ATHENS COUNTY ENGINEER'S OFFICE

2023

ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT

PID NO. 117461 ATHENS COUNTY, OHIO

BID NOTICE
SPECIFICATIONS
PROPOSAL
CONTRACT

ATHENS COUNTY ENGINEER:
Jeff Maiden, P.E., P.S.

ATHENS COUNTY COMMISSIONERS:
Lenny Eliason
Chris Chmiel
Charles Adkins

ATHENS COUNTY AUDITOR: Jill A. Thompson

BID OPENING: 10:00 am, Tuesday, June 13, 2023

LOCATION: ATHENS COUNTY COMMISSIONER'S OFFICE

15 S. COURT STREET, ATHENS OHIO 45701

DBE GOAL: 9%

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NOTICE TO BIDDERS

Sealed bids for the ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS will be received by the Board of County Commissioners of Athens County, Ohio, at their office, 15 S. Court Street, Athens Ohio until 10:00 a.m., Prevailing Local Time on the 13th day of June, 2023 and at that time and place will be publicly opened and read aloud. All bids will be considered valid until 60 days after the opening date, although not accepted or rejected.

The work for which design build proposals are invited consists of the replacement a single span bridge at TR83-1.40 (Jeffers Rd) and a single span bridge at TR471-0.01 (Allison Rd), including reconstruction of approach roadways, and other miscellaneous items associated with the ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT. The Engineer's Estimate of Cost for the project is \$1,050,000.00. The bidder must hold a current prequalification with the Ohio Department of Transportation for the appropriate items of work, and must maintain such prequalification during the course of the contract.

Copies of the Construction Plans, Bidding Forms, and Specifications on the Unit Price Contract may be purchased from the Office of the Athens County Engineer, 16000 Canaanville Rd, Athens, Ohio 45701 during regular business hours (7:00 a.m. to 3:30 p.m. Monday through Friday). A non-refundable fee of \$30.00 will be charged for copies mailed or picked up by prospective bidders.

Legal notice and bid documents are also posted on the internet at www.athenscountyengineer.org under the "Bids/RFPs" heading.

Each bid shall contain the full name and address of each person or company interested in the same and

Each bid shall contain the full name and address of each person or company interested in the same and must be accompanied by either a bid bend in the amount of 100 percent (100%) of the bid amount with a surety satisfactory to Athens County and The Okto Department of Transportation (ODOT), or by certified check, cashier's check, on a letter of credit apon a solvent bank in the amount of not less than ten percent (10%) of the bid amount in favor of the aforesaid County and ODOT, conditioned that if the bid is accepted, a contract will be entered into within ten (10) days after notice of acceptance. Bid Bonds shall be accompanied by Proof of Authority of the official or agent signing the bond. A performance bond of one hundred percent (100%) of the amount of the contract with a satisfactory surety company, conditioned according to law, will be required for the faithful performance of the contract.

The bidder will be required to describe in full detail as to their experience in this class of work, and bids from contractors inexperienced in this particular type of work will not be considered. Bidders must comply with the Federal Davis-Bacon Wages. The work shall commence upon written notice of award by Athens County. The owner intends and requires that this project be completed no later than October 31, 2024.

The Board of County Commissioners of Athens County, Ohio reserves the right to reject any and/or all bids and to waive informalities as may be in the best interest of Athens County.

Jeff Maiden, P.E., P.S. Athens County Engineer

Advertising dates: 5/20/23, 5/27/23

INFORMATION TO BIDDERS

Each BID must be submitted in a sealed envelope, addressed to the Board of County Commissioners of Athens County, Ohio, at their office, 15 S. Court Street, Athens Ohio 45701. Each sealed envelope containing a BID must be plainly marked on the outside as **BID FOR ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS** and the envelope should bear on the outside the BIDDER's name, address, and license number, if applicable. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER.

All BIDS must be made on the BID form contained herein and must be submitted bound in the contract documents book. If the BID for work embraces both labor and material, the BIDDER's proposal shall separately state the price for labor and for material. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required. All other bid documents herein shall be properly completed on the appropriate forms contained herein and also must be submitted bound in the contract documents book.

The BIDDER is specifically advised that any person or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the OWNER. Approval of the proposed subcontractor will not be given until the required certifications and/or other evidence showing that they have fully complied with any reporting requirements to which they are or were subject have been submitted. The BIDDER is not required to submit such certifications by proposed subcontractors with the BID. The BIDDER is hereby advised of this requirement so that appropriate action can be taken to prevent subsequent delay in contract award.

Each BIDDER is required to state in his BID, his name and place of business and the names of all persons interested with him. In case of a corporation, the names of other than the president and secretary need not be given. Reference shall be furnished to establish the skill and business standing of the BIDDER.

The quantities listed in the BID are to be considered as approximate and are to be used only for the comparison of the BIDS and as basis for computing amounts of security or penal sums of BONDS to be furnished. The unit prices to be tendered by the BIDDERS are to be tendered expressly for the scheduled quantities as they may be increased or decreased. Payments, except for lump sum CONTRACTS, and except for lump sum items in unit price CONTRACTS, will be made to the CONTRACTOR for the actual quantities only of work performed or materials furnished in accordance with the drawings and specifications, and it is understood that the scheduled quantities of work to be performed and materials to be furnished may each be increased or decreased without in any way invalidating the unit BID prices.

If any person contemplating submitting a BID for the proposed CONTRACT is in doubt as to the true meaning of any part of the drawings, specifications, or other proposed contract documents, he may submit to the ENGINEER written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by ADDENDUM duly issued and a copy of such ADDENDUM will be mailed or delivered to each person receiving a set of such documents. The awarding authority will not be responsible for any other explanations or interpretations of the proposed documents.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above-scheduled time for the opening of BIDS or authorized postponement thereof Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS may modify their BID by telegraphic communication at any time prior to the scheduled time of BID opening, provided such telegraphic communication is received by the OWNER prior to said time, and provided further, the OWNER is satisfied that a written confirmation of the telegraphic modification bearing the signature of the BIDDER was mailed prior to the time of BID opening. The telegraphic communication shall not reveal the BID PRICE but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the OWNER until the sealed BID is opened. If written confirmation is not received within forty-eight hours after the time of BID opening, the telegraphic communication will not be considered.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the bid schedule by a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a bid guaranty in the form of a bond, a certified check, a cashier's check or a letter of credit in accordance with Section 153.54 of the Ohio Revised Code and payable to the OWNER. A bond provided for bid guaranty shall to made on the form entitled BID GUARANTY AND CONTRACT BOND. A certified check, cashier's check, or letter of credit provided for bid guaranty shall be in the amount of 10 percent of the BID and shall be attached to the form entitled BID GUARANTY and said form shall be fully completed. Bid guaranties will be returned to all unsuccessful bidders immediately after the CONTRACT is executed and to the successful bidder, who has provided a bid guaranty other than a bond, immediately after filing an acceptable CONTRACT BOND.

BONDS shall be made with Athens County, Ohio and The Ohio Department of Transportation (ODOT) as obligees.

Attorneys-in-fact who sign BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the CONTRACT is awarded and who has submitted bid guaranty in the form of a bond will be required to execute the Contract within ten calendar days from the date when NOTICE OF AWARD is delivered to the bidder. The party to whom the CONTRACT is awarded and who has submitted bid guaranty in form other than a bond will be required to execute the Contract and provide a Contract Bond in the amount of 100 percent of the contract within ten calendar days from the date when NOTICE OF AWARD is delivered to the Bidder. The NOTICE OF AWARD shall be accompanied by the necessary Contract and Bond forms. In case of failure of the BIDDER to execute the Contract and Bond forms and return said documents within the prescribed time, the OWNER may at his option consider the BIDDER in default and take possession of the Bid Guaranty provided and in accordance therewith.

The OWNER, within ten (10) days of receipt of acceptable Contract and Contract BOND, signed by the party to whom the CONTRACT was awarded, shall sign the Contract and return to such party an executed duplicate of the Contract. Should the OWNER not execute the Contract within such period, the BIDDER may by written notice withdraw the signed Contract. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Contract by the OWNER- Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the 10-day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER teserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Contract and to complete the WORK contemplated therein.

Attention of the BIDDER is particularly caped to those parts of the contract documents which deal with the following:

- a. Federal Wage Rates
- b. Time for completion and liquidated damage requirements
- c. Contract Bond requirements
- d. Subcontractor's requirements
- e. Equal Employment Opportunity Provisions
- f. Federal Labor Standards Provisions
- g. Permit requirements
- h. Safety standards
- i. Insurance requirements

After award of contract but prior to execution of Agreement and Notice to Proceed the CONTRACTOR shall submit the following documents:

- a. Acceptance of Notice of Award
- b. Properly completed agreement documents (including Subcontractor's certifications)
- c. Insurance documents

The definition of a Foreign Corporation for these specifications shall be as follows: "Foreign corporation" means a corporation incorporated under the laws of another state. No contract shall be entered into with a foreign corporation until the Secretary of State has certified that such corporation is authorized to do business in Ohio; and until, if the BIDDER has filed with the Secretary of State a Power of Attorney designating the Secretary of State as its agent for the purpose of accepting service of summons in any action brought under Section 153.05 of the Ohio Revised Code or under Sections 4123.01 to 4123.94, inclusive, of the Ohio Revised Code.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest and best BIDDER for each contract.

Materials to be incorporated in this work may be purchased by the CONTRACTOR free of Ohio State Sales Tax.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The father or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the qual opportunity clause.

The low BIDDER must supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

The ENGINEER for this project is The Athens County Engineer
The ENGINEER's address is 16000 Canaanville Road, Athens, Ohio 45701.

The ENGINEER's phone number is 740-593-5514 (7am to 3:30pm).

ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT

ATHENS COUNTY, OHIO

SECTION II

SECTION II

ORIGINAL SCOPE OF Services

ORIGINAL COUNTY

Athers

ODOT - LPA LOCAL LET

DESIGN BUILD

SCOPE OF SERVICES

PID:	117461	Federal Project	E220617/	C-R-S:	ATH-TR83/TR471-1.40/0.0
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Number: E230232

County: Athens Route: TR83 Section: 1.40

County: Athens Route: TR471 Section: 0.01

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1 PROJECT IDENTIFICATION & GENERAL INFORMATION

The LPA Design Build Scope of Service is for the Athens County Engineer hereinafter called "LPA"

Table 1-1: Project Identification

PID	117461
Federal Project Number	E220617/E230232
County-Route-Section	ATH-TR83/TR471-1.40/0.01
Local Route Name (if applicable)	Jeffers Rd (TR83) and Allison Rd (TR471)
Highway Functional Classification & Federal Aid System	Local Roads - Rural

& Federal Ald System		X	
1.1 Design Designation The DBT shall use the design designations for each of the Cacillities below various design elements as specified within the Scope of Services. Table 1-2: Design Designation TR471			
Location:	TR87C	TR471	
Current ADT:	<407 (2022)	<400 (2022)	
Design Year ADT:	<400 (2042)	<400 (2042)	
Design Hourly Volume:	Not available	Not available	
Directional Distribution:	50%	50%	
Trucks:	Not available	Not available	
Design Speed*:	25 MPH	25 MPH	
Legal Speed:	55 MPH/Not Posted	55 MPH/Not Posted	
Design Functional Classification:	Local Road - Rural	Local Road - Rural	
NHS Project:	No	No	

^{*} Also called the Estimated Operating Speed in the AASHTO Guidelines for Geometric Design of Very Low-Volume Roads (ADT≤400)

1.2 Existing Plans and Project Information

Available information related to the Project is available in the Document Inventory shown in Table 1-3. The Document Inventory will identify whether the document is designated as "Reference Documents" or "Contractual Appendices".

Reference Documents appendices are provided for informational purposes only. The LPA makes no representation or warranty as to the accuracy, adequacy, applicability, or completeness of the Reference Documents. Except to the extent set forth to the contrary in the Contract Documents, reliance upon the Reference Documents shall be at the Proposer's risk, and the LPA shall have no liability or obligation as a result of the inaccuracy, inadequacy, inapplicability, or incompleteness of the Reference Documents, regardless of the contents thereof.

Contractual Appendices in the Document Inventory are considered binding obligations of the DBT. The DBT shall meet requirements identified in the Contractual Appendices and shall implement the Work in accordance with these requirements.

The Offerors (i.e. prospective Design-Build Teams) shall examine the information provided in the Document Inventory to determine if the information accurately depicts existing field conditions.

No existing plans are known to exist for either of the bridges.

Appendices to the Scope of Services are listed in the Document Inventory.

Table 1-3: Document Inventory

Appendix #	Appendix (Title	Contractual/Reference Designation
Α	Location Maps	Reference Document
В	Current bridge inventory and inspection reports	Reference Document
С	Preliminary Plans	Reference Document
D	Preminary Subsurface Exploration	Reference Document
E	Environmental Document	Contractual Appendix
F	Existing Bridge Photos	Reference Document
G	Asbestos Letters and 10-day Notification Forms	Contractual Appendix
Н	Abutment Details	Reference Document

1.3 Railroad Coordination

Not Applicable

1.4 Airway/Highway Clearance

Not Applicable

2 PRE-BID MEETING

The LPA has determined that a pre-bid meeting will not be offered for the Project.

3 CONTRACTOR PRE-QUALIFICATION

It is required that the Bidder be a Contractor prequalified in accordance with Section 102.01 of PN 126. The Contractor identified in the Proposal must be organized for all Work Type Codes included in the Proposal.

The Bidder is also required to have engaged the services of an QDOT pre-qualified Consultant (Designer) in accordance with Section 4 of the Scope of Services to constitute the DBT.

If the Contractor, Designer, and/or the Ob-consultant(s) submitted do not meet all the required qualifications, the LPA may reject the oid.

4 DESIGNER

Each Offeror shall name the Designer and all design sub-consultant(s) on the "Subcontractors List" (Page 14) in Section II of these Bid Specifications and submitted with all pages of Section III at the time of the Bid

Each Offeror must list relevant prequalification categories for the Designer and each design sub-consultants to show that the prequalification requirements listed below are satisfied. All consultant names and addresses must be the same as that on file with ODOT as found on the following listing:

http://www.dot.state.oh.us/Divisions/Engineering/Consultant/Consultant/prequalengineering.pdf

The Designer or sub-consultants of the Designer must be prequalified to perform design work associated with the following prequalification categories:

Non-Complex Roadway Design Level 1 Bridge Design Geotechnical Engineering Services Geotechnical Testing Laboratory* Geotechnical Field Exploration Services* Geotechnical Inspection Services*

*Only necessary if additional exploration is performed.

In accordance with Section 104.011 of ODOT PN 126, design services that require prequalification may only be performed by firms that are prequalified for those services at the time of performance of the services.

5 SCOPE OF WORK

Project Description:	Remove entire existing bridges and replace with new bridges (superstructures, substructures, and any necessary wingwalls). Replace all existing bridge rail/guardrail and replace and/or widen and resurface approach pavement as required in these scoping/bidding documents.	
Completion Date:	October 31, 2024	
Warranties:	None	

The approximate Project Limits for each applicable roadway are provided in Table 5-1.

Table 5-1: Approximate Project Limits

Roadway Name Segin	End
ATH-TR83-1.40 (Jeffers Road) 0+4	2+35
ATH-TR471-0.01 (Allison Road) 6 0+41	1+65

Work Limits shall be determined by the DBT.

The Consultant shall provide for the engineering services, design, and preparation of detail construction plans for the construction of the proposed project.

The Contractor shall provide for the furnishing of materials, construction and completion in every detail of all the work described in the Contract Documents to fulfill the intent of the Contract.

The Contractor will perform the work according to Proposal Note 129 and the Window Contract Table below.

