

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1103 (19)	

2865
312

LAKE COUNTY
LAK-I-2.16

GENERAL NOTES

- Reference shall be made to Standard Drawings C5B-2-56, sheets 2 & 3 of 6, AR-1-57, and RB-1-55 revised 2-2-59.
- 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, revised 2-21-58.
- Loading: C.F. = 130 (57)
- Welding of structural steel shall be Class "A", except as shown otherwise (—(B). Any welds shown as field welds may, at the option of the contractor, be made in the shop.
- Slope Protection shall be provided under the structure at the Abutments at the Expansion Hinge, and at Pier 3. The slope protection shall be 12" thick and shall extend 3' outside the superstructure and longitudinally as follows: At Abut 1 from the face of the Abut beyond the toe of slope to the E of Pier No. 1 at the Expansion Hinge a min. of 5' east of the scupper back to the face of the columns; at Pier 3 a min. of 5' beyond the outermost scuppers in each direction.
- Excavation quantity includes the removal of fill material between the surface of the proposed embankment and the bottom of Abutment 1, and the removal of fill material placed at Piers 1 & 2 prior to driving piles.
- Embankment to be placed to subgrade elevation for a distance of approximately 200 feet behind Abutment 1 bridge limit as early as is practical in the construction procedure and before work is started on Abutment 1 or Pier 1. Abutment 1 should be placed as late as practical with a minimum time lapse of 30 days between completion of embankment and starting work on the abutment. Embankment at Piers 1 & 2 to be placed a min. of one foot above the bottom of the footing, then excavated before piles are driven.

- Piles for piers 1 & 2 shall be driven with a hammer of not less than 11,000 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 Section 18.05 is not less than the following value for a pile hammer of the indicated energy rating:
 - Pier 1: 34 tons per pile using an 11,000 ft. lb. hammer.
 - Pier 2: 48 tons per pile using an 11,000 ft. lb. hammer.
 - 43 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 for Pier 1 & 2 piles is 30 tons per pile.

