

8-1

## CONVENTIONAL SIGNS

State Line	-----
County Line	-----
Township Line	-----
Section Line	-----
Center Line	-----
Corporation Line	-----
Fence Line	-----
Guard Rail (existing)	.....
Guard Rail (proposed)	.....
Steam Railroad	.....
Power Poles	.....
Telephone Poles	.....
Trees or Stumps (existing)	.....

## INDEX

TITLE SHEET	1
SCHEMATIC LAYOUT	2
TYPICAL SECTIONS	3-6
GENERAL NOTES	7-8, 254
COMPUTATIONS & SUB-SUMMARY	9
GENERAL SUMMARY	10-12
PLAN & PROFILE S.R.1	13-30
CROSS SECTIONS S.R.1	31-204
PLAN & PROFILE KING MEMORIAL ROAD	205-207
CROSS SECTIONS KING MEMORIAL ROAD	208-215
PLAN & PROFILE MORLEY ROAD	216-218
CROSS SECTIONS MORLEY ROAD	219-225
PLAN & PROFILE DRIVE MORLEY ROAD	226
CROSS SECTIONS DRIVE MORLEY ROAD	227-228
PLAN & PROFILE KELLOGG ROAD RELOC.	229-230
CROSS SECTIONS KELLOGG ROAD RELOC.	231-235
PLAN & PROFILE HERMITAGE ROAD	236-238
CROSS SECTIONS HERMITAGE ROAD	239-247
ROADSIDE REST & RAMP DETAILS	248-253
ROADSIDE REST AREA PLANTING PLAN	254-257, 257-A, 257-B
STRUCTURES, 20' SPAN & UNDER	258-267
SKREW HEADWALL DETAILS	268
I-2 & I-4 DRAINAGE DETAILS	269
MODIFIED STD. #5 C.B., END SILL, MOD. TYPE I PAVED	
GUTTER & UNDERGROUND ELECTRICAL DUCT DETAILS	270
TYPICAL APPROACH SLAB EROSION CONTROL DETAILS	271
REF. MON. & DELINEATOR DETAIL	272
PAVEMENT MARKING DETAIL	273
STRUCTURES OVER 20' SPAN	274-295
RIGHT-OF-WAY PLAN	296-306

## LINE DATA

BEGIN PROJECT	STA. 193 + 50
END PROJECT	STA. 326 + 50
GROSS LENGTH OF PROJECT	13,300 LIN. FT.
DEDUCT FOR EQUATION	
STA. 241 + 39.02 BK. = STA. 242 + 80.20 AH.	141.18 LIN. FT.
NET LENGTH OF PROJECT	13,158.82 LIN. FT. OR 2.492 MILES
ADD FOR APPROACHES (SHEET NO.7)	4,848.22 LIN. FT.
TOTAL LENGTH OF WORK	18,007.04 LIN. FT. OR 3.410 MILES

00126R1

File No.	LAKE COUNTY	LAK-1-1038
Date of Letting		19
Contract No.		

