

# **SPECIAL PROVISIONS**

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## **WATERWAY PERMITS CONDITIONS**

**C-R-S: BUT-SR 4-23.17**

**PID: 102783**

**Date: 03/07/2024**

**1. Waterway Permits Time Restrictions:**

Nationwide Permit 3 (Maintenance) is authorized for BUT-SR 4-23.17, PID 102783. A copy of Nationwide Permit 3 and the United States Army Corps of Engineers (USACE) authorization letter (LRH-2024-00184-GMR - Great Miami River) shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: March 7, 2024. The permit expires: March 14, 2026.

For authorized work in aquatic resources (including streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor’s submission of a reauthorization to the waterway permit expiration date based on project constraints. If more than one permit is authorized for the project, then all permits become invalid once the first permit expires. In order for the request to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit expiration date. The Engineer will submit the request for a time extension to the Ohio Department of Transportation, Office of Environmental Services, Waterway Permits Unit (ODOT-OES-WPU) for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR) as appropriate.

**2. Deviations From Permitted Construction Activities:**

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or Working Drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

NOTE: Plan sheets submitted with the Pre-Construction Notification were approved by the USACE in accordance with Nationwide Permit 3 and are included in these Special Provisions.

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-2159) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-2159) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

**3. In-Stream Work Restrictions:**

Work in the following aquatic resources is further restricted as follows:

Stream Name/Description	Location	Work restriction dates (No in-stream work permitted)
Great Miami River	STA 1124+56 to 1227+04	See Note*

*\* A waiver has been obtained by ODOT for the for the periods of June 1 through June 30, 2024 and March 15 through June 30, 2025.*

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of “fill” include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection, and temporary access fills.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

#### 4. Materials:

Materials utilized in or adjacent to aquatic resources for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Asphalt products are specifically excluded for use as fill. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.

#### 5. Cultural Resources:

Per CMS 107.10, if archeological sites, historical sites, or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-2159. In the event of human remains are identified by OES-Cultural Resources Section, the Engineer shall also contact the Butler County Sheriff’s Office at 513-785-1000.

#### 6. Aquatic Resource Demarcation:

The table attached includes detailed fill quantities authorized within the aquatic resources. Aquatic resources not authorized for impact by these Special Provisions shall be demarcated in the field as per SS 832 prior to site disturbance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.

#### 7. Spill containment:

Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:

- 6 - 3 in. X 8 ft. Oil only socks
- 4 - 18 in. X18 in. Oil only pillows
- 2 - 5 in. X 10ft. Booms
- 50 - 16in. X 20 in. Oil only pads
- 10- Disposable Bags
- 1 - 65 Gallon drum with lid
- 25 pounds of Granular Oil Absorbent

The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above referenced spill containment kit is incidental to work.

#### 8. Blasting:

State law requires notification to the Ohio Department of Natural Resources should blasting be required

within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify the Engineer, in writing, a minimum of 30 days in advance of blasting, for submission to ODOT-OES-WPU (614-466-2159) for coordination with ODNR.

#### 9. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-WPU at 614-466-2159.

#### 10. Temporary Access Fills:

##### Special Provisions Notes:

##### **Definitions:**

##### **Hydraulic Opening**

The cross-sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above **elevation 638.0 (4.6-feet higher than the Ordinary High Water Mark (OHWM))**.

##### **Standard Temporary Discharge**

Discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above **638.0 (4.6-feet higher than the OHWM)**. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (<https://water.usgs.gov/osw/streamstats/ohio.html>). The highest monthly flow is the highest monthly mean discharge occurring in a 12-month period from January to December.

##### **Average Monthly Flow**

The average monthly flow represents the estimated "normal" flow.

##### **Temporary Access Fills (TAFs)**

Include, but are not limited to, dewatering fills, causeways, cofferdams, access pads, temporary bridges, etc. below the OHWM.

##### **Requirements**

21 calendar days prior to the initiation of any in-stream work, provide the Engineer with Working Drawings that include:

- Plan view drawing (50 scale or less) showing the location of all TAFs proposed for use on the project
- Scaled cross section and profile drawing showing the OHWM and the proposed hydraulic opening.
- Identify all the TAF material size, placement location and thickness of non-erodible Dumped Rock Fill material used for encapsulation on the plan and profile. Provide a profile showing that the encapsulating material is proposed to at least the elevation of the TAF working surface. Identify the minimum diameter size, placement location and thickness of non-erodible Dumped Rock Fill material on the plan and profile.
- Calculations analyzing the hydraulic impacts of the TAF on the waterway. Include in the

calculations an analysis of the hydraulic opening sized adequately to pass the Standard Temporary Discharge without producing a rise in backwater above elevation 638.0. Include, in the analysis, calculated channel velocities adjacent to the TAF, culvert exit velocities, calculated headwater and tailwater elevations, and any additional appropriate calculations to assess potential impacts to the waterway during normal and anticipated high flow (twice the highest monthly flow) events.

- A description of all temporary material to be placed below the OHWM elevation.
- A description of the installation and staging of all temporary fill over the life of the contract.
- Identify the protection methods and/or structural Best Management Practices for minimizing impacts to the waterway.
- Volume of temporary fill below the OHWM elevation.
- A description of the diversion ditches, equipment, conduits or means for maintaining normal flows in the waterway.
- A description of the removal of all temporary fill and restoration of the channel and all areas impacted by the TAFs.
- A schedule outlining the timing of the placement and removal of all temporary fill.
- Have competent individuals prepare and check the Working Drawings and hydraulic calculations. Provide a cover sheet containing the preparer(s) and checker(s): First Name, Last Name and Initials. The preparer(s) and checker(s) shall not be the same individual. Have an Ohio Registered Engineer review, approve, sign, seal and date the Working Drawings and hydraulic calculations according to ORC 4733 and OAC 4733-35. Include the following statement on the Working Drawings: “These Working Drawings were prepared in compliance with the terms of these Special Provisions and all contract documents.”

Do not begin in-stream work until the Engineer has accepted the Working Drawings and hydraulic calculations.

The design and construction of the Contractor’s TAF must minimize impacts to water bodies, stream banks, stream beds, and riparian zones to the maximum extent practicable.

Fording of waterways and other aquatic resources is prohibited.

Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above elevation 638.0 (4.6-feet higher than the OHWM).***

If the Contractor proposes a TAF which does not meet all the requirements of these Special Provisions, the Contractor must submit a request in writing for a modified TAF to the Engineer. The request must include all Working Drawings and hydraulic calculations required by these Special Provisions. The Department makes no guarantee to grant the request. The Contractor’s proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate. The time frame allowed for the coordination of the contractor’s proposed TAF will be a minimum of 60 days.

Installation of any temporary fill without appropriate authorization is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

#### **TAFs Construction and Payment**

**A full width causeway is not permitted for this project. Construct the causeway without exceeding the maximum permitted limits as shown on the attached plans.**

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with these Special Provisions or other environmental commitments that have been included in

the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, sheet piling, temporary bridges, etc. The Contractor must make every attempt to minimize disturbance to waterbodies, stream banks, stream beds and riparian zones during the construction, maintenance, and removal of the TAF. Construct the TAFs as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the TAFs in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, and approach sections. Construct the TAFs as to not cause erosion or allow sediment deposits in the waterway.

Prior to the initiation of any in-stream work, establish a monument upstream of the proposed TAF to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. **Provide visual marks on the monument that identify the OHWM elevation, 638.0 elevation and 639.0 elevation.** Ensure that the monument can be read from the bank of the waterway. Have these elevations set and certified by an Ohio Registered Surveyor. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the surface water elevation exceed the elevation 639.0, the Department will compensate the Contractor for repair of any resulting damage to the TAF up to the elevation 639.0, except as noted. The Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 B. of the Construction & Materials Specifications.

Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and Excavation Bracing and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of TAFs associated with Items 502 and 503 as a result of surface water elevation exceeding 639.0. Compensation for damages associated with waterway flows will be provided as described in Items 502 and 503.

Construct the TAFs, not including Items 502 and 503, to a water elevation of at least 639.0 (5.6 feet above the OHWM). If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the TAF will not damage property, flood roadways, or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

- A. Furnish culverts on the existing stream bottom.
- B. Avoid a drop in water elevation at the downstream end of the culvert that would result in an adverse impact to the waterway.
- C. Furnish a sufficient number of culverts in addition to stream openings to provide a discharge equal to twice the highest monthly flow without producing a rise in the backwater above elevation 638.0.
- D. Furnish culverts with a minimum diameter of 18 inches (0.5 m).

All TAFs must be constructed of suitable materials. Causeways and access fills must be encapsulated with clean, non-erodible, nontoxic Dumped Rock Fill, Type A or B, meeting the requirements of C&MS 703.19.B. Utilize appropriately sized Dumped Rock Fill determined by the Contractor's engineer for encapsulating the sides of the TAF. Encapsulate all sides of the TAF with the non-erodible material. For causeways, contractors may use clean aggregate meeting C&MS 703.01 Size Number 1 and 2 for creating a working surface above the OHWM. Extend the non-erodible encapsulating material to at least the elevation of the top of the working surface. No compensation will be provided for repairs or for retrieving lost working surface material if the causeway is not completely encapsulated by non-erodible material. Extend clean aggregate up the slope from the original stream bank for 50 feet (10 m) to remove erodible material and prevent tracking from equipment onto the TAF.

