**UTILITIES** 

LIGHTING

ODOT DISTRICT 12

ATTN: BILL GERBER

DISTURBED.

**MUNICIPALITIES** 

PHONE: (216) 584-2260

CITY OF INDEPENDENCE

INDEPENDENCE, OH 44131

ATTN: DONALD J. RAMM, P.E.

EMAIL: RAMMDO@INDEPENDENCEOHIO.ORG

WAY OR EASEMENTS OR WITHIN STATE PROPERTY.

**EQUIPMENT AND MATERIAL STORAGE** 

ALL DIMENSIONS ARE APPROXIMATE IN (±)

6335 SELIG DRIVE

PH: 216-524-1374

CITY ENGINEER

RIGHT OF WAY

5500 TRANSPORTATION BLVD.

GARFIELD HEIGHTS, OH 44125

ROADWAY SERVICES LIGHTING

William.gerber@dot.ohio.gov

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT

ANY KNOWN UTILITIES IN THE WORK AREAS SHALL NOT BE

THE CONTRACTOR SHALL NOTIFY THE CONTACTS BELOW AT LEAST 5

DAYS BEFORE WORK BEGINS IN THE REPSECTIVE MUNICIPALITY:

ALL WORK WILL BE PERFORMED WITHIN THE EXISTING RIGHT OF

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING

VEHICLES WITHIN THE HIGHWAY RIGHT-OF-WAY WILL BE

PUBLIC, THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03.

AND OBTAINING AN ODOT R/W PERMIT FROM THE D12 ROADWAY

SERVICES. ALL RESTORATION WILL BE AT NO COST TO THE STATE.

IN ADDITION, NO STORAGE OF EQUIPMENT, MATERIALS, AND

PERMITTED WIHOUT PRIOR APPROVAL FROM THE ENGINEER

CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

# ITEM 832 - EROSION CONTROL

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK SUPPLEMENTAL SPECIFICATION 832:

ITEM 832 - EROSION CONTROL

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480

1000 EACH

#### ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 619, THE CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE B. AS PER PLAN 4 MNTH

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

IN ADDITION TO THE REQUIREMENTS OF THE CMS, THIS ITEM OF WORK WILL INCLUDE THE FOLLOWING ADDITIONAL REQUIREMENTS.

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. [FOR BRIDGES OVER RAILROADS, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT BOTH RAILS OF EACH TRACK BELOW.] THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND THE LANE AND SHOULDER [AND/OR TRACK] CONFIGURATION OF THE ROADWAY [AND/OR RAILROAD] THAT PASSES BELOW THE BRIDGE. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING FTP SITE:

https://ftp.dot.state.oh.us/pub/Contracts/Attach/CUY-117872

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE

### **ASBESTOS NOTIFICATION**

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURES SCHEDULED FOR REHABILITATION: THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURES.

ODOT SHALL PROVIDE A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORMS AND SUBMIT IT TO ONE OF THE ADDRESSES BELOW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

ASBESTOS PROGRAM OHIO EPA, DAPC P.O. BOX 1049 COLUMBUS, OH 43216-1049

ASBESTOS PROGRAM OHIO EPA, DAPC *50 W. TOWN ST., SUITE 700* COLUMBUS, OH 43215

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORMS TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND OR RENOVATION. THE FORM SHALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED. COPIES OF THE OEPA FORM AND BRIDGE INSPECTION REPORT ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS, OHIO 44125.

BASIS FOR PAYMENT THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORMS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

SBR-1-20 REVISED 07/21/23 PCB-91 REVISED 07/17/20

#### **DESIGN SPECIFICATIONS**

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICALS, 2020. AND THE ODOT BRIDGE DESIGN MANUAL. 2020.

#### **DESIGN DATA**

CONCRETE CLASS QC2 -COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

STRUCTURAL STEEL - ASTM A709 MINIMUM YIELD STRENGTH 36 KSI (PLATES AND ANGLES)

CONCRETE REINFORCEMENT -EPOXY COATED STEEL REINFORCEMENT MINIMUM YIELD STRENGTH 60-KSI (RAILINGS)

GFRP REINFORCEMENT (RAILINGS)

#### **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 C&MS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE. 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 12 OFFICE 5500 TRANSPORTATION BOULEVARD GARFIELD HEIGHTS. OH 44125

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/ CONTRACTS/PAGES/DESIGNFILES.ASPX

## 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 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 DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT 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 CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

#### ITEM 509, EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE STEEL REINFORCEMENT 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 C&MS 709.00.

#### ITEM 509, CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT.

A CONTINGENCY QUANTITY OF 500 POUNDS IS INCLUDED IN THE ESTIMATED QUANTITIES.

# ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT,

PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL WITH 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. ALL WORK AND EQUIPMENT REQUIRED FOR LOCATING EXISTING BARS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

#### ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

THIS WORK SHALL CONSIST OF FABRICATING AND INSTALLING 1/2" X 7'-6" STEEL PLATE, 1/2" X 3" STEEL PLATE, 4" X 4" X 1/2" STEEL ANGLE, 6" X 6" X 1/2" STEEL ANGLE, AND 5/8" DIA. GALVANIZED BOLTS. ALL STEEL PLATES AND ANGLES SHALL BE METALIZED PER CMS 516.03.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE BID FOR ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN. www.www.www.

#### ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTIONS PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SÚPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

JACKED BEAMS SHALL BE TEMPORARILY SUPPORTED FOR DEAD AND LIVE LOAD. TEMPORARY SUPPORT STRUCTURE SHALL BE FOUNDED ON EXISTING TOE OF FOOTING. THIS ITEM INCLUDES ITEM 503 UNCLASSIFIED EXCAVATION FOR ANY EXCAVATION AND BACKFILL REQUIRED TO CONSTRUCT TEMPORARY SUPPORT. PAYMENT FOR ANY SUCH EXCAVATION AND BACKFILL SHALL BE INCLUDED WITH ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN. AN APPROXIMATE QUANTITY OF 18 CY PER ABUTMENT HAS BEEN INCLUDED FOR INFORMATIONAL PURPOSES FOR UNCLASSIFIED EXCAVATION.

# ITEM 519, PATCHING CONCRETE STRUCTURE, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED STEEL REINFORCEMENT. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER. ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

#### **ABBREVIATIONS**

N.F. - NEAR FACE APPROX. - APPROXIMATE C.J. - CONSTRUCTION JOINT O/O - OUT TO OUT *Q* - CENTERLINE PB - PORTABLE BARRIER CLR. - CLEAR P.E.J.F. - PREFORMED EL. - ELEV. - ELEVATION **EXPANSION** E.B. - EASTBOUND JOINT FILLER EX. - EXIST. - EXISTING REINF. - REINFORCING EQ. SPA. - EQUAL SPACE R. - RT. - RIGHT R/W - RIGHT OF WAY E.F. - EACH FACE F.F. - FAR FACE SCD - STANDARD CONSTRUCTION

F/F - FACE TO FACE GFRP - GLASS FIBER REINFORCED **POLYMER** 

L - LT. - LEFT MAX. - MAXIMUM MGS - MIDWEST GUARDRAIL

**SYSTEM** MIN. - MINIMUM

DRAWING SER. - SERIES S.F. - SQUARE FEET SPA. - SPACING SQ. - SQUARE STA. - STATION TYP. - TYPICAL VAR. - VARIES W.B. - WESTBOUND ESIGN AGENCY

NOTES

**ENERAL** 

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ms consultants, in

ESIGNER

WER REVIEWER JDH 11-08-23

ROJECT ID 117872

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							CALCULATED BY:	ATM	8/25/2023
							CHECKED BY:	WER	8/30/2023
				ESTIMATED QUANTITIES - BRIDGE NO. CUY-480-1788L (SFN 1813102	?)				
ITEM	ITEM EXT.	QUANTITY	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTRUCTURE	GENERAL	SHEET REF
202	11201	LS	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN					2/41
509	10001	11848	LB	EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN			11848		2/41
509	20001	500	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN			500		2/41
509	30020	6701	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			6701		
510	10001	1809	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN			1809		2/41
511	34448	66	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			66		
512	10100	1563	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	119	579	865		
512	10600	15	FT	CONCRETE REPAIR BY EPOXY INJECTION	8	7			
512	74000	1251	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	95	464	692		
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513	10201	3249	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN				3249	
<b>1513</b> \1	20000	~~ <del>/2</del> ~~	WEACH Y	WELDED'STUD'SHEAR CONNECTORS WELDED'STUD'SHEAR CONNECTORS				72	
516	13200	11	SF	½" PREFORMED EXPANSION JOINT FILLER				11	
516	46700	7	EACH	RESET BEARING	7				
516	47001	LS	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2/41
519	11101	1119	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	242	741	136		2/41
519	12300	187	SY	PATCHING CONCRETE BRIDGE DECK **TYPE B			187		
606	15050	50	FT	GUARDRAIL, TYPE MGS				50	
606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1				2	
606	35102	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2				1	

<sup>\*</sup> SEE PROPOSAL NOTE 512

1813102 DESIGN AGENCY



DESIGNER CHECKER

ATM WER REVIEWER JDH 11-08-23 117872

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