Description of Work	Calendar Days to Complete
Complete closure of TR 83, Jeffers Road, for the complete removal and replacement of structure ATH-TR83-1.40 with all safety items installed and functional	90 days
Note: TR 471, Allison Road, must remain open to traffic during construction.	

6 FIELD OFFICE

A field office is not required for this project.

7 GENERAL PROVISIONS FOR THE WORK

7.1 Governing Regulations

All services, including but not limited to survey, design and construction work, performed by the DBT and all subcontractors (including subconsultants), stall be in compliance with all LPA and ODOT applicable Manuals and Guidelines.

It will be the responsibility of the DBT to acquire and utilize the necessary LPA and ODOT manuals that apply to the design and construction work required to complete this project.

The current edition, including updates released on or before the date of original advertisement, of the following LPA and ODON Manuals and Guidelines shall be met or exceeded in the performance of the design and construction work required to complete this project:

Bridge Design Manual

Location and Design Manuals

Volume One - Roadway Design

Volume Two - Drainage Design

Volume Three - Plan Preparation

Pavement Design & Rehabilitation Manual

Specifications for Geotechnical Explorations

Survey Manual

Construction and Material Specifications

Proposal Notes for Construction and Material Specifications

Supplemental Specifications for Construction and Material Specifications

Item Master

Manual for Abandoned Underground Mines - Inventory and Risk Assessment

Pavement Design and Rehabilitation Manual

State Highway Access Management Manual

Standard Construction Drawings

Plan Insert Sheets

Traffic Engineering Manual

Ohio Manual of Uniform Traffic Control Devices

Real Estate Administration Policies and Procedures Manual:

Appraisal

Acquisition Property Management

Relocation

ROW Plans

Utilities

Wireless Communication Tower Manual

Environmental Services Handbooks and Guidelines

Waterway Permit Manual

Design Mapping Specifications

CADD Engineering Standards Manual

Geotechnical Bulletins

7.2 Basis of Payment

All Items covered by the contract Specifications, Supplemental Specifications, Proposal and Special Provision notes with unit price as a basis of payment will be paid for under the appropriate Lump Sum bid item, unless a unit line price item has been established in the Scope Of Services.

The DBT shall be required to furnish the LPA with a Schedule of Values showing the complete breakdown (approximate cost and approximate work) of the Lump Sum bid items. The breakdown shall be in sufficient detail to depict reasonable elements of physical work items and in sufficient detail to provide the LPA with a right to check partial payment requests. It shall show estimated quantities of work in sufficient detail to determine testing and material reporting requirements per C&MS. It shall be submitted and agreed with the Engineer prior to physical Work. It may be (and is preferred to be) in an electronic format (i.e. Excel Spreadsheet).

The DBT shall create the standard Project Bill of Material (PBOM) for the corresponding Schedule of Values items. The PBOM may be in (and is preferred to be) an electronic format (i.e. Excel Spreadsheet) and agreed with the Engineer prior to physical Work. The standard PBOM shall include the following data for intended material to be incorporated into the proposed work corresponding to the Schedule of Values breakdown: Line Item, Primary & Component materials, Material Name, Item Code, Item Description, Material Unit, & Conversion Factor (material unit per item unit). Supply the standard PBOM to the LPA for review and comment. The LPA's comments do not relieve the DBT from supplying proper and approved materials to be incorporated into the project.

The LPA shall generate payment estimates upon receipt of a written request from the Contractor, after review and progress verification by the Engineer. The written request shall correspond to the work performed for the payment estimate period. This request shall be in a format which utilizes the agreed Schedule of Values.

The DBT shall submit an updated PBOM as a component of each progress payment. The updated PBOM shall include the following data for material incorporated into the work: Line

Item, corresponding Schedule of Values item, Primary & Component materials, Material Name, Item Code, Item Description, Material Unit, Conversion Factor (material unit per item unit), Placed Item Quantity, Approved Material Quantity, Total Quantity, Discrepancies Between Placed Quantity and Approved Material Quantity, and the standard Basis of Acceptance per CM&S. Amendments of the standard PBOM can be made and shall be made by the DBT throughout the life of the project to reflect required material as necessary, approved, and incorporated.

Prior to the LPA's approval of the progress payment, the DBT shall remedy all discrepancies between required material quantity and approved material quantity. The PBOM is a supplement to the DBT's responsibility for material certification and substantiation, and does not waive any requirements for the DBT to comply with the testing material documentation submissions in any governing regulations, including but not limited to TE24, Material Tickets, QPL, and Certified Test Data.

The DBT shall provide a general summary and submit the General Summary with and within the final as-built Construction plans

7.3 CADD files supplied by the DBT

The DBT shall comply with ODOT's CADD Standards, and supply files in accordance with the CADD Engineering Standards Manual, with the exception of the submitted format/versions as listed below. All data shall be provided to the EPA according to the provisions as detailed under the appropriate CADD links accessed from ODOT's Division of Engineering's website. This includes, but is not limited to, the level assignments, symbols, lines and line styles that are to be used, line weights, cells, placement of text and file naming conventions.

The websites can be accessed at the following LIRL addresses:

http://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/Pages/default.aspx http://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD_Services/Pages/default.aspx

http://www.dot.state thus/Divisions/Engineering/CaddMapping/CADD_Services/Standards/Pages/Files.aspx

ftp://ftp.dot.state.oh.us/Nub/CADD/CADDSync/Manuals/Guidelines_for_Electronic_Design_Deliverables.pdf

The LPA will accept CADD files through electronic media.

- The DBT shall submit all CADD information produced in the process of plan development. All CADD information shall be submitted in the current version of AutoCAD (*.dwg) format. The DBT shall provide a comprehensive set of complete and accurate CADD data which is compatible with ODOT's CADD systems with no additional work or modification.
- 2. The DBT shall submit all information produced in the process of plan development according to L&D Volume 3, Section 1500.

The DBT shall use a separate file name for each horizontal or vertical alignment. The DBT shall provide required ASCII report content in accordance with the CADD Engineering Standards Manual.

These requirements and procedures may be updated from time to time with notification provided on the ODOT Division of Engineering website. The DBT shall use ODOT cell files and ODOT seed files consistent with the version of the requirements identified in Section 7.1 (Governing Regulations).

7.4 Pre-Award Conference

Within 10 days following Bid opening, the apparent successful DBT shall attend a mandatory pre-award conference. This confidential meeting will be held with the LPA to discuss the DBT's bid of the lump sum items. The DBT shall be prepared to discuss general items of Work included within the lump sum bid items, approximate amounts of Work included within the DBT's Bid Items, and general design approach and design concepts for the Work. Other LPA representatives familiar with the Project may attend.

While not required, the DBT may prepare general engineering intermation to be presented to the LPA to help explain design concepts and quantities. This information will be used only by the LPA to assist in understanding the DBT's bid for award recommendation purposes.

No shared concepts, shared quantity information, discussions comments made or shared by either party will be considered binding, a revision to the Contract Documents, or acceptance or validation of any design concept or assumed quantities of Work.

7.5 Partnering Agreement

The DBT is re	uired to enter into a partnering agreement with the LPA that is:
	Facilitated
M	Self-Facilitated

A partnering agreement with the LPA on this project. The objective of this agreement is the timely completion of the work and a quality product that will be a source of pride to both the LPA and the DBT. Partnering will not affect the terms and conditions of the contract. The partnering agreement is a document which is solely intended to establish an environment of cooperation between the parties. The costs associated with the partnering process will be in accordance with Section 108.02 of PN 126 for Self-Facilitated Partnering.

7.6 Communication

All communication during design and construction shall be with the LPA.

Donnie Stevens II, PE, PS LPA's Project Manager's Name: Phone number: 740-593-5514 E-mail: dstevens@athensoh.org

The LPA Project Engineer will be named at the Pre-Design Meeting.

At the Pre-Design Meeting, the DBT shall name a Project Manager who will act as a liaison between the DBT and the LPA.

7.6.1 Task Force Design Meetings

Required

Not Applicable

7.7 Permits

The DBT shall ensure that the Project is constructed and maintained in accordance with all requirements, regulations, and applicable permits required for the Project. This includes the requirements, regulations, and applicable permits required for the Project. This includes the permits described herein and any additional permits not specifically identified in the Contract Documents.

Unless noted otherwise in the Contract Documents, the DBT shall obtain all necessary permits and pay all charges, fees and taxes associated with these permits (e.g., city street opening permits, street crossing/equipment moving permits, water department fees, sewer permits, rail permits and fees, etc.) CTNe DBT shall be responsible for any fines levied by regulatory agencies as a result of them construction activities or non-compliance with any permit special or general conditions.

The DBT shall obtain a permit from the State or local government having jurisdiction to perform any non-construction work within the existing Right of Way and/or limited access.

7.8 **Entry on Private Property**

The DBT, acting as the LPA's agent, may enter upon any lands within the jurisdiction of the LPA for the purpose of inspecting, surveying, leveling, digging, drilling, or doing any work deemed necessary in the execution of any survey authorized by the LPA. Prior to performing said survey, the DBT will send notification letters indicating the date and duration of entry to the affected property owners no less than forty-eight hours nor more than 30 days prior to the date of entry for said survey in accordance with ODOT's Survey Manual. The DBT shall forward copies of all notification letters distributed to the LPA's Project Manager.

Any subsequent claims for compensation due to damages incurred while said activities were performed will be negotiated between the DBT and the affected property owners with final approval from the LPA's Project Manager. Crop and property damage minimization and reimbursement information, together with the crop damage reimbursement formula and Special Waiver of Damage form, will be provided to the DBT by the LPA's Project Manager.

Any subsequent entries onto private property for the purpose of obtaining additional survey or soil information prior to the submission of the Bid will be made in accordance with the procedures outlined in this section.

8 **ENVIRONMENTAL**

The DBT shall ensure that the Project is designed, constructed and maintained in accordance with all environmental requirements, regulations, and applicable permits required for this Project.

NEPA & Environmental Commitments 8.1

The DBT shall perform all environmental commitments as described in Appendix E Environmental Document for TR83-1.40 and TR471-0.01 Gless of berwise specified in the Contract Documents.

The following notes must be included in the designablans for SFN 0549452 and ATH-TR471-0.01 (Alleri Road) SFN 0543452 and adhered to during construction:

No Asbestos or Asbestos Below Regulator Limits

A certified asbestos hazard evaluation specialist surveyed the bridge structures scheduled for demolition and/or rehabilitation; the surveys determined that no asbestos is present on the bridge structures.

ODOT shall provide a copy of the Crico Environmental Protection Agency Notification of Demolition and Renovation form wartially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form 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

OR

Asbestos Program Ohio EPA, DAPC 50 W. Town St. Suite 700 Columbus, OH 43215

The contractor shall provide a copy of the completed form 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 10 Office, 338 Muskingum Drive Marietta, OH 45850.

Basis for Payment: The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.

ENDANGERED BAT HABITAT REMOVAL

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE AT THESE 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.

The DBT shall:

- 1. Monitor and document Work to demonstrate compliance with environmental commitments.
- 2. Provide documentation of environmental commitment compliance at request of the LPA.
- 3. Follow ODOT and local regulations regarding dust control, adhering to dust control measures outlined in CaMS 606.
- 4. Adhere to local City ordinances for vehicle idling and all current U.S. Environmental Protection Agency (ERA) air quality regulations.

If the DBT becomes aware of any failure to perform an environmental commitment, the DBT shall notify the LPA immediately.

8.2 Waterway Permits

The DBT will be responsible for ensuring all Special Provisions and conditions of the State of Ohio Nationwide Permit 3 for this project's bridge replacements are implemented as plan notes and adhered to during construction activities.

The DBT shall be responsible for any fines levied by regulatory agencies as a result of their construction activities or non-compliance with any permit special or general conditions.

8.3 Temporary Sediment and Erosion Control

The DBT shall be responsible for designing and implementing all temporary sediment and erosion controls in accordance with SS 832 and the Ohio NPDES general permit for storm water discharges from construction activities (NPDES Permit). For information about OEPA's NPDES Permit requirements, see:

https://epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater.

The DBT shall submit information to the LPA for development of the Notice of Intent for the NPDES Permit, including the total acreage of earth disturbing activities for both off project and on project work. This information will be used to develop the NOI if required. The DBT shall assume that approval from OEPA will require a minimum of 31 days following submittal to the LPA Project Manager. Earth disturbing activity is not permitted prior to approval of coverage under the NPDES Permit.

The LPA will submit the NOI to the OEPA within 10 days after information is received from the DBT. Approval from the OEPA takes 21 days and the LPA Project Manager has 10 days to file the NOI.

For projects that require an NOI, the DBT must develop a Storm Water Pollution Prevention Plan in accordance with SS832 and the NPDES Permit The DBT shall not initiate any earth disturbing activity until the SWPPP is approved.

The DBT shall be compensated for furnishing and installing items related to temporary sediment and erosion control requirements. The LPA will compensate the DBT through an encumbered amount included in the Proposal is a non-fig reference number. The Proposal specifies the unit prices for the temporary ediment and erosion control items. Payments for temporary sediment and erosion control items that exceed the encumbered amount will be made through an Extra Work Change Order using the specified unit prices. The specified unit prices are fixed for the Contract Documents and may not be negotiated or adjusted for inflation or claimed changed condition.

All temporary erosion control tems chall be removed before the project is accepted. Removed materials shall become the property of the DBT and shall be disposed of in accordance with the appropriate C&MS specifications.

8.4 Regulated Materials

The DBT shall meet all regulatory conditions imposed with regulated materials, including hazardous materials, associated with the Project. The DBT shall characterize, collect, contain, and properly dispose of all waste generated or encountered during the Work. The DBT shall ensure that the site is properly contained during construction so that regulated materials do not migrate off-site. The DBT shall prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 CFR Part 112 that provides specific guidance for managing, handling, and disposing of regulated materials that may be encountered within the Right-of-Way and for protecting the health and safety of all on-site personnel and the general public.

If any unknown regulated materials are discovered through work on the Project, the DBT shall notify the LPA immediately and shall follow the SPCC Plan, as well as all appropriate regulations.

8.4.1 **Asbestos**

ATH-TR83-1.40 (Jeffers Road) SFN 0549452 and ATH-TR471-0.01 (Allison Road) SFN 0549452

A certified asbestos hazard evaluation specialist surveyed the bridge structures scheduled for demolition and/or rehabilitation; the surveys determined that no asbestos is present on the bridge structures.

ODOT shall provide a copy of the Ohio Environmental Protection Agency Notification of Demolition and Renovation form, partially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form 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

OR
Asbestos Program
Ohio EPA, DAPC
50 W. Town St. Suite 700
Columbus, OH 43215

The contractor shall provide a copy of the completed form to the engineer at least ten (10) working days prior to the start of any demolition and/or renovation. The form shall include: working days prior to the start of any densition and/or renovation. The form shall include: 1) The contractors name and siddress 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 for and bridge inspection report are available for review at the ODOT District 10 Office, 338 Moskingum Drive Marietta, OH 45850.

Basis for Payment: The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.

8.5 Noise Analysis and Noise Barriers

Not Applicable

9 RIGHT OF WAY (ROW)

The DBT shall perform all necessary construction work for the project within the Project Right of Way (ROW). The right of way, as shown in Appendix C, will be cleared and available to the DBT for occupancy by June 1, 2023.

The DBT shall locate existing right of way lines based on requirements specified in Chapter 4733-37 of the Ohio Revised Administrative Code (Board Rules) governed by regulations outlined in Chapter 4733, Ohio Revised Code (Regulation Laws). The DBT shall research existing right of way information from all available sources including but not limited to LPA records, County road records, Commissioners' Journals and records of other County offices to the extent necessary to provide an accurate basis for the establishment of the existing right of way.

The DBT will stake and flag the existing right of way in the field prior to the start of construction and will maintain stakes and flags throughout the duration of the Project.