When the work requiring TAF is complete, all portions of the TAF (including all rock and culverts) will be removed in its entirety. Do not dispose of TAF material in other aquatic resources or where erosion into

another aquatic resource is possible. The stream bottom affected by the TAFs will be restored to its pre-construction elevations. The TAFs will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAF compensation is included in the plans, all environmental protection and control associated with the authorized activities, are incidental to the work within the boundaries of the aquatic resources.

#### 11. Excavation Activities:

Excavated material will be placed at an upland site and disposed of in such a manner that sediment and runoff to streams and other aquatic resources is controlled and minimized. Additionally, no more than incidental fallback into aquatic resources is permitted during the excavation process. If any changes to the proposed work are deemed necessary, notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-WPU at 614-466-2159.

#### 12. Construction Completion Certification:

Upon completion of the work, notify the Engineer. The USACE Construction Completion Certification must be completed and signed by the Engineer then provided via US mail or email to:

Waterway Permits Program Manager  
ODOT - Office of Environmental Services  
1980 West Broad Street, Mail Stop 4170  
Columbus, Ohio 43223  
Adrienne.Earley@dot.ohio.gov

A copy of the certification has been attached to these Special Provisions.

#### 13. Demolition Debris:

The intentional discharge of demolition debris from any structure (including but not limited to bridges, culverts, abutments, wing walls, piers) is not authorized for this project. If any demolition debris inadvertently falls into aquatic resources, it must be removed immediately. Notify the Engineer immediately in writing of any inadvertent fill discharged into aquatic resources. The Engineer will immediately contact ODOT-OES-WPU at 614-466-2159 if any unintentional discharge occurs.





STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

# BUT-SR4-23.17

## LEMON AND MADISON TOWNSHIPS BUTLER COUNTY

**PROJECT DESCRIPTION**

REHABILITATE BRIDGE BUT-4-23.17 OVER THE GREAT MIAMI RIVER BY PATCHING AND STRENGTHENING PIERS WITH (FIBER REINFORCED POLYMER) FRP. REMOVE AND REPLACE BOTH PIER CAPS AND 2 FEET OF PIER STEMS AT PIER 4. REPLACE EXISTING BEARINGS AT PIER 4.

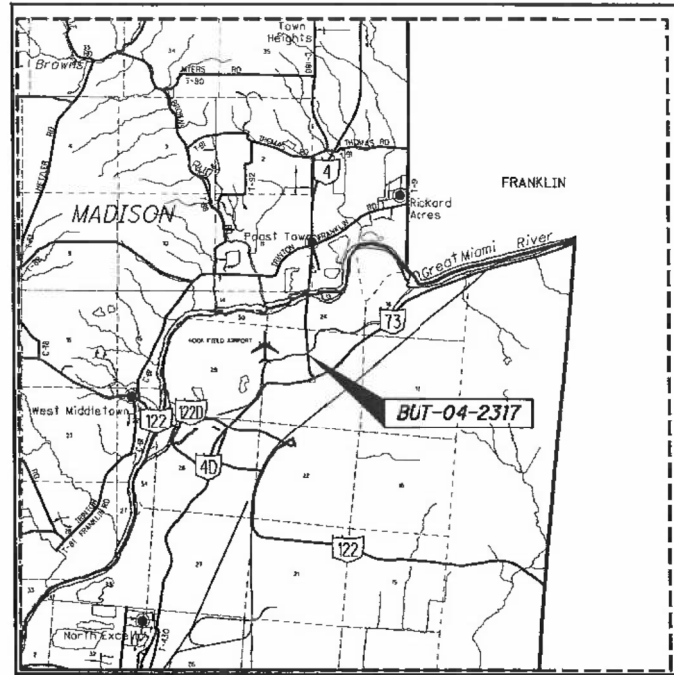
**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 0 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.95 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES  
(MAINTENANCE PROJECT)

**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 NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.



LOCATION MAP

LATITUDE: N 39°32'22" LONGITUDE: 84°23'04" W



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

**DESIGN DESIGNATION**

CURRENT ADT (2024)	8,100
DESIGN YEAR ADT (2044)	8,100
DESIGN HOURLY VOLUME (2036)	950
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	10%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
(03) PRINCIPAL ARTERIAL	
NHS PROJECT	NO

**DESIGN EXCEPTIONS**

NONE

**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:  
BURGESS & NIPLÉ, INC.  
525 VINE STREET, SUITE 1300  
CINCINNATI, OH 45202

**INDEX OF SHEETS:**

TITLE SHEET	1
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STRUCTURE REPAIR (BUT-SR4-23.17)	8-21
ARCHIVE SOIL PROFILES	

ENGINEERS SEAL:

SIGNED: *Samuel Bell*  
DATE: 7/12/2022

ENGINEERS SEAL:

SIGNED: *Blake Stephens*  
DATE: 7/13/2022

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
RM-3.1	7/20/18	800 SEE PROPOSAL	ASBESTOS INSPECTION REPORT 10/1/22
MT-95.31	7/19/19	821 4/20/12	
MT-95.32	4/19/19	832 10/19/18	
MT-95.41	1/17/20		WATERWAY PERMIT 03/29/24
MT-101.70	1/17/20		
MT-101.75	1/17/20		
MT-102.10	1/17/20		
MT-105.10	1/17/20		
DM-4.3	1/15/16		
DM-4.4	1/15/16		
TC-71.10	7/16/21		

APPROVED *Tammy K. Capbell*  
DATE 10-4-2022 DISTRICT DEPUTY DIRECTOR

DIRECTOR, DEPARTMENT OF TRANSPORTATION  
*Jack Markowski*

P:\PP59208\BUT102783\Design\Roadway\Sheets\02783.ctb\001.dgn Sheet 10/3/2022 3:24:38 PM gorsler

FEDERAL PROJECT NO. E170222  
PID NO. 102783  
CONSTRUCTION PROJECT NO.  
RAILROAD INVOLVEMENT NONE  
BUT-SR4-23.17  
1/21

**MAINTENANCE OF CANOE TRAFFIC**

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT:

1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS;
2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS;
3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS; AND
4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC. PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR CANOES ARE NOT DRAWN THROUGH OR HELD BY THEM.

**PEDESTRIAN TRAFFIC - MAINTAIN MOVEMENT AND SAFETY**

FOR GREAT MIAMI RIVER RECREATIONAL TRAIL, MAINTAIN PEDESTRIAN TRAFFIC AT ALL TIMES. DURING CONSTRUCTION, THE MULTI-USE PATH MUST BE OPEN AT ALL TIMES. THE CONTRACTOR MUST IMPLEMENT SAFETY MEASURES TO PROTECT USERS AND PREVENT FALLING DEBRIS DURING CONSTRUCTION.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE ITEM DURATION OF NOTICE DUE TO CLOSURE PERMITS & PIO

RAMP & >= 2 WEEKS 21 CALENDAR DAYS ROAD CLOSURES PRIOR TO CLOSURE

> 12 HOURS 14 CALENDAR DAYS & < 2 WEEKS PRIOR TO CLOSURE

<= 12 HOURS 4 CALENDAR DAYS PRIOR TO CLOSURE

LANE >= 2 WEEKS 14 CALENDAR DAYS CLOSURES & PRIOR TO CLOSURE RESTRICTIONS < 2 WEEKS 5 BUSINESS DAYS PRIOR TO CLOSURE

START OF N/A 14 CALENDAR DAYS CONSTRUCTION & PRIOR TO TRAFFIC PATTERN IMPLEMENTATION CHANGES

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

**MISCELLANEOUS QUANTITIES**

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR THE REPAIR, REMOVAL, AND REPLACEMENT OF EXISTING CONDITION FEATURES THAT WERE DISTURBED AS PART OF THE MAINTENANCE OF TRAFFIC CONSTRUCTION PHASING.

ITEM 202, TRAFFIC ISLAND REMOVED	48 SY
ITEM 609, CONCRETE TRAFFIC ISLAND	48 SY
ITEM 614, DETOUR SIGNING	LS
ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC	48 SY
ITEM 622, PORTABLE BARRIER, UNANCHORED	2090 FT
ITEM 644, EDGE LINE	0.55 MILE
ITEM 644, LANE LINE	0.34 MILE
ITEM 644, CENTER LINE	0.09 MILE
ITEM 644, CHANNELIZING LINE	360 FT
ITEM 644, LANE ARROW	2 EACH
ITEM 646, EDGE LINE	0.51 MILE
ITEM 646, LANE LINE	0.25 MILE

**DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL**

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) 9 EACH

ITEM 614, OBJECT MARKER, TWO-WAY 9 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

**SEQUENCE OF CONSTRUCTION**

PRIOR TO PHASE 1, REMOVE MEDIAN AND INSTALL TEMPORARY PAVEMENT WHERE TRAFFIC CROSSES OVER BETWEEN STATIONS 1230+73 TO 1233+08.

PHASE 1: SET UP CARMODY BLVD DETOUR AND KEEP DETOUR IN PLACE FOR THE ENTIRE PROJECT.

