

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT-122-6.06 / 6.26

MADISON TOWNSHIP CITY OF MIDDLETOWN BUTLER COUNTY

PROJECT DESCRIPTION

REHABILITATE BUT-122-0606 AND BUT-122-0626 BY REPLACING THE EXPANSION JOINTS, UPGRADING THE BARRIERS, PAINTING THE STRUCTURAL STEEL, AND REPLACING THE BEARINGS UNDER INTERMEDIATE EXPANSION JOINTS. INSTALL 3 IN-STREAM BOULDER VANES UPSTREAM OF BRIDGE PIERS. PROJECT ALSO CONSISTS OF PLANING AND RESURFACING THE PAVEMENT BETWEEN THE TWO BRIDGES AND REPLACING CURB AND GUTTER.

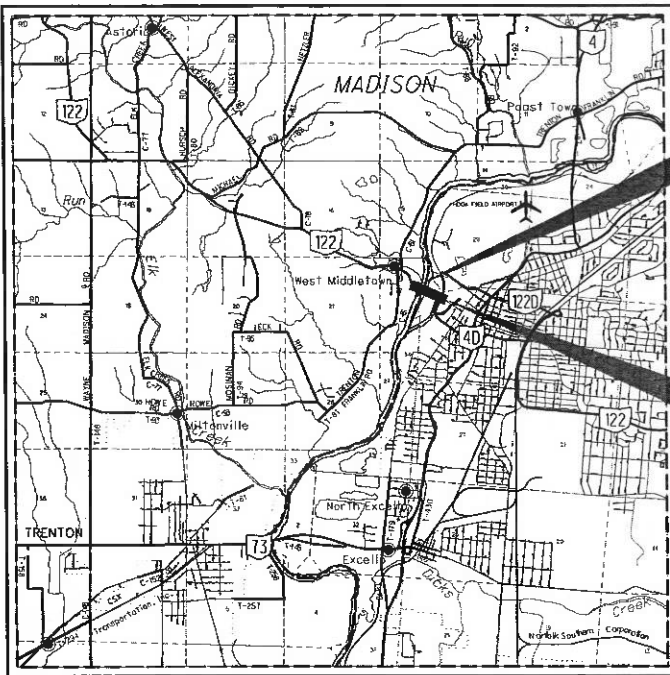
EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.6 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.2 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A
(NOI NOT REQUIRED)

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

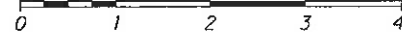
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT A DETOUR WILL BE PROVIDED AS INDICATED ON SHEETS 4-7.



LOCATION MAP

LATITUDE: N 39°31'10" LONGITUDE: W 84°24'40"

SCALE IN MILES



PORTION TO BE IMPROVED	_____
INTERSTATE HIGHWAY	_____
FEDERAL ROUTES	_____
STATE ROUTES	_____
COUNTY & TOWNSHIP ROADS	_____
OTHER ROADS	_____

DESIGN DESIGNATION

CURRENT ADT (2021)	13300
DESIGN YEAR ADT (2041)	14600
DESIGN HOURLY VOLUME (2041)	1460
DIRECTIONAL DISTRIBUTION	66%
TRUCKS (24 HOUR B&C)	9%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
05 MAJOR COLLECTOR (URBAN)	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2
GENERAL NOTES	3
MAINTENANCE OF TRAFFIC	4-7
GENERAL SUMMARY	8-9
ESTIMATED QUANTITIES	10
PLAN AND PROFILE	11-13
CHANNEL PLAN	14
CHANNEL SECTIONS	15-18
CHEVRON DETAILS	19-22
STRUCTURES OVER 20':	
GENERAL	23-25
BUT-122-0606	26-47
BUT-122-0626	48-52

ENGINEERS SEAL:
FOR SHEETS 19-22

SIGNED: *Peter Halig*
DATE: 7/2/2021

ENGINEERS SEAL:
FOR STRUCTURES OVER 20'

SIGNED: *Elizabeth R. Kronk*
DATE: 6/23/2021

ENGINEERS SEAL:
FOR SHEETS 1-18

SIGNED: *Tony W. Grieshop*
DATE: 6/23/2021

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/17/20	MT-97.10	4/19/19	800	7/16/21	WATERWAY PERMITS CONDITIONS	
		MT-101.60	1/17/20	832	10/19/18		
DM-4.3	1/15/16	MT-105.10	1/17/20			09/17/21	
DM-4.4	1/15/16	MT-110.10	7/19/13				
BP-5.1	1/18/19	TC-41.20	10/18/13				
		TC-41.40	10/18/13				
DBR-3-11	7/15/11	TC-42.10	10/18/13				
EXJ-4-87	1/19/18	TC-52.10	10/18/13				
GSD-1-19	1/15/21	TC-52.20	1/15/21				
		TC-65.10	1/17/14				
HL-20.11	1/15/21	TC-65.11	7/21/17				
HL-20.13	4/17/20						
HL-20.14	4/17/20						