The DBT shall identify all right of way encroachments on the construction plans with the Interim Design submission. LPA's Project Manager will be responsible for clearing all encroachments on Federal-aid projects in accordance with standard encroachment removal.

9.1 Temporary Easements

The LPA will facilitate use of certain parcels through temporary easements. The DBT shall use temporary easements solely for the purposes deteribed within the easement in accordance with Appendix C (Temporary Easements). The DBT shall only be able to use the temporary easement for the duration of twelve (12) months. The duration commences on the date when physical work commences within the temporary easement site. The DBT shall provide written notice to the LPA indicating the planned date for beginning work in a temporary easement. The DBT shall not enter into temporary easement sites after the duration of the temporary easement has elapsed. After construction of the structure is complete, the DBT shall restore the temporary easement site to pre construction conditions.

10 UTILITIES

10.1 Existing Utilities

The LPA, in coordination with the registered underground utility protection services, Oil and Gas Producers Underground Protection Service (OGPUPS), and other utility owners that are non-members of any utility protection services, has determined that the utilities identified in Table 10-1 are located in the area of the Project.

List all known utilities on the Project site in Table 10-1.

Table 10-1: Utility Contacts and Status

Utility Owner	Utility Contact	Relocation Status
ATH-TR83-1.40		
Electric: American Electric Power 38831 SR 7 Reedsville, OH 45769	Clarke Saunders 614-312-5807	Not located within anticipated construction limits.
Telephone: Frontier Communications 241 South Nelson Avenue Wilmington, OH 45177	Rob Latham 973-382-2222	Scheduled to be relocated by April 28, 2023.
ATH-TR471-0.01		
Electric: American Electric Power 38831 SR 7 Reedsville, OH 45769	Clarke Saunders 614-312-5807	Not located within anticipated construction limits.
Telephone: Frontier Communications 241 South Nelson Avenue Wilmington, OH 45177	Rob Latham 973-382-2222	Not located within anticipated construction limits.
Water: LE-AX Water PO Box 97 The Plains, OH 45780	Travis Angerson 740-594-0123	Not located within anticipated construction limits.

10.2 Utility Coordination Responsibilities

The DBT shall coordinate all utility adjustments for construction activities on the Project.

As soon as it is feasible, in DBT shall stake the existing ROW (and new ROW, if additional ROW has been acquired) in the fold and shall perform clearing and grubbing within that ROW in accordance with the Contract Documents to facilitate utility relocation. The DBT shall maintain and update ROW stakes as needed throughout the Project Limits for the duration of the Project.

The DBT shall design the project and perform construction work in a manner that minimizes the scope and extent of utility conflicts and adjustments. The DBT shall not design or construct the Work in a way that precludes legal occupancy of the highway right-of-way by the adjusted utility. The DBT shall minimize potential delays and coordinate efficient adjustments of utilities.

The DBT shall copy the LPA on all correspondence or phone calls between the DBT and each utility. This shall include the submittal of plans to each utility. A meeting at or near the Interim Design submission shall be held between the DBT, the LPA and the utility owners to determine if any significant utility relocations can be eliminated or mitigated.

Any betterment to the utility's facility and ineligible, or unnecessary, work shall not be included in the Project without LPA approval. The LPA will not compensate for betterments or other ineligible utility work. The DBT shall coordinate determination of eligibility through the District Utility Coordinator via the LPA.

10.3 Subsurface Utilities Engineering (SU	10.3	Subsurface	Utilities	Engineering	(SUE
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Subsurface	Utility	Engineer	ing Rec	uired:	☐ Yes	☑ No
0 0.10 0 0.1 1 0.0 0	~		9	10		

MAINTENANCE OF TRAFFIC (MOT) 11

11.1 General

The DBT shall be responsible for designing, providing, and maintaining safe and effective traffic control 24 hours a day for the duration of the Project. The DBT shall furnish, install, maintain and remove all traffic control devices. The DBT shall in the maintenance of Traffic (MOT) in a manner that minimizes both construction and impact to the traveling public.

The DBT shall provide written notice to the Leafourteen (14) days in advance of

The DBT shall provide written notice to the LPA fourteen (14) days in advance of modifications in MOT or traffic patterns, including modifications to the following:

1. MOT configuration
2. Access
3. Detours
4. Schedule
5. Duration

The DBT shall furnish temporary MOT devices compliant with the AASHTO Manual for Assessing Safety Hardware (MASH) (2) applicable Safety Hardware (MASH) as applicable.

All detour routes will be provided by the LPA and shall be signed by the DBT. The designated local detour will be provided by the LPA.

11.2 MOT Requirements

The DBT shall be design and implement the MOT in accordance with the requirements referenced in Table 11-1.

Table 11-1: MOT Requirements

Requirement	Detailed Requirement Information		
Minimum number of lanes in each direction to remain open during construction	One lane, two way traffic must be maintained for ATH-TR471-0.01. Traffic may be maintained using yield control as shown on Figure 6H-11 in the OMUTCD if sight lines can be maintained during construction. ATH-TR83-1.40 can be closed to traffic.		
Minimum lane width	10' f/f barrier or rail when traffic must be maintained.		
Maximum duration of detour	Refer to Table at the end of Section 5.		
Restrictions on lane closures during special events (sports events, fairs, concerts, etc.)	N/A.		
Restriction related to hospitals, fire and police, schools, etc.	N/A. Orlivailats Office		

The detour routes for each project are listed below.

<u>Project:</u>	<u>Detour Route</u>
ATH-TR83-1.40	Eastbound: CR33A, East on CR44, North on CR42
	Westbound South on CR42, West on CR44 to CR33a
ATH-TR471-0.01	No detour Road must remain open.
	30 0

- Closure of the roadway will not be permitted prior to approval of the Final plans.
- The DBT will contact the Athens County Engineer a minimum of twenty-one (21) calendar days prior to the beginning of work and/or intended road closures. The Athens County Engineer's office will notify the effected local schools and emergency services not less than 14 calendar days prior to the start of construction activities at each bridge location.
- The DBT shall maintain access to all adjacent driveways within the project area at all times.
- The contractor will furnish, erect, and maintain, and subsequently remove all flags, barricades, signs, and sign supports and maintain all flaggers, watchers, and incidentals related thereto.
- Payment for all items required by the OMUTCD, the Standard Construction Drawings, the Construction and Material Specifications, the proposal, and this Scope of Services

will be included in the Lump Sum payment for Item 614, Maintaining Traffic and will include all labor, materials, equipment, fuels, lubricating oils, software, hardware, and incidentals to perform the required work.

11.3 Work Zone Speed Reduction

The DBT shall evaluate if a work zone speed reduction is warranted based on the final MOT scheme. The evaluation requirements are listed in Section 600 of the Traffic Engineering Manual.

If a work zone speed reduction is warranted, the DBT shall design and implement signing in accordance with the requirements of the Traffic Engineering Manual.

11.4 Haul Routes

The LPA survey Responsibilities

The LPA survey crews have provided the following survey information.

1. Centerline control and benchmarks.

2. Beginning and ending cent.

3. At least two hears. In addition to the requirements of C&MS 105.13, the Progress Schedule shall account for 30

ırve information, listed below:

- 3. At least two benchmarks to the project (the datum used was that which the
- 4. Critical points such as ., P.T., T.S., C.S.
- B. DBT Survey Responsibiliti

The DBT shall submit all survey data using ODOT's standard field codes and ODOT's standard mapping codes unless otherwise specified by the LPA. Reduced point data, in comma delimited ASCII text format, will be provided for all surveyed points. This data will include: point number, North (y) coordinate, East (x) coordinate, elevation and point ID.

The DBT shall not disturb existing monumentation. If the DBT disturbs the monumentation, then the DBT shall replace the monument, in-kind, using a Registered Surveyor, with current registration, recognized by the Ohio State Board of Registration for Professional Engineers and Surveyors. Costs associated with monument replacement caused by DBT disturbance shall be borne by the DBT. The DBT shall provide copies of all monumentation changes to the LPA.

The DBT shall include all control points, provided by the LPA, in the ASCII file supplied by the DBT to the LPA. They should retain the original point numbers and coordinate values as assigned by the LPA.

The DBT shall provide the following items prior to final acceptance of the Record-Drawing plans:

- 1. Copies of all field notes (written or electronic) which shall include the following information:
 - a. Date
 - b. Crew members
 - c. Weather conditions, including temperature, barometric pressure, etc.
 - d. Instrument(s) used (Serial Number)
 - e. Raw observation field data
 - f. Other notes as needed
- 2. Copies of all Deeds, Plats, Maps and other written evidence used to establish points related to the project including summaries of all parole evidence acquired as a part of the survey operation.
- 3. Listing of all found monumentation (Horizontal and Vertical)
- 4. Listing of all monumentation set as part of the project (Horizontal and Vertical) including reference ties for recovery.
- 5. All monumentation shall be located utilizing NAD 83 (Porizontal Data), NAVD 88 (Vertical Data).
- 6. Short report indicating adjustment factors and methods signed and certified by a Registered Surveyor (State of Ohio). The Registered Surveyor (State of Ohio) shall include in the report the datum used and all associated adjustments used.

13 PAVEMENT

All existing pavement within the units of the final proposed profile shall be removed and replaced based on the final proposed roadway and shoulder unless it is specifically stated in this section that the pavement at a particular location at a site may be salvaged and resurfaced. If the DBT's work causes damage deeper than the surface of the existing pavement that will be resurfaced, the damaged areas shall be repaired per Item 253 at no additional cost to the project before resurfacing. Pavement buildups are:

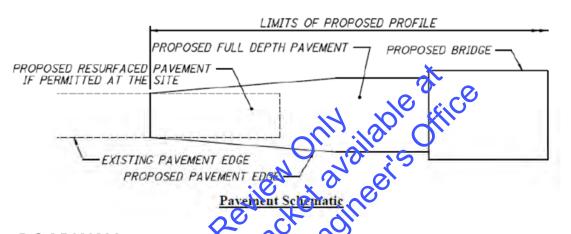
Asphalt Pavement Full Depth Buildup:

3" Item 441, Asphalt Concrete Surface Course, Type 1, (448) PG 64-22 (To be placed in two lifts with no lift exceeding 2" in thickness.)
Item 407, Tack Coat For Intermediate Course
4" Item 301, Asphalt Concrete Base, PG 64-22
6" Item 304, Aggregate Base
Item 605, Aggregate Drains
Item 204, Subgrade Compaction

Chip Seal Pavement Buildup:

Item 422, Double Chip Seal 8" Item 304, Aggregate Base Item 605, Aggregate Drains Item 204, Subgrade Compaction

Bridge	Preliminary Profile Limits	Pavement Type
ATH-TR83-1.40	Sta. 0+47 to Sta. 2+35	Asphalt
ATH-TR471-0.01	Sta. 0+41 to Sta. 1+65	Chip Seal



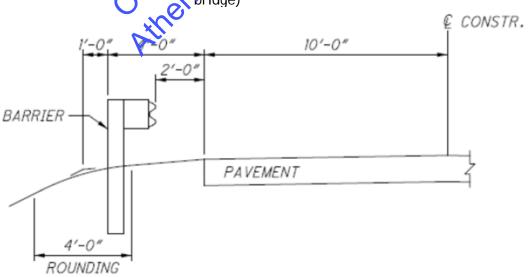
14 ROADWAY

Minimum Dimensions At All Project Sites

Lane Width: Tapers from existing to 10'-0" on TR83 and 8'-0" on

TF471 (up & down station of bridge)

Graded Shoulder: Tapers from existing to 5'-0" (up & down station of bridge)



Roadway Section

The LPA has reviewed the crash data for each site and has determined that there is not a sitespecific safety problem at any of the sites. Therefore, as per the AASHTO Guidelines for Geometric Design of Very Low-Volume Roads (ADT ≤ 400), guardrail is not required for roadside obstructions. Bridge railing (TST, concrete barrier, DBR as allowed by BDM Section 304 or an MGS installation for culvert crossings) is required and it shall be terminated at all four corners of the bridge by transitioning at a minimum to standard MGS guardrail with an anchor assembly (Type A, B or E) or a turn back radius at the end of each run. LON calculations are not required since the purpose of the quardrail is to provide terminations for the bridge railing. Through bolting rail anchorages into the tops of three or four sided culverts is not permitted.

The horizontal and vertical alignments shown in the attached Site Plans (Appendix C) were used to estimate the limits of disturbance for the proposed improvements. Environmental commitments are based on these limits and shall not be exceeded during the design/build phase of the project. Final Vertical and horizontal alignments shall result in all work staying within the existing right-of-way and within the limits of the estimated distribunce.

Horizontal Alignment: A proposed horizontal alignment is shown in the site Plan (Appendix C) as a potential solution for this site. The DB is responsible for establishing a final proposed horizontal afforment that results in all work staying within the current right-of-way and conforms to the Governing Regulations referenced in Section 8.1.

Vertical Alignment:

A proposed vertical alignment is hown in the Site Plan (Appendix C) as a potential solution for this site. The DBT is responsible for establishing a final proposed vertical alignment:

- that results in all work staying within the current right-of-way 1. and within the limits of the environmental clearance
- 2. Cthat conforms to the Governing Regulations referenced in
- that allows all work to be contained within the work limits as shown in the Site Plan (Appendix C)
- 4. that, provides termini for the final proposed profiles that are not closer than 25-feet behind the proposed abutments.
- 5. where a Raise of the roadway profile in combination with the chosen structure hydraulic opening shall not result in an increase in the upstream water surface elevation nor a violation of local floodplain zoning regulations.

14.1 Design Exceptions

There are no previously approved design exceptions for this project. The DBT shall notify The LPA regarding any design features that are believed to not meet the minimum design criteria and require a design exception, as outlined in this document and in the Guidelines for Geometric Design of Low-Volume Roads (AASHTO publication, 2nd Edition 2019).

The DBT shall develop a design which does not require approval of additional design exceptions.

14.2 Interchange Modification/Justifications Studies

Not Applicable.

15 DRAINAGE

Existing roadside drainage flow patterns shall be perpetuated in so far as practical. Any adjustments to the existing drainage system or installation of hew drainage structures shall meet the requirements of the Location and Design Manual.

The DBT shall perform a detailed flood plain analysis for all highways that encroach on floodplains, bodies of water or streams. The analysis shall be in accordance with the Location & Design Manual Volume 2 and the Bridge Design Manual. The extent of the analysis shall be from a minimum of 500' downstream, to the greater of either one bridge opening/width upstream, or to the limits of the area inurpated by the 100-year event.

The results of the detailed flood plain study, supporting hydraulic calculations, and recommendations shall be submitted to the LPA for review and comment prior to construction of the drainage structure. If the proposed crossing is in a special flood hazard area as defined by FEMA, the detailed flood plain analysis shall be submitted concurrently to the local flood plain coordinator.

16 LANDSCAPING

Landscaping Required: [Yes		No
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The DBT shall permanently grade and seed all impacted areas.

