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STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONFERENCE REPORT

BRIDGE NO. 9340

Room 610 Minnesota Highway Building June 5 & 6, 1963

Persons In Attendance	Representing
(June 5 & 6)	
A. E. Mannes	Sverdrup & Parcel
A. E. LaBonte	Minnesota Highway Department
W. C. Nitardy	Minnesota Highway Department
P. D. Swensen	Minnesota Highway Department
R. K. Redin (Notes)	Minnesota Highway Department
R. R. Tomczak	Minnesota Highway Department
D. N. Shaw (Report By)	Minnesota Highway Department
(June 5 - P.M. Only)	
J. W. Walters	Corps of Engineers
F. E. Mullen	Corps of Engineers
S. Groves	Corps of Engineers
J. Tauber	Corps of Engineers
A. F. Ranta	Bureau of Public Roads

COPIES TO PERSONS (✓)

4 COPIES TO C. OF E.

3 COPIES TO B.P.R.

COPY TO LITFIN

June 5, A.M.

A. Proposed Street Section For 2nd Street S.E.

The Minnesota Highway Department has determined that the City of Minneapolis request for a 48 foot roadway between curbs should be provided. A minimum distance of 3.0 feet from pier to curb will be required. The determination of where to place the sidewalk will be made later.

The Minnesota Highway Department will investigate the utilities at 2nd Street S.E. to insure that the adjustment in the pier location will not interfere with the utilities.

B. General Comments

The superelevated section on the southerly end of the truss will be taken up in the raising of one truss and the lowering of the other in spans 5 and 6. The exact method of providing the transition will be determined by the Consultant.

The Minnesota Highway Department will furnish the Consultant with a detailed drawing of the raised center median as soon as the Bureau of Public Roads approves the detail. (Metal beam guard rail on 9" high concrete curb.)

The metal railing will not be used as a raceway for the lighting conductor.

Collision struts for piers adjacent to railroad tracks will be required. Provide 4' high flush type collision struts, placed with the top 6' above top of rail.

June 5, P.M.

C. Caissons for Pier No. 6

The following comments were made concerning the caissons:

(1) A minimum penetration of 8' into sandstone will be required.

(2) Bond on the sides of caissons through the sandstone will not be used in the design. Friction can be considered as a design factor.

(3) 30" diameter casing was the recommended size and will be used.

(4) The penetration of the caissons shall be increased where necessary, to limit the slope between the bottom of adjacent caissons to not more than 3 : 1.

(5) There was a discussion on whether to leave the steel casings, which extend down to the top of sandstone, in place or to remove them. The cost of reinforcing the caissons versus the cost of the casings were factors. A method of design was presented which provides a greater frictional force between the concrete and sandstone by leaving the casings in place. The Consultant will make determinations.

(6) The Minnesota Highway Department decided the caissons should provide a maximum end bearing value of 550 psi. It wal also suggested that the outside rows have more units than the interior row. The Consultant will submit a design for cassions for this pier for approval before proceeding with final plans.

The Corps of Engineers stated that in their experience they have found the sandstone (St. Peter) to be very uniform for a depth of about 100 feet. The Corps of Engineers stated that the sandstone will carry very high loads when confined, but it erodes easily.

The Corps of Engineer expressed concern about having the sewer contractor and the pier contractor in the same area at the same time. The Minnesota Highway Department gave assurance that this was not the intention and that adequate provisions would be made to correlate the work in the area. Copies of the plans and special provisions will be sent to the Corps for their review and comment before a contract in this area is let. The Corps of Engineers expressed concern about the contractor's equipment and methods of construction in the area of their jurisdiction. Assurance was given by the Minnesota Highway Department that this will be provided for in the special provisions.

The Corps of Engineers presented their access road sketches which were retained by the Consultant and the Minnesota Highway Department.

June 6

D. Structural Materials

The Consultant will use A-36, A 441 and T-1 steel. T-1 steel at about 45,000 psi (2 1/2" maximum) and lower at points of fatigue.

If 3309 steel is used stresses should be the same as for A 441, A.A.S.H.O. design specification.

The decision was made to use high-strength rivets for field connections (3309 Spec.). High-strength steel bolts will not be used.

The truss bearings will be lubricated bronze rather than dry lubricant. The bronze will be made with the spherical top surface and a flat bottom surface inset in the castings.

Rocker bearings will be used for spans on the south end of the bridge.

The method of placing the rocker at the end of the truss cantilever, as suggested by the Bureau of Public Roads will be used.

The Consultant will submit preliminary sketches of bearings and other details for review.

Transverse movement of each roadway bridge deck of the approach spans shall be provided for by using oversized pintle holes in the bearings.

Reinforcing bars will lap 30 diameters.

E. General Comments

Continuous concrete voided slabs were approved for spans 12, 13 and 14. The voided slab for the non-roadway area on the north end will be removed.

Use continuous design for spans 9, 10 and 11 to eliminate joint over the track.

The median joint will be open except that butyl rubber rod stock seal will be provided for the joint over beams, struts and railroads.

Place joint close to pier #2 to keep damage from water leakage to a minimum.

The Minnesota Highway Department Roadway Section gave the Consultant the new 4% grade at the north end and under University Avenue.

Plans will show a load test for steel H pile.