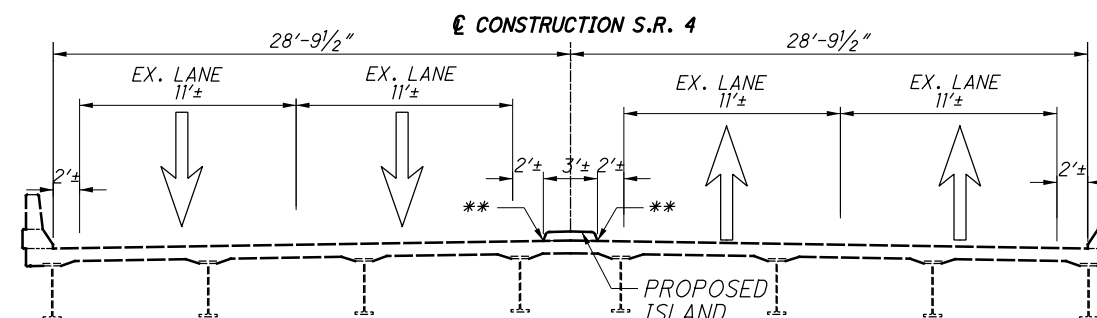
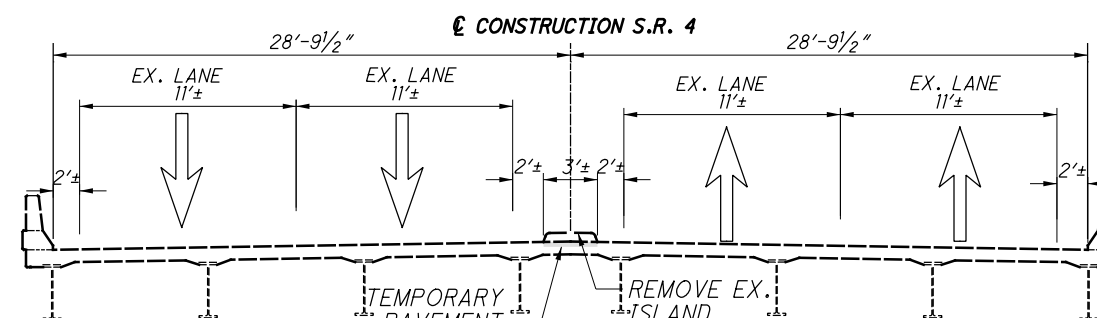
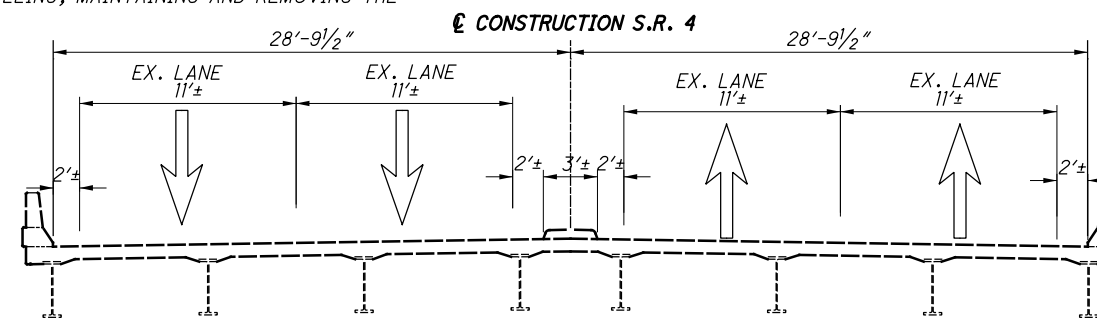
SET UP TRAFFIC CONTROL TO CLOSE SOUTHBOUND BRIDGE LANES AND MAINTAIN TRAFFIC IN EXISTING NORTHBOUND LANES. NORTHBOUND AND SOUTHBOUND TRAFFIC WILL EACH OCCUPY ONE LANE OF THE EXISTING NORTHBOUND BRIDGE LANES.

COMPLETE ALL WORK ON THE EXISTING SOUTHBOUND BRIDGE LANES SIDE OF THE ROAD.

PHASE 2: SET UP TRAFFIC CONTROL TO CLOSE NORTHBOUND BRIDGE LANES AND MAINTAIN TRAFFIC IN EXISTING SOUTHBOUND LANES. NORTHBOUND AND SOUTHBOUND TRAFFIC WILL EACH OCCUPY ONE LANE OF THE EXISTING SOUTHBOUND BRIDGE LANES.

COMPLETE ALL WORK ON THE EXISTING NORTHBOUND BRIDGE LANES SIDE OF THE ROAD.

PHASE 3: REMOVE WORK ZONE PAVEMENT MARKINGS AND RESTORE ORIGINAL PAVEMENT MARKINGS. REMOVE TEMPORARY PAVEMENT AND RESTORE THE CONCRETE MEDIAN BETWEEN STATIONS 1230+73 TO 1233+08.



\*\* SEAL WITH HOT APPLIED JOINT SEALER

**PHASE 3 (NEW PAVEMENT MARKINGS MATCH EXISTING)**

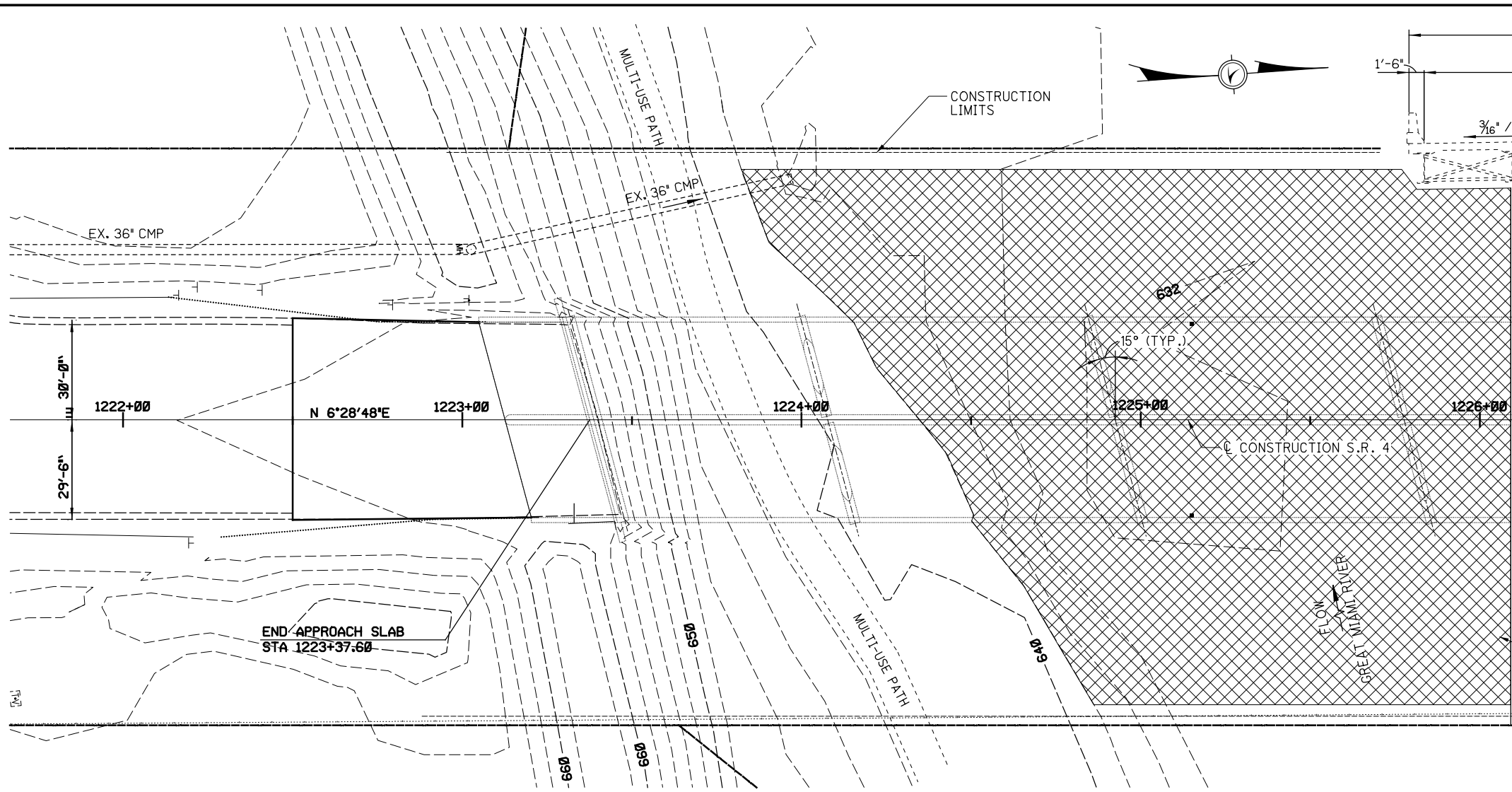
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MDH  
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**MAINTENANCE OF TRAFFIC NOTES**