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
CARPENTER MARTY transportation

6912 SINGLETREE DRIVE COLUMBUS, OH 43229
614-658-2424 WWW.CMTRAIL.COM

APPROVED *Tony K Campbell*
DATE 7-19-2021 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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FEDERAL PROJECT NO. E190 (967)
PID NO. 110559
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
BUT-122-6.06 / 6.26
1/52

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ITEM 614. LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 20 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

SOLE SOURCE AQUIFER & DRINKING WATER PROTECTION AREA

THIS PROJECT IS LOCATED OVER A PORTION OF THE MIAMI SOLE SOURCE AQUIFER AND WITHIN A SOURCE WATER PROTECTION AREA FOR THE CITY OF MIDDLETOWN'S PUBLIC WATER SUPPLY (OH0901712) . IN ORDER TO MINIMIZE THE POTENTIAL FOR A RELEASE IN THIS SENSITIVE AREA, ALL PROJECT RELATED FUELING AND/OR MAINTENANCE ACTIVITIES ARE TO BE UNDERTAKEN IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. THE CONTRACTOR SHALL UTILIZE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS, AND SHALL NOT STORE AND IDLE EQUIPMENT, FUELS AND ANY TOXIC/HAZARDOUS MATERIALS AND CHEMICALS NEAR ANY DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. REPORT ALL SPILLS OR EVENTS TO THE MIDDLETOWN WATER TREATMENT PLANT (513-425-7781). IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHOULD CONTACT THE MIDDLETOWN FIRE DEPARTMENT (513-422-4511), LOCAL EMERGENCY COORDINATOR (513-425-7700) AND THE OEPA (1-800-282-9378) WITHIN 30 MINUTES OF KNOWLEDGE OF THE RELEASE.

GREAT MIAMI RIVER RECREATIONAL TRAIL/BICENTENNIAL COMMONS PARK

TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED ALONG PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE GREAT MIAMI RIVER RECREATIONAL TRAIL/BICENTENNIAL COMMONS PARK AND THE PUBLIC.

THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT, THE CITY OF MIDDLETOWN, THE MIAMI CONSERVANCY DISTRICT, AND METROPARKS OF BUTLER COUNTY, 30 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

ACCESS TO BICENTENNIAL COMMONS PARK SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT USERS OF BICENTENNIAL PARK OF CONSTRUCTION ACTIVITIES, IF IN PROXIMITY TO RECREATIONAL FACILITIES OR FEATURES.

ACCESS TO THE GREAT MIAMI RIVER RECREATIONAL TRAIL SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES, WITH THE EXCEPTION OF A TEMPORARY DETOUR WHICH WILL BE IN PLACE FOR NO MORE THAN 28 DAYS.

INSTREAM WORK RESTRICTIONS: GREAT MIAMI RIVER

THE CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN THE JURISDICTIONAL BOUNDARIES OF ANY WATERWAY, INCLUDING WETLANDS, UNTIL ODOT OBTAINS THE NECESSARY WATERWAY PERMIT(S). THIS INCLUDES THE PLACEMENT OF ANY TEMPORARY OR PERMANENT FILLS.

THE CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN THE JURISDICTIONAL BOUNDARIES OF THE GREAT MIAMI RIVER BETWEEN MARCH 15 AND APRIL 15.