17 STRUCTURES

17.1 Existing Structures Identification

Bridge No: ATH-TR83-1.40 Over: Tributary to Middle Branch Shade River Shade River SFN: 0549452

Bridge No: ATH-TR471-0.01 Over: Factory Creek SFN: 0547867

17.2 General Requirements

- 1. The Consultant shall determine the appropriate structure size for the design and preparation of the detail construction plans for the construction of the proposed structure. The structure size selected shall provide a waterway opening greater than or equal to the following minimum values:
 - a. ATH-TR83-1.40: 260 sq. ft.
 - b. ATH-TR471-0.01: 88 sq. ft.
- 2. The number of proposed spans may not be greater than the number of existing spans.
- 3. The low chord of the final proposed superstructures may not be lower than the existing low chord as shown on the STE Plans (Appendix C) unless the DBT demonstrates (through hydraulic analysis per the QDOT BDM and Location and Design Manual) that the proposed structure provides no increase in the 100-year storm upstream water surface elevation.
- 4. This project <u>does</u> require the use of approach slabs (does not apply to pipe or culvert type structures).
- 5. The following are prohibited from being used on this project:
 - a. Fracture critica details
 - b. Weathering steel
 - c. Multi-cell or side by-side box culverts or pipes
 - d. Permanent timber elements
 - e. Decks that consist of asphalt concrete on metal stay-in-place forms
- 6. Pipe arches shall have protective coatings applied as per the Culvert Material Selection Spreadsheet on the Office of Hydraulic Engineering's web page. If the stream ph is 4.2 or lower, the flow line and interior side walls up to the bottom of the upper haunch of four sided box culverts shall be epoxy coated as per ODOT CMS 706.03.
- 7. The DBT shall provide their proposed hauling routes to the County Engineer's office for approval. The County will accept or reject the proposed routes within five (5) working days of receipt. Construction shall not commence until the DBT has received written approval from the County of their proposed hauling routes.

- 8. Semi-integral or integral box beam bridge designs shall utilize the details in Appendix H.
- 9. Drainage pipes shall not be outletted through any abutment. Storm sewer and culvert pipes may be outletted through wingwalls if the pipe is inside casing which would allow pipe replacement to occur without damage to the wingwall.
- 10. Even though the heading "Structure (Over 20' Span)" is used in the proposal, the DBT is not prohibited from using a structure with a lesser span length if the design and flood plain requirements for a particular site can be met.
- 11. Any slopes steeper than 2:1 shall be reinforced type soil slopes using a geogrid material and per ODOT Supplemental Specification 863. No slope shall be steeper than 1:1. Any slope requiring a steeper grade shall be supported by a retaining structure or wingwall, per ODOT standards.

17.3 Design and Construction Requirements of Structure

Str: ATH-TR83-1.40	and the side
Existing Structure Data:	Only ital Offi
Overall Length:	35'± 16'± HS20 Simple span steel beams supporting a timber deck
Width o/o:	16'±
Design Loading:	HS20 CK CONT
Type:	Simple span steel beams supporting a timber deck
Spans:	34'±
Date Built:	1960
Alignment & Profile	Officens
Alignment:	Follow Existing
	☐ Relocated: ☑ Per LPA ☑ Per DBT (Final) (Prelim. Provided)
Profile:	☑ Follow Existing
	☐ Relocate: ☐ Per LPA ☐ Per DBT
	☐ Feathered (Adjustment): ☑ Per LPA ☑ Per DBT (Final) (Prelim. Provided)
See Plan and Profile in Ag	ppendix C.

ATH-TR83/TR471-1.40/0.01 SCOPE OF SERVICES January 20, 2023

Transverse Sections				
Bridge Width:	24'-0" f/f rail			
Railing:	☑ Yes ☐ No	Type: Per ODOT BDM Section 304		
Fence:	☐ Yes ☑ No	Height/Type: N/A		
Sidewalks:	☐ Yes ☑ No	Width: N/A		
All Shop Drawings shall co	mply with Item 50	01.		
The LPA is providing Geotechnical Exploration information as shown in Appendix D. Note: collection of additional soils information shall be the responsibility of the DBT and considered incidental to this design effort.				
17.4 Design and Co	nstruction Re	quirements of Structure		
Str: ATH-TR471-0.01		ally is office		
Existing Structure Data:		o' Valle's		
Overall Length:	27′±	ON TO SO,		
Width o/o:	15'±	-ck odi		
Design Loading:	HS20			
Type:	Simple span cond	crete siab		
Spans:	22'±),		
Date Built:	1936			
Alignment & Profile	other			
Alignment:	☑ Follow Exis	ting		
	☐ Relocated:	☐ Per LPA		
Profile:	☑ Follow Exis	ting		
	☐ Relocate:	☐ Per LPA ☐ Per DBT		
	☐ Feathered	(Adjustment): 🗹 Per LPA 🗹 Per DBT (Final) (Prelim. Provided)		
See Plan and Profile in Ap	pendix C.			

Transverse Sections			
Bridge Width:	20'-0" f	/f rail	
Railing:	☑ Yes	□ No	Type: Per ODOT BDM Section 304
Fence:	☐ Yes	☑ No	Height/Type: N/A
Sidewalks:	☐ Yes	☑ No	Width: N/A
All Shop Drawings shall co	mply with	n Item 501	i.
	ils inform	-	n information as shown in Appendix D. Note: Il be the responsibility of the DBT and considered
17.5 Noise Barrier			X
Noise Barrier Construction	Required	d: 🗆 Yes	neators in accordance with locations: None required.
18 TRAFFIC CON	NTROL	.is	and availer's
18.1 Pavement Mar	kings a	nd Deli	neators
The DBT shall perform Wo Section 7.1 and the follow	rk relate ing section	to paver	ment warkings and delineators in accordance with
A. Pavement Marking	Requiren	nems and	Locations: None required.
B. Raised Pavement M	larkers (4	Yes 🗹	No.
C. Delineators: ☐ Yes 😭 No. 🤝			
D. Barrier Reflectors.	☑ Yes⊘	□ No.	
concrete barrier walls,	retainin	g walls an	n 626 and shall be placed on bridge parapets, d guardrail, in accordance with current design shall be installed on the side of the blockout
E. Object Markers: ☑	Yes □ I	No.	
All object markers sha	II conforr	n to Item	630, Sign, Flat Sheet.
Locations and requiren	nents: Pr	ovide an C	DM3 marker at each of the four bridge corners at

both sites.

18.2 Signing

The DBT shall perform Work related to signs in accordance with Section 7.1 and the following sections.

Unless noted otherwise, existing signs and supports on this project shall be removed and disposed of.

18.2.1 Flat Sheet Signs

A. Flat Sheet Sign work required: $\mathbf{\nabla}$ Yes \square No. See Section 18.1(E) above.

18.2.2 **Extrusheet Signs**

1. Extrusheet Sign Work Required: ☐ Yes ☑ No. Not Applicable.

18.2.3 **Ground Mounted Post Supports**

A. Replace: ☐ Yes ☑ No. See Section 18.1(E) above.

Ground Mounted Beam Supports 18.2.4

- Yes Monne of Systems (ITS)
 Yes Monne of Systems (ITS)
 Yes Monne of Systems (ITS)
 Yes Monne of Systems (ITS) A. Ground Mounted Beam required Not Applicable.
- B. Overhead Supports: D Not Applicable.

18.3 Intelligent Trans

A. ITS Work Required:

Not Applicable.

PROJECT SCHEDULE REQUIREMENTS 19

The DBT shall develop and maintain a project schedule in accordance with the selected note: Construction and Materials Specification 108.03 will be met or exceeded.

PLAN SUBMITTALS AND REVIEW REQUIREMENTS 20

20.1 Plan Components

All plans submitted by the DBT shall be in conformance with the following ODOT manuals unless otherwise noted by the LPA:

- 1. Real Estate Policies and Procedures Manual Section 3100. The DBT shall also identify all topographic features within the existing and proposed Right-Of-Way limits, including underground utilities.
- 2. Bridge Design Manual.

Note: Bridge subsummaries are required.

3. Location and Design Manual, Volume 3: The following sections of the Location and Design Manual, Volume 3 are NOT required:

1302.13	Plan Signatures
1307.2	General summary sheet
1307.4	Quantity Calculations
1310.3	Larthwork and Seeding Quantities

Units of measure are NOT required.

Simplified plans (section 1301 2) are NOT allowed.

20.2 Quality Control

The DBT is responsible for the professional quality, technical accuracy and adherence to the Coverning Populations listed in Section 7.1 (Coverning Populations) of this document, for all the professional quality and the document for all the professional quality. Governing Regulations listed in Section 7.1 (Governing Regulations) of this document, for all plan submittals required under too contract.

The DBT shall immediately perify the LPA of any apparent discrepancy between the various design and construction manuals and the Contract Documents.

The LPA shall have the discretion to dictate the level of Design review. The LPA's acceptance of the design or failure to identify improper design does not, in any way, relieve the DBT of the responsibility for the quality, accuracy, or feasibility of the Design.

In the event the LPA determines that any required submission is incomplete, contains inaccuracies which preclude a meaningful review, or does not adhere to the Governing Regulations listed in Section 7.1 (Governing Regulations) of this document, the LPA will advise the DBT of the shortcomings and direct the DBT to revise and resubmit the plan. No time extension will be granted as a result of such action. The LPA will schedule a review meeting or issue review comments as appropriate.

20.3 BUILDABLE UNITS (BU)

Buildable Units are portions of the projects which can be designed, reviewed and built with only limited controls and assumptions coming from the design of other portions of the project. Often a Buildable Unit will be defined by a geographic area within the plan, but it may also be defined by types of work or construction stages which may require or permit similar, nearby work to be divided into separate Buildable Units. All Buildable Units shall summarize the materials required to construct that portion of the project. The summary shall include the Construction and Material Specifications Item Number, and a description of the materials to be used.

For the Interim and Final Design submittals, the DBT may break the project work into two or more separate BU which can be progressed through design and construction with minimal or known effect on each other and/or which can be dealt with sequentially such that sufficient data is available for design and review of each BU. In order that the design and construction of one BU may proceed without significant approved information from an associated BU, the DBT may develop and propose assumptions which will allow for the Ost BU to proceed through design and/or construction. These assumptions shall be submitted for review and comment but their accuracy and effort upon the final design are the sole responsibility of the DBT. Should error in these assumptions result in additional work, remedial work or other changes to assure an acceptable design or should they result in the need to remove work and substitute additional work, the Contractor shall be responsible for all such costs including, removal of unacceptable materials from the site, modification, additional work, repairs, etc. as necessary to produce an acceptable result.

If the DBT elects to develop Buildable Units, the DBT shall prepare, for review by the LPA, a table of Buildable Units for the project with each BV described in detail. If the table is approved, the DBT shall modify the Progress Schedule to show a separate group of activities for BU and these activities shall encompass all of the design and construction work in each BU. The Progress Schedule for design review shall be developed such that information from other dependent BUs is available at the time of submission of the BU at hand. Work activities shall be further separated in the Progress Schedule to show a meaningful completion status (i.e. separate activities comprising the placement of a bridge deck on steel beams shall describe; shoring, form building, steel placement, placement of conduit & joints, pouring concrete, forming parapets, pouring or slip forming parapets, provision of membranes, provision of wearing surfaces, curing, repair, form removal, cleaning, etc.).

The Final Review Submission and Construction Plans shall specifically be identified by the Buildable Unit code. If the design of a BU requires input information from an adjacent or related BU, the source for that information in previously approved plans shall be cited or the DBT shall provide an estimated value of the data. The input data shall also be carefully identified. In the same way any assumption, calculations or results from the stage and BU which are used as input to another BU shall be similarly identified, and where appropriate, compared back to that BU to verify previous assumptions. Should assumptions not match values calculated later, the DBT shall re-analyze all affected components and determine appropriate changes. Should those elements have already been constructed, the DBT shall recommend repairs, adjustments, modifications or replacement of the existing work as

necessary to comply with the Scope of Work. All costs for re-design, re-submissions, modifications, removals, disposal of materials and new work needed to remedy the project and bring it to compliance shall be borne by the Contractor and no time extensions shall be approved for this.

For projects with railroad involvement, a separate BU shall be submitted for review that includes all work components over, under, within and adjacent to the railway that could impact or influence railroad operations. Buildable units for railroad review submissions shall not be defined by types of work, but shall be determined by the limits of railroad regions of concern. The BU shall include all work within the applicable railroad region of concern (as agreed with the railroad and DBT) and shall not be segmented partial design pieces of an entity but shall be the overall design phased submission of the entity. Subdivision of work components that impact or influence railroad operations into multiple BU's shall not be performed unless previously agreed to by the LPA and railroad.

20.4 Comment Resolution Process

This section establishes transmittal processes and interaction between the CPA and the DBT during submittal reviews in addition to the requirements found within the Scope of Services and other Contract Documents. The process can be modified upon include agreement between the DBT and the LPA with the intention of meeting the requirements of the Contract or specific submission needs. This process may be revised by mutual agreement of both parties.

Specific identified procedures may be amended, revised, eliminated, or added to address project specific needs or mutual party understanding.

This process shall utilize electronic transmittals for all design submissions unless otherwise specified in the Scope of Services. Plan and design submissions shall be in PDF format, Microsoft Excel, Microsoft Word, or other document types as mutually agreed and appropriate to and for the submission.

Submissions should generally conform to the Scope of Service and other specification included in the Contract Documents as appropriate, with variations as mutually agreed.

The LPA shall establish a file transfer website (typically, a Project SharePoint, ProjectWise site, or other appropriate file transfer and storage site), with controlled and controllable access, for uploading design submissions and subsequent transmittal of design review comments.

Project specific process details shall be discussed at the Pre-Design Meeting. These details include the responsible contacts (Department, LPA and DBT), file server location/IP address, known required persons needing access, and login requirements.

A. Procedure

The LPA will grant access to an identified DBT representative who will have authority and responsibility to create Buildable Unit Submission (BUS) folders and other folders within the transfer website. Each folder shall be logically named. Within each BUS folder, additional folders representing each stage of review (i.e. Interim/Final/Construction) will be created. If

mutually agreeable, the DBT may perform this role if management by the DBT facilitates submissions.

With each Buildable Unit with each Design Submission, the DBT shall include a transmittal sheet describing the BUS, the BUS stage (Interim/Final/Construction), the contractual review response date (from the LPA as well as any other third-party reviewer, if applicable), critical assumptions made for the BUS impacting subsequent BUS submissions, and any information which could facilitate review.

The DBT shall develop and utilize a Comment Resolution Spreadsheet (CRS) for each Buildable Unit with each Design Submission (Interim, Final, Construction) for use in logging and tracking review comments. The DBT shall provide a blank CRS to the LPA and other third-party reviewers at Interim Design Submission. The LPA and applicable reviewing agencies shall review for Contract requirements. The LPA will utilize the CRS document to centralize all LPA employee Buildable Unit Design Submission comments.

LPA review comments will primarily focus on compliancy with the Contract Documents. The LPA will refrain from making excessive preferential and formatting comments. Reviewer preferential comments shall be marked "Preference" within the CBS. While formatting comments do not need responded to, the LPA reserves it's right to reject a submission which, in its judgement, is not reasonably following required CADD standards.

An updated copy of the CRS shall be provided to all reviewers at the Final Submission. With the Final Submission on the transmittal page, the DBT shall identify major design revisions and design approaches made between Interim and Final Submission being outside the course of typical design progression and were not made to address Interim Review comments. The updated copy shall include all comments received at Interim submittal along with the DBT's written disposition of all Non-Compliant comments made during formal Interim design submittals. The LPA and other appropriate third-party reviewing agencies will review the DBT's formal disposition to Interim Submittal review comments as well as revised plans to respond to previous comments. The LPA will include any additional comments based on the Final Design Submittal review within the CRS.

The DBT shall clearly identify if an LPA Interim review comment responded with an "Accept" by the DBT is not being corrected within a Final submission. If an "Accept" comment is not being addressed, the DBT shall clearly describe the intended resolution for the RFC submission. The LPA may require additional information before the Construction Plan submission, or may request a Comment Resolution meeting (or phone call if appropriate) to understand the DBT's design direction. The DBT shall memorialize the time of the Comment Resolution Meeting within the CRS submitted with the Construction Plans.

In the event the DBT believes that any review comment, or direction issued by the LPA or other third-party review, require a change to a Contract, the DBT shall first contact the LPA for clarification and shall, within 10 days of receipt of the comments or direction, provide written notice to the LPA concerning the reasons why the DBT believes the scope has been changed.

The DBT is not required to comment nor respond to LPA identified Preference comments.