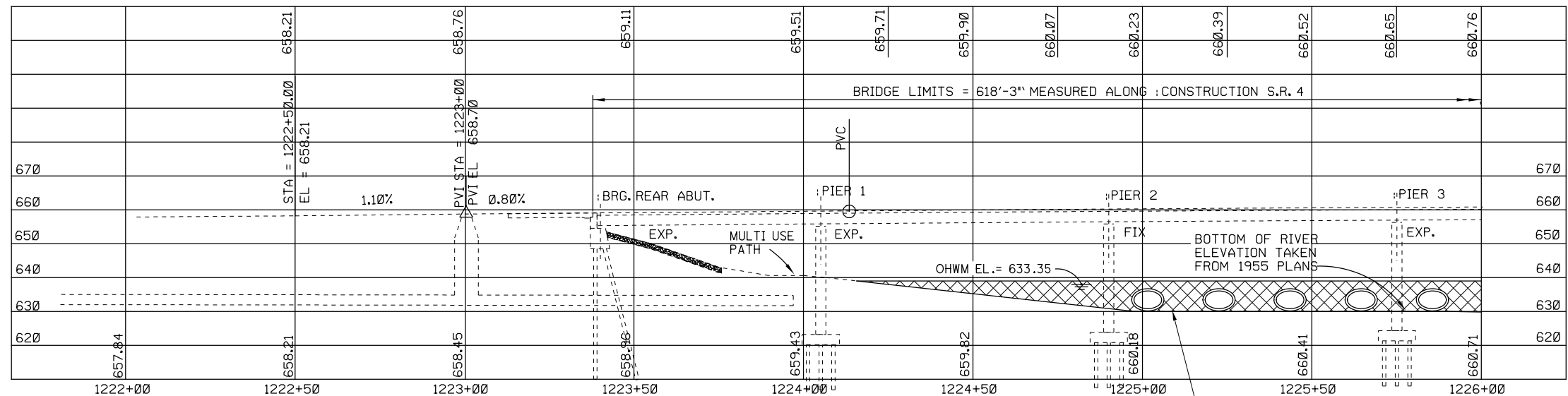
**BUT - SR4 - 23.17**

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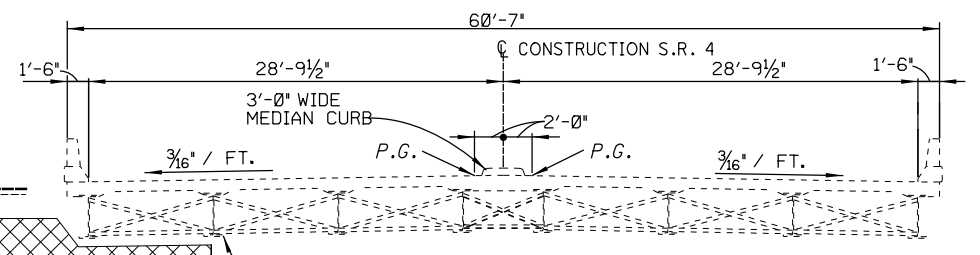


**PLAN**

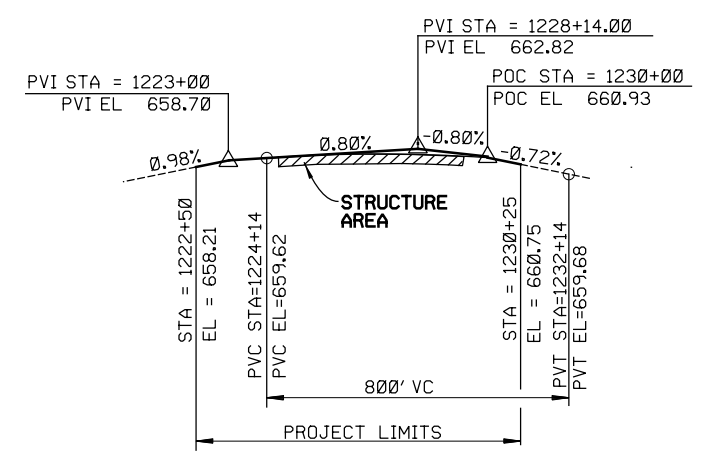
BENCH MARKS	
BM#2 - STA 1220+49, 54' LEFT ; CHISELED SQUARE NORTH CORNER OF CONCRETE TRAFFIC BOX PAD, SW CORNER OF INTERSECTION OF S.R.4 AND CARMODY BLVD. ELEV.=655.73	
BM#3 STA 1229+45, 35.5' L ; CHISELED SQUARE ON NW ABUTMENT WALL OF S.R.4 BRIDGE OVER GREAT MIAMI RIVER. ELEV.=661.47	



**PROFILE ALONG PROFILE GRADE**



**TYPICAL SECTION**



**VERTICAL ALIGNMENT**

**PROPOSED WORK**

PATCH THE DETERIORATED AREAS OF PIERS PER ITEM 519. INSTALL COMPOSITE FIBER WRAP SYSTEM IN AREAS DESIGNATED IN THESE PLANS. REMOVE AND REPLACE BOTH PIER CAPS AND 2 FEET OF PIER STEMS AT PIER 4. REMOVE AND REPLACE EXISTING BEARINGS WITH ELASTOMERIC BEARINGS AT PIER 4 LOCATIONS. PAINT ALL STRUCTURAL STEEL IN SPAN 4 AND SPAN 5 LOCATED WITHIN 4'-0" OF PIER 4. PAINT COLOR TO MATCH EXISTING.

**EXISTING STRUCTURE**

TYPE: 8 SPAN STEEL BEAM BRIDGE WITH COMPOSITE CONCRETE DECK SUPPORTED BY REINFORCED CONCRETE SUBSTRUCTURE.

LENGTH OF SPANS: 68', 85', 85', 68', 68', 85', 85', 68' MEASURED C/C BEARINGS ALONG CONSTRUCTION

ROADWAY WIDTH: 57'-7" F/F BRIDGE RAILING

DESIGN LOADING: HS-20-44 CASE II WITH ALTERNATE MILITARY LOADING

SKEW ANGLE: 15°00'00" RIGHT FORWARD

SUPERELEVATION: NONE, NORMAL CROWN

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLAB: AS-1-81 (25' LONG)

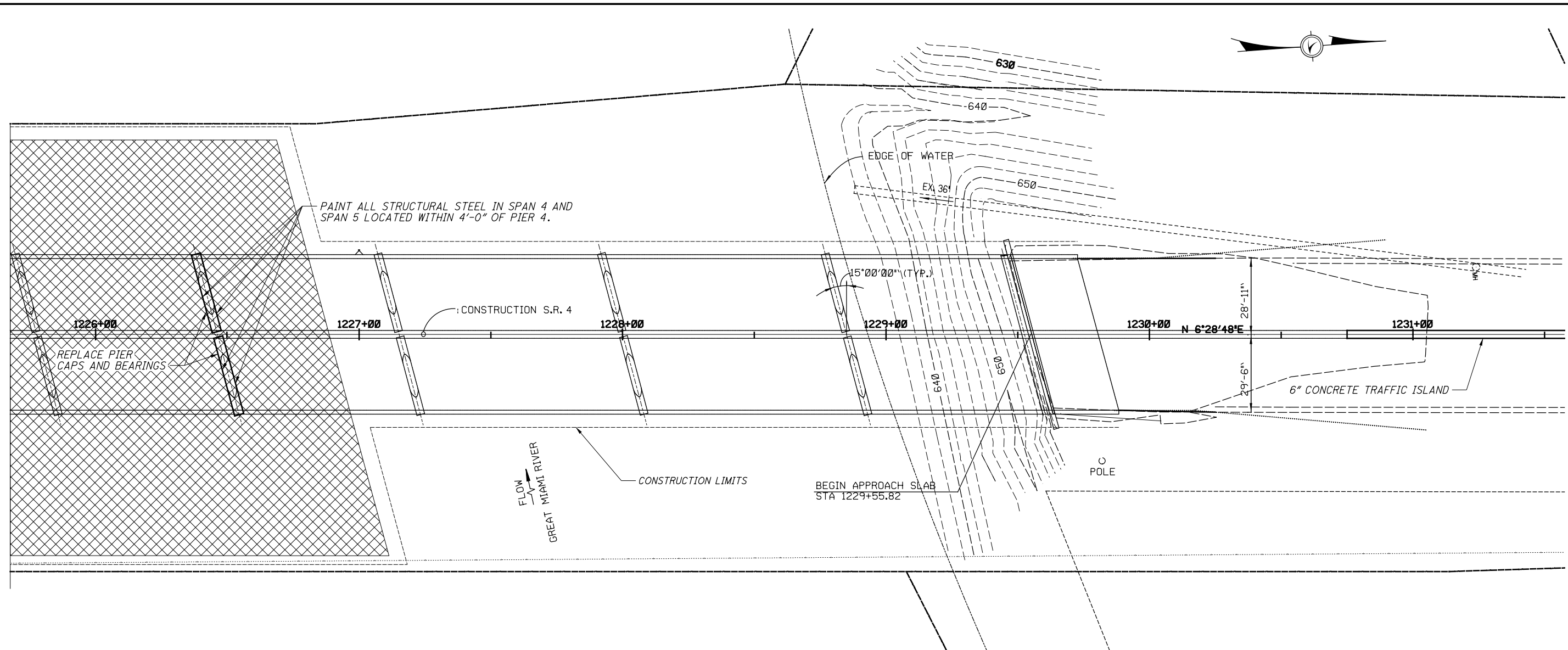
ALIGNMENT: TANGENT

LATITUDE: N 39° 32' 22"