MIGRATORY BIRD PROTECTION: SWALLOW

ECOLOGICAL STUDIES IDENTIFIED SWALLOW NESTS ON THE BUT-122-6.06 AND BUT-122-6.26 BRIDGE STRUCTURES. IF CONSTRUCTION ACTIVITIES WILL OCCUR BETWEEN MAY 1 AND AUGUST 31 ON THIS STRUCTURE, THE CONTRACT SHALL INSPECT THE STRUCTURE FOR EVIDENCE OF AN ACTIVE BIRD NEST CONTAINING AN EGG OR CHICK PRIOR TO STARTING WORK. PROVIDE WRITTEN CONFIRMATION OF THE INSPECTION, INCLUDING A STATEMENT WHETHER AN ACTIVE NEST WAS FOUND, TO THE ENGINEER. IF NO NESTS ARE ENCOUNTERED DURING THE INSPECTION, OR IF ONLY INACTIVE NESTS THAT DO NOT CONTAIN AN EGG OR CHICK ARE ENCOUNTERED, PROCEED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR MAY REMOVE AND DESTROY INACTIVE NESTS. THE CONTRACTOR MAY INSTALL EXCLUSION MEASURES BETWEEN AUGUST 31 AND MAY 1 TO PREVENT MIGRATORY BIRDS FROM NESTING ON THE STRUCTURE. PROJECTS PERFORMING CONSTRUCTION ACTIVITIES BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 30 DO NOT REQUIRE AN INSPECTION FOR MIGRATORY BIRDS OR AVOIDANCE MEASURES. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK IS ENCOUNTERED, AVOID IMPACTS TO THE NEST UNTIL ALL DEVELOPING BIRDS ARE ABLE TO INDEPENDENTLY FLY FROM THE NEST. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK CANNOT BE AVOIDED, CONTACT THE ENGINEER AT LEAST 4 WEEKS PRIOR DESTROYING AN ACTIVE NEST SO THE ODOT DISTRICT 8 CAN OBTAIN A DEPREDATION PERMIT FROM THE U.S. FISH AND WILDLIFE SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND COMPLETING ALL TASKS RELATED TO OBTAINING THE DEPREDATION PERMIT EXCEPT FOR DIRECT COORDINATION WITH THE MIGRATORY BIRD REGIONAL PERMIT OFFICE. DO NOT PROCEED WITH ACTIVITIES THAT WILL IMPACT AN ACTIVE NEST UNTIL THE ODOT DISTRICT 8 CONFIRMS THE DEPREDATION PERMIT IS RECEIVED.

ODNR NOTIFICATION

THE ODOT PROJECT ENGINEER SHALL NOTIFY THE ODNR TRAILS ADMINISTRATOR (NATALIE PIRVU) VIA TELEPHONE, ODNR DIVISION OF PARKS AND WATERCRAFT (614-265-6466), 14 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO ALLOW ODNR TO POST NOTICE OF IMPENDING PROJECT CONSTRUCTION ON THE APPROPRIATE ODNR WEBPAGES AND ASSOCIATED ONLINE BOATING MAPS. AS PART OF NOTIFICATION EFFORTS, THE ODOT PROJECT ENGINEER SHALL ALSO PROVIDE PLANS THAT INDICATE SIGNAGE LOCATION ALONG THE WATERWAY AND ANY ADDITIONAL PLANNED NOTIFICATION EFFORTS WITH ODNR THAT WILL TAKE PLACE DURING OR AFTER CONSTRUCTION.

ASBESTOS ABATEMENT

AN ASBESTOS SURVEY FOR SFN 0902209 & 0902217 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

CALCULATED
KDW
CHECKED
TWG

MAINTENANCE OF TRAFFIC GENERAL NOTES

BUT-122-6.06 / 6.26

5
52

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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

- DBR-3-11 REVISED 7-15-11
- EXJ-4-87 REVISED 1-19-18
- GSD-1-19 REVISED 1-15-21

DESIGN SPECIFICATIONS

WORK PERFORMED ON THESE STRUCTURES CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE MANUAL, 2020.

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

DECK PROTECTION METHOD

GRAVITY FED RESIN

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN IN 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 PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING BRIDGE PLANS

EXISTING BRIDGE PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE ODOT DISTRICT EIGHT OFFICE IN LEBANON, OHIO.

MAXIMUM REMOVAL LIMITS

SOUND THE CONCRETE TO DETERMINE THE LIMITS OF THE CONCRETE TO BE REMOVED AND COMPARE THESE LIMITS TO THE AREAS SHOWN IN THE PLANS. IF NEW AREAS ARE DISCOVERED OR IF THE DIMENSIONS OF THE PLAN AREAS INCREASE BY MORE THAN 50% FOR THE SUBSTRUCTURE AND 75% FOR THE SUPERSTRUCTURE IN ANY DIRECTION, DOCUMENT THE AREAS AND NOTIFY THE ENGINEER FOR EVALUATION TWO WEEKS PRIOR TO REMOVAL. THE ENGINEER WILL DETERMINE IF PATCHING IN DISCRETE SECTIONS/STAGES IS NEEDED OR IF THE INSTALLATION OF TEMPORARY FALSEWORK IS REQUIRED.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, CONCRETE BRIDGE RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSS-FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF THE DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G. FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