For comments considered substantial to the LPA or the DBT, the DBT shall schedule a Comment Resolution Meeting with the LPA to discuss.

- 1. The LPA shall notify the DBT, either within the CRS or other notice, if the LPA requires a Comment Resolution Meeting.
- 2. The DBT shall notify the LPA within seven days of any "Non-Compliant" comments they intend to "Dismiss" or "Resolve". The DBT shall schedule a Comment Resolution Meeting prior to the next stage submittal.
- 3. For less substantial comments and as agreed by the LPA and the DBT, a comment resolution conference call may be sufficient.

The DBT shall obtain LPA concurrence with the "Non-Compliant" comment dismissal and this concurrence shall be documented on the CRS.

The DBT shall resolve all outstanding issues and comments from the Final Submittal (or other outstanding comments) and prepare a full set of Design Documents stamped "Checked and Ready for Released for Construction" (RFC). The LPA's expectation is that no revisions shall be made except for those required to address Final review comments. In the event that other revisions are required unrelated to review comments, the DBT shall notify the LPA and coordinate revisions for concurrence.

The LPA shall review to ensure all comments from final reviews have been resolved or "Closed" to the satisfaction of the LPA. There is no formal review period for Construction submission.

The DBT has the responsibility for ensuring the RFC needs all contract requirements. If upon LPA review it is determined that it is questionable as to whether comments received from the LPA or other agencies have been resolved or addressed appropriately, the DBT shall stop construction of the portion of the Buildable Unit in question, consult with the commenter to resolve such comments. The DBT shall document resolution of the comment within the CRS.

The DBT continues to be liable for design accuracy regardless of LPA review.

B. General Third-Party Requirements

A "Third-Party", in regard to the Design-Build Comment Resolution process, is any overseeing agency with oversight and design approval authority of relevant portions of the design as identified in the Contract.

Other third-party reviewers may not utilize the CRS.

It is the DBT's responsibility to reasonably add all third-party markups and comments received; the DBT shall consolidate third-party comments into the CRS corresponding to each Buildable Unit and save on to the specified LPA site. Any plan markups shall also be scanned by the DBT and included on SharePoint within the appropriate BUS folder.

The DBT shall address all third-party review comments. All third-party review comments shall be, initially, considered as a "Non-compliant" comment type, as identified below.

With LPA's concurrence, the DBT may subsequently identify comments as potentially a "Preference" or "Recommendation". The DBT shall obtain LPA concurrence with the "Non-Compliant" comment dismissal and this concurrence shall be documented on the CRS.

C. Comment Resolution Spreadsheet

Minimum requirements of the CRS along with information on content is included below. The DBT may modify format or include additional information with LPA concurrence.

Reviewer	
Comment ID No	Consecutive listing
Document	Submittals may include multiple components including plans, reports, calculations, etc. This column will list which item the comment is on.
Page	Page reference/location comment reference
Comment type	Either "Non-compliant". "Preference", or Recommendation". Non-compliant - elements that do not meet requirements of the Contract. Preference - elements which depict the owner's preferred design method or result but are not required by the Contract. Recommendation - a general noted item intended to make the designer aware of potential troublesome design methods.
Contract Section	If Compent Type is Non-compliant to the Contract, the reviewer shall include the Contract Document of the requirement that is non-compliant (for example, Scope Section 8.2, L&D Volume 1, EDM, etc.)
Reviewer Note	A Roviewer Note is optional but is recommended to ensure the designer understands the intent to the comment made. Reviewer shall note if a Comment Resolution Meeting or discussion is desired.
Reviewer Agency	Representing Agency
Reviewer Name	Name of reviewer
DBT Response	
Resolution Code (Approve, Dismiss, or Resolve)	Accept - DBT agrees with the comment and addressed the comments

	Dismiss - DBT disagrees with the comment based on comment no longer applying because the design has changed, reviewer error, or other reasons. Resolve - DBT needs additional clarification and/or coordination to address the comment accordingly. Comment may also reflect a change to the Contract Documents which will require additional discussion and direction by the LPA due to the financial/schedule impacts.
DBT Comment/Disposition	The DBT shall provide a more detailed response to the comment as necessary. Response shall note if a Comment Resolution Meeting or discussion is desired.
Reviewer Response	
Status	Open - the submittal did not address the original comment made. Closed - the submittal or disposition addresses the original comment. The DBT shall schedule a comment resolution meeting with the LPA to discuss any comments from previous submittals that remain "Open" according to the reviewer. The DBT and the LPA will also discuss whether review comments are in conformance with the Contract Document requirements or preferential comments. For less substantial comments and as agreed by the LPA and the DBT, a comment resolution conference call may be sufficient.
Reviewer Name	Name of reviewer
Date Closed	Date that the reviewer responded to the comment.
Comments	rovides more detailed response clarifying why comment remains "Open" or other information

20.5 Document Management

The DBT shall create and maintain a BUS Log sheet to facilitate submission tracking. The BUS Log shall identify the name of the Buildable Unit, brief description of the BUS, Interim Design submission date, Interim Submission review comments transmittal date, Final Submission date, Final Submission comments transmittal date, Released for Construction date, and a BUS Comments field. The BUS Comments field shall note any necessary resubmissions, dates of Comment Resolution meetings with noted submission stages, Over-the-Shoulder meeting dates resulting in design adjustments, or any other needed summarized data to help understand the BU submission process. The BUS Log Sheet may be modified as necessary to facilitate review. The BUS Log shall be maintained in the master project folder, or in a location mutual agreeable and accessible to the DBT and the LPA.

The DBT shall create a folder for each BU on the LPA's Project SharePoint Site. Each BU folder shall have an "Interim", "Final", and "RFC" folder. All Design Documents (plans, calculations, reports, etc) submitted at each phase (Final, Interim, RFC) shall be uploaded by the DBT to the Project SharePoint Site. An updated CRS at each submittal shall be included in each folder with the latest including all comments "closed". Meeting minutes from comment resolution meetings or over-the-shoulder reviews shall be prepared by the DBT and also saved to SharePoint.

20.6 Optional Pre-submission Meeting

The DBT may request a Pre-submission Meeting to be held prior to, or concurrent with, the submission of a buildable unit. The intention of the Pre-submission meeting is an opportunity for the DBT to explain design intent to facilitate owner review. Formal assembly and submittal of drawings or other documents will not be required, but the DBT is encouraged to provide informal submittals to facilitate reviews.

20.7 Optional Over-the-Shoulder Reviews

The DBT or the LPA may request "Over-The-Shoulder" (C)TS) review of designs at any time in the design process. The OTS is an informal review of a partial design during development. This may include in-progress drawings, calculations, sketches, design concepts, proposed specifications, or any other document used or created during the design. They are to facilitate communication and the design process. These carries in the form of a phone call, meeting, correspondence, or any other means of information sharing between the DBT and the LPA.

An Over-the-Shoulder review may be necessary to discuss direction on potential design changes. An OTS may be requested during any period in the design development. Appropriate third-party agencies, as well as the DET and LPA, may also participate in these meetings. The DBT or the LPA may include the decision or direction given in an OTS within the applicable CRS submission.

The OTS reviews shall not replace the formal Interim and Final Review. Likewise, the LPA may also request an OTS review during any stage of design to facilitate review or design development.

20.8 Major Design Decision

Separate submittals for concurrence with major design decisions are required. The submittals may be required during any phase of Design. Major design decisions involve significant utility relocation, unforeseen acquisition of ROW by the LPA, traffic operation or geometric decisions that involve two or more viable solutions, designs not typical nor standards not ordinarily exercised by members of the engineering profession practicing under similar conditions at the same time and locality, and any other decision that impacts the public, operation of the facility or designs which require future long term excessive maintenance. The level of development of the submittal is dependent upon the level of detail necessary to accurately depict the major design decision.

When the DBT becomes aware of additional decisions during the design, they must advise the LPA in writing.

20.9 Interim Design Review Submission

For each Buildable Unit, the DBT shall submit the Interim Design submission for review by the LPA and other third-party agencies as appropriate.

Interim Design Submission is defined as followed:

- A. Maintenance of traffic, traffic signals, lighting, utilities (water, power, sanitary, etc.), and landscaping shall be developed to Stage 2 level of detail as defined the ODOT Location & Design, Volume 3.
- B. Full signing plans are not required at Interim, however, all overhead signage and major ground mounted signage shall be shown on plan sheets (may be shown on pavement marking plans if signing plans are not submitted).
- C. All other plan components and supplemental submittal requirements as defined as Stage 1 per the ODOT Location & Design, Volume 3.

Unless indicated below, the LPA will have 10 Work pays from receipt to review complete submissions. The following are excluded as Work pays: State Hollways, Federal Hollways, Saturdays, Sundays, the Friday after Thanksgiving, Christmas Eye, and the days between Christmas and New Year's Day. This review time must be sown on the required Progress Schedule.

Submittal	101, 6,0 K	Adjusted Review Time
Athens County Engineer	P Bio n'th	10 Work Days

Following this review, the DBT shall correct any errors, incorporate modifications, perform required investigations and make related changes to the plans and supporting documents prior to submitting the plans for Pinal Design review.

<u>Plan Review Distribution Table</u>: The DBT shall supply an electronic version (in PDF format) along with half size (11" x 17") paper prints simultaneously to the parties indicated below, except that each affected utility company shall receive one full size (22"x34") plans.

	Number of half size Sets
Athens County Engineer (LPA)	PDF format (emailed or mailed CD or DVD)
ODOT District 10	PDF format (emailed or
ATTN: District LPA Manager and LPA Construction Monitor	mailed CD or DVD)
Each affected utility or railroad company	2

20.10 FINAL DESIGN Review Submission

For each Buildable Unit the DBT shall submit the Final Design submission for review by the LPA and other third-party agencies as appropriate.

The Final Design submission shall include submittal requirements as defined as Stage 3 per the ODOT Location & Design, Volume 3, however, subsummary and general summary sheets are not required. Quantity summaries shall be provided in electronic format (Excel and PDF) prior to construction for the LPA's use in establishing testing requirements.

The LPA shall have 10 Work Days from receipt to review complete submissions. The following are excluded as Work Days: State Holidays, Federal Holidays, Saturdays, Sundays, the Friday after Thanksgiving, Christmas Eve, and the days between Christmas and New Year's Day. This review time must be shown on the required Progress Schedule.

Submittal	Adjusted Review Time	
Athens County Engineer	10 Work Days	

Following the review, the LPA will return to the DBT marked plans holed 'ACCEPTED', 'ACCEPTED AS NOTED' or 'NOT ACCEPTED' as described in Section 105.02 of the Construction and Material Specifications. The DBT shall correct errors, incorporate changes, perform investigations and make related changes to the plans and supporting documents prior to submitting construction plans.

<u>Plan Review Distribution Table:</u> The DBT shall supply an electronic version (in PDF format) along with half size (11" x 17") paper prints simultaneously to the parties indicated below except that each affected utility company shall receive one full size (22"x34") plans:

office of	Number of half size Sets
	PDF format (emailed or mailed CD or DVD)
	PDF format (emailed or mailed CD or DVD)

20.11 Released for Construction Plans

After the review comments for the Final Design review submission have been complied with, and following approval of the design documentation, the DBT shall prepare plan sets for use during construction. All review comments shall be resolved in writing by the DBT to the satisfaction of the LPA and appropriate third-party agencies before the DBT submits the

construction plans. No revisions shall be made except for those revisions needed to address Final Design review comments.

Each plan sheet shall have its last revised date noted on the sheet and clearly marked 'Released for Construction'. The 'Released for Construction' plan set shall be signed, dated and sealed by a Professional Engineer. Physical construction shall not begin until the plans marked 'Released for Construction' are delivered to each party on the Plan Distribution Table below.

No time extensions will be approved by the LPA if the plan distribution is not completed and project delays occur as a result.

Plans Distribution Table: The DBT shall supply an electronic version (in PDF format) along with full size (22" x 34") and/or half size (11" x 17") paper prints of each plan submission simultaneously to the parties indicated below:

	X.	
	#of Fulb	# of Half
	Set	Sets
Athena County Funing on (LDA)		2
Athens County Engineer (LPA)	J	2
ODOT District 10	2	2
ATTN: District LPA Manager and LPA Construction Monitor		
Each affected utility or railroad company	1	
Folialinty		
0.12 Railroad Submittals		
t Applicable.		
0.13 Plan Distribution Addresses		

20.12

Not Applicable.

20.13

Ohio Department of Transportation, District 10 338 Muskingum Drive Marietta, Ohio 45750

ATTN: District LPA Manager

Eric Reed, PE

Eric.Reed@dot.ohio.gov

LPA Construction Monitor and

Greg Huffman, PE

Greg.Huffman@dot.ohio.gov

Athens County Engineer's Office (LPA) Jeff Maiden, PE, PS, County Engineer 16000 Canaanville Rd Athens, Ohio 45701 jmaiden@athensoh.org

Utility Companies (As shown in section 10)

20.14 As-Built Construction Record-Drawing Plans

At the completion of the construction work for each respective Buildable Unit, the DBT shall provide a "Red-Line" set of drawings that clearly identify all changes made to the Construction Documents. They may be noted by hand markup of the revisions, utilizing the Clouding command in MicroStation (or other CAD software) or the Clouding command in PDF editing software. The red-lined drawings shall have a Contractor signed verification on the title sheet indicating all field changes are being incorporated into the red-lined drawings.

Prior to Final Acceptance of the Work, the DBT shall turnish the LPA formal As-Built Construction Record-Drawing plans. The DBT shall provide a general summary within the final As-Built Construction Record-Drawing plans. The formal As-Built Construction Record-Drawing shall include all red-lined changes. Red-line change shall be denoted utilizing the Clouding command in MicroStation (or other CAD software) of the Clouding command in PDF editing software. The As-Built Construction Record-Drawing shall have a signed verification on the title sheet from the Designer and the Contractor indicating that all red-lined and field changes have been incorporated into the As-Built Construction Record-Drawing.

Note: The Contractor's verification statement indicates all known field modifications made after the RFC plans where sealed by the Designer have been included in the formal necord-Drawing. The Contractor's verification statement shall be signed by the Contractor's Project Manager (or acceptable representative).

Note: The Designe S verification indicates the Designer's acknowledgement of the red-line and field changes, the presented field changes have been included within the As-Built Construction Record-Drawing and is the Designer's concurrence that these changes meet the design intent of the Contract. The Designer's verification statement shall be signed by the Lead Designer's representative.

The DBT may choose to omit the "Red-Line" submission and submit only formal As-Built Construction Record-Drawing.

In addition to the information shown on the construction plans, the Record-Drawing plans shall show the following:

1. All deviations from the original approved construction plans which result in a change of location, material, type or size of work.

- 2. Any utilities, pipes, wellheads, abandoned pavements, foundations or other major obstructions discovered and remaining in place which are not shown, or do not conform to locations or depths shown in the plans. Underground features shall be shown and labeled on the Record-Drawing plan in terms of station, offset and elevation.
- 3. The final option and specification number selected for those items which allow several material options under the specification (e.g., conduit).
- 4. Additional plan sheets may be needed if necessary to show work not included in the construction plans.

Notation shall also be made of locations and the extent of use of materials, other than soil, for embankment construction (rock, broken concrete without reinforcing steel, etc.).

The Plan index shall show the plan sheets which have changes appearing on them.