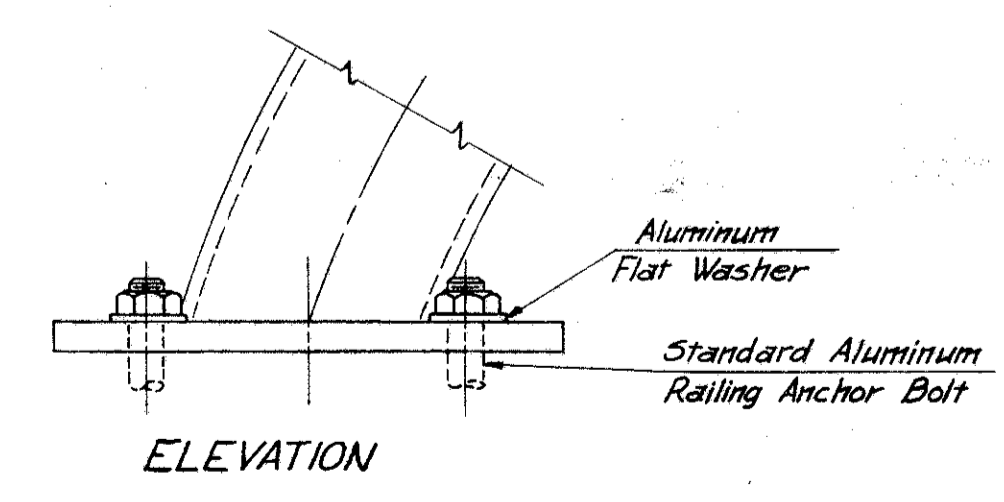
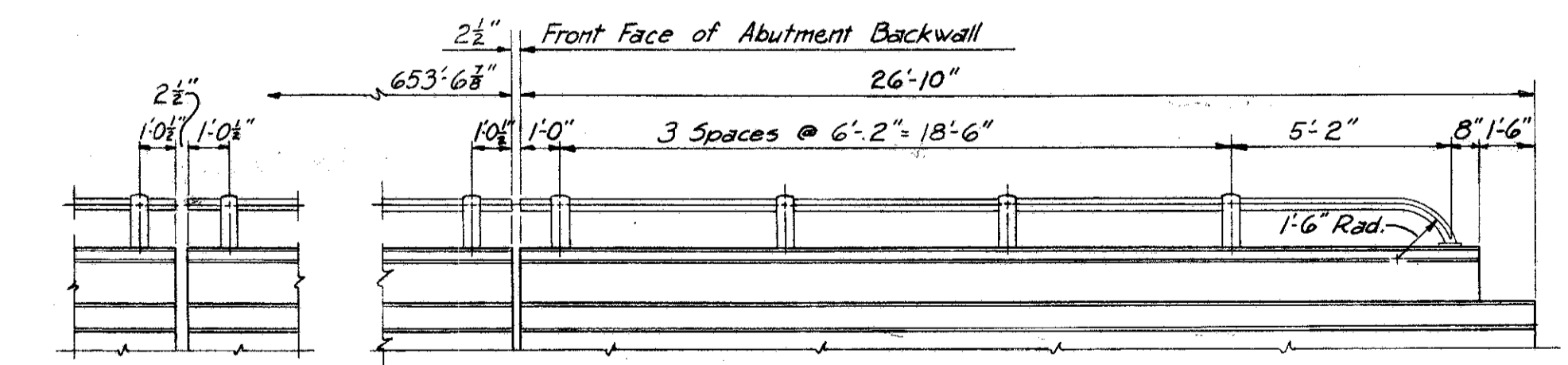
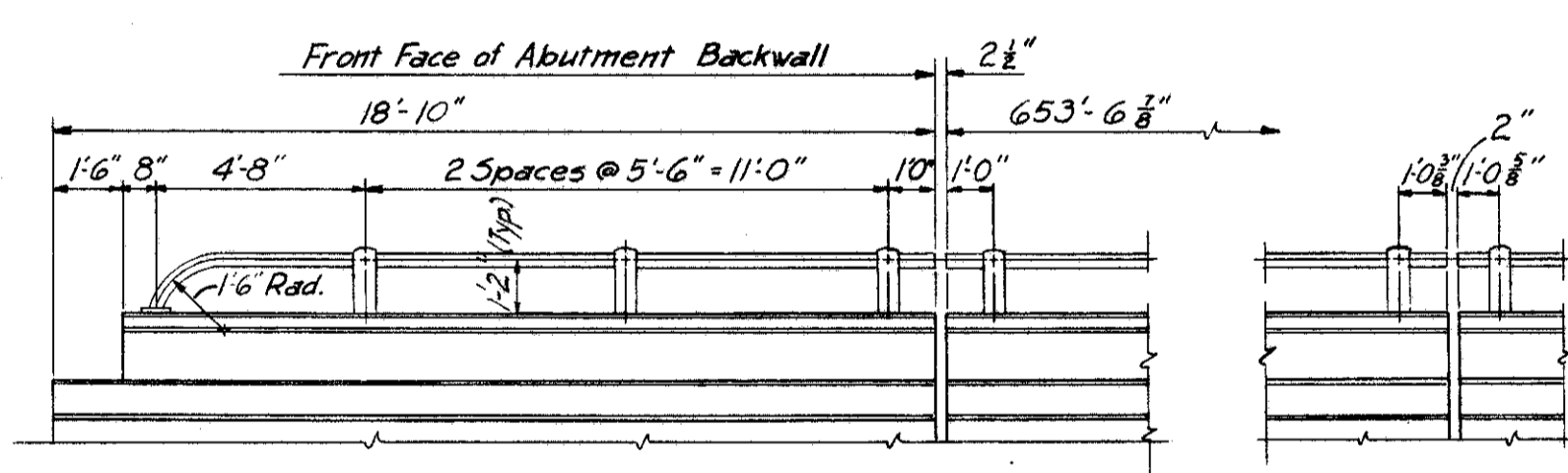
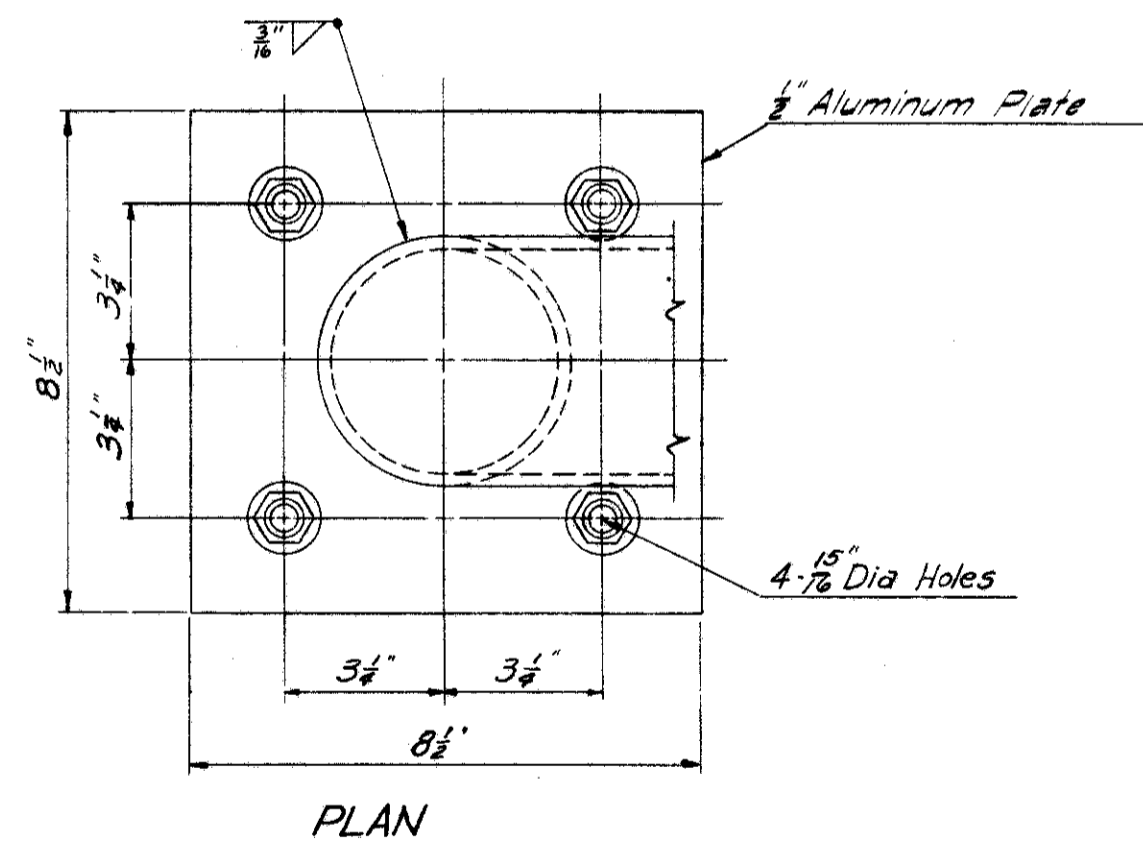
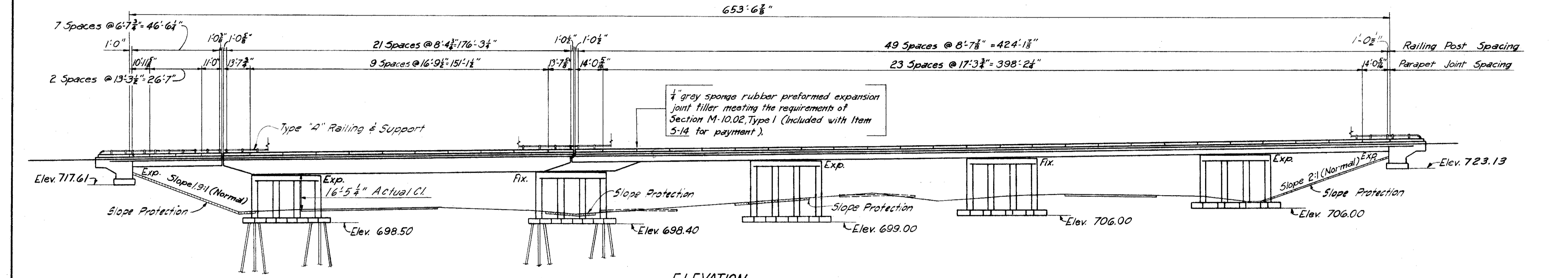
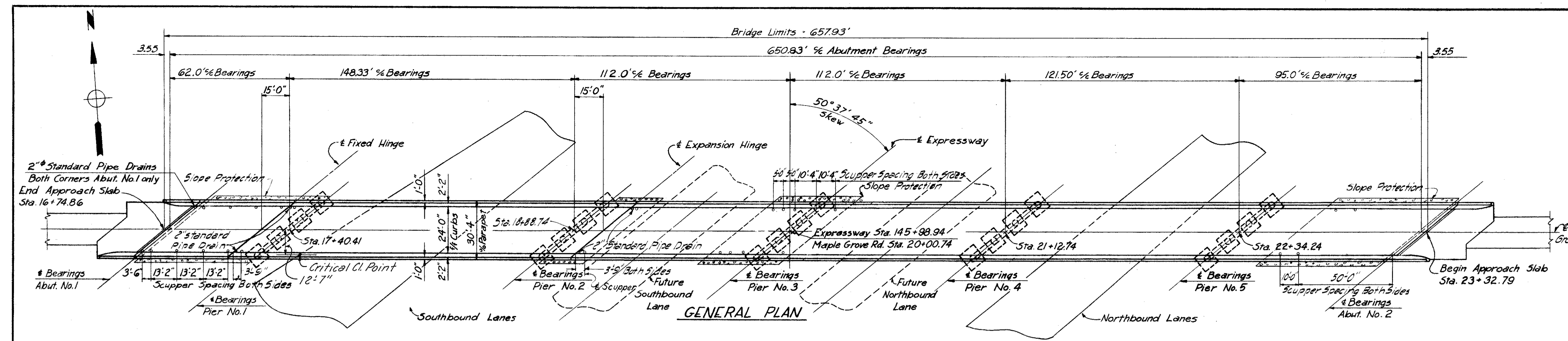
Design foundation pressure is 4.5 tons per sq. ft. for piers 3, 4 & 5.
Footings for Piers 3, 4 & 5 shall extend a minimum of 3' into shale or to the elevation shown, whichever is lower.

This sheet supersedes sheet 286. 3-24-60.

MICHAEL BAKER JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

GENERAL PLAN & ELEVATIONS
BRIDGE NO. LAK-I-0276
UNDER MAPLE GROVE ROAD

LAKE COUNTY				STA. 145+98.94	
Designed	Drawn	Traced	Checked	Reviewed-Date	Revised
P.C.K.	W.B.M.	C.A.H.	H.C.M.	H.G.H. 8-22-58	3-22-60



DETAIL OF RAILING ANCHOR PLATE AT END OF PARAPET

EXPANSION HINGE

ABUTMENT NO. 2 RAILING DETAILS

NOTE: Dimensions between ends of rails and parapets at abutments and hinges are given for 68°F.