



PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH

680 Peverly Hill Road

Portsmouth N.H. 03801

(603) 427-1530 FAX (603) 427-1539

ADDENDUM NUMBER 3

Bid 31-24

Proposed Repair of Maplewood Avenue Bridge over North Mill Pond

Issued February 27, 2024

This addendum forms part of the original document marked “**BIDDING REQUIREMENTS, CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS FOR THE CONSTRUCTION OF PROPOSED REPAIR OF MAPLEWOOD AVENUE BRIDGE OVER NORTH MILL POND, NHDOT BRIDGE NO. 231/103, CITY OF PORTSMOUTH PUBLIC WORKS DEPARTMENT BID #31-24**”.

Acknowledge this addendum within your proposal. Failure to do so may subject bidder to disqualification.

Questions:

The following questions were received from prospective bidders separately from those received and answered during the Pre-Bid Meeting and in Addenda 1 and 2:

Question #1:

Here is RFI #9 which is a follow up question to your Addendum TWO RFI no 8 & 3 Q&A. The RFI no 8 response essentially stated that “preliminary coordination with one geopolymer installer (during the design phase) indicates that the specified maximum thickness of 4.5” is sufficient” (ie 4.5” should work as both A. a stand alone liner design thickness calculation and B. also pass the load rating requirements of NHDOT.) Also the RFI 3 response stated that the geometry to use for the liner design is 29’ diameter and a minimum of 3’9”. Since you are basing this entire project on somebody else’s design, can you please provide the moment design equation that the load rating calculation is based on, and please confirm all initial designs were based on the 29’ diameter and 3’9” min cover. I suspect the span of 25’8” may of been used rather than 29’ diameter, or a cover deeper than 3’9” may of been used. Or just a liner thickness calc was done but not a load rating calc. We would propose to use GeoSpray geopolymer material which is significantly stronger at 1500 psi min flexural strength compared to the only other approved GeoKrete geopolymer of 800 psi flexural strength. At this point in time, we can not get the Federal Load bearing calculation to pass at 4.5” so this is a red flag.

Answer #1:

The moment design equation that the preliminary load rating calculation was based on is not available. However, initial designs were based on an arch with span length of 25’-8”, a radius of 14’-6” (29’ diameter), and 3’-9” minimum cover. The detail in Figure 1 of this addendum is taken from the Record Drawings from the 1976 lining project which are included in the Contract Documents as Appendix A.

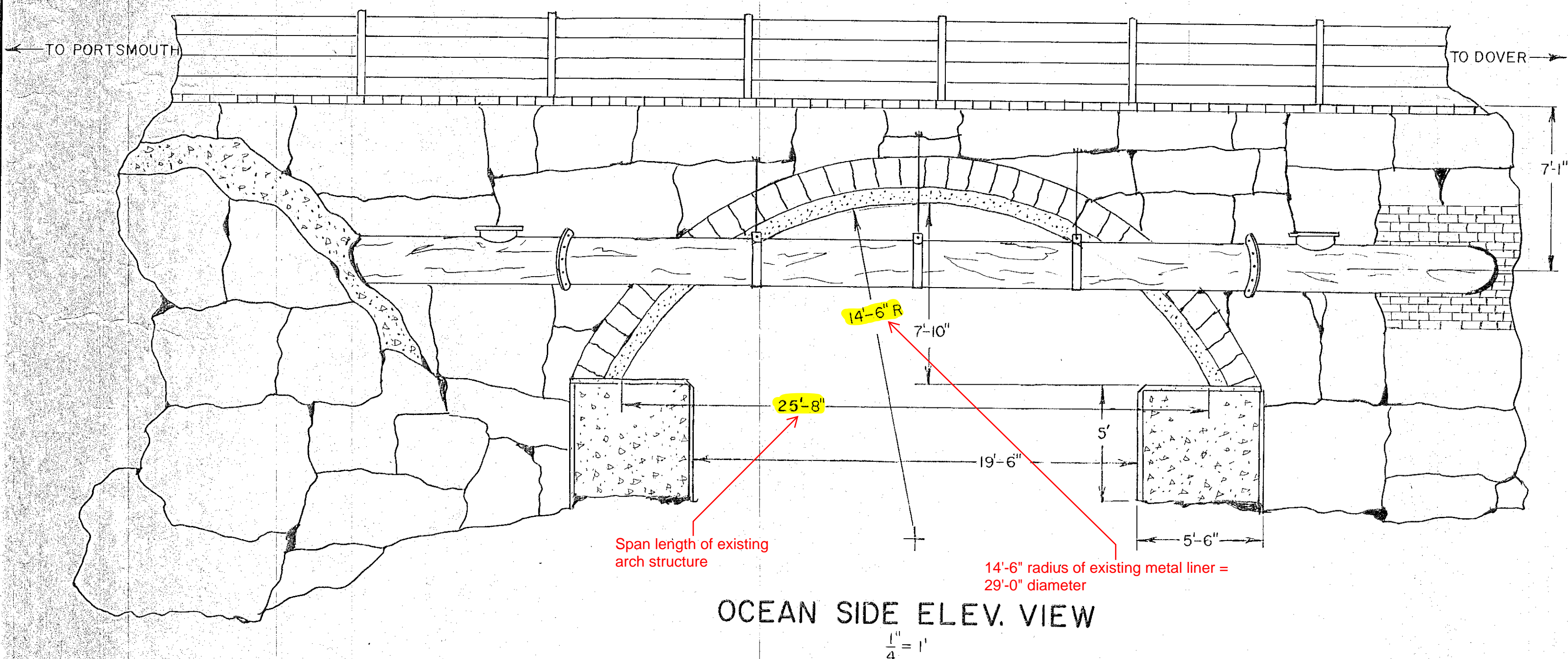


Figure 1: Excerpt from record drawings of North Mill Pond Bridge and Sewer Line dated March 1976