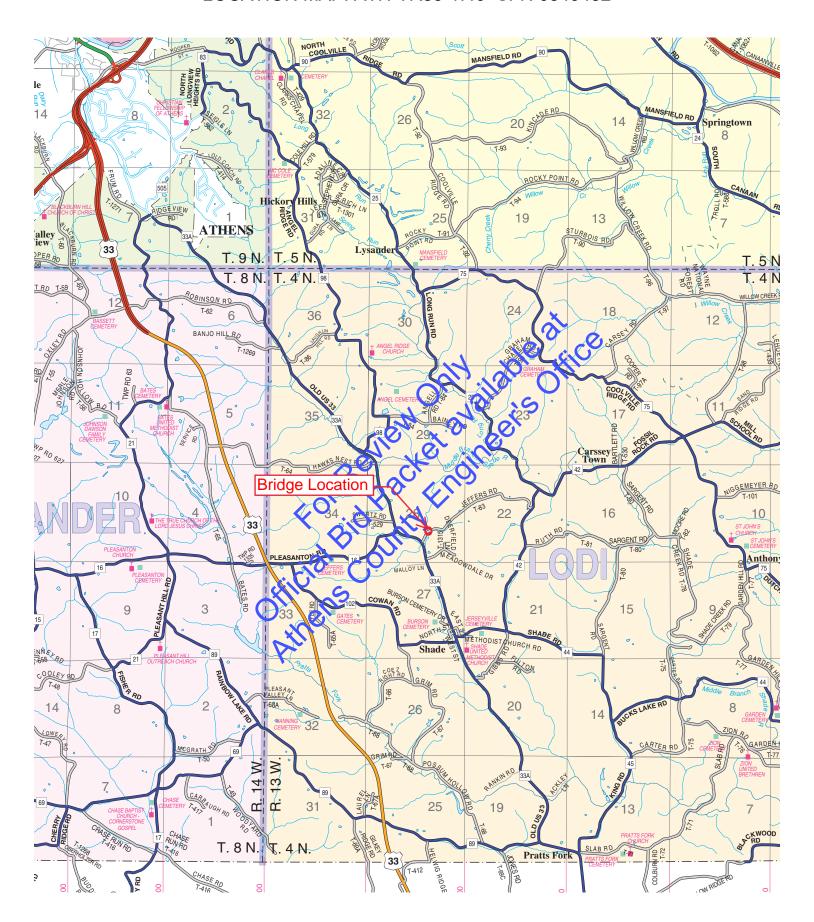
Two copies of the As-Built Construction Record-Drawing plans shall be delivered to the Project Engineer for approval upon completion of the physical work but project to the request for final payment. After the LPA has approved the As-Built Construction Record-Drawings, the associated electronic files shall be delivered to the respective ODO7 district. Acceptance of these plans and delivery of the associated electronic files is required prior to the work being The plans shall be prepared in conformance with the Location and Design Manual, Volume 3, Section 1200 - Plan Preparation.

APPENDIX A

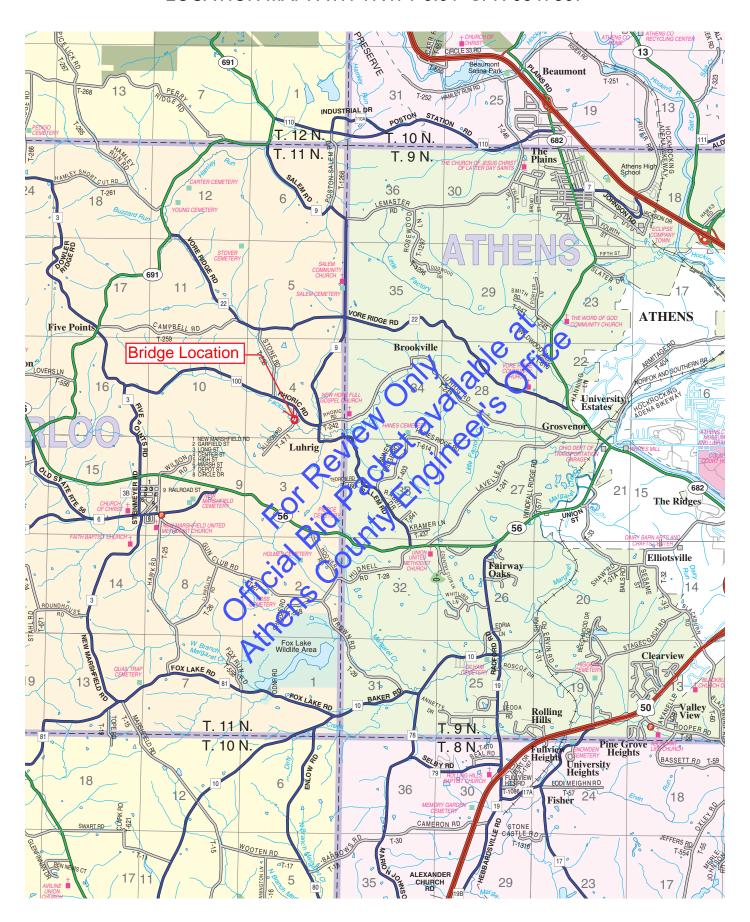
Location Maps

Officials Collection Maps

LOCATION MAP: ATH-TR83-1.40 SFN 0549452



LOCATION MAP: ATH-TR471-0.01 SFN 0547867



APPENDIX B

Current Bridge Inventory and Inspection Reports

Inspector: Wackerly, John **Structure Number:** 0549452 12/20/2022 Inspection Date: **Facility Carried:** TR 83 Jeffers

Bridge Inspection Report

Ohio Bridge Inspection Summary Report

ATH-T0083-0140 (0549452)

2: DistrictDistr 44590 - LOD ict	I TWP (ATH county)	5A: Inventory Route 1	T0083
10 21: Major Maint A/B 02	- County Highway Agency /	7: Facility On TR 83 Jeffe	ore.
	- County Highway Agency /	6: Feature Ints SHADE RI	
	- County Highway Agency /		AST TO CR167
220: Inv. Location LOD		Lat, Lon 39.241907	,-82.04317
	Condition	Str	ucture Type
58: Deck	6 - Satisfactory Condition	43: Bridge Type 3 - Ste	eel
58.01 Wearing Surface	N - Not Applicable	02 - S	tringer/Multi-beam or Girder
58.02 Joint	6- Satisfactory (isolated leaking)	N- No	t Applicable
59: Superstructure	5 - Fair Condition	45: Spans Main / Approa	nch 1 / 0
59.01 Paint & PCS	4 - Poor PCS (15-20% corr.)	107: Deck Type	8 - Wood or Timber
60: Substructure	3 - Serious Condition	408: Composite Deck	U A nknown
61: Channel	6	414A Joint Type	Sliding Metal Plate Angle
61.01 Scour	6 - Satisfactory	414B; Joint Type 2	N - None
62: Culverts	N - Not Applicable	108A: Wearing Surface	7 - Wood or Timber
67.01 GA	3	0 0 5	N- Not Applicable
	Appraisal	422: WS Date	
Sufficiency Rating	25.4 SD/FO 1 - SD	423: WS (In)	0.0
36: Rail, Tr, Gd, Term Std	0 0 0 0	482. Protective Coating	U - Unknown Sealant
72: Approach Alignment	3 - Basically intolerable requiring high	483: PCS Date	01/01/1977
	priority of corrective action	453: Bearing Type 1	3 - Sliding (Bronze)
113: Scour Critical	4 - Action is required to protect expose foundations	3 11	N - None
71: Waterway Adequacy	7 - Slight Chance of Overtopping Bild	je 528: Foundn: Abut Fwd	4 - Spread Footing (on soil)
	Geometric	533: Foundn: Abut Rear	4 - Spread Footing (on Soil)
48: Max Span Length (ft)	34-0	536: Foundn: Pier 1	N - None (Such as most Culverts)
49: Structure Length (ft)	35.0	539: Foundn: Pier 2	N - None (Such as most Culverts)
52: Deck Width, Out-To-Out	t (ft) 16.0	Age	and Service
424: Deck Area (sf)	300	27: Year Built/ 106 Reha	b 1960 / 0000
32: Appr Roadway Width (ft51: Road Width, Curb-Curb		42A: Service On	1 - Highway
50A: Curb/SW Width: Left (f	· ·	42B: Service Under	5 - Waterway
50A: Curb/SW Width: Right		28A: Lanes on	01
34: Skew (deg)	20	28B: Lanes Under	00
33: Bridge Median	0 - No median	19: Bypass Length	2
54B: Min Vert Underclearan		29: ADT	96
336A: Min Vert Clrnce IR Ca	• •	109: % Trucks (%)	7
336B: Min V Clr IR Non-Car			
578: Culvert Length (ft)	0	insp	pections
	Load Posting	90: Routine Insp.	Months 12 12/20/2022
-		92A: FCM Insp. N	0
41: Op/Post/Closed P - Posted for Load		92B: Dive Insp. N	0
	n 39.9% below legal loads	92C: Special Insp. N	0
70.01: Date		92D: UBIT Insp. N	0
70.02: Sign Type	25	92E: Drone Insp. N	0
3 · ()	25		
•	12/27/2017	Inspector Wackerly,Jo	nn
63: Analysis Method	7 - Allowable Stress (AS) rating reported	u	

Inspector:Wackerly,JohnStructure Number:0547867Inspection Date:12/13/2022Facility Carried:TR 471

Bridge Inspection Report

Ohio Bridge Inspection Summary Report

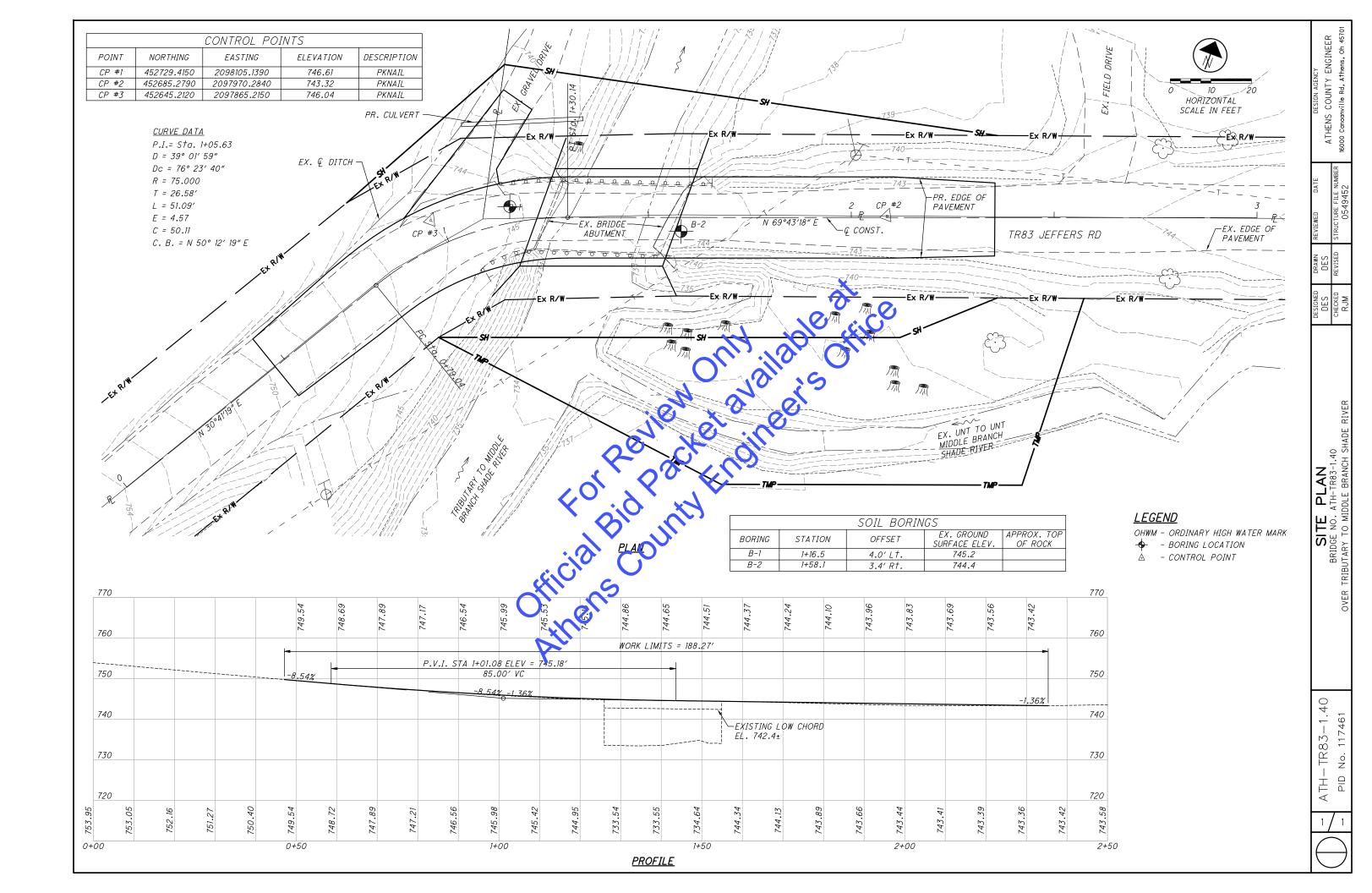
ATH-T0471-0001 (0547867)

