

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, THE 1997 INTERIMS, AND THE ODOT BRIDGE DESIGN MANUAL, JANUARY, 1995.

REFERENCE SHALL BE MADE TO:

SUPPLEMENTAL SPECIFICATIONS:

NO. 828 DATED 7-28-98
 NO. 848 DATED 6-30-98
 NO. 899 DATED 10-21-98

DECK PROTECTION METHOD

MICRO-SILICA CONCRETE OVERLAY;
 SEALING CONSTRUCTION JOINTS WITH HMWM RESIN.

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 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 102.05 AND 105.02. 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 THE EXISTING STRUCTURE ARE AVAILABLE FOR EXAMINATION AT: CT CONSULTANTS, INC., 35000 KAISER COURT, WILLOUGHBY, OHIO 44094.

DISPOSAL OF REMOVED MATERIAL

ALL CONCRETE, REINFORCING STEEL, ASPHALT, ETC. REMOVED FROM THE STRUCTURE, UNLESS OTHERWISE SPECIFIED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM FROM THE SITE.

ITEM 202 -- WEARING COURSE REMOVED:

THIS ITEM OF WORK SHALL BE USED TO REMOVE THE EXISTING APPROACH SLABS SURFACE ASPHALT AS DESIGNATED IN THE PLANS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 202 -- WEARING COURSE REMOVED AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 202 -- RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN:

RAISED PAVEMENT MARKERS SHALL BE REMOVED FROM THE BRIDGE DECK IN SUCH A MANNER THAT PREVENTS DAMAGE TO THE CASTINGS. REMOVED MARKERS SHALL BE COLLECTED, STORED IN 55 GALLON DRUMS (WITH THE AMOUNT CLEARLY MARKED) AND THEN DELIVERED TO THE ODOT WARRENSVILLE YARD, 25609 EMERY ROAD, WARRENSVILLE HEIGHTS, OHIO 44128 (SR 175 AT THE INTERSECTION OF I-271 AND EMERY RD), BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER. THE PROJECT ENGINEER SHALL GIVE THE WARRENSVILLE TRAFFIC DEPARTMENT (1-216-292-5801) FORTY-EIGHT (48) HOUR NOTICE PRIOR TO ANY DELIVERIES. THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR FURNISHING ALL TRANSFER/RECEIVING DOCUMENTATION TO THE YARD. ALL COSTS ASSOCIATED WITH THE REMOVAL, STORAGE, AND DELIVERY OF THESE MARKERS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 -- RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED THROUGHOUT THIS PROJECT.

ITEM 202 -- RAISED PAVEMENT MARKERS
 REMOVED FOR STORAGE, AS PER PLAN 61 EA.

ITEM 516 -- VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINT

THIS ITEM OF WORK SHALL BE USED TO REPAIR A DAMAGED SECTION OF VERTICAL EXTENSION BAR ON THE FORWARD EXPANSION JOINT OF THE SOUTHBOUND BRIDGE WHERE DESIGNATED IN THE PLANS. THE NEW PIECE OF BAR SHALL BE INSTALLED AFTER THE BACKWALL REMOVAL WORK IS COMPLETED AND PRIOR TO PLACING THE VARIABLE THICKNESS MSC OVERLAY. THE SUPPORTING END DAM STEEL SHALL BE SANDBLASTED AND BLOWN CLEAN USING COMPRESSED AIR IMMEDIATELY BEFORE WELDING THE REPLACEMENT BAR TO IT.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR PER LINEAR FOOT FOR ITEM 516 -- VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINT AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

ITEM 848:

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION: "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRODEMOLITION". AND THE ITEM 848 GENERAL NOTES ON SHEET 3/7.

ITEM 519 -- PATCHING CONCRETE STRUCTURE, AS PER PLAN:
ITEM SPECIAL 519 -- PATCHING CONCRETE STRUCTURE, MISC.; CURB REPAIR

ALL SURFACES TO BE PATCHED AND THE EXPOSED REINFORCING STEEL WITHIN SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING PRIOR TO THE CLEANING SPECIFIED BY 519.04 AND 520.05. CLEANING SHALL PRECEDE APPLICATION OF THE PATCHING MATERIAL OR ERECTION OF THE FORMS BY NOT MORE THAN 24 HOURS.