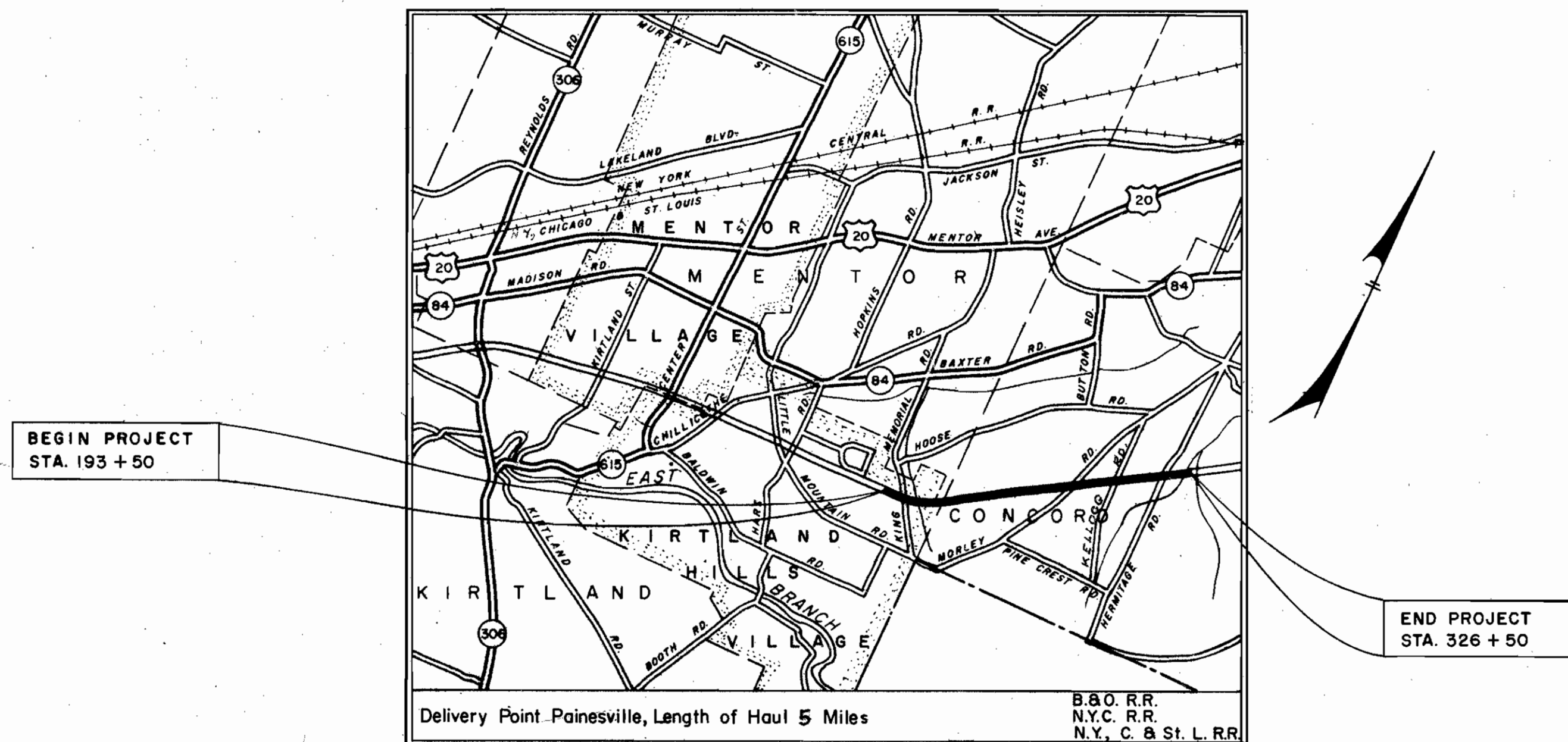
STATE OF OHIO  
DEPARTMENT OF HIGHWAYSLAK — 1 — 10.38  
KIRTLAND HILLS VILLAGE  
MENTOR TOWNSHIP  
CONCORD TOWNSHIP  
LAKE COUNTY

LIMITED ACCESS

This improvement has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02, Revised Code of Ohio and is especially designed for through traffic.

I-90-1(25)29

FEDERAL RD DIVISION	STATE	PROJECT	
2	OHIO	I-90-1(25)29	

LAKE COUNTY  
LAK-090-11.38  
PID 0.033  
f.k.a.  
LAK-001-10.38  
PF# 126RMICROFILMED  
JUN 27 1965APR 11 1962  
GROUND PHOTOLAB

## LOCATION MAP

SCALE IN MILES  
0 1 2 3 4

LEGEND	
Portion to be improved	-----
State Roads	=====
Other Roads	-----

SCALE	
Plan	1" = 50'
Profile: Horizontal	1" = 50'
Profile: Vertical	1" = 10'

Revised Sheet Nos. 10, 11, 17, 21 & 256 To Indicate  
100% State Participation at Rest Areas  
R.E.C. 11-20-61

Added Sheet Nos. 296R, 297R, & 306R  
Superseding Sheet Nos. 296, 297, & 306  
R.E.C. 7-25-60

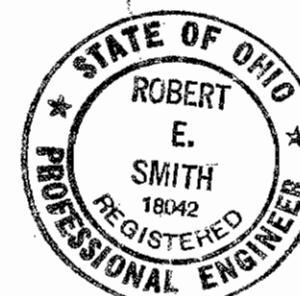
## SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