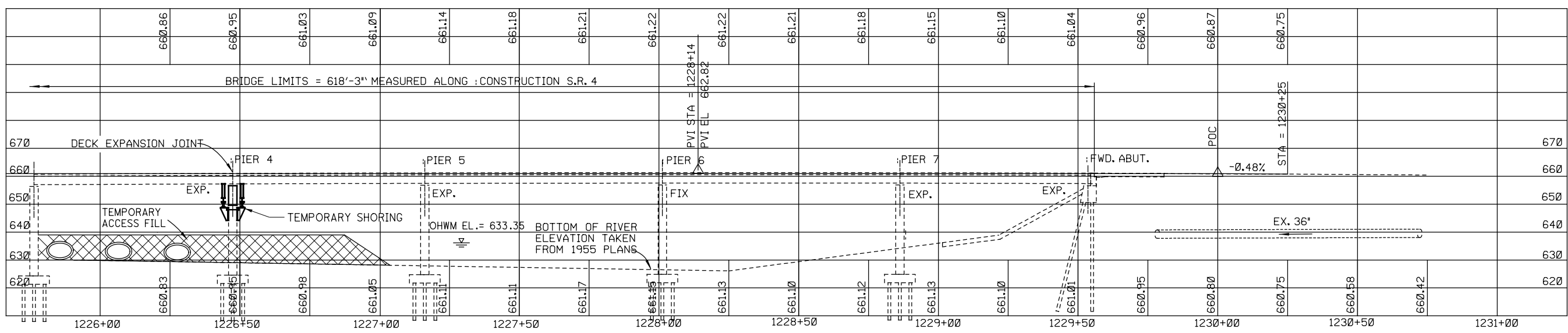
LONGITUDE: W 84° 23' 04"

<b>DESIGN AGENCY</b>	BURGESS & NIPLE 525 VINE ST. CINCINNATI, OHIO
<b>DATE</b>	9/22/21
<b>REVIEWED</b>	MAB
<b>DRAWN</b>	JDG
<b>DESIGNED</b>	BCS
<b>CHECKED</b>	SJA
<b>BUTLER COUNTY</b>	STA. 1223+37.60 STA. 1229+55.52
<b>SITE PLAN - 1</b>	BRIDGE NO. BUT-04-2317 S.R. 4 OVER GREAT MIAMI RIVER
<b>BUT - SR 4 - 23.17</b>	PID No. 102783
1 / 14	8 / 21

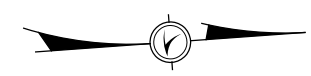
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PLAN



PROFILE ALONG PROFILE GRADE



<b>BUT - SR4-23.17</b>	<b>SITE PLAN - 2</b>	DESIGN AGENCY BURGESS & NIPLE
PID No. 102783	BRIDGE NO. BUT-04-2317 S.R. 4 OVER GREAT MIAMI RIVER	525 VINE ST. CINCINNATI, OHIO
2 / 14	DATE 9/22/21	REVIEWED MAB
9	STRUCTURE FILE NUMBER 0900397	DRAWN JDG
21	CHECKED SJA	REVISOR
	BUTLER COUNTY STA. 1223+37.60 STA. 1229+55.52	

**GENERAL NOTES:**

REFERENCE SHALL BE MADE TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:  
800 SEE PROPOSAL

PROPOSAL NOTES:  
PN519 DATED 7-21-17

DESIGN SPECIFICATIONS

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 OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING INCLUDES:  
VEHICULAR LIVE LOAD: HL-93 - PIER 4 CAP AND BEARINGS  
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT<sup>2</sup>

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

EXISTING STRUCTURE PLANS

THE EXISTING STRUCTURE PLANS ARE AVAILABLE ONLINE THROUGH THE FOLLOWING WEBSITE:  
<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/D08-1027831/Reference%20Files/>

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL PERTINENT EXISTING DRAWINGS AND DETAILS RELEVANT TO THIS PROJECT.

CONSTRUCTION PROCEDURE AND MAINTENANCE OF TRAFFIC

THE PROPOSED BRIDGE WORK SHALL BE COORDINATED WITH OVERALL PROJECT MAINTENANCE OF TRAFFIC PLANS. MAINTAIN M.O.T. DEVICES AS SPECIFIED IN THE M.O.T. PLANS.

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 CMS 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 STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

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

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.

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

REPLACEMENT OF ALL EXISTING REINFORCING 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.

ADDITIONAL QUANTITIES HAVE BEEN PROVIDED FOR DOWEL HOLES, IF NEEDED, TO EMBED THE REPLACEMENT REINFORCING INTO THE EXISTING STRUCTURE. PAYMENT FOR DOWEL HOLES SHALL BE MADE AT THE BID UNIT PRICE FOR ITEM 510 DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

USE AN ANCHOR ADHESIVE EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCTS ARE AVAILABLE AT:

WWW.ICC-ES.ORG/EVALUATION\_REPORTS/INDEX.SHTML

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

DEWALT/POWERS FASTENERS PURE 110 + EPOXY ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-3298)

ADHESIVES TECHNOLOGY CORPORATION (ATC) ULTRABOND HS-ICC ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-4094)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS (ICCES REPORT ESR-4057)

HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-3187)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN SECTION 4.3 OF THE ICCES REPORTS LISTED ABOVE. THE MINIMUM EMBEDMENT DEPTH FOR ANCHORS SHALL BE AS SHOWN IN THE PLANS.

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

PAINT ALL STRUCTURAL STEEL IN SPAN 4 AND SPAN 5 LOCATED WITHIN FOUR FEET OF PIER 4. EXTEND PAINT LIMITS, AS NEEDED TO REPAIR PAINT DAMAGE CAUSED BY THE TEMPORARY BEAM SUPPORT INSTALLATION OR ANY OTHER CONTRACTOR CONSTRUCTION ACTIVITIES. ADDITIONAL REPAIR WORK, AS DESCRIBED ABOVE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT NO ADDITIONAL COST TO THE STATE. THE COLOR OF THE FINISH COAT SHALL MATCH EXISTING STEEL. ALL STEEL SHALL BE PAINTED USING OZEU PER CMS 514.02.

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

THIS WORK CONSISTS OF TEMPORARILY SUPPORTING THE EXISTING STRUCTURES TO COMPLETE THE WORK AT PIER 4 AS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 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 CMS 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.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

ESTIMATED QUANTITIES ARE BASED ON THE MOST RECENT IN-DEPTH INSPECTION OF THE STRUCTURE. AREAS TO BE PATCHED HAVE BEEN DETAILED IN THE PLANS.

IT IS POSSIBLE THAT ADDITIONAL AREAS REQUIRING PATCHING MAY HAVE DEVELOPED SINCE THE MOST RECENT INSPECTION OF THE STRUCTURE. THEREFORE, THE CONTRACTOR SHALL SOUND THE SURROUNDING PERIMETER OF THE AREA TO BE PATCHED AND PATCH NEW AREAS APPROVED BY THE ENGINEER THAT HAVE NOT BEEN DETAILED IN THE PLANS.

MEASUREMENT AND PAYMENT:

THE PLAN QUANTITIES INCLUDE AN INCREASE OF THE FIELD MEASURED QUANTITIES. THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE MEASURED AND PAID BY ITEM 519 - PATCHING CONCRETE STRUCTURE.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CMS 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.

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.

ITEM 530 - SPECIAL-STRUCTURES (TEMPORARY SUPPORT FOR GIRDERS AT PIER 4)

THIS WORK CONSISTS OF DESIGNING AND INSTALLING A TEMPORARY SHORING STRUCTURE AT PIER 4 TO ALLOW THE PIER CAPS AND THE UPPER PORTION OF THE PIER STEM TO BE REMOVED AND REPLACED.

THE GREAT MIAMI RIVER RISES QUICKLY DURING STORM EVENTS. THE TEMPORARY ACCESS FILL (TAF) IS TO BE USED ONLY FOR CONSTRUCTION ACCESS AND EQUIPMENT THAT CAN BE QUICKLY MOVED TO HIGHER GROUND IN THE EVENT OF A FLOOD. NO SHORING TOWERS OR LONG TERM EQUIPMENT SHALL BE PLACED ON THE TAF OR PIER FOOTINGS.

A TEMPORARY BEAM SUPPORT SYSTEM SHALL BE INSTALLED WITH ENOUGH ROOM FOR THE PIER CAP FORMS. THE SUPPORT SYSTEM WILL NOT REST ON THE PIER FOOTINGS OR TAF IN ORDER TO AVOID ANY SNAG POINTS FOR RIVER DEBRIS. CROSS BEAMS THAT SUPPORT THE EXISTING SUPERSTRUCTURE SHALL REST ON SUPPORT BRACKETS THAT ARE THRU BOLTED TO THE EXISTING PIER STEM. COLUMNS BOLTED TO THE CROSS BEAM SHALL SUPPORT EACH BRIDGE BEAM. THRU BOLT HOLES SHALL BE PATCHED/GROUTED FULL DEPTH ONCE WORK IS COMPLETED.

