

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1983, INCLUDING 1984 THRU 1988 INTERIM SPECIFICATIONS THRU THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

THE DESIGN DATA IS AS FOLLOWS:

DESIGN LOADING - HS20-44 CASE I AND THE ALTERNATE MILITARY LOADING.

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 PSI SUPERSTRUCTURE.

CONCRETE CLASS C - UNIT STRESS 1,333 PSI SUBSTRUCTURE.

REINFORCING STEEL - GRADE 60 UNIT STRESS 24,000 PSI

REFERENCE SHALL BE MADE TO:

STANDARD DRAWINGS:

- AS-1-81 DATED 11-27-81
- BR-2-82 DATED 11-1-82
- EXJ-4-87 DATED 1-5-89

SUPPLEMENTAL SPECIFICATIONS:

~~NO. 845 - BRIDGE DECK REPAIR AND OVERLAY WITH LATEX MODIFIED CONCRETE DATED 5-31-88~~

NO. 845 - BRIDGE DECK REPAIR AND OVERLAY WITH LATEX MODIFIED CONCRETE DATED 5-31-88

NO. 852 - GROUT ANCHORING WITH POLYESTER AND VINYLESTER MORTARS DATED 6-10-87

NO. 952 - POLYESTER AND VINYLESTER MORTARS FOR ANCHORING DATED 12-14-88

NO. 953 - LATEX FOR CONCRETE MODIFICATION DATED 8-21-80

NO. 956 - NON-SHRINKING EPOXY MORTAR FOR GROUT ANCHORING DATED 6-26-78

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.5 AND 105.2.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

PLANS OF EXISTING STRUCTURES ARE AVAILABLE FOR EXAMINATION AT THE OHIO DEPARTMENT OF TRANSPORTATION; DISTRICT 12 OFFICE; 10100 BROADWAY AVENUE, GARFIELD HTS, OHIO.

PLAN OF OPERATIONS AND PROTECTION

THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR A COMPLETE SCHEDULE OF CONSTRUCTION OPERATIONS ALONG WITH PLANS CONTAINING HIS PROPOSED METHODS OF PREVENTING DEBRIS FROM FALLING ON THE ROADWAY AND RAILROAD TRACKS BELOW, AND THE BRACING, SHORING, OR OTHERWISE SUPPORTING THE CANTILEVERED LENGTH OF SIDEWALK AND PARAPET ADJACENT TO THE PROPOSED PARTIAL BRIDGE DECK REMOVAL AREA SHOWN ON SHEET 15/21. THESE PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO COMMENCING THE WORK. NO REMOVAL WORK SHALL BE STARTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

COOPERATION WITH RAILROADS

THE CONTRACTOR SHALL COOPERATE AT ALL TIMES WITH LOCAL OFFICIALS OF THE RAILROAD COMPANIES. HE SHALL USE ALL REASONABLE CARE AND DILIGENCE IN THE WORK IN ORDER TO AVOID ACCIDENTS, DAMAGE OR INTERFERENCE WITH TRAINS OR OTHER PROPERTY OF THE RAILROAD. THE CONTRACTOR SHALL NOTIFY THE LOCAL OFFICIALS OF THE RAILROAD PRIOR TO STARTING WORK THAT MAY AFFECT RAILROAD PROPERTY AND FACILITIES AND SHALL PAY THE RAILROAD COMPANY THE COST OF FLAGMEN FURNISHED BY THE RAILROAD COMPANIES AND MADE NECESSARY BECAUSE OF ANY OF THE CONTRACTOR'S OPERATIONS OVER OR ADJACENT TO THE TRACKS.

NO SCAFFOLD, PLANKS, OR OTHER EQUIPMENT SHALL BE SUSPENDED OR ERECTED ABOVE OR WITHIN 10' OF A RAIL OVER WHICH TRAINS ARE OPERATING WITHOUT PRIOR WRITTEN APPROVAL OF THE CHIEF ENGINEER, OR HIS AUTHORIZED REPRESENTATIVE OF THE RAILROAD COMPANY.

FAILURE TO NOTIFY THE RAILROAD COMPANIES, AS NOTED ABOVE, SHALL BE CAUSE FOR STOPPING WORK UNTIL ALL PROVISIONS FOR PROTECTING RAILROAD PROPERTY HAVE BEEN PROVIDED.