B-T-50-70-71E NO. 10-1-47	I-8 C.B. NO. 5	7-1-58 L-2	4-1-50 T-35	1-2-56
B-T-71R	3-2-53 I-8 C.B. NO. 6	1-26-59 L-1	4-1-50 T. J.	5-1-56
DR-1	1-3-55 I-8 M.H. NO. 1	1-26-59 L-3	4-1-50 S.P. 53	11-25-58
	I-8 M.H. NO. 1-A	1-26-59 L-3-A	4-1-50	
F-2	10-1-58 I-8 M.H. NO. 2	1-26-59 L. J. NO. 1	7-1-55	
F-3	9-1-59 I-12	7-1-54 RI-1	7-15-58 AR-1-57	2-2-59
G-7.07	6-1-56 I-14 G	1-22-52 R.R.A. NO. 1	1-20-58 AS-1-54	12-1-54
HW-A&B	7-15-57 I-15 NO. 1	5-21-59 R.R.A. NO. 2	1-20-58 RB-1-55	2-2-59
HW-C	7-15-57	R.R.A. NO. 3	1-20-58 CSB-2-56	
I-1, 2, 3, 4 & 5	2-20-45 I-15 NO. 2-A	5-21-59 R.R.A. NO. 4-A	1-20-58 SHT. #1, #2, #3	2-2-59
I-8 C.B. 2-2-A&B	3-2-59 I-15 NO. 3	12-1-54 R.R.A. NO. 4-B	1-20-58	
I-8 C.B. 2-3 & 2-4	1-26-59 I-15 NO. 6	7-1-59 R.R.A. NO. 4-C	4-24-58	
I-8 C.B. NO. 3	1-26-59	R.R.A. NO. 5	11-3-58	
I-8 C.B. NO. 3-A	1-26-59	S-27 PC. 3	2-20-45	
I-8 C.B. NO. 4	7-1-58 I-21-23	8-1-56 S-27 PC. 4	1-4-54	

## SUPPLEMENTAL SPECIFICATIONS

I-127	Rev.	11-16-57
I-125	Rev.	4-22-59
18	Rev.	6-15-59
M-206.14		7-15-49
B-219	Rev.	3-12-59
S-207		4-28-55

Prepared and Recommended By  
Capitol Engineering Associates  
Consulting Engineers, Dillsburg, Pa.  
Partner

APR 11 1962  
GROUND PHOTOLABDEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER

DATE

# SCHEMATIC LAYOUT PLAN

MICROFILMED  
JUN 27 1985

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

2  
306

LAKE COUNTY  
LAK-1-10.38

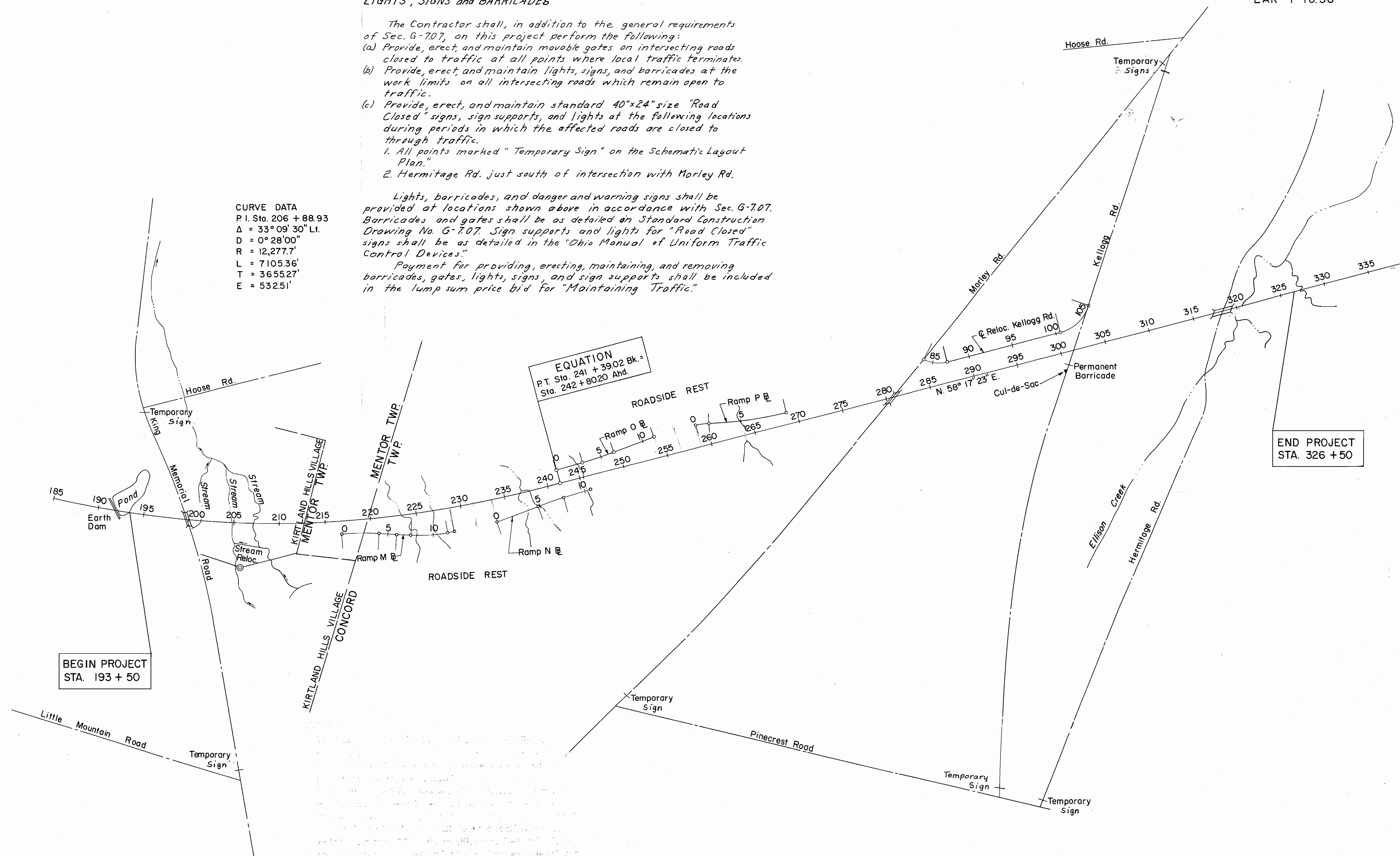
## LIGHTS, SIGNS and BARRICADES

- The Contractor shall, in addition to the general requirements of Sec. G-7.07, on this project perform the following:
- Provide, erect, and maintain movable gates on intersecting roads closed to traffic at all points where local traffic terminates.
  - Provide, erect, and maintain lights, signs, and barricades at the work limits on all intersecting roads which remain open to traffic.
  - Provide, erect, and maintain standard 40"x24" size "Road Closed" signs, sign supports, and lights at the following locations during periods in which the affected roads are closed to through traffic.
    - All points marked "Temporary Sign" on the Schematic Layout Plan.
    - Hermitage Rd. just south of intersection with Morley Rd.

Lights, barricades, and danger and warning signs shall be provided at locations shown above in accordance with Sec. G-7.07. Barricades and gates shall be as detailed in Standard Construction Drawing No. G-7.07. Sign supports and lights for "Road Closed" signs shall be as detailed in the "Ohio Manual of Uniform Traffic Control Devices."