IN ADDITION TO CONSTRUCTION LOADINGS THE TEMPORARY SHORING STRUCTURE SHALL BE DESIGNED FOR DEAD LOAD AND LIVE LOAD FROM ADJACENT MAINTAINED TRAFFIC AS NOTED BELOW:

GIRDER #	DEAD LOAD	LIVE LOAD
1 AND 8	35 KIPS	1 KIP
2, 3, 6 AND 7	38 KIPS	1 KIP
4 AND 5	32 KIPS	12 KIPS

GIVEN LOADS ARE PER BEARING. SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO. SUBMIT CONSTRUCTION PLANS AND DESIGN CALCULATIONS IN ACCORDANCE WITH CMS 501.05.

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 530 - SPECIAL - STRUCTURE (TEMPORARY SUPPORT FOR GIRDERS AT PIER 4).

CONTRACTOR SHOULD BEWARE OF EVIDENCE OF HUMAN HABITATION UNDER THE BRIDGE BUT-04-2317.

ECOLOGICAL STUDIES IDENTIFIED BIRD NESTS ON THE BRIDGE BUT-4-2317 (SFN: 0900397). IF CONSTRUCTION ACTIVITIES WILL OCCUR BETWEEN MAY 1 AND AUGUST 31 ON THIS STRUCTURE, 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 DEPARTMENT 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 DEPARTMENT CONFIRMS THE DEPREDATION PERMIT IS RECEIVED.

ENDANGERED BAT HABITAT REMOVAL

ENSURE IMPACTS TO THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT AND THE STATE LISTED AND PROTECTED LITTLE BROWN BAT AND TRICOLORED BAT ARE AVOIDED AND MINIMIZED. DO NOT REMOVE TREES FROM APRIL 1 THROUGH SEPTEMBER 30. PERFORM ALL NECESSARY TREE REMOVAL FROM OCTOBER 1 THROUGH MARCH 31. DEMARCATÉ CLEARING LIMITS IN THE FIELD TO AVOID ANY UNAUTHORIZED TREE CLEARING. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

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

DUE TO THE RECENT SUPPLY SHORTAGES, THE DEPARTMENT HAS BEEN MADE AWARE OF DIFFICULTIES THAT SUPPLIERS ARE HAVING IN OBTAINING THE NECESSARY MATERIALS FOR EPOXY. ON THIS PROJECT THE CONTRACTOR CAN USE TRADITIONAL EPOXY-URETHANE SEALERS APPROVED ON THE QPL OR ELECT TO SUBSTITUTE BRIDGE COTE XL-70 W/SILANE THAT IS LISTED ON THE APPROVED NOISE SUPPLIER LIST UNDER APPROVED SEALERS FOR NOISE BARRIERS. APPROVEDNOISESUPPLIERSLIST.PDF (OHIO.GOV) . IF BRIDGE COTE XL-70 W/SILANE IS CHOSEN, MEET THE REQUIREMENTS OF THE BRIDGE COTE XL-70 W/SILANE TECHNICAL DATA SHEET WITH THE EXCEPTION OF THE SURFACE PREPARATION THAT WILL STILL FOLLOW THE REQUIREMENTS LISTED UNDER C&M 512 FOR EPOXY URETHANE SEALERS.

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DESIGNED	SJA	CHECKED	BCS
	JDG	REVISED	
DRAWN	MAB	STRUCTURE FILE NUMBER	0900397
REVIEWED	DATE	DESIGN AGENCY	BURGESS & NIPLE
	9/22/21		525 VINE ST. CINCINNATI, OHIO
STRUCTURE GENERAL NOTES - 1			
BRIDGE NO. BUT-04-2317			
SR 4 OVER GREAT MIAMI RIVER			
BUT - SR 4 - 23.17		PID No. 102783	
3 / 14		10 21	

**GENERAL NOTES CONTINUED:**

ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CONSTRUCTION AND MATERIAL SPECIFICATIONS 455.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S) AND EQUIPMENT AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIANS SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TESTS AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR. THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

- UPON APPROVAL OF CONSULTANT ..... 20%
- PROGRESSIVE EQUIVALENT PAYMENTS ..... 50%
- UPON SUBMISSION OF FINAL REPORT ..... 30%

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

DUKE ELECTRIC (DISTRIBUTION)  
2010 DANA AVE  
CINCINNATI, OHIO 45207  
PHONE 513-514-8209 (CHRIS TEPE)  
CHRIS.TEPE@DUKE-ENERGY.COM

DUKE ELECTRIC (TRANSMISSION)  
139 EAST 4TH STREET, ROOM 552A  
CINCINNATI, OHIO 45202  
513-287-1266 (TIM MEYER)  
TIM.MEYER@DUKE-ENERGY.COM

DUKE ENERGY - GAS  
139 EAST 4TH STREET, ROOM 460A  
CINCINNATI, OHIO 45202  
513-287-2517 (MARK BRANSCUM)  
MARK.BRANSCUM@DUKE-ENERGY.COM  
(PLEASE SEND ALL UTILITY PLAN REVIEWS TO THIS ADDRESS:  
OH/KYHOUSEBILL@DUKE-ENERGY.COM)

AT&T OHIO  
7201 FAR HILLS AVENUE  
DAYTON, OHIO 45459  
937-296-3588 (HOWARD LAUDERMILK)  
HL1596@ATT.COM

CITY OF MIDDLETOWN  
ONE DONHAM PLAZA  
MIDDLETOWN, OHIO 45042  
513-425-7845 (SCOTT TADYCH)  
SCOTT@CITYOFMIDDLETOWN.ORG

CHARTER COMMUNICATIONS/SPECTRUM  
10920 KENWOOD ROAD  
BLUE ASH, OHIO 45242  
(SEND ALL PLANS/CORRESPONDENCE TO EMAIL BOX FOR DISTRIBUTION:  
DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM)

METROPOLITAN COMMUNICATIONS GROUP (MCG)  
155 COMMERCE PARK DRIVE, SUITE #1  
WESTERVILLE, OHIO 43082  
614-392-2873 (CHAD HARKNESS)  
CHAD.HARKNESS@MCGFIBER.COM  
(PLEASE SEND PLANS TO CHAD AND PAT SUTTON FOR REVIEW:  
PS4364@ATT.COM)

CCSI NETWORKS, LLC  
2649 GARDNER ROAD  
BROADVIEW, ILLINOIS 60155  
713-830-7437 (TIM LAPOINTE)  
TL0695@ATT.COM

BRENDA L. RUSSELL  
UTILITY RELOCATION TECH 2  
ODOT OFFICE OF REAL ESTATE, UTILITIES DIVISION  
505 S. STATE ROUTE 741, LEBANON, OHIO 45036  
513.933.6626  
TRANSPORTATION.OHIO.GOV

AIRWAY/HIGHWAY CLEARANCE FOR PUBLIC AIRPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT WHICH IS LISTED IN THE TABLE BELOW. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 15 FEET.

POTENTIALLY IMPACTED AIRPORTS	AIRPORT ELEVATION "A"	PROJECT ELEVATION "B" + 25 FEET (CONTROLLING CRITERIA)	DISTANCE BETWEEN AIRPORT AND PROJECT "C"	NOTIFICATION SLOPE X:1	USE TYPE	AMOUNT OF CLEARANCE ABOVE NOTIFICATION SLOPE "2"
MIDDLETOWN REGIONAL AIRPORT	650 FT	661+20 = 681 FT	1,573 FT	100:1	PUBLIC	-15.3 FT

IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THESE HEIGHTS, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A NEW FAA FORM 7460-1, ADVISING THE FAA THAT AERONAUTICAL STUDY NUMBER 2022-AGL-13626-OE IS BEING RESUBMITTED AND THAT AN ALTERATION TO THE ORIGINAL SUBMISSION IS REQUESTED. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER. FAA APPROVAL MAY TAKE UP TO 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THE FOLLOWING OFFICES.

IT IS REQUIRED THAT THE MANAGER OF THE MIDDLETOWN RGNL/HOOK FLD, (513) 705-1608 BE NOTIFIED AT LEAST 3 BUSINESS DAYS PRIOR TO THE TEMPORARY STRUCTURE BEING ERECTED AND AGAIN WHEN THE STRUCTURE IS REMOVED FROM THE SITE.

FAA CONTACT INFORMATION	ODOT OFFICE OF AVIATION CONTACT INFORMATION
FEDERAL AVIATION ADMINISTRATION SOUTHWEST REGIONAL OFFICE OBSTRUCTION EVALUATION GROUP 10101 HILLWOOD PARKWAY FORT WORTH, TX 76177 FAX: (817) 222-5920 HTTP://CEAAA.FAA.GOV	OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF AVIATION 2829 WEST DUBLIN-GRANVILLE ROAD COLUMBUS, OHIO 43235 (614)-387-2346

DRINKING WATER RESOURCES

THIS PROJECT IS LOCATED WITHIN THE DRINKING WATER RESOURCES THE GREAT MIAMI SOLE SOURCE AQUIFER AND CITY OF MIDDLETOWN WELL 0018 500-YARD BUFFER. USE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. DO NOT STORE FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. MAINTAIN A SPILL KIT ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY.

