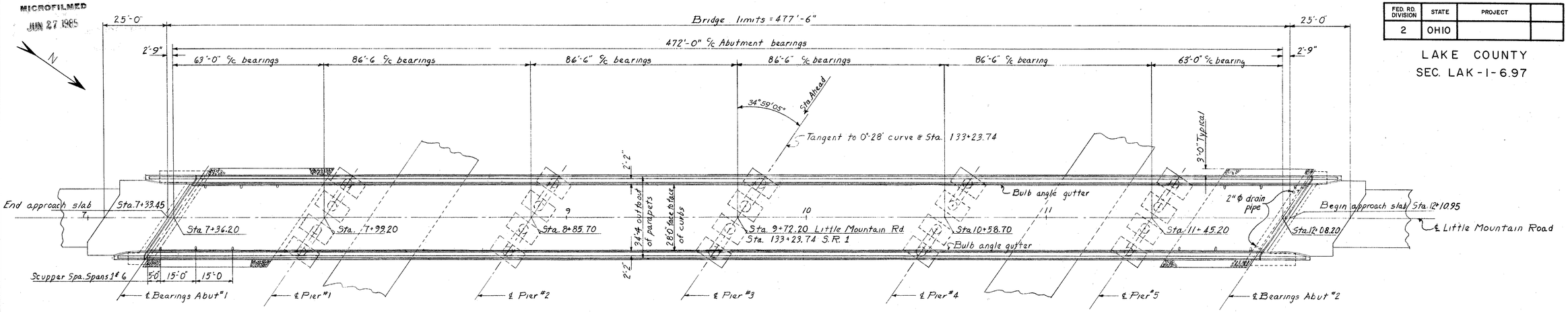
MICROFILMED
JUN 27 1985

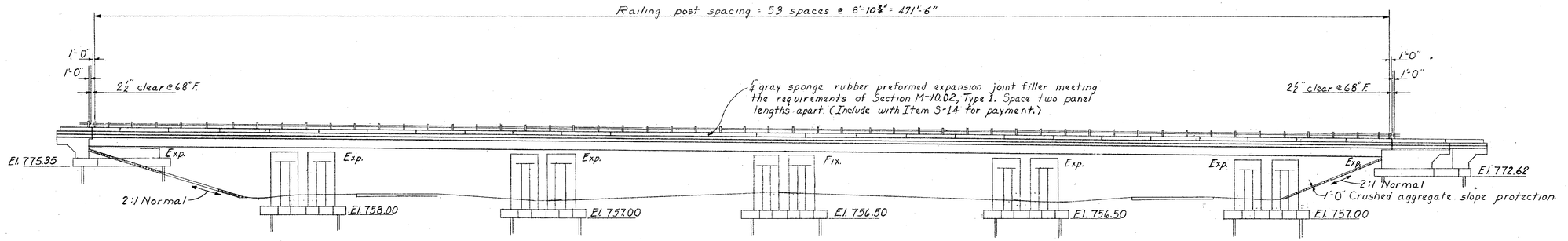
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

251
277

LAKE COUNTY
SEC. LAK-1-6.97



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER STR.	ABUTS.	PIERS	GENERAL	As Built	
E-2	900	Cu. Yds.	Unclassified excavation		267	633			
E-2	Lump	Sum	Cofferdams, cribs & sheeting				Lump		
S-1	512	Cu. Yds.	Class "C" concrete, superstructure	512					
S-1	146	Cu. Yds.	Class "C" concrete, pier caps & columns			146			
S-1	92	Cu. Yds.	Class "E" concrete, abutments, above footings		92				
S-1	288	Cu. Yds.	Class "E" concrete, footings		78	210			
S-4	205,328	Lbs.	Reinforcing Steel	138,620	12,583	54,125			
S-7	496,510	Lbs.	Structural Steel	496,510					
S-8	496,510	Lbs	Field painting of structural steel, as per plan	496,510					
S-14	1007	Lin. ft.	Railing (aluminum rail & supports, concrete parapets)	947	60				
S-16	Lump	Sum	First test pile				Lump		
S-18	8,004	Lin. ft.	Steel piles 12 BP 53		1892	6112		c.o.15 -712.09 =	7291.91
S-29	25	Cu. Yds.	Porous backfill		25				
I-10	393	Sq. Yds.	Crushed aggregate slope protection		393				

GENERAL NOTES

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 revisions thereof dated 2-21-58.

Reference shall be made to Standard Drawings R.B.-1-55, revised 2-2-59, CSB-2-56, sheets 2&3 of 6, revised 2-2-59, AR-1-57, revised 2-2-59. *and Supplemental Specification 5101 dated 12259.*

Crushed Aggregate Slope Protection I-10.04 one foot thick, extending from the face of the abutments down to the toe of the slopes and transversely three feet beyond the fascia of the structure on each side, shall be provided.

Excavation and Backfill: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings. Backfill behind the abutments shall be made with material meeting the requirements of Sec. I-22 and shall be compacted in accordance with the requirements for embankment compaction. The payment for this I-22 backfill shall be considered as included in the payment for E-2, Unclassified Excavation.

Piles shall be driven with a hammer of not less than 11000 ft. lbs. 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. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

34 tons per pile using a 11,000 ft. lb. hammer.
30 tons per pile using a 15,000 ft. lb. hammer.

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 30 ton per pile for the abutments, and 30 ton per pile for the piers.

SUPERSTRUCTURE NOTES

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.

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 and all sides of the bottom flange.

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.

BEAM SPLICE WELDING PROCEDURE: For stability during erection, splice procedure will begin at the fixed bearing as follows:

1. Raise end of beam at Pier No. 4 - 4 11/16"
2. Butt-weld beam flanges and web at Pier No. 3 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 top and bottom flange moment plates at Pier No. 3.
4. Lower end of beam at Pier No. 4.
5. Make splices at Piers No. 4 and 5 in the same manner, raising the ends of the beams 3¼" at Pier No. 5 and ¾" at Abutment No. 2.
6. Then, make splices at Piers No. 2 and 1 in the same manner, raising the ends of the beams 3¼" at Pier No. 1 and ¾" at Abutment No. 1.

CONCRETE and reinforcing steel above parapet construction joint included with railing for payment.

REFERENCE shall be made to Standard Drawing CSB-2-56, sheets 2 & 3 of 6, revised 2-2-59 for details of end dams, gutters, scuppers, pipe drains, curb plates, end crossframes and beam splice details at piers 2, 3 & 4.
REFERENCE shall be made to Standard Drawing RB-1-55 revised 2-2-59 for details of rockers and bolsters.

REFERENCE shall be made to Standard Drawing AR-1-57 revised 2-2-59 for details of aluminum railing Type "A" and concrete parapet details.
MACHINE FINISH: The concrete bridge deck shall be machine finished as specified in the Proposal: "Machine Finishing of Bridge Deck Slabs".

STEEL: See Proposal regarding A-373 Std.
SEC. C-31

PREPARED BY
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FOR
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GENERAL PLAN
BRIDGE NO. LAK-1-0930
S.R. 1 UNDER LITTLE MOUNTAIN ROAD
LAKE COUNTY
STA. 133 + 23.74

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	JEB				

Revised as-built RKB 12-19-62