

LAKE COUNTY
LAK - 2 - 16.49

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CSB-2-56, sheets No. 2 and No. 3 of 6 revised 2-2-59, FSB-1-62 revised 1-15-63, AR-1-57 revised 4-2-62, and to Supplemental Specifications S-101 dated 7-12-62 and S-307 dated 8-23-60.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio Department of Highways, dated 9-1-57, together with current revisions thereof.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

CONCRETE DECK PLACING: In order to facilitate water curing of the deck slab, the placing of concrete shall progress up grade. 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.

SURFACE FINISH OF CONCRETE: The requirements of Section S-1.22, Rubbed Finish, shall apply to:
(a) The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
(b) The entire surface of piers and abutments except bridge seats, back walls and face of abutments between outside beams.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. S-7.12 of the Construction and Material Specifications for the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct, unloaded positions. All beams shall be assembled and match marked.

PILES shall be driven with a hammer of not less than 11,000 foot-pounds per blow to firm contact with shale. If the length of penetration is approximately equal to the depth to shale according to the bridge foundation investigation report the firm contact shall be considered as attained when the capacity according to the formula in Sec. -1805 of the Construction Specifications, is not less than the following value for a pile hammer of the indicated energy rating.

HAMMER FOOT-POUND	ABUTMENTS	PIERS
	TONS PER PILE	TONS PER PILE
11,000	36	50
15,000	31	43

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 35 tons per pile at the piers and 31 tons per pile at the abutments.

UTILITY LINES: All expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

ALL STRUCTURAL STEEL: ASTM A 36
DESIGN LOADING: CF 400 (57)

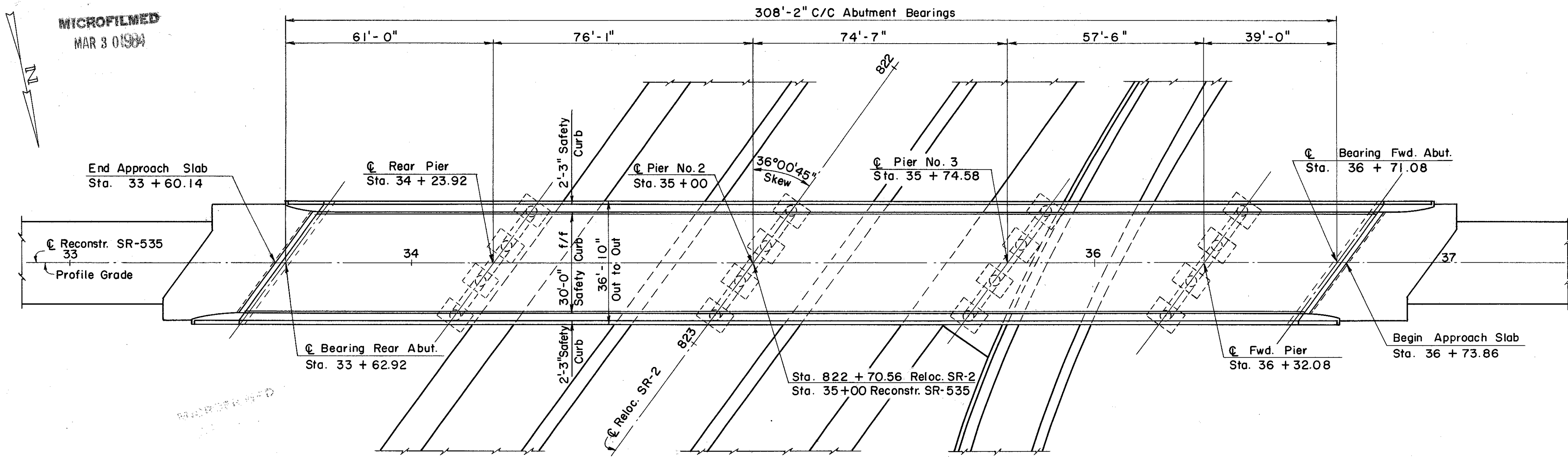
BASIC UNIT WORKING STRESSES:
Concrete, Class C: 1,333 p.s.i.
Concrete, Class E: 1,133 p.s.i.
Structural Steel, ASTM A 36 (EXCEPT PILING): 20,000 p.s.i.
Reinforcing Steel, ASTM A 15, A 16 & A 160 Deformed, Intermediate or Hard Grade: 20,000 p.s.i.
Spiral Reinforcement, Plain, Structural Grade: 18,000 p.s.i.

PREPARED BY
CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA.
FOR

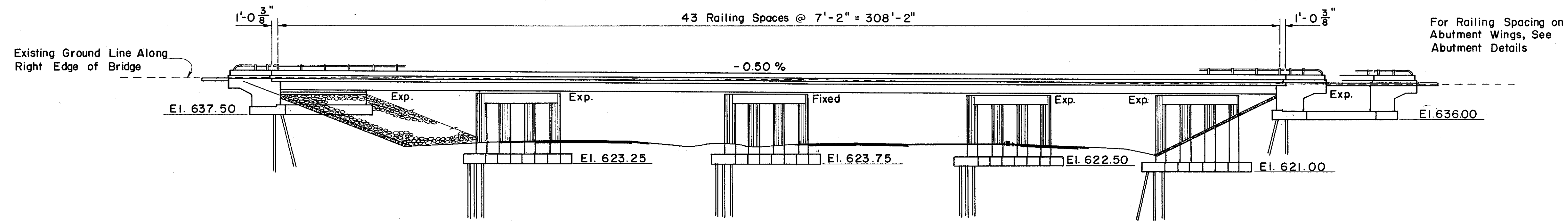
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GENERAL PLAN
BRIDGE NO. LAK - 2 - 1748
RELOC. S.R. 2 UNDER RECONSTR. S.R. 535
LAKE COUNTY
STA. 822 + 70.56

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.J.F.	FWB	L.L.D. M.J.F.	G.S.W. M.C.P.	



PLAN



ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.				GEN'L
				ABUT'S	PIERS	PIERS	PIERS	
E- 2	539	Cu. Yds.	Unclassified Excavation		252	287		
S- 1	360	Cu. Yds.	Class C Concrete Superstructure	360				
S- 1	126	Cu. Yds.	Class C Concrete, Pier caps & columns			126		
S- 1	98	Cu. Yds.	Class E Concrete, Abut. above Footings		98			
S- 1	184	Cu. Yds.	Class E Concrete, Footings		80	104		
S- 4	151,719	Lbs.	Reinforcing Steel	100,546	13,452	37,721		
S- 7	294,400	Lbs.	Structural Steel	294,400				
S- 8	294,400	Lbs.	Field Painting of Structural Steel	294,400				
S- 14	675.88	Lin. Ft.	Railing (Aluminum Railing, Type A Posts w/Conc. Parapets)	620.46	55.42			
S- 16	Lump	Sum	First Test Piles				Lump	
S- 18	2,770	Lin. Ft.	10 BP 42 Piles		950	1,820		
S- 29	28	Cu. Yds.	Porous Backfill		28			
S- 29	16	Each	Scuppers, including Supports		16			
S-101	360	Each	Water-reducing, Set-retarding Admixtures for Conc.	360				
I- 10	552	Sq. Yds.	Crushed Aggregate Slope Protection				552	