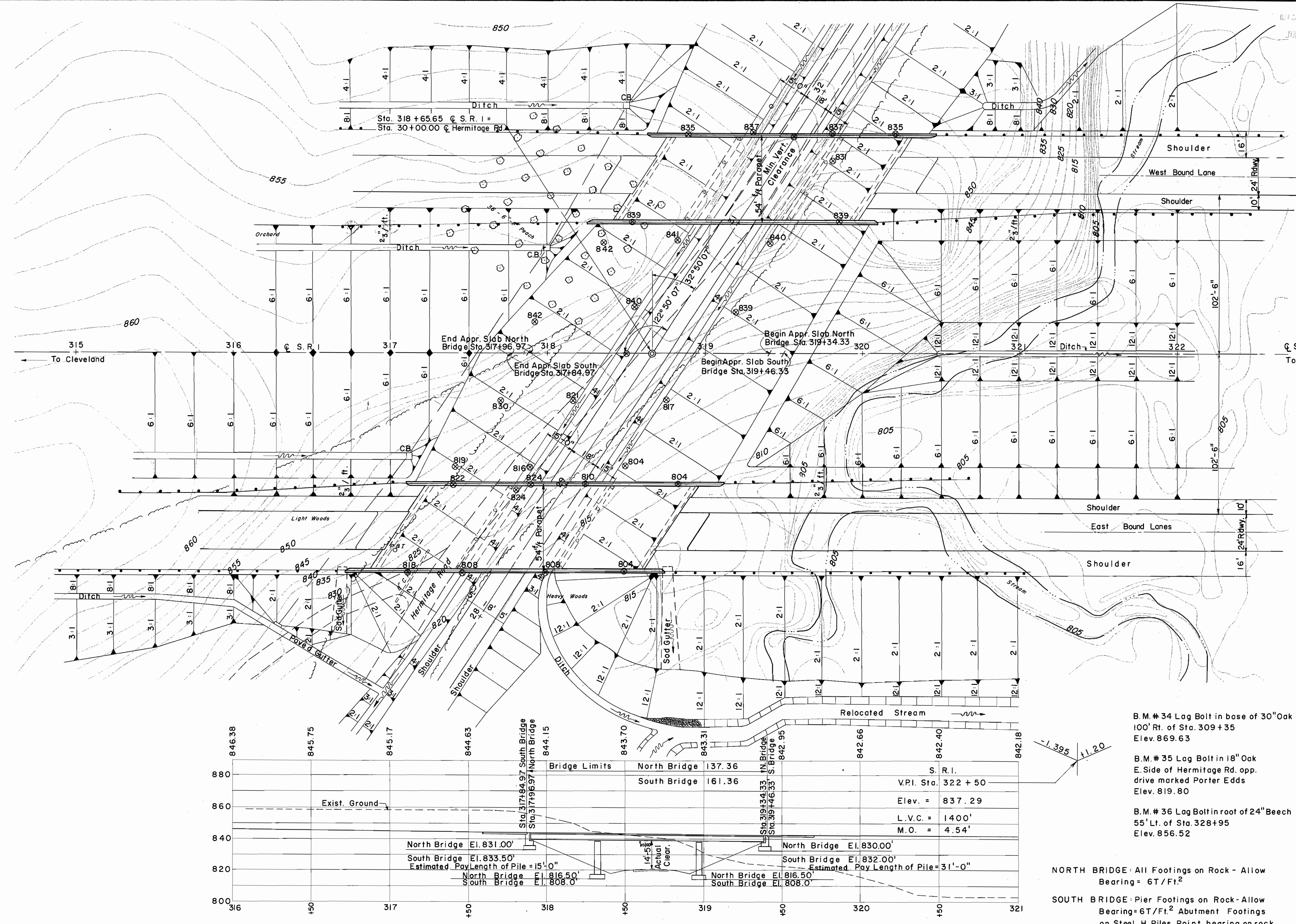
Payment for providing, erecting, maintaining, and removing barricades, gates, lights, signs, and sign supports shall be included in the lump sum price bid for "Maintaining Traffic."

CURVE DATA  
P.I. Sta. 206 + 88.93  
 $\Delta = 33^\circ 09' 30''$  Lt.  
 $D = 0^\circ 28' 00''$   
 $R = 12,277.7'$   
 $L = 7105.36'$   
 $T = 3655.27'$   
 $E = 532.51'$





LAKE COUNTY  
SEC. LAK-1-10.38



Q.S.R.I. (Survey)  
To Ashtabula

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.

819 Borings or Rod Soundings with Elev. of Top of Rock.

PROPOSED STRUCTURES

TYPE: Two 3-Span Continuous Rolled Beam with Reinforced Concrete Deck & Substructure.

SPANS: North Bridge-36'-0", 60'-0", 36'-0"  
South Bridge-48'-0", 60'-0", 48'-0"

ROADWAY: 54'-0" f/f Parapet, 1'-2" Safety Curb

LOAD FREQUENCY: CF=2000- Adequate for AASHO Alternate Loading

SKEW: 32° 50' 07" L.F.

WEARING SURFACE: 1" Monolithic Concrete

APPR. SLABS: 25' Long AS-1-54

ALIGNMENT: Tangent- Both Roads

TRAFFIC COUNT: 80 (1955) 160 ADT 1975 (Hermitage Road)

