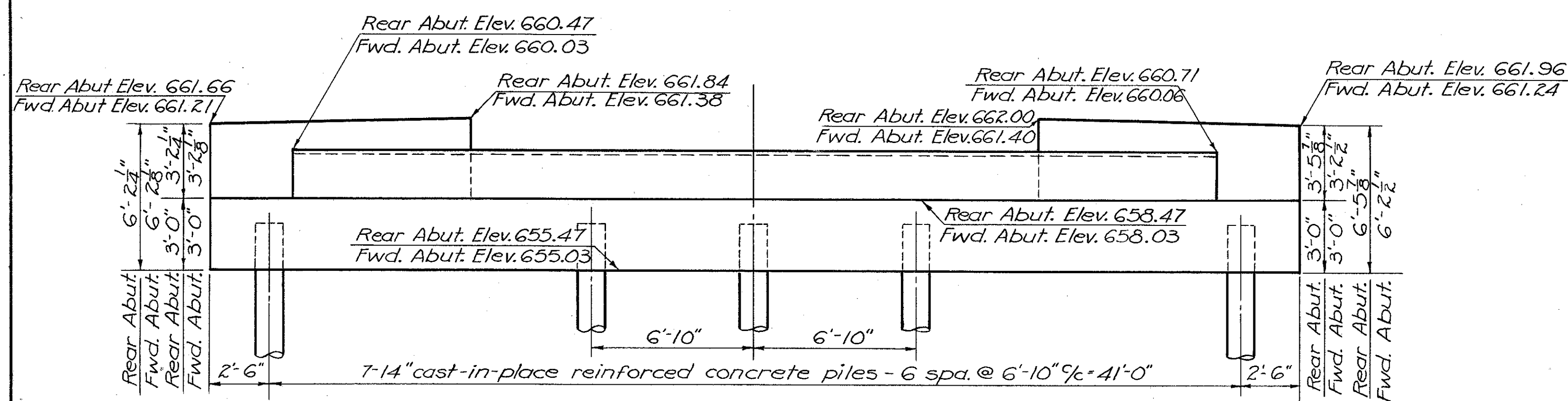
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
GENERAL PLAN & ELEVATION AND NOTES						
BRIDGE NO. HEN-110-0493						
OVER COUNTY DITCH G87						
HENRY COUNTY					STA. 259+02.75 259+82.25	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MKG	MKG	RSM	INNES	CDB A. J. H.	7-16-58	