ITEM SPECIAL -- SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

SEAL SAFETY CURBS AND PARAPETS AS PER THE DETAILS IN THE PLANS AND ALL SUBSTRUCTURE PATCHES MADE UNDER ITEM 519. SEE PROPOSAL NOTE "SEALING OF CONCRETE SURFACES" FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS, AND APPLICATION PROCEDURES. FOR THE CURBS AND PARAPETS, THE SECOND COAT ONLY SHALL BE TINTED TO FEDERAL COLOR STANDARD NO. 36492 (GRAY).

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL -- SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 407 -- TACK COAT: 0.075

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.75 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 448 -- ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, AS PER PLAN:

THE GRADATION FOR THIS ITEM SHALL BE AS PER 441.02, TABLE A, TYPE 1 SURFACE, MEDIUM. ALL OTHER SPECIFICATIONS SHALL BE AS PER TYPE 1H. COURSE AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO AIR COOLED BLAST FURNACE SLAG OR LIMESTONE.

ITEM 621 -- RAISED PAVEMENT MARKER, INSTALLATION ONLY:

MATERIALS SUPPLIED BY THE DEPARTMENT:

FOR THIS PROJECT, THE RPM CASTINGS SUPPLIED BY ODOT WILL COME WITH REFLECTORS ATTACHED. SEE SHEET 4/7 FOR TYPES.

ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RPM MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR. PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY". THE TYPE OF DEPARTMENT SUPPLIED MATERIAL SHALL BE RAISED PAVEMENT MARKER CASTINGS.

THE CONTRACTOR SHALL PICK UP THE DEPARTMENT SUPPLIED RPM MATERIALS AT THE OPI WAREHOUSE IN COLUMBUS, OHIO. (SEE SUPPLEMENT 1082) THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED RPM MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION

ENGINEER PRIOR TO PICK UP OF THE RPMS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

RETURN OF NON-PERFORMED RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT:

RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER THE STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORISED OR NON-REFLECTORISED) AND NO MORE THAN 420 RPMS (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE. NON-PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT. THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK, SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM. IF THE DEPARTMENT HAS TO REPACKAGE THE RPMS CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

LOADING OF MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE: TRUCKS SHALL HAVE A LOADING HEIGHT OF 48 INCHES AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK. TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK. SEMI TRUCKS OR 20 FOOT COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (ONE PALLET = 21 BOXES = 2100 LBS). STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS THAN 4 PALLETS, PROVIDED THE TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED. PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT. DUMP TRUCKS, TILT BED TRUCKS, AND NON COMMERCIAL MOVING VANS WILL NOT BE LOADED BY THE RECYCLER'S WAREHOUSE. THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OF UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES TABLE. THE CONTRACTOR SHALL INSTALL RECYCLED RAISED PAVEMENT MARKERS WITH PRISMATIC REFLECTORS:

ITEM 621 -- RAISED PAVEMENT MARKER,
 INSTALLATION ONLY 67 EA.

ITEM 202 -- BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN

THIS ITEM SHALL BE USED FOR REMOVING ALL MATERIAL WITHIN THE LIMITS OF THE PROPOSED TYPE 3 BRIDGE TERMINAL ASSEMBLIES. THIS INCLUDES EXISTING GUARDRAIL, WOOD POSTS, TUBULAR STEEL SPACER BLOCKS, BOLTS, ETC. IT ALSO INCLUDES THE REMOVAL OF ASPHALT SHOULDER PAVEMENT WHERE IT INTERFERES WITH THE INSTALLATION OF THE NEW WOOD POSTS. PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR "EACH" ITEM 202 -- BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