REPORT ALL SPILLS OR EVENTS TO THE CITY OF MIDDLETOWN WATER TREATMENT PLANT (513) 727-5320. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), CONTACT THE MADISON TOWNSHIP FIRE DEPARTMENT STATION 152 (513) 424-3384, THE MONROE FIRE DEPARTMENT STATION 62 (513) 539-8380 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

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**STRUCTURE GENERAL NOTES - 2**  
 DESIGN AGENCY: BURGESS & NIPLÉ  
 525 VINE ST. CINCINNATI, OHIO  
 DATE: 9/22/21  
 REVIEWED: MAB  
 STRUCTURE FILE NUMBER: 0900397  
 DRAWN: JDG  
 CHECKED: BCS  
 BUT - SR 4 - 23.17  
 BRIDGE NO. BUT-04-2317  
 SR 4 OVER GREAT MIAMI RIVER  
 PID No. 102783  
 4 / 14  
 11 / 21



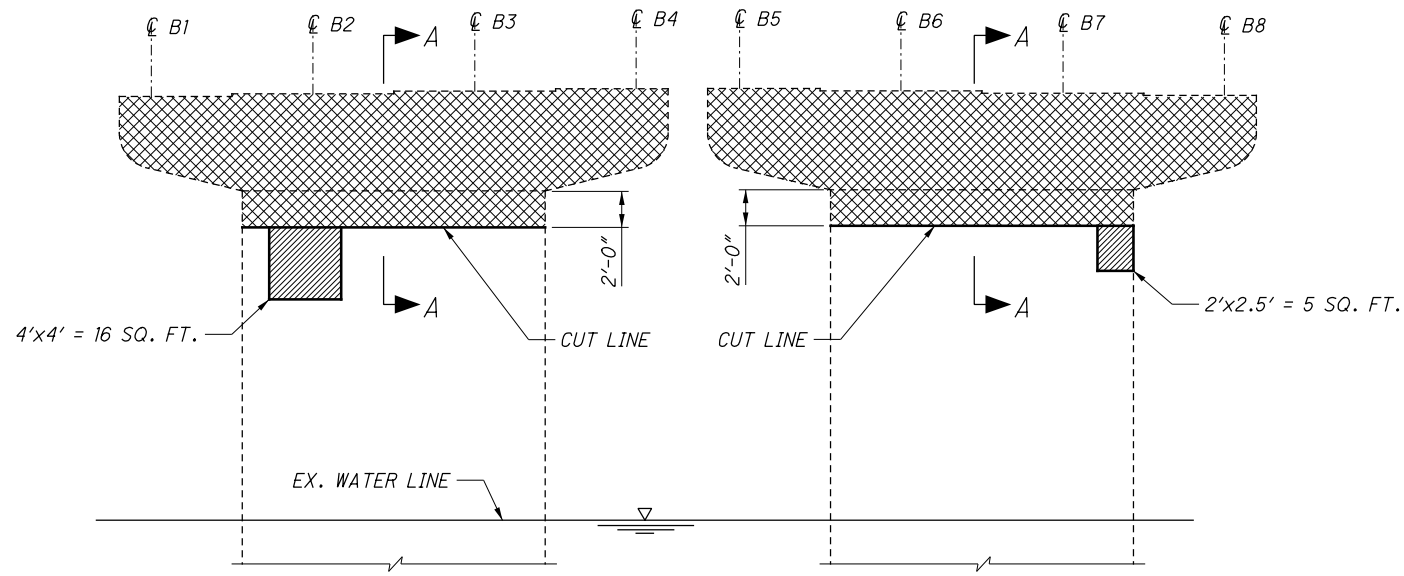
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ESTIMATED BRIDGE QUANTITIES										CALC.	DATE	CHK'D	DATE	
ITEM	ITEM EXT.	PART. 01/NH/13	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GENERAL	SHT. REF.	SJA	9/12/21	MAB	3/1/22
202	11203	LS	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN									3/14
509	10000	4920	4920	LB	EPOXY COATED REINFORCING STEEL		4920							
509	20001	100	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN		100							3/14
510	10001	20	20	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN		20							3/14
511	42510	54	54	CY	CLASS QC1 CONCRETE, PIER CAP		54							
512	10101	133	133	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN		133							
512	10600	48	48	FT	CONCRETE REPAIR BY EPOXY INJECTION		48							
512	71500	4	4	SY	SPECIAL - URETHANE TOP COAT SEALER		4							
514	00050	1122	1122	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			1122						
514	00056	1122	1122	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			1122						
514	00060	1122	1122	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT			1122						
514	00067	1122	1122	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			1122						3/14
514	00504	2	2	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			2						
514	10000	1	1	EACH	FINAL INSPECTION REPAIR			1						
516	44201	16	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x1'-1"x3/4" WITH 11"x1'-5 1/2" BEVELED LOAD PLATE AND 11"x2'-8"x1 1/2" MASONRY PLATE)		16							12/14
516	47001	LS	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN									3/14
519	00100	36	36	SF	SPECIAL - COMPOSITE FIBER WRAP SYSTEM (SEE PROPOSAL NOTE 519)		36							
519	11101	236	236	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		236							3/14
530	00200	LS	LS		SPECIAL - STRUCTURE (TEMPORARY SUPPORT FOR GIRDERS AT PIER 4)		LS							3/14
530	00200	LS	LS		SPECIAL - STRUCTURE (CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION)		LS							4/14
530	00200	LS	LS		SPECIAL - STRUCTURE, MISC.: TEMPORARY CONSTRUCTION SITE ACCESS				LS					5/14

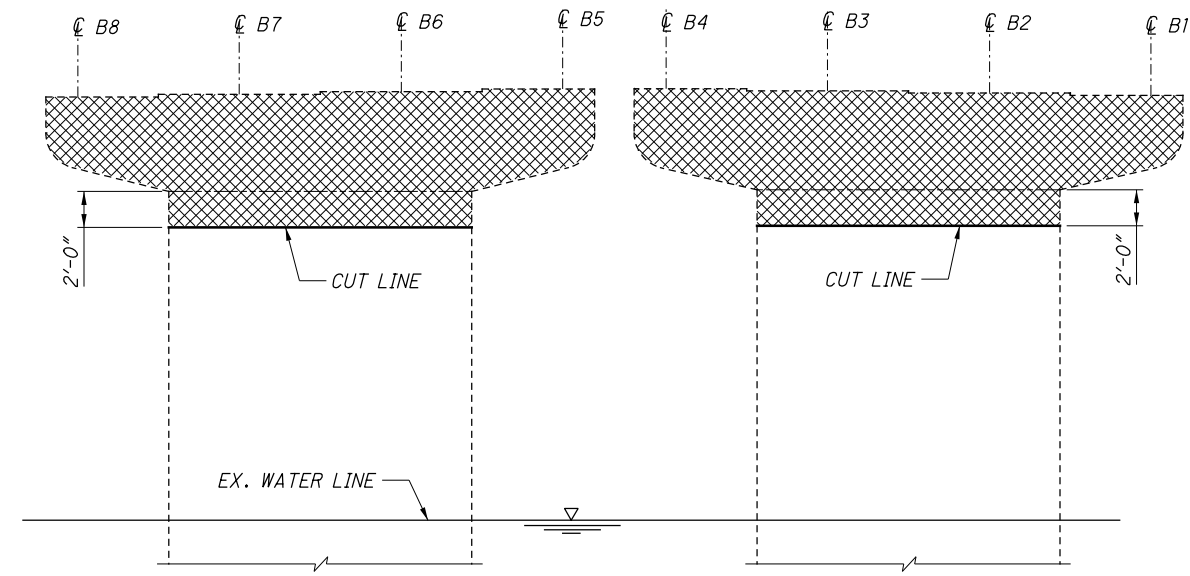
DESIGNED BCS CHECKED SJA	DRAWN JDG REVISED	REVIEWED MAB STRUCTURE FILE NUMBER 0900397	DATE 9/22/21	DESIGN AGENCY BURGESS & NIPLÉ 525 VINE ST. CINCINNATI, OHIO
ESTIMATED QUANTITIES				BRIDGE NO. BUT-04-2317
BUT - SR 4 - 23.17				SR 4 OVER GREAT MIAMI RIVER
PID No. 102783				
6 / 14				
13				
21				



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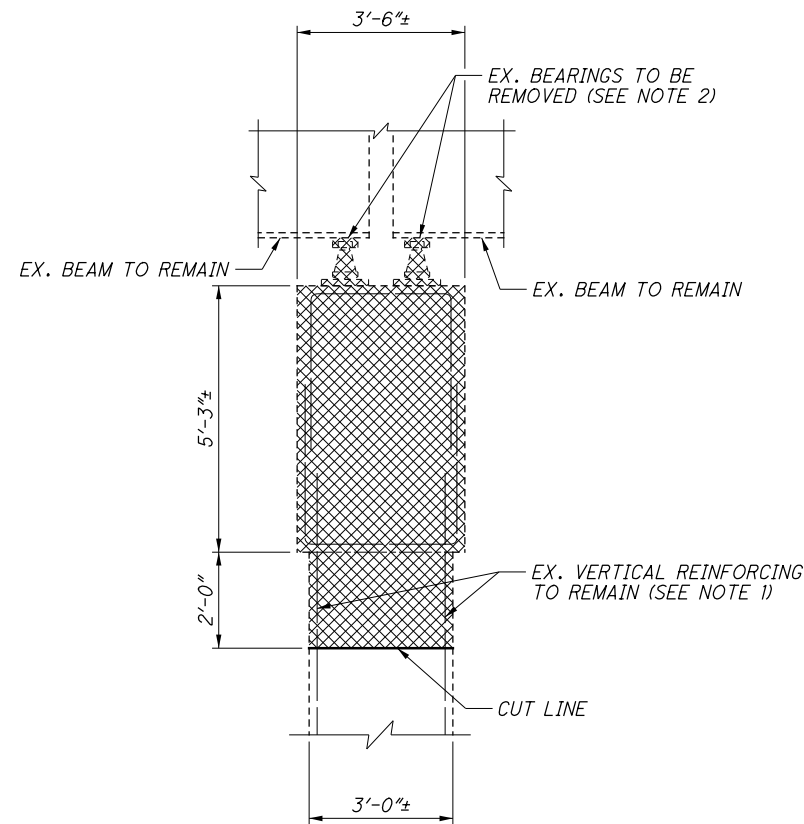
**PIER 4 ELEVATION**  
(SOUTH FACE LOOKING NORTH)