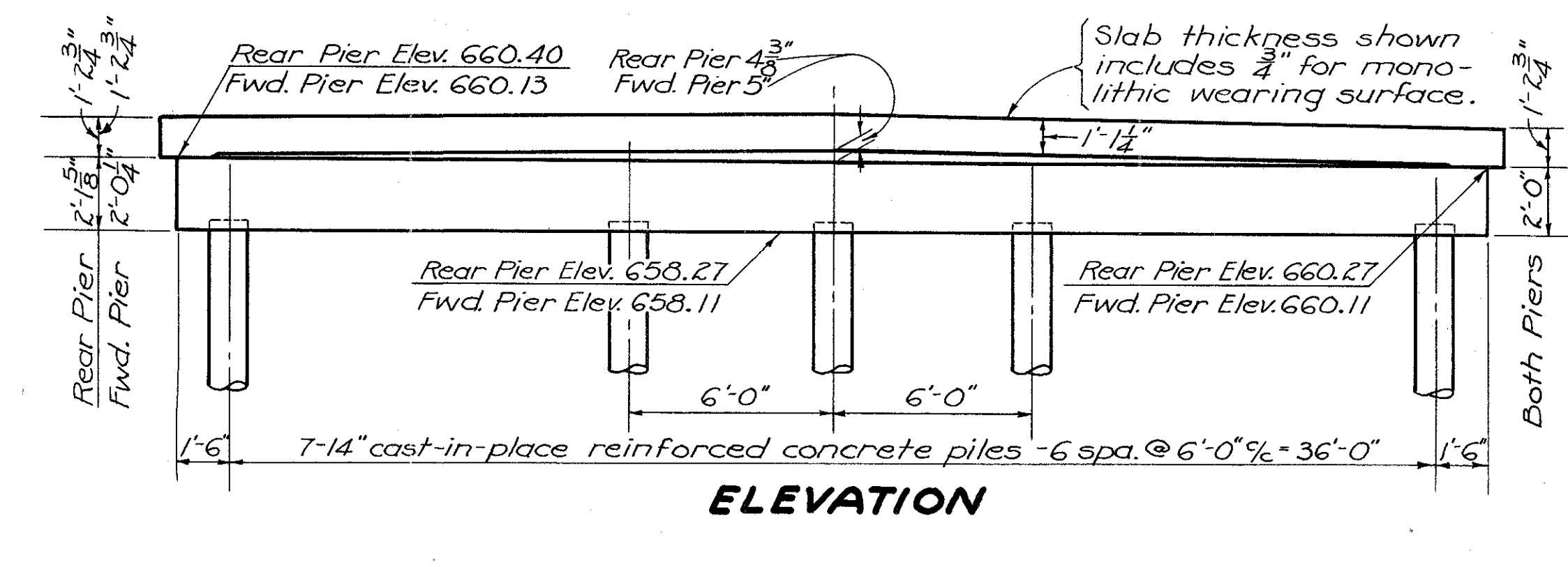
ABUTMENT PLAN



PIER PLAN



ELEVATION



ELEVATION

REINFORCING STEEL LIST				
Mark	No.	Length	Weight	Shp.
SUPERSTRUCTURE				
A824	108	28'-1"	8098	S
B824	34	21'-0"	1906	B
C824	36	18'-4"	1762	B
D824	17	19'-6"	885	S
E824	18	15'-10"	761	S
F924	72	21'-3"	5202	S
G924	36	10'-6"	1285	S
H924	34	8'-2"	944	S
J601	36	15'-3"	825	S
K601	18	13'-10"	374	S
M601	80	39'-6"	4746	S
N601	54	39'-6"	3204	S
PIERS				
P1001	8	39'-6"	1360	S
P901	8	36'-6"	993	S
P701	84	4'-0"	687	S
P501	4	36'-6"	152	S
P502	30	9'-0"	282	B
P503	8	6'-4"	53	B
P401	56	5'-5"	203	B
REINFORCING BENDING DIAGRAMS				
REPLACEMENT BARS				
RE1001	1	7'-2"	-	S
RE901	1	6'-10"	-	S
RE801	1	6'-6"	-	S
RE701	1	4'-0"	-	S
RE601	1	5'-11"	-	S
RE501	1	5'-7"	-	S
RE401	1	5'-5"	-	B

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.

ESTIMATED QUANTITIES						
Item	Total	Unit	Description	Super.	Abut.	Piers
E-2	53	Cu. Yds.	Unclassified excavation		53	
E-3	529	Cu. Yds.	Channel excavation			529
S-1	150	Cu. Yds.	Class "C" concrete, superstructure and pier caps	134		16
S-1	46	Cu. Yds.	Class "E" concrete, abutments		46	
S-4	38,773	Lbs.	Reinforcing steel	29,992	5051	3730
S-14	159	Lin. Ft.	Railing (Type I-15.13 with galvanized steel posts and bolts)	159		
S-16	Lump	Sum	First test pile			Lump
S-18	720	Lin. Ft.	14" cast-in-place reinforced concrete piles		340	380
S-24	Lump	Sum	Removal of existing structure			Lump
S-29	15	Cu. Yds.	Porous backfill		15	
S-29	126	Cu. Yds.	Slope facing (S-29.05 Type)			126

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

**ABUTMENT AND PIER DETAILS
ESTIMATED QUANTITIES AND
REINFORCING STEEL LIST**

BRIDGE NO. HEN-110-0493
OVER COUNTY DITCH 687
HENRY COUNTY STA. 259+02.75
259+82.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	MRG	JGW.	INNES	QJF	7-16-58	