DECK REMOVALS - COMPOSITE DECK DESIGNS - STEEL SUPERSTRUCTURES: DUE TO THE PRESENCE OF WELDED STUDS TO THE EXISTING STRUCTURAL STEEL, SUBMIT A DETAILED PROCEDURE OF THE DECK REMOVAL TO THE ENGINEER AT 7 DAYS BEFORE CONSTRUCTION BEGINS. DEPARTMENT ACCEPTANCE IS NOT REQUIRED. THE PROCEDURE SHALL INCLUDE ALL DETAILS, EQUIPMENT AND METHODS TO BE USED FOR REMOVAL OF THE CONCRETE OVER THE FLANGES AND AROUND THE STUDS. REPLACE OR REPAIR MAIN STEEL AND STUDS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - BRIDGE RAILING REMOVED FOR REUSE, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO REMOVE AND REINSTALL PORTIONS OF THE EXISTING METAL TUBE RAILING. THIS ITEM SHALL INCLUDE FOR PAYMENT THE NEW ANCHOR BOLTS FOR THE REINSTALLED RAILING POSTS.

ITEM 509 - REINFORCING STEEL REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING STEEL BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL 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 EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

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.

ITEM 514 - FIELD PAINTING EXISTING STRUCTURAL STEEL

THIS ITEM INCLUDES THE WORK NECESSARY FOR PAINTING THE EXISTING STRUCTURAL STEEL AS SHOWN ON THE PLANS USING SYSTEM OZEU. PAINT COLOR SHALL BE FEDERAL COLOR FS-595C-15526 (LIGHT BLUE).

THE BIRD NESTS AND BIRD EXCREMENT ON THE UNDERSIDE OF THE BRIDGE MUST BE REMOVED OUTSIDE OF THE NESTING SEASON. WORK CAN OCCUR DURING THE NESTING SEASON PROVIDED THE NESTS HAVE ALREADY BEEN REMOVED AND CONTAINMENT OR NETTING IS PLACED TO PREVENT BIRDS FROM BUILDING NEW NESTS THAT CONFLICT WITH WORK AREAS.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIALS, AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER SQUARE FEET OF ITEM 514.

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

THIS WORK CONSISTS OF RAISING THE EXISTING STRUCTURES TO REPLACE EXISTING BEARINGS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, 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.

TEMPORARY BEAM SUPPORTS FOR THE ABUTMENT BEARING WORK SHALL NOT ANCHOR TO THE FRONT FACE OF THE EXISTING ABUTMENTS FOR STRUCTURAL SUPPORT OR LATERAL STABILITY. TEMPORARY BEAM SUPPORTS FOR THE PIER BEARING WORK MAY BE THRU ANCHORED TO THE SIDES OF THE PIERS OR INDEPENDENTLY SUPPORTED ON TEMPORARY ACCESS FILL NEXT TO THE PIERS.

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.

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 REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM SPECIAL - STRUCTURE MISC.: TEMPORARY CONSTRUCTION SITE ACCESS

THIS ITEM INCLUDES THE CONSTRUCTION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL TEMPORARY CONSTRUCTION ACCESS ROADS AND STREAM FILL.

WHERE TEMPORARY CONSTRUCTION ACCESS FILLS ARE REQUIRED FOR EQUIPMENT ACCESS, PROVIDE SUCH IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 832 AND AS FOLLOWS EXCEPT THAT ALL SUCH MATERIAL SHALL BE REMOVED FROM THE STREAM WHEN THE ASSOCIATED PHASE OF WORK IS COMPLETE AND THE AFFECTED AREAS RETURNED TO THEIR PRE-EXISTING CONDITION.

RETRIEVE ANY AND ALL MATERIAL THAT MOVES DOWNSTREAM DURING HIGH FLOW CONDITIONS OR AT ANY OTHER TIME. RECLAMATION SHALL SATISFY ALL REQUIREMENTS SET BY THE PROJECT ENGINEER.

THE PROJECT LIES WITHIN THE JURISDICTION OF THE MIAMI CONSERVANCY DISTRICT (MCD). ANY TEMPORARY CONSTRUCTION ACCESS FILL PLACED MUST COMPLY WITH THE REQUIREMENTS OF THE MCD INCLUDING PRE-CONSTRUCTION NOTIFICATION AND ANY HYDRAULIC REQUIREMENTS. ALL FILL/EXCAVATION WORK SHALL BE CONTAINED WITHIN THE LIMITS OF THE EXISTING ODOT RIGHT-OF-WAY.