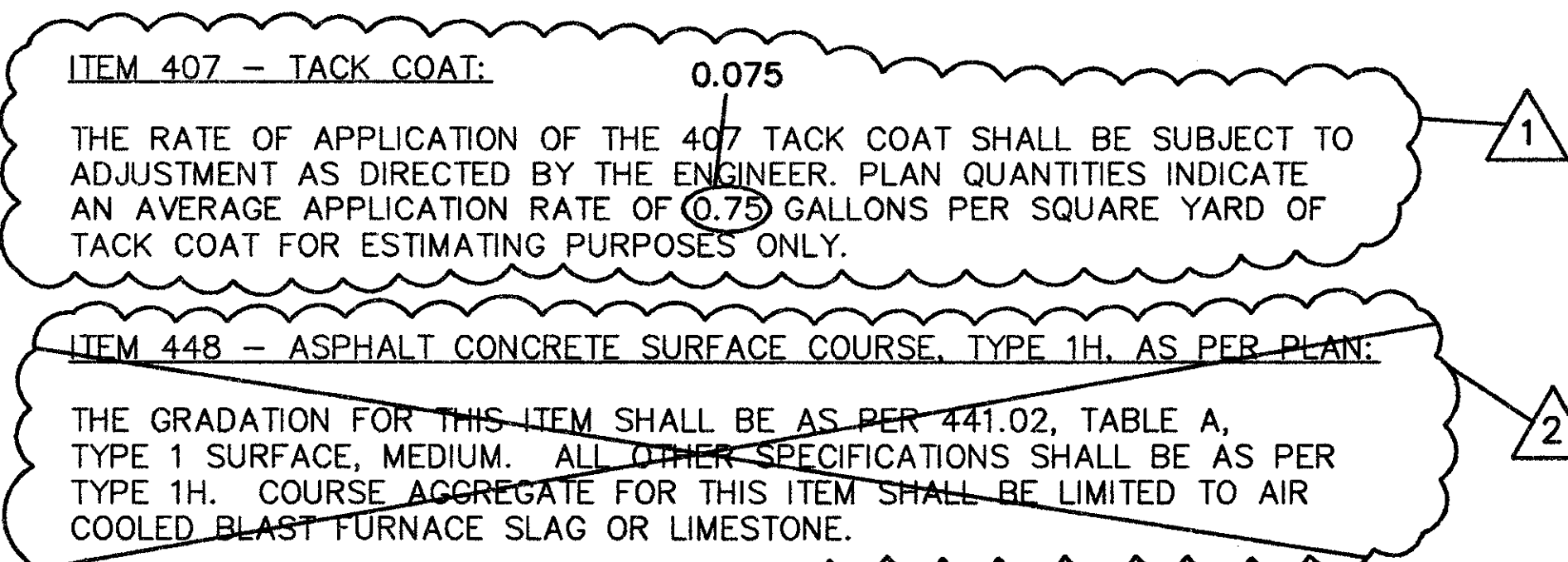
ITEM 202 -- GUARDRAIL REMOVED, AS PER PLAN

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER FOR REMOVING GUARDRAIL AND WOOD POSTS OUTSIDE THE LIMITS OF THE PROPOSED TYPE 3 BRIDGE TERMINAL ASSEMBLIES. AS SUCH, SOME OR ALL OF THE ESTIMATED QUANTITY SHALL BE SUBJECT TO NON-PERFORMANCE. PAYMENT FOR THIS WORK SHALL BE AT THE LINEAL FOOT PRICE BID FOR ITEM 202 -- GUARDRAIL REMOVED, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

ITEM 606 -- GUARDRAIL, TYPE 5

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER FOR INSTALLING GUARDRAIL AND WOOD POSTS BETWEEN THE PROPOSED TYPE 3 BRIDGE TERMINAL ASSEMBLIES AND THE EXISTING TYPE 5 GUARDRAIL TO REMAIN. AS SUCH, SOME OR ALL OF THE ESTIMATED QUANTITY SHALL BE SUBJECT TO NON-PERFORMANCE.

NO.	REVISIONS	BY	DATE
2	DELETE TYPE 1H ASPHALT NOTE	JPR	8/3/00



CT Consultants, Inc.
Engineers · Architects · Planners
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REVIEWED
 J.E.A.

DATE
 7/8/00

STRUCTURE FILE NUMBER
 4300459

DRAWN
 I.A.S.

REVISION
 J.C.B.

DESIGNED
 J.P.R.

CHECKED
 I.A.S.

GENERAL NOTES
 BRIDGE NO. LAK-91-0455
 OVER S.R. 2

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