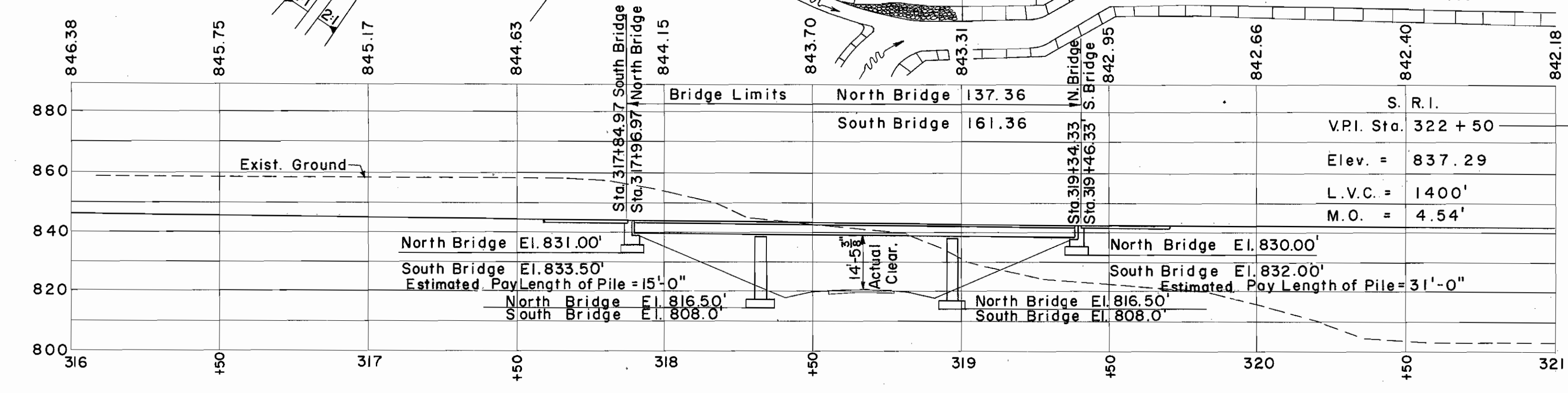
B.M. # 34 Lag Bolt in base of 30" Oak  
100' Rt. of Sta. 309+35  
Elev. 869.63

B.M. # 35 Lag Bolt in 18" Oak  
E. Side of Hermitage Rd. opp.  
drive marked Porter Edds  
Elev. 819.80

B.M. # 36 Lag Bolt in root of 24" Beech  
55' Lt. of Sta. 328+95  
Elev. 856.52

NORTH BRIDGE: All Footings on Rock - Allow  
Bearing = 6T/Ft.<sup>2</sup>

SOUTH BRIDGE: Pier Footings on Rock- Allow  
Bearing = 6T/Ft.<sup>2</sup> Abutment Footings  
on Steel H Piles Point bearing on rock.  
12 BP 53. Design Load 25 Tons/Pile.



SEC. C-31A

PREPARED BY  
CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA.  
FOR

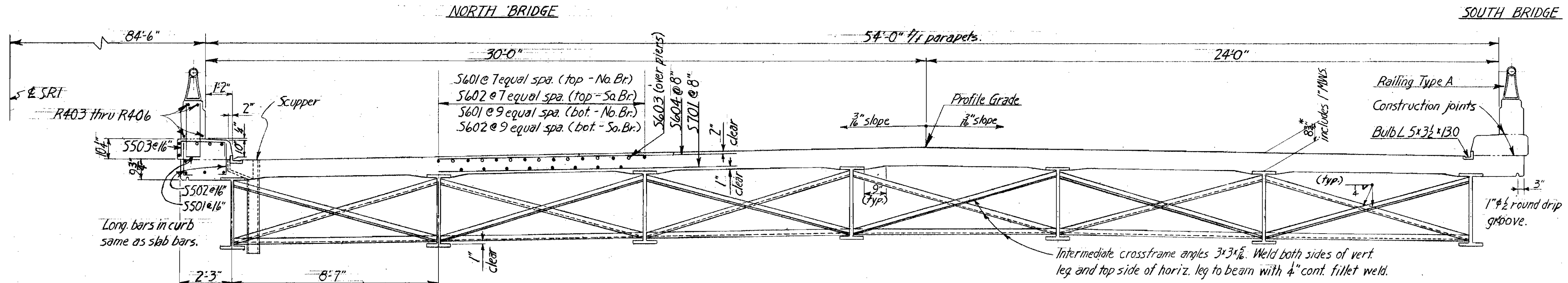
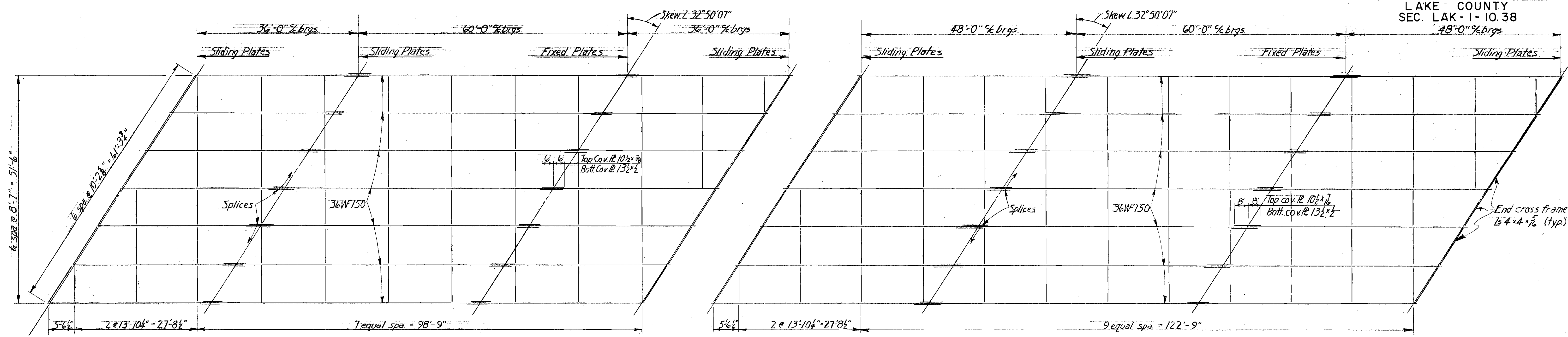
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

