ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE (PRECAST FLOORBEAM)

PRECAST FLOORBEAMS SHALL MEET ALL REQUIREMENTS OF ITEM 515 EXCEPT SUPPLEMENT 1079 MAY BE WAIVED.

POLYMER CONCRETE USED FOR LEVELING COLUMN SEATS SHALL BE A PRE-PACKAGED POLYMER CONCRETE SUCH AS:
1. EMACO 2020 AS MANUFACTURED BY MASTER BUILDERS, INC. 23700 CHAGRIN BLVD., CLEVELAND OHIO 44122
2. FX-826, POLYMER CONCRETE AS MANUFACTURED BY FOX INDUSTRIES, INC. 3100 FALLS CLIFF ROAD, BALTIMORE, MD, 21211
3. POLYQUICK FASTPATCH 5000 AS MANUFACTURED BY WILLIAMETTE VALLEY COMPANY, 1075 ARROWSMITH STREET, EUGENE, OR 97402.
4. OR APPROVED EQUAL

SURFACE PREPARATION, MIXING AND PLACING SHALL BE DONE IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS. POLYMER CONCRETE SHALL BE EXTENDED BY THE INCLUSION OF ADDITIONAL AGGREGATE TO THE LIMITS RECOMMENDED BY THE MANUFACTURER. SUCH AGGREGATE SHALL CONFORM TO ALL RECOMMENDATIONS OF THE POLYMER CONCRETE MANUFACTURER. POLYMER CONCRETE SHALL BE USED BETWEEN THE PRECAST CONCRETE FLOORBEAM AND THE EXISTING SPANDREL COLUMN AT THE LOCATIONS SHOWN IN THE PLANS. THE EXISTING CONCRETE BEARING SURFACE SHALL BE INSPECTED AND DETERIORATED CONCRETE SHALL BE REMOVED PRIOR TO PLACING POLYMER CONCRETE.

MEASUREMENT AND PAYMENT: POLYMER CONCRETE SHALL NOT BE MEASURED FOR PAYMENT. ALL COST ASSOCIATED WITH POLYMER CONCRETE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 511 - CLASS QC2 CONCRETE, MISC. PRECAST FLOORBEAMS FOR PAYMENT, WHICH SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED TO PERFORM POLYMER CONCRETE WORK TO THE LIMITS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER.

ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 2" x 6" PLAIN ELASTOMERIC PAD

THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND PLACING THE PLAIN ELASTOMERIC BEARING PAD AS PER THE PLAN DETAILS AND C&MS 516. PADS SHALL BE INSTALLED AT PIER 1 AS SHOWN IN THE PLANS. THE OVERALL LENGTH OF THE BEARING STRIPS, AS MEASURED ALONG THE ℄ BEARING SHALL BE AS SHOWN IN THE PLANS. BEARING STRIPS MAY BE PLACED IN INDIVIDUAL ABUTTING SECTIONS OF 18" MINIMUM LENGTHS.

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING PADS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

PAYMENT WILL BE BASED ON THE OVERALL LENGTH OF BEARING STRIP PLACED AND ACCEPTED BY THE ENGINEER.

ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 16" x 18" PLAIN ELASTOMERIC PAD

THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND PLACING THE PLAIN ELASTOMERIC BEARING PAD AS PER THE PLAN DETAILS AND C&MS 516. PADS SHALL BE INSTALLED AT EXISTING RETAINING WALL MOMENT SLAB INTERFACES AS SHOWN IN THE PLANS.

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING PADS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

PAYMENT WILL BE BASED ON THE OVERALL LENGTH OF BEARING STRIP PLACED AND ACCEPTED BY THE ENGINEER.

BEARING PAD SHIMS:

PLACE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 11 INCHES BY 7 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/8" PREFORMED BEARING PADS. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE STATE.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM

PERFORM ALL WORK PER PN 519 07/21/2017 - COMPOSITE FIBER WRAP SYSTEM AND PER THE MANUFACTURER'S REQUIREMENTS. REMOVAL OF ALL EXISTING BOND-INHIBITING MATERIALS, INCLUDING EXISTING CONCRETE SEALER, IS CONSIDERED INCIDENTAL TO THIS ITEM.

COATING SYSTEM APPLICATION: A FINAL URETHANE TOP COATING IS REQUIRED. THE URETHANE TOP COAT SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM FOR PAYMENT.

ITEM SPECIAL - PATCHING CONCRETE STRUCTURES: TYPE 1 REPAIR
ITEM SPECIAL - PATCHING CONCRETE STRUCTURES: TYPE 2 REPAIR

TYPE 1 REPAIRS CONSIST OF CONCRETE PATCHING TO ALL VERTICAL AND HORIZONTAL TOP SURFACES. TYPE 2 REPAIRS CONSIST OF ALL CONCRETE PATCHING TO ALL HORIZONTAL BOTTOM SURFACES.