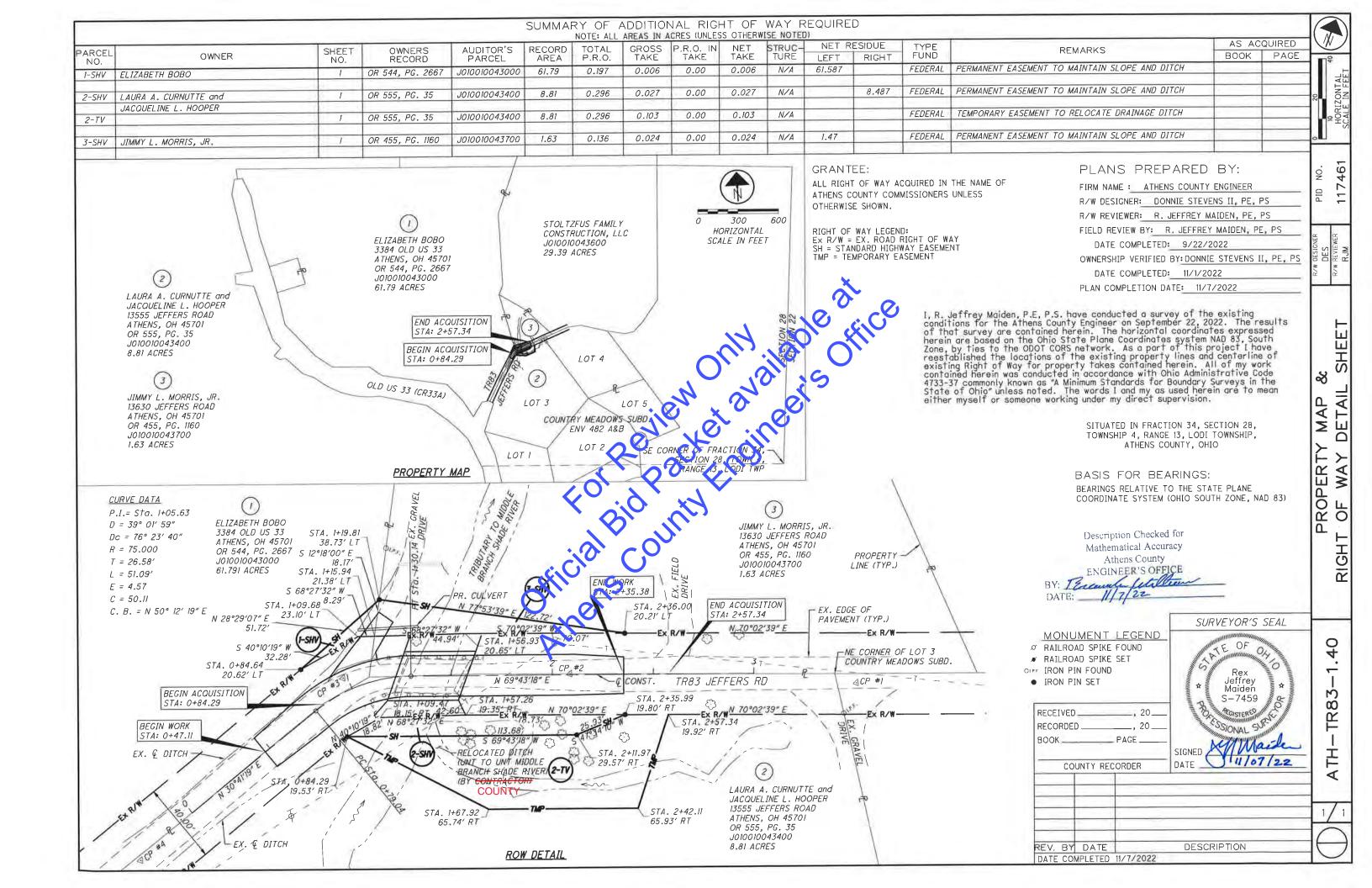
2: DistrictDistr 81777 - WAT ict 10	TERLOO TWP (ATH county)	5A: Inventory Route 1 T0471
	- County Highway Agency /	7: Facility On TR 471
	- County Highway Agency /	6: Feature Ints TRIB TO FACTORY CREEK
	- County Highway Agency /	9: Location JCT OF CR 100
220: Inv. Location WAT		Lat, Lon 39.336947 ,-82.188681
	Condition	Structure Type
58: Deck	3 - Serious Condition	43: Bridge Type 1 - Concrete
58.01 Wearing Surface	6 - Satisfactory (1-10% distress)	01 - Slab
58.02 Joint	N- Not Applicable	N- Not Applicable
59: Superstructure	3 - Serious Condition	45: Spans Main / Approach 1 / 0
59.01 Paint & PCS	N - Not Applicable	107: Deck Type 💢 1 - Concrete Cast-in-Place
60: Substructure	3 - Serious Condition	408: Composite Deck U Anknown
61: Channel	4	414A Joint Type V None
61.01 Scour	4 - Poor or Advanced Scour (Spre- undermining, Deep: Piles may be visible)	Olive Illa O
62: Culverts	N - Not Applicable	108A) Wearing Surface 0 - None
67.01 GA	3	N- Not Applicable
	Appraisal	422: WS 7ate
Sufficiency Rating	19.7 SD/FO 1/56	423: WS Thick (in) 0.0
36: Rail, Tr, Gd, Term Std	0 0 0 0	462. Protective Coating N - None or Not Applicable
72: Approach Alignment	6 - Equal to present minimum cuteria	483: PCS Date
113: Scour Critical	4 - Action is required to protect expo	453: Bearing Type T N - None
	foundations	455: Bearing Type 2 N - None
71: Waterway Adequacy	7 - Slight Chance of Overtopping Bri	dge 528: Foundn: Abut Fwd 4 - Spread Footing (on soil)
	Geometric C	533: Foundn: Abut Rear 4 - Spread Footing (on Soil)
48: Max Span Length (ft)	(\$200 G	536: Foundn: Pier 1 N - None (Such as most Culverts)
49: Structure Length (ft)	27.0	539: Foundn: Pier 2 N - None (Such as most Culverts)
52: Deck Width, Out-To-Ou	t (ft) 15.0	Age and Service
424: Deck Area (sf)	405	27: Year Built/ 106 Rehab 1936 / 0000
32: Appr Roadway Width (ft	•	42A: Service On 1 - Highway
51: Road Width, Curb-Curb		42B: Service Under 5 - Waterway
50A: Curb/SW Width: Left (1		28A: Lanes on 01
50A: Curb/SW Width: Right		28B: Lanes Under 00
34: Skew (deg)	0 0 - No median	19: Bypass Length 5
33: Bridge Median		29: ADT 40
54B: Min Vert Underclearan 336A: Min Vert CIrnce IR Ca		109: % Trucks (%)
336B: Min V Clr IR Non-Cai		
578: Culvert Length (ft)	0	Inspections
		Months
	Load Posting	90: Routine Insp. 12 12/13/2022 92A: FCM Insp. N 0
41: Op/Post/Closed	P - Posted for Load	92B: Dive Insp. N 0
•	n 39.9% below legal loads	92C: Special Insp. N 0
70.01: Date		
70.02: Sign Type		•
734: Percent Legal (%)	40	·
704: Analysis Date	12/27/2017	Inspector Wackerly, John

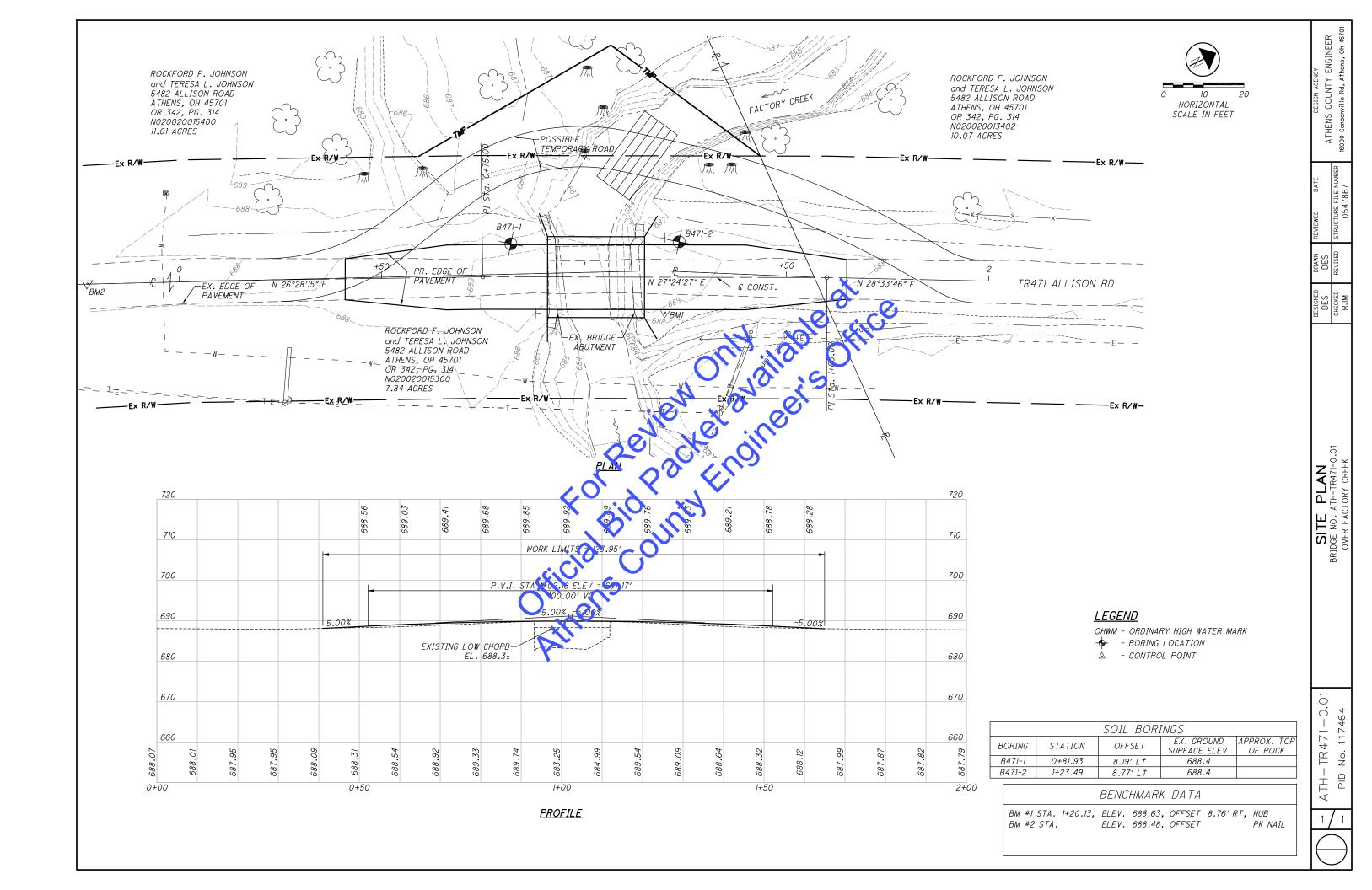
APPENDIX C

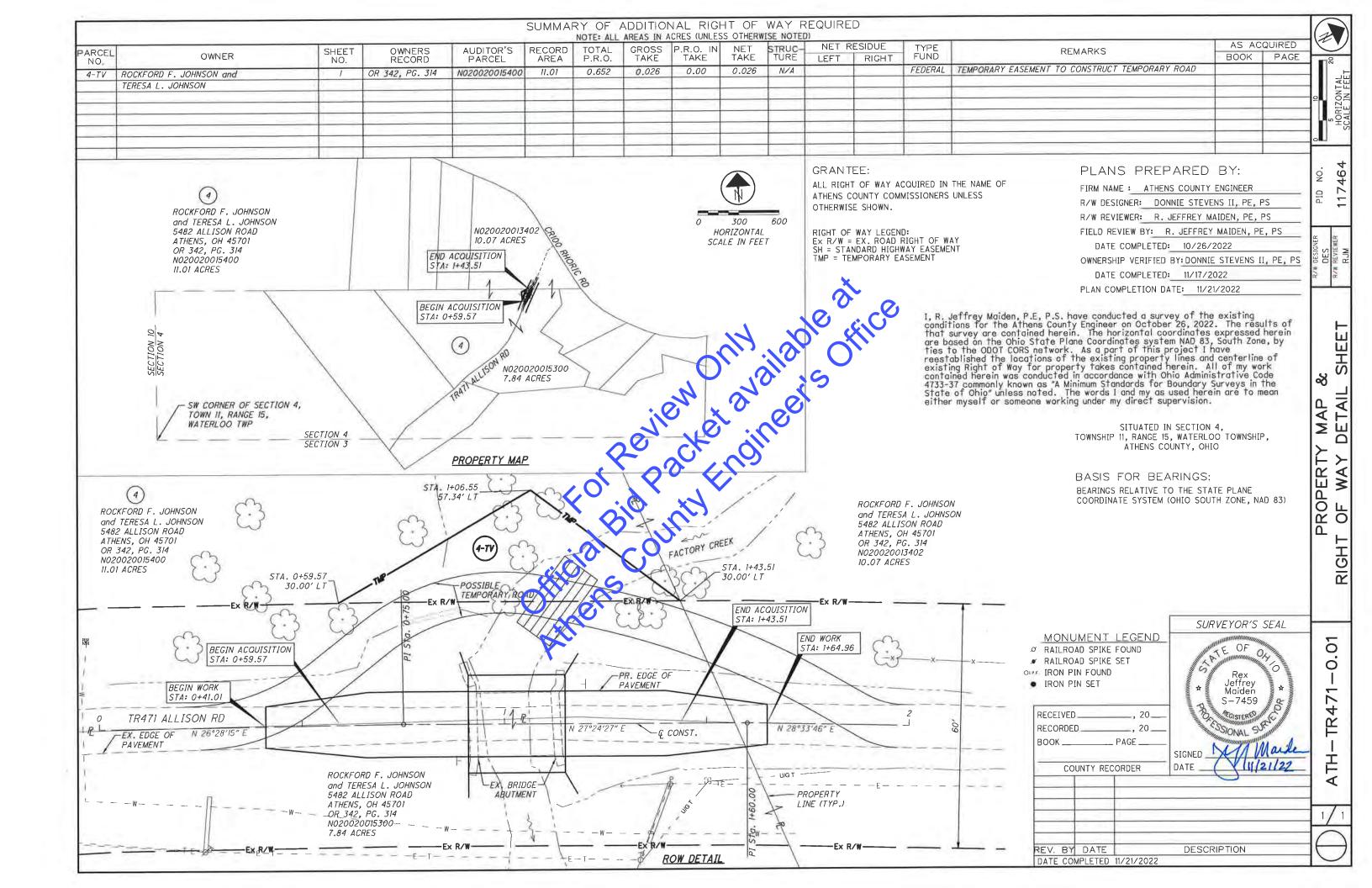
Preliminary Plans

Official Country Plans









APPENDIX D

Preliminary Subsurface
Exploration



Final Structure
Foundation Exploration
Report
ATH-TREATHO
Adhens Juny,
April 19, 2023
April 19, 2023
April 19, 2023
April 19, 2023
Athens Old 45701
By:
HDR
9999 Carver Road, Suite 210
Blue Ash, OH 45242

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	Exhib	oit No. 2: Physiographic Regions of Ohio	
	Exhib	oit No. 3: Surficial Geology	
	Exhib	it No. 4a: Soil Survey Map - Soil Types	

	Exhibit No. 4b: Soil Survey Map - Corrosion of Concrete	
	Exhibit No. 4c: Soil Survey Map - Corrosion of Steel	
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Athens County Engineers

Athens

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Official County

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EXECUTIVE SUMMARY

This report summarizes the results of the structure foundation exploration program performed in support of the replacement of Bridge No. ATH-TR83-1.40 (SFN 0549452) carrying Jeffers Road, Township Route 83 (TR 83), over an Unnamed Tributary to Middle Branch Shade River in Lodi Township, Athens County, Ohio.

The report includes the geotechnical information obtained from borings and laboratory testing performed under this study. The exploration findings, along with the laboratory test results, are presented in more detail in Section 3, as well as in Appendices B and C, of this report.

Based on HDR's assessment of the borings, the generalized soil profile consists of existing fill material over granular and cohesive alluvial soils. Sandstone bedrock is present along the bottom of the stream bed and was encountered at relatively shallow depths in the borings. Further discussion on the encountered subsurface conditions is in Section 4.

Given the relatively shallow depth to competent sandstone bedrock (approximately 7 to 12 feet), it is anticipated that that either shallow foundations bearing directly on, as seep foundations socketed into, competent sandstone may be utilized to support the new bridge structure. The selected design build team will determine the appropriate foundation type. As such, parameters are provided for the design of both foundation types in Section 5 and in Appendix D.

1 INTRODUCTION

This report summarizes the results of the structure foundation exploration program performed in support of the replacement of Bridge No. ATH-TR83-1.40 (SFN 0549452) carrying Jeffers Road, (TR 83) over an unnamed tributary to Middle Branch Shade River. The ATH-TR83-1.40 project is located in south-central Athens County as shown on the Site Vicinity Map (Exhibit No. 1) in Appendix A, approximately 3.5 miles north from the border of Meigs County. The work includes the removal of the existing 34-foot bridge structure and its replacement at the same location with a presumed single-span box beam bridge structure using the design-build contracting method. Minimal approach work is anticipated, with a total project length of 189 feet, from Station 0+47 to Station 2+35.

This geotechnical study was authorized by the Ohio Department of Transportation (ODOT) on February 16, 2023, under the VAR-STW Geotechnical Engineering Services CEAO 2023-2 contract. The geotechnical services performed under this task order were conducted in general accordance with ODOT's Specifications for Geotechnical Explorations (SGE), Geotechnical Design Manual (GDM), Bridge Design Manual (BDM), and the Location and Design Manual, Volume 2. All four documents are dated January 2023. The scope of work relative to this exploration report included:

- A literature search and field reconnaissance of the project site
- · review of available soil and geologic information within the project area,
- the development and performance of a subsurface exporation program to evaluate the existing subsurface conditions at the budge location,
- laboratory testing on selected soil and rock samples in accordance with the requirements of the SGE,
- characterization of a generalized soil and rock profile along with recommended design strength parameters, and
- preparation of this Structure coundarion Exploration report.

This report presents the descriptions and interpretations of the encountered subsurface conditions at the site and provides general geotechnical recommendations to assist in the development of the plans and design of the bridge structure with the selected design build team.

2 GEOLOGY AND OBSERVATIONS

2.1 Project Setting

This project is located within the south-central portion of Athens County, Ohio in a rural setting surrounded by wooded and agricultural parcels, as well as nearby residential properties. Elevations along the project site range from about El. 750 outside of the bridge limits to approximately El. 734 at the stream crossing itself.