IN ADDITION TO THE MIAMI CONSERVANCY DISTRICT, ANY TEMPORARY CONSTRUCTION ACCESS FILL PLACED WITHIN "WATERS OF THE US" (E.G., STREAMS, WETLANDS) SHALL ALSO BE SUBJECT TO US ARMY CORPS OF ENGINEERS (USACE) REGULATORY JURISDICTION AND WILL REQUIRE AUTHORIZATION BY THE USACE PRIOR TO PLACEMENT OF TEMPORARY FILL VIA THE CLEAN WATER ACT WATERWAY PERMITTING PROCESS (404/401). ALL TEMPORARY CONSTRUCTION ACCESS FILL SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WATERWAY PERMITS (404/401) AND SHOULD NOT EXCEED THE QUANTITIES AND/OR SURFACE AREA OF TEMPORARY FILL THAT HAS BEEN PERMITTED.

PLAN AREA OF TEMPORARY FILL MATERIAL = 1.652 ACRES
TOTAL VOLUME OF TEMPORARY FILL MATERIAL = 12,464 CY

IF EITHER OF THE LIMITS PROVIDED ARE EXCEEDED, THEN A 404/401 PERMIT MODIFICATION WILL BE REQUIRED. IF A PERMIT MODIFICATION IS REQUIRED, REFER TO SUPPLEMENTAL SPECIFICATION 832.09 FOR THE APPLICATION REQUIREMENTS.

ADDITIONALLY, SOME TEMPORARY CONSTRUCTION ACCESS FILLS MAY ONLY BE ALLOWED IN SPECIFIC LOCATIONS, PER THE WATERWAY PERMITS (404/401) AND/OR OTHER ENVIRONMENTAL COMMITMENTS, AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH ANY SUCH LOCATIONAL RESTRICTIONS TO AVOID ENVIRONMENTALLY SENSITIVE AREAS. THE WATERWAY PERMITS ARE ATTACHED TO THE CONSTRUCTION PLANS AS SPECIAL PROVISIONS AND ARE TO BE AVAILABLE IN THE PROJECT CONSTRUCTION OFFICE.

ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY. STREAM DEBRIS AND CONSTRUCTION/DEMOLITION DEBRIS SHALL NOT BE PERMITTED TO ACCUMULATE AGAINST THE TEMPORARY CONSTRUCTION ACCESS FILL AND SHALL BE ROUTINELY AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

TO THE MAXIMUM EXTENT POSSIBLE, THE TEMPORARY CONSTRUCTION ACCESS FILL MUST BE DESIGNED TO MAINTAIN NORMAL PRE-CONSTRUCTION DOWNSTREAM FLOW CONDITIONS. FURTHERMORE, IT MUST NOT PERMANENTLY RESTRICT OR IMPEDE THE PASSAGE OF NORMAL OR EXPECTED HIGH FLOWS, IT MUST WITHSTAND EXPECTED HIGH FLOWS, AND IT MUST PERMIT THE NORMAL PASSAGE OF INDIGENOUS AQUATIC LIFE.

FOR ACCESS TO THE STRUCTURE, THE CONTRACTOR SHALL COORDINATE WITH THE MIAMI CONSERVANCY DISTRICT (ATTN: ROXANNE FARRIER 937-256-0569).

ANY DESIGN THE CONTRACTOR COMES UP WITH SHALL NOT CAUSE A RISE ABOVE THE OHWM MORE THAN WHAT IS INDICATED IN THE WATERWAY SPECIAL PROVISIONS. CONTRACTOR SHALL REFER TO THE WATERWAY SPECIAL PROVISIONS FOR THIS PROJECT FOR ALL TEMPORARY CONSTRUCTION SITE ACCESS AND TEMPORARY ACCESS FILL REQUIREMENTS.

(CONTINUED ON NEXT SHEET)

DESIGN AGENCY: **CARPENTER MARTY** TRANSPORTATION

DATE: 9-23-20

REVIEWED: GDU

DRAWN: ERK

DESIGNED: ERK

STRUCTURE FILE NUMBER: 0902209/0902217

GENERAL NOTES 1

BRIDGE NO.: BUT-122-0606/BUT-122-0626

OVER GREAT MIAMI RIVER/GREAT MIAMI RIVER OVERFLOW

BUT-122-6.06/6.26

PID No. 110559

1 / 3

23

52