THIS ITEM OF WORK SHALL BE PER ITEM 519 WITH THE FOLLOWING MODIFICATIONS:
- IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.
- PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.
- ALL CONCRETE REPAIRS REQUIRE 3/4" SAW CUTS ALONG THE LIMITS OF REMOVAL BEFORE CHIPPING. WELDED WIRE FABRIC SHALL BE USED ON HORIZONTAL SURFACES AS SHOWN IN THE DETAILS. CONCRETE PATCHING AREAS MUST BE INSPECTED AFTER SAW CUTTING AND AGAIN AFTER DETERIORATED CONCRETE IS REMOVED.
- FOR TYPE 2 REPAIRS, SUBMIT CONCRETE PUMPING PROCEDURE FOR APPROVAL PRIOR TO STARTING WORK AND ORDERING MATERIAL. SUBMIT ANY CHANGES IN CONCRETE MIX DESIGN WITH SMALL AGGREGATE FOR PUMPING PROCEDURE FOR APPROVAL PRIOR TO STARTING WORK.
- SUBMIT FORM WORK AND PUMPING PROCEDURE FOR CONCRETE PATCHING FOR APPROVAL PRIOR TO STARTING WORK. THIS SUBMISSION SHALL INCLUDE STEPS FOR INSTALLATION OF FORMS, PUMPING PATCHING MATERIAL, REMOVAL OF FORM WORK AND METHOD IN PREVENTING VOIDS WITHIN THE PATCHING AREAS. FINISHED PATCHING MUST BE INSPECTED FOR SURFACE PROFILE AND QUALITY OF PATCH WITHOUT VOIDS IN THE CONCRETE PATCHES.

ITEM SPECIAL 530E00200 - STRUCTURE MISC.: ARCH SPANS ERECTION ENGINEERING

THIS ITEM INCLUDES THE PREPARATION AND SUBMITTAL OF ENGINEERED DRAWINGS FOR ERECTION OF PRECAST BOX BEAM SUPERSTRUCTURE ACROSS THE ARCH SPANS. IF ELECTING TO USE THE CONCEPTUAL ARCH SPANS SUPERSTRUCTURE CONSTRUCTION SEQUENCE SHOWN ON THE PLANS, ASCERTAIN FOR YOURSELF THE PRACTICALITY THEREOF AND ASSUME COMPLETE RESPONSIBILITY FOR THE MEANS AND METHODS, DETAILED ANALYSIS OF THE STRUCTURE AND ENGINEERED DRAWINGS.
IN ADDITION TO THE REQUIREMENTS OF 501.05B, INCLUDE THE FOLLOWING:
ERECTION SEQUENCE FOR THE ARCH SPAN, INCLUDING EQUIPMENT LOADS AND LOCATION PLACED ON THE STRUCTURE AND TEMPORARY WORKS TO SUPPORT, BRACE, AND/OR PROTECT STRUCTURE COMPONENTS. PROVIDE DETAILED CALCULATIONS TO SUPPORT THE ENGINEERED DRAWINGS.
DESIGN AN ERECTION SEQUENCE IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. EVALUATE THE EXISTING ARCH SPANS (STRESSES AND DEFORMATIONS) DURING EACH CONSTRUCTION PHASE FOR THE NEW PRECAST BOX BEAM SUPERSTRUCTURE.
BASIS OF PAYMENT: PAYMENT IS FULL COMPENSATION FOR DESIGN, PREPARATION AND SUBMITTAL OF ENGINEERED DRAWINGS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE, LUMP SUM, FOR ITEM 530E00200 - STRUCTURE, MISC.: ARCH SPANS ERECTION ENGINEERING.

ITEM 601 - DUMPED ROCK FILL, TYPE C, AS PER PLAN

PLACED FIVE (5) FOOT DIAMETER AREA OF DUMPED ROCK CENTERED BELOW EACH OF THE EIGHT SCUPPERS, AS DIRECTED BY ENGINEER. INCLUDED FOR PAYMENT WITH ITEM 601 - DUMPED ROCK FILL, TYPE C, AS PER PLAN.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

PROVIDE CONSTRUCTION SURVEY OF EXISTING ELEMENTS DESCRIBED ON SHEET 26 / 126 AND 85 / 126 .

STENCIL FLOORBEAM NUMBER AT BOTTOM FACE OF ALL EXISTING AND PROPOSED FLOORBEAMS AS DIRECTED BY THE ENGINEER.

INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS FOR THIS WORK WITH ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN FOR PAYMENT.

ABBREVIATIONS

BOT.	= BOTTOM
BRGS.	= BEARINGS
C.J.	= CONSTRUCTION JOINT
CLR.	= CLEAR
CONST.	= CONSTRUCTION
DIA.	= DIAMETER
E.F.	= EACH FACE
ELEV.	= ELEVATION
EX.	= EXISTING
F.A.	= FORWARD ABUTMENT
F.F.	= FAR FACE
HORIZ.	= HORIZONTAL
I.R.	= INTERSTATE ROUTE
LT	= LEFT
MAX.	= MAXIMUM
MIN.	= MINIMUM
N.F.	= NEAR FACE
PR.	= PROPOSED
R.A.	= REAR ABUTMENT
RT	= RIGHT
SER.	= SERIES
S.O.	= SERIES OF
SPA.	= SPACED / SPACING / SPACES
S.R.	= STATE ROUTE
TYP.	= TYPICAL
U.N.O.	= UNLESS NOTED OTHERWISE
VERT.	= VERTICAL
W.P.	= WORK POINT
W.W.	= WING WALL

SECTION / DETAIL / VIEW CALLOUTS

A 10 — A 10

(SEE SECTION A ON SHEET 10)

A 9 SECTION NOTE

(SECTION A CUT FROM SHEET 9)

GENERAL NOTES (2 OF 2)
BEL-40-23.265
U.S. 40 OVER WHEELING CREEK, C.R. 10 AND ABANDONED R.R.

SFN 0701599
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER CDC | CHECKER ETB
REVIEWER JWB 03/07/25
PROJECT ID 114388
SUBSET 5 | TOTAL 126
SHEET P.61 | TOTAL P.182

BEL-40-23.26

MODEL: Sheet 2 of 2 PAPERSIZE: 34x22 (in.) DATE: 4/15/2025 TIME: 4:52:23 PM USER: Ccummings
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District11\114388\400-Engineering\Structures\SFN_0701599\Sheets\114388_SFN_0701599_SN001.dgn