SITE PLAN  
BRIDGE NO. LAK-1-1271 N.F.S.  
S.R.I. OVER HERMITAGE ROAD  
LAKE COUNTY  
STA. 318 + 65.65

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
----------	-------	--------	---------	---------	------	---------



LAKE COUNTY  
SEC. LAK-1-10.38



DEAD LOAD DEFLECTION	North Bridge		South Bridge	
	End Span	Mid-Span	End Span	Mid-Span
Deflect. due to wt. steel	64	32	32	32
Deflect. due to remaining DL	1/6	3/2	3/6	3/2
Convexity of vert. curve	6	4	6	0
Total	7 1/6	2	3	4
Camber required	0	0	0	0

Any convexity of beams shall be placed upward.

NOTES

Painting: After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams, all sides of bottom flange.

\*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

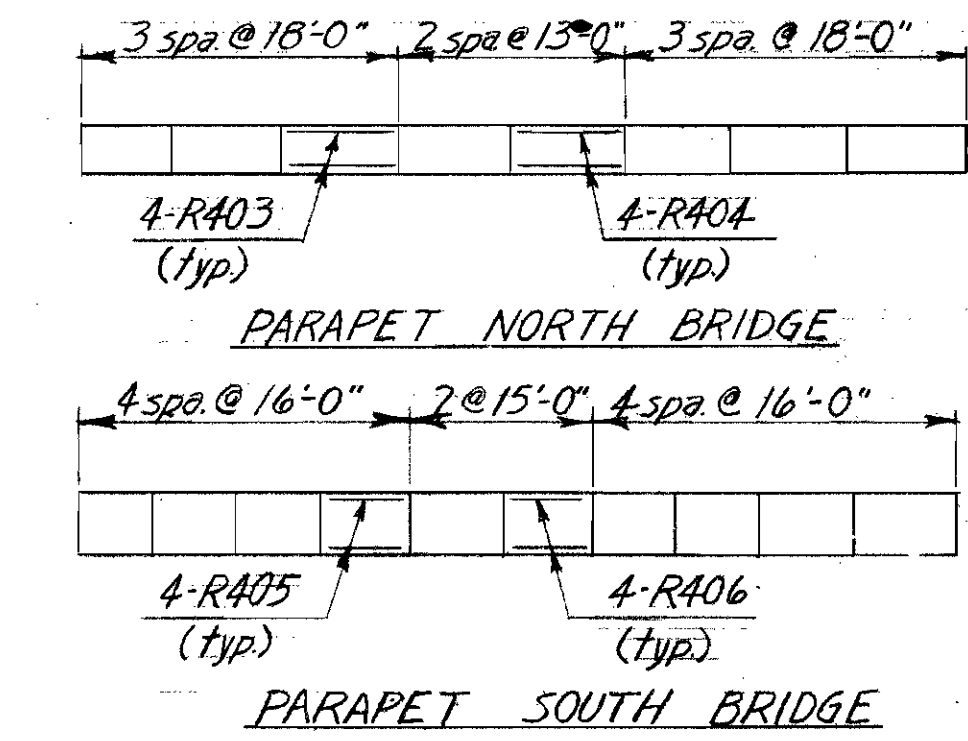
- Beam Splice Welding Procedure:
1. Raise abutment ends of the beams 8" North Br., 8" South Br.
  2. Butt weld the beam flanges and web, using the following sequence: make two passes on each flange, then two on the web, repeat, using one pass at each location, until welds are completed.
  3. Weld the bottom and top moment plates.
  4. Lower the beam ends to final position.

