

**REFER TO STANDARD BRIDGE DRAWINGS:**

AS LISTED ON TITLE SHEET

**REFER TO SUPPLEMENTAL SPECIFICATIONS:**

AS LISTED ON TITLE SHEET

**DESIGN SPECIFICATIONS**

THE STRUCTURAL DESIGN CONFORMS TO THE LRFD BRIDGE DESIGN SPECIFICATIONS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 7th EDITION, 2014 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

**DESIGN DATA**

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI, EPOXY COATED

**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 THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05 AND 105.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD. THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:

OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 8 OFFICE  
505 S. ST. RT. 741  
LEBANON, OH 45036

EXISTING PLANS ARE ALSO AVAILABLE THROUGH THE FOLLOWING ODOT WEBSITE:

[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/  
CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX](http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.aspx)

**PROPOSED WORK**

THE CONTRACTOR SHALL ONLY PERFORM THE WORK INCLUDED IN THE GENERAL NOTES AND FRAMED TEXT, WHEN NOTED ON IMAGES OF EXISTING DRAWINGS.

**EXISTING DIMENSIONS**

ALL DIMENSIONS ARE ±.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN**

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS (INCLUDING ELECTRICAL COMPONENTS) BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (CONTINUED)**

THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTION OF THE STRUCTURE OR SITE THAT WILL REMAIN IN SERVICE. ANY PORTION OF THE REMAINING STRUCTURE OR SITE DAMAGED AS A RESULT OF CONTRACTOR ACTIONS SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY AND ALL REMOVAL OPERATIONS. THE COST TO CLEAR AND CLEAN UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS APPROXIMATELY 1 INCH DEEP PRIOR TO COMPLETE REMOVAL. REMOVE CONCRETE TO A ROUGH SURFACE. THE EXISTING REINFORCING STEEL, WHERE REQUIRED IN THE PLANS, SHALL BE LEFT IN PLACE. FOLLOWING REMOVAL, INSTALL DOWEL HOLES WHERE SPECIFIED IN ACCORDANCE WITH ITEM 510. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN PROPOSED JOINT SURFACES AND EXISTING EXPOSED REINFORCING TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE PROPOSED JOINT SURFACE AND EXISTING REINFORCING SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING DOES NOT NEED TO HAVE A BRIGHT STEEL FINISH, BUT ALL PACK AND LOOSE RUST SHALL BE REMOVED. EXISTING CONCRETE SURFACES AGAINST WHICH NEW CONCRETE WILL BE PLACED SHALL BE WET BUT WITHOUT FREE WATER AT THE TIME OF CONCRETE PLACEMENT.

ALL MATERIALS, LABOR, EQUIPMENT, AND ANY MISCELLANEOUS APPURTENANCES REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

**ITEM 510 - DOWEL HOLES**

DRILL DOWEL HOLES WHERE SHOWN IN THE PLANS. INSTALL REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR.

**ITEM 511 - CONCRETE, MISC.: DECORATIVE PYLON CONCRETE**

THE FINISH REQUIREMENTS OF CMS 511 ARE MODIFIED TO REQUIRE AN EXPOSED AGGREGATE FINISH FOR ALL EXPOSED CONCRETE SURFACES ON THE REPLACEMENT PYLONS. THE TEXTURE AND COLOR SHALL MATCH THE EXISTING CONCRETE PYLONS AND BRIDGE RAILINGS THAT ARE TO REMAIN. CONCRETE SHALL BE ODOT CLASS QC1 CONCRETE WITH QC/QA OR AN ODOT-APPROVED SELF-CONSOLIDATING CONCRETE (SCC) WITH A COMPRESSIVE STRENGTH OF 4000 PSI. THE CONTRACTOR SHOULD REFERENCE ACI-303 "GUIDE TO CAST-IN-PLACE ARCHITECTURAL CONCRETE PRACTICE" AS NEEDED TO ACHIEVE THE REQUIREMENTS SET FORTH IN THIS NOTE.

REPLACEMENT PYLONS MAY BE CAST-IN-PLACE OR PRECAST, SO LONG AS THE REQUIREMENTS SET FORTH IN THIS NOTE AND THE DETAIL DRAWINGS ARE MET. HORIZONTAL CONSTRUCTION JOINTS MAY BE USED AT SECTION CHANGES WITH A MAXIMUM OF TWO JOINTS PER PYLON. THE PRECAST OPTION SHALL HAVE ADEQUATE ANCHORAGE AND SPLICE DETAILS SUBMITTED AND APPROVED BY THE ENGINEER. THESE DETAILS MUST BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO. THE ANCHORAGE AND SPLICES MUST BE ABLE TO DEVELOP AN EQUIVALENT AMOUNT OF REINFORCING STEEL AS SHOWN IN THE PROPOSED PLANS. IF THE CONTRACTOR ELECTS TO USE PRECAST CONCRETE, THE METHOD FOR ACCOMODATING THE LIGHTING PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR LIGHTING QUANTITIES BEYOND THOSE SHOWN IN THE PLANS, IF REQUIRED AS A RESULT OF THE CONTRACTOR ELECTING TO USE PRECAST CONCRETE.