**PIER 4 ELEVATION**  
(NORTH FACE LOOKING SOUTH)

SUMMARY OF REPAIR QUANTITIES		
REPAIR TYPE	* FIELD MEASURED QUANTITY	** PLAN QUANTITY
ITEM 519 PATCHING	21 SF	32 SF

\* FROM FIELD INSPECTION CONDUCTED JUNE 2021  
 \*\* PLAN QUANTITIES HAVE BEEN INCREASED BY 50% FOR ADDITIONAL DETERIORATION



**SECTION A-A**

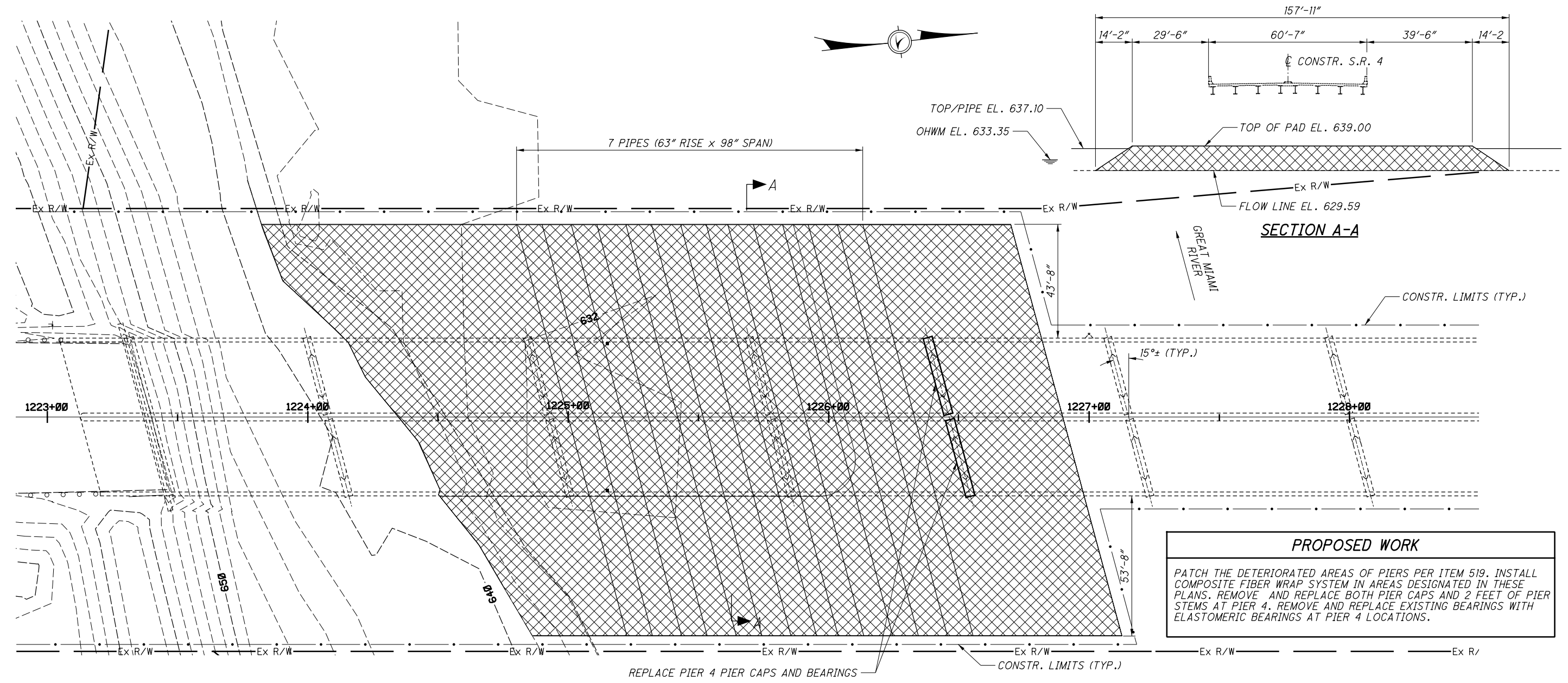
**LEGEND:**

- LIMITS OF PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN
- LIMITS OF REMOVAL PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

**NOTES:**

1. EXISTING VERTICAL REINFORCING SHALL REMAIN. EXISTING REINFORCING SHALL BE CLEANED AND PRESERVED WITHOUT DAMAGE TO THE SATISFACTION OF THE ENGINEER. DAMAGED REINFORCING SHALL BE REPLACED WITH #5 DOWEL BARS THAT ARE DOWELED 9" INTO THE EXISTING PIER STEM CONCRETE AS DIRECTED BY THE ENGINEER.
2. ALL LABOR AND MATERIALS REQUIRED TO REMOVE EXISTING BEARINGS AND GRIND SMOOTH EXISTING WELDS SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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**PROPOSED WORK**

PATCH THE DETERIORATED AREAS OF PIERS PER ITEM 519. INSTALL COMPOSITE FIBER WRAP SYSTEM IN AREAS DESIGNATED IN THESE PLANS. REMOVE AND REPLACE BOTH PIER CAPS AND 2 FEET OF PIER STEMS AT PIER 4. REMOVE AND REPLACE EXISTING BEARINGS WITH ELASTOMERIC BEARINGS AT PIER 4 LOCATIONS.

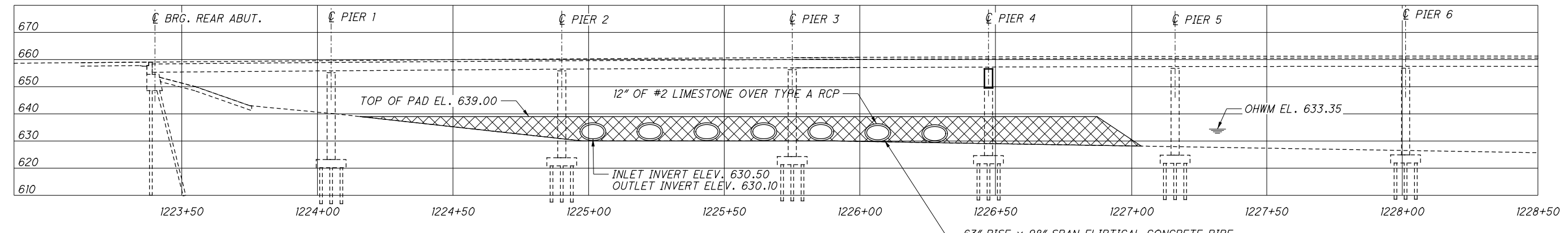
**PLAN**

**HYDRAULIC DATA**

1. THE TEMPORARY ACCESS FILL SHALL BE DESIGNED TO MAINTAIN A FLOW EQUAL TO TWO TIMES THE HIGHEST AVERAGE MONTHLY FLOW (i.e. THE LARGEST OF Q1, Q2, Q3, ... Q12), AS REPORTED BY THE USGS WEB BASED APPLICATION STREAM STATS (SEE BDM SECTION 201.3.2) SUCH THAT NO RISE IN BACKWATER ABOVE THE OHWM IS PERMITTED.
2. ANY DEVIATION WILL REQUIRE HYDRAULIC ANALYSIS USING THE MCD MODEL. APPROVAL FROM MCD COULD TAKE A COUPLE OF MONTHS.

**LEGEND**

- = TEMPORARY ACCESS FILL
- OHWM = ORDINARY HIGH WATER MARK



**PROFILE ALONG C CONSTRUCTION S.R. 4**

DESIGN AGENCY	BURGESS & NIPLE
DATE	9/22/21
REVIEWED	MAB
DRAWN	JDG
DESIGNED	XAC
CHECKED	JB
STRUCTURE FILE NUMBER	0900397
525 VINE ST. CINCINNATI, OHIO	
<b>TEMPORARY ACCESS FILL DETAILS</b>	
BRIDGE NO. BUT-04-2317	
SR 4 OVER GREAT MIAMI RIVER	
<b>BUT-SR4-23.17</b>	PID No. 102783
13 / 14	20 / 21



**US Army Corps of Engineers  
Huntington District**

Permit Number: 2024-00184-GMR

Name of Permittee: Ohio Department of Transportation

Date of Issuance: March 6, 2024

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers - Huntington District  
Building 10/ Section 10  
PO Box 3990  
Columbus, OH 43218-3990

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date