Reference shall be made to Standard Dwg. CSB-2-56, sh. 2, & 3 of 6, revised 2-2-59 for details of end dams, gutters, scuppers, pipe drains, endframes and sliding plates.

Reference shall be made to Standard Dwg. AR-1-57, revised 2-2-59 for aluminum railing type "A", and conc. parapet details.

All reinforcing steel shall have 2" min. cover unless otherwise noted.

Concrete Deck Placing: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.



SEC. C-31A

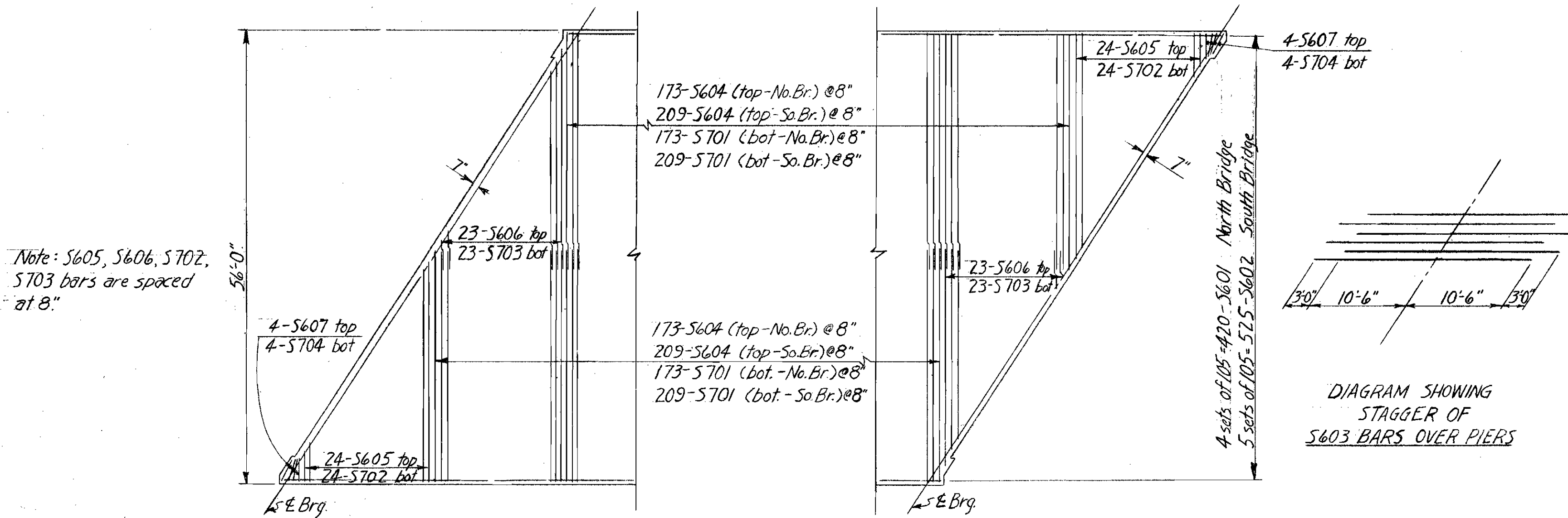
PREPARED BY:  
CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA.  
FOR

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

SUPERSTRUCTURE DETAILS  
BRIDGE NO. LAK-1-1271 N&S  
S.R.I. OVER HERMITAGE ROAD  
LAKE COUNTY

STA. 318 + 65.65

DESIGN	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
	CWB		DRT	8-6-59	



PART PLAN  
Transverse Reinforcement Placement