WHERE LEGS OF WIRE BAR SUPPORTS CONTACT FORMS, USE CRSI CLASS 1 PLASTIC-PROTECTED OR CRSI CLASS 2 STAINLESS STEEL BAR SUPPORTS.

**SUBMITTALS**

- 1. MIX DESIGN AND PLACEMENT PROCEDURE
- 2. MOCK-UP

**MIX DESIGN AND PLACEMENT PROCEDURE**

THIS SUBMITTAL SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONTRACTOR'S PROPOSED METHODS FOR ADDRESSING THE FOLLOWING ITEMS: LIST OF ALL MATERIALS TO BE USED (SUCH AS SURFACE RETARDER, IF APPLICABLE), SPECIFICATIONS OF ALL MATERIALS USED, METHOD FOR EXPOSING AGGREGATE, FORM TYING PROCEDURES, FORM FINISHING PROCEDURES, METHOD FOR REPAIR OF SURFACE DEFECTS (HONEYCOMBS, ROCK POCKETS, VOIDS, FORM TIE HOLES, CONSTRUCTION JOINTS, ETC.), AND METHOD FOR ADDRESSING AGGREGATE CONSOLIDATION/STACKING ON VERTICAL SURFACES. MIX DESIGN AND PLACEMENT PROCEDURE SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER PRIOR TO STARTING CONSTRUCTION.

**ITEM 511 - CONCRETE, MISC.: DECORATIVE PYLON CONCRETE (CONTINUED)**

**MOCK-UP**

MOCK-UP WILL BE REQUIRED FOR PYLON CONCRETE. THE MOCK-UP SHALL BE A VERTICAL COLUMN 5 FEET TALL WITH BASE DIMENSIONS NO LESS THAN 18"x18" TO DEMONSTRATE TYPICAL JOINTS, SURFACE FINISHES, TEXTURE, TOLERANCES, AND STANDARD OF WORKMANSHIP. MOCK-UP APPROVAL MUST BE OBTAINED BEFORE STARTING CONSTRUCTION. COMPLETE MOCK-UP FOR REVIEW AND APPROVAL AT LEAST 45 DAYS PRIOR TO THE ANTICIPATED START OF PRODUCTION PYLONS. NOTIFY THE ENGINEER SEVEN DAYS IN ADVANCE OF MOCK-UP CONSTRUCTION. PLACE THE MOCK-UP IN THE ENGINEER'S PRESENCE. IF THE ENGINEER DETERMINES THE MOCK-UPS DO NOT MEET REQUIREMENTS, DEMOLISH AND REMOVE THEM FROM THE SITE AND CAST ANOTHER MOCK-UP UNTIL THE MOCK-UP IS APPROVED. MAINTAIN THE APPROVED MOCK-UP DURING CONSTRUCTION IN AN UNDISTURBED CONDITION AS A STANDARD FOR JUDGING THE COMPLETED WORK.

IF SCC IS USED, PREQUALIFY MIX DESIGN BEFORE CONSTRUCTING THE MOCK-UP.

THE MOCK-UP FORMS MUST BE SIMILAR TO THOSE USED FOR THE PRODUCTION ELEMENTS. INCLUDE IN THE MOCK-UP THE CONCRETE, REINFORCEMENT, AND CONCRETE EMBEDMENTS SHOWN ON THE AUTHORIZED PLANS/SHOP DRAWINGS, EXCEPT THE REINFORCEMENT AND EMBEDMENTS MUST STOP 12 INCHES FROM BOTH LONGITUDINAL ENDS OF THE MOCK-UP.

THE MOCK-UP MUST SIMULATE THE FLOW OF CONCRETE BY CHUTE OR PUMP FOR THE MAXIMUM DISTANCE ANTICIPATED DURING PRODUCTION OR FOR A MINIMUM OF 10 FEET IF THE ANTICIPATED FLOW TRAVEL IS LESS THAN 10 FEET.

ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE ABOVE DESCRIBED WORK SHALL BE INCLUDED FOR PAYMENT AT THE CUBIC YARD CONTRACT PRICE FOR ITEM 511 - CONCRETE, MISC.: DECORATIVE PYLON CONCRETE.

**ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN**

SEAL CONCRETE AREAS SPECIFIED IN THE PLANS. THE CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, FENCE AND POSTS, RAILING, AND ALL OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE SEALING OPERATIONS. CARE SHALL ALSO BE TAKEN DURING SEALING TO ENSURE OVERSPRAY DOES NOT PENETRATE OPENINGS IN RAILINGS AND REACH LIVE TRAFFIC BELOW THE BRIDGE. ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO REMOVE EXISTING COATINGS AND SEAL ALL OF THE AREAS DETAILED IN THE PLANS SHALL BE PAID AT THE SQUARE YARD CONTRACT PRICE FOR ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN.

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DESIGN AGENCY	575 Vine Street Suite 1800 Cincinnati Ohio 45202	
	<b>AECOM</b>	
DESIGNED	DATE	REVIEWED
TMB	9/20/17	DEB
CHECKED	STRUCTURE FILE NUMBER	REVISED
KGR	3101231	
GENERAL NOTES (1 OF 3)		
BRIDGE NO. - HAM-042-0329		
EAST McMILLAN STREET BRIDGE OVER US 42 (READING ROAD)		
HAM -42 -3.29		
PID No. 98539		
2 / 18		
29		
45		