ITEM 202 - PORTIONS OF STRUCTURES REMOVED

THIS ITEM SHALL INCLUDE:

- 1) REMOVAL OF THE REAR ABUTMENT BACKWALL AND THE SIDEWALKS AND CONCRETE PARAPETS AS SHOWN ON SHEET 9/21
- 2) REMOVAL OF THE REAR AND FORWARD APPROACH SLABS.
- ITEM 202 - Remove Portion of Bridge Deck Slab, AS PER PLAN
- 1) REMOVAL OF PORTION OF THE BRIDGE DECK SLAB AND SIDEWALK AS SHOWN ON SHEET 15/21

ITEM 509 - EPOXY COATED REINFORCING STEEL, GRADE 60

THIS ITEM IS IN ADDITION TO THE EPOXY COATED REINFORCING STEEL DETAILED ELSEWHERE IN THESE PLANS AND SHALL BE USED TO REPLACE REINFORCING STEEL WHICH IS BENT, ELONGATED, MISSING OR EXTREMELY CORRODED. BAR SHALL BE THE SAME SIZE AS ORIGINAL BARS AND SHALL BE PLACED AS NEAR AS POSSIBLE TO THEIR ORIGINAL LOCATION. BARS SHALL BE LAPPED ACCORDING TO SECTION 509.08. PAYMENT FOR THIS ITEM SHALL INCLUDE THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE ABOVE WORK, INCLUDING REMOVAL OF EXISTING STEEL. ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST.

THE FOLLOWING ESTIMATED QUANTITY OF EPOXY COATED REINFORCING STEEL IS TO BE USED WHERE AND AS DIRECTED BY THE ENGINEER, AND IS INCLUDED IN THE ESTIMATED QUANTITIES TABLE WITH ITEM 509.

ITEM 509 - EPOXY COATED REINFORCING STEEL, GRADE 60 300 POUNDS

TYING REBARS

THE PURPOSE OF THIS NOTE IS TO TIE EXPOSED STEEL REINFORCING BARS WHICH ARE IN CROSS CONTACT OR LAPPED. TACK WELDING SHALL NOT BE PERMITTED. THIS WORK SHALL BE PERFORMED WHERE AND AS DETERMINED BY THE ENGINEER TO RESTRICT THE RELATIVE MOVEMENT OF THE REINFORCING BARS.

PAYMENT FOR THIS WORK INCLUDING EXTRA REMOVAL OF CONCRETE TO PERMIT TYING SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 511 - CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN.

ITEM 511 - CLASS C CONCRETE, SUBSTRUCTURE, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING PORTLAND CEMENT CONCRETE FOR THE BACKWALL REPLACEMENT IN ACCORDANCE WITH 511 WITH THE FOLLOWING ADDITIONS:

1. ALL CONCRETE SURFACES THAT WILL BE IN CONTACT WITH CLASS C CONCRETE SHALL BE THOROUGHLY SANDBLASTED AND AIR CLEANED.
2. BEFORE THE PLACEMENT OF CONCRETE, ALL OF THE EXISTING CONCRETE SURFACES MENTIONED ABOVE SHALL BE COATED WITH A TWO-COMPONENT EPOXY BONDING AGENT. THE BONDING AGENT SHALL CONFORM TO AASHTO M-235-73I, CLASS III. BONDING MATERIAL SHALL BE MIXED AND PLACED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

ITEM 845 - LATEX MODIFIED CONCRETE OVERLAY (1 1/4" Thick) As Per Plan.


THIS ITEM SHALL INCLUDE THE COST OF ALL NECESSARY LABOR, EQUIPMENT AND MATERIALS TO PLACE A LATEX MODIFIED CONCRETE OVERLAY ON THIS BRIDGE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 845.

Following shall also be include with this item for payment:

- 1) THE THICKENED ENDS OF THE BRIDGE DECK SURFACE FROM 1 1/4" TO 1 3/4" AS SHOWN ON SHEET 14/21 (APPROX. 1 C.Y.)
- 2) PLUGGING THE 33 EXISTING SCUPPERS (APPROX. 1 C.Y.)

PRIOR TO PLACING L.M.C. IN A SCUPPER THE 1/2"x1/2" BARS SHALL BE REMOVED AND THE PIPE OUTLET SHALL BE PLUGGED AS SHOWN ON SHEET 15/21

- 3) *The proposal note entitled Latex Modified Concrete (Lmc) Overlay of New Concrete Bridge Decks, dated 9/11/89 shall apply to the portion of deck which is to be entirely replaced plus be overlaid.*

 COLPETZER-THOMAS, INC. AN ENGINEERING GROUP <small>WILLOUGHBY • MENTOR • NORTH CANTON • STEUBENVILLE • LORAIN</small>						1/21
GENERAL NOTES LAK-615-0402 LAKE COUNTY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JPR	R.L.B.	R.L.B.	RJC	JED	9-22-88	