2.2 Soil and Geologic Setting

A review of the Physiographic Regions of Ohio map (Ohio Division of Geological Survey, 1998) indicates that the project site is located within the Marietta Plateau of the Allegheny Plateau region of

2

the Appalachian Plateaus province (Exhibit No. 2 in Appendix A). The Marietta Plateau region is characterized by dissected, high-relief plateaus (generally 350 feet at the project area). Elevations in this region generally range from 515 to 1,400 feet above sea level. Soils in the Marietta Plateau generally consist of Pleistocene (Teays)-age Minford Clay and red and brown silty-clay loam colluvium over Pennsylvanian-aged Upper Conemaugh Group through Permian-age Dunkard Group cyclic sequences of red and gray shales, siltstones, sandstones, limestones, and coal.

While drainage within Athens County is chiefly accommodated by the Hocking River and its tributaries, the south central portion of the county is located with the watershed of the Shade River. The project site itself is directly drained by an unnamed tributary to the Middle Branch Shade River, which flows southeast into Meigs County towards the Ohio River.

According to the Quaternary Geology of Ohio map from the Ohio Department of Natural Resources (ODNR) Division of Geological Survey (Exhibit No. 3 in Appendix A), surficial soils at the site consist of primarily of Cenozoic aged colluvium (Cc) derived from local bedrock in unglaciated areas and includes scattered areas of residuum, weathered material, landslides, and bedrock outcrops. Pre-Illinoian aged alluvial deposits are also located near the project area, approximately 0.25 mile south and west of the site. These Lacustrine deposits (Kl, Lk) include mostly Micrord Clay and Silts, formed in pre-Illinoian ("Kansan") ice-dammed lakes. The alluvium consists of landinated clays and silts commonly covered with thin colluvial sand, silt, or gravel

2.2.1 Project Soils

The USDA Soil Survey of Athens County indicates the most prevalent surficial soil types within the project limits are the silt loams of the Brookside (BrD) and Kirinick-Lindside (KnL1AF) units as shown in Exhibit No. 4a.

Soils of the Brookside silt loam (15 to 25 percent slopes) consist of 85 percent Brookside and similar soils, and 15 percent minor components. The Brookside soils generally consist of silt, silty clay, and channery silty clay loams derived from clayey colluvium originating from the underlying sedimentary rock. These moderately well drained soils are typically located on hillslopes with a moderately high water capacity.

Soils of the Kinnick-Lindside silt loam (0 to 3 percent slopes) consist of 70 percent Kinnick and similar soils, 20 percent Lindside and similar soils, and 10 percent minor components. The frequently flooded Kinnick-Lindside soils generally consist of silt loam derived from silty alluvium. These soils are typically located in flood plains with a moderately high to high water capacity.

As shown on Exhibit Nos. 4b through 4d in Appendix A, the soil survey indicates the soils within the project area are considered to have low to moderate risk of corrosion to concrete, a moderate to high risk of corrosion to steel, and have pH levels of 6.4 and 6.5.

2.2.2 Bedrock Geology

As shown on Exhibit No. 5 (Bedrock Geology Map), the geology mapped within the project area is the Upper Pennsylvanian-age bedrock of the Monongahela and Conemaugh Groups. The Monongahela Group (IPm) generally consists of shale, siltstone, sandstone, mudstone, limestone, and coal. The unit contains economic coal beds and locally contains plant fossils. Bedrock of the Conemaugh Group (IPc) generally consists of shale, siltstone, mudstone, sandstone, non-marine limestone, and coal. The coal beds within the Conemaugh Group are generally thin and locally contains plant fossils.

Based on review of the ODNR Mine Maps as shown in Exhibit No. 6 (Mines of Ohio Map), historical coal mining of the Pittsburgh No. 8 seam of the Monongahela Group was performed in the area, with several mine openings, deep and surface mines located within approximately 2 miles of the project site. However, no documented mines are located at the site itself. Bedrock elevation in the project area, as shown on Exhibit No. 7 (Bedrock Topography Map), is approximately 750 feet at the bridge structure. The contours form a generally south to north trending channel at the bridge structure, following that of the stream flow.

3 EXPLORATION

3.1 Site Reconnaissance

A visual reconnaissance of the project site and surrounding area was performed by an HDR geotechnical engineer on December 1, 2022 to mark the preliminary boring locations and during the drilling activities on March 20, 2023. The project site is located within a wooded, relatively wide valley, with a residence located to the north of the bridge. The existing bridge is a two-lane structure carrying TR 83 over an unnamed tributary of Middle Branch Shade River. The bridge is supported by steel sections spanning between the rear and forward abutments. Each abutment is constructed of stacked stone masonry blocks. The bridge deck consists of 35-inch tail by 2.5 inch wide timbers with an asphaltic concrete overlay. Sandstone bedrock is visible in the beat of the stream, which measures about 10.5 feet below the bridge deck. At the time of drilling, the bridge had been closed, with barricades placed on either end of the structure.

3.2 Subsurface Exploration

Two borings were drilled as part of the geotechnical exploration program to assess the subsurface conditions within the ATH-TR83-1.40 project limits. The locations of the test borings are shown on the Boring Location Plan (Exhibit No. 8) in Appendix A. The test borings were located and marked in the field during the initial visual reconnaissance on December 1, 2022. These as-drilled locations are reflected on the boring plan, the boring legs in Appendix B, and Table 3-1.

Table 3-1. Summary of Bridge structure Borings

Boring Number	Boring Type ¹	Alignment	Station	Offset	Surface (El., ft)	Top of Bedrock (El., ft.)	Bottom of Borehole (El., ft.)	
B-001-0-23	E1	TR 83	1+17	4 ft LT	745.2	738.3	721.2	
B-002-0-23	E1	TR 83	1+58	3 ft RT	744.4	733.6	717.6	
100070 1 0 1 1 0 1 0 1 (71)								

¹ ODOT Boring Designations: Bridge Structure (E1)

The borings were drilled on March 20, 2023 by Central Star Drilling, under the supervision of an HDR geotechnical engineer, with a Diedrich D-50 track rig. The rig was calibrated on March 7, 2022 and has an energy ratio of 86.8%. All borings were drilled in general accordance with the *Specifications for Geotechnical Explorations* (ODOT revised January 2023) utilizing 3.25-inch internal diameter hollow stem augers to advance the borings to the top of bedrock. The sampling of the soils was accomplished in accordance with the *Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils*, ASTM D 1586. In the split-barrel sampling procedure, a standard 2-inch outside

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diameter split-barrel sampling spoon is driven into the ground with a 140-pound hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a typical 18-inch penetration is recorded as the standard penetration test (SPT) resistance or N_{SPT}value. The N_{SPT}-value is then corrected to an energy ratio of 60%, termed N₆₀, which is used for design.

Sampling of the underlying bedrock was performed in accordance with the Standard Practice for Rock Core Drilling and Sampling of Rock for Site Investigation, ASTM D 2113, using an NQ2-size double tube-swivel barrel with a diamond bit. Boring logs and photographs of the recovered rock core samples are provided in Appendix B.

Laboratory Testing 3.3

The obtained soil and rock samples were visually examined by an HDR geotechnical engineer, and representative soil samples selected for laboratory testing to confirm the field classification and to assess the various engineering properties of the soils. Soil index testing performed by HDR included 12 natural moisture content tests (per ASTM D 2216), 10 Atterberg limit determinations (per ASTM D 4318), and 10 grain size analyses (per ASTM D 422). The results of the solivindex tests are presented on the final boring logs located in Appendix B. In addition to the soil index esting, 4 unconfined compression tests (ASTM D 7012 - Method C) and 2 slake durability index (ASTM D 4644) were performed on bedrock samples. Results of these tests are presented on the individual laboratory sheets included in Appendix C.

4 FINDINGS

The generalized soil profile as encountered in the two test borings consists of embankment fill, as found behind the existing bridge abutments, overlying layers of granular and cohesive alluvium. Sandstone bedrock was encountered beneath the soil overburden at a relatively shallow depth.

As the borings were located within the existing limits of the roadway, the surficial materials consisted of 12 inches of asphalt pavement Boling B-001-0-23 and 4 inches of asphalt over 4.5 inches of granular base in Boring B-002-0-23. Approximately 2.5 to 4.5 feet of embankment fill material was encountered beneath the pavement system. The fill material consisted of both cohesive and granular Sandy Silt (A-4a), as well as medium dense Gravel and/or Stone Fragments with Sand and Silt (A-2-4) and medium dense Coars and Fine Sand (A-3a).

Alluvial soils were encountered below the fill material. The alluvium generally consisted of cohesive layers of soft to medium stiff Sandy Silt (A-4a), medium stiff Silt (A-4b), and medium stiff Silt and Clay (A-6a). However, layers of Loose Gravel and/or Stone Fragments with Sand (A-1-b) and medium dense Gravel and/or Stone Fragments with Sand and Silt were encountered in Boring B-002-0-23 from El. 739.4 to El. 737.9 and El. 734.9 to El. 733.6 (top of bedrock), respectively.

Sandstone bedrock was encountered beneath the alluvial soil deposits at a depth of 6.9 feet (El. 738.3) in Boring B-001-0-23 and at 10.8 feet (El 733.6) in Boring B-002-0-23. The sandstone extended to the respective boring termination depths of 24 feet (El 721.2) and 26.8 feet (El. 717.6). The uppermost 1 to 1.4 feet was weak, highly weathered, and sampled utilizing the split-barrel sampling procedure, with split spoon refusal obtained (N > 50/6"). The remainder of the coarse-grained sandstone was characterized as slightly to moderately weathered, and slightly strong, with a stratum rock quality designation (SRQD) of 56% to 96%.

Groundwater was not encountered in either boring during drilling, and water levels upon completion were not obtained as water was introduced into the boreholes during the rock coring process. Furthermore, delayed water readings were not obtained as the borings were sealed immediately upon completion given their locations within the TR 83 travel lanes. However, groundwater levels at the site are expected to vary depending upon precipitation, the water elevation within the unnamed tributary of the Middle Branch Shade River, and other seasonal variations.

5 ANALYSES AND RECOMMENDATIONS

5.1 Bridge Foundations

The project involves the replacement of an existing single-span structure carrying Jeffers Road (TR 83) over a tributary of Middle Branch Shade River. As this will be a design-build project, providing a recommended foundation type is outside the scope of this study. However, given the relatively shallow depth to bedrock at the site (approximately 7 to 12 feet below the existing ground surface at the boring locations), it is anticipated that either shallow foundations bearing directly on, or deep foundations socketed into, competent sandstone may be utilized to support the bridge abutments. As such, parameters are provided for the design of both foundation types.

5.2 Determination of Soil and Rock Parameters

Soil parameters were developed primarily from laboratory tests, supplemented by published correlations with SPT data and plasticity ridices, recorded pocket penetrometer readings, and our engineering experience and judgement. A summary of the recommended soil strength parameters and design profile elevations are provided in Table 5-

Table 5-1. Recommended	l Soil	Strength	Parameters
------------------------	--------	----------	------------

Recommended Design Profile		o terial	رص ر	Init Wt. ¹	Undrained Shear Strength		Drained Shear Strength	
Top Elevation (ft)	Bottom Elevation (ft)	Na eliai	үт (pcf)	γ _{eff} (pcf)	S _u (psf)	ф' (°)	c' (psf)	φ' (°)
745	742	Cohesive Soil	120	57.6	1300	0	120	23
742	740	Granular Soil	120	57.6	0	30	0	30
740	735	Cohesive Soil	120	57.6	1300	0	120	23
735	734	Granular Soil	120	57.6	0	30	0	30

^{1.} Effective unit weights to be used below groundwater (assumed at El 734 in the recommended design soil profile).

The recommended design parameters for the underlying sandstone bedrock are provided below in Table 5-2 for shallow foundations on rock and Table 5-3 for drilled shafts socketed in rock. The details of the parameter development for both soil and rock are located in Appendix D.

Table 5-2: Recommended Bedrock Design Parameters (Shallow Foundations)

Rock Type	Unconfined Compressive Strength Qu (psi)	Slake Durability Index SDI (%)	Rock Quality Designation RQD (%)	Unit Weight (pcf)	Rock Mass Rating RMR (dim)	m ¹	s²	Resistance Factor, фb	Nominal Bearing Resistance (psi)
Sandstone	3000	79	80	135	74	15	0.056	0.45	1200

- 1. m = rock mass material constant defining the shape of the Mohr's circle for uniaxial compression
- 2. s = rock mass material constant defining intactness (quality) of the rock mass

Table 5-3: Recommended Bedrock Design Parameters (Drilled Shaft Foundations)

Rock Type	Unconfined Compressive Strength Qu (psi)	Slake Durability Index SDI (%)	Rock Quality Designation RQD (%)	Unit Weight (pcf)	Rock Mass Rating, RMR (dim)	Unfactored Unit Tip Resistance (psf) ¹	Unfactored Unit Side Resistance (psf) ¹
Sandstone	3000	79	80	135	74	7,500	550

1. Calculated based on AASHTO Equation 10.8.3.5.4c-1 (per ODOT GDM) for Drilled Sharts in rock.

If rock-socketed deep foundations are utilized, consideration should be given to neglect the contribution of the soil overburden for lateral resistance (in addition to the axial resistance) given the limited thickness of soil anticipated to remain below the bottom of the new bridge abutments and the top of bedrock. However, if needed, Table 5.4 provides a summary of the recommended design parameters for lateral analyses performed using the LPILE software program by Ensoft.

Table 5-4. Recommended Lateral Design Parameters

	ded Design file		5) ((t Wt.		K (pci)²
Top Elevation (ft)	Bottom Elevation (ft)	Materia!	γ _T (pcf)	γε _{ff} (pcf)	E50 ¹	Above Groundwater	Below Groundwater
745	742	Cohesive Soil	120	57.6	0.007		
742	740	Granular Soil	120	57.6		90	60
740	735	Cohesive Soil	120	57.6	0.007		
735	734	Granular Soil	120	57.6		90	60

- 1. Any piles spaced closer than five (5) pile widths must also consider group effects.
- 2. ε50 and k values per LPile Technical Manual.

5.3 Scour Evaluation Parameters

5.3.1 Soil Overburden

As sandstone bedrock is present along the stream bed, continuous sampling of the soil overburden was conducted above the elevation of the stream bed in Borings B-001-0-23 and B-002-0-23 to assist with the determination of the scour analysis parameters per Section 1302 of the GDM. The 6 feet of continuous samples per SGE Section 303.7.1 was obtained in Boring B-002-0-23. However, sampler

refusal was encountered on bedrock in Boring B-001-0-23 prior to penetrating the full 6 feet. Table 5-5 below summarizes the sampling depths and respective scour analysis parameters to be utilized in determining the predicted scour depth.

Table 5-5: Scour Analysis Parameters

Boring	Sample	Depth	D50 Value (mm)	Critical Shear Stress, Tc (psf)	Erosion Category, EC (dim)
	SS-1A	744.2	0.0986	0.829	2.75
B 004 0 22	SS-1B	743.2	0.1542	0.154	1.23
B-001-0-23	SS-2	741.7	0.1128	0.376	2.63
	SS-3	740.2	0.0487	0.335	2.87
	SS-3	739.4	0.6922	0.692	2.01
D 002 0 22	SS-4	737.9	0.0528	0.349	3.07
B-002-0-23	SS-5	736.4	0.0277	0.394	2.87
	SS-6	734.9	0.1727	0,064	2.63

5.3.2 Sandstone Bedrock

If the abutments are to be founded on shallow spread footings, it is recommended that the footings bear upon scour resistant sandstone. Scour resistant sandstone which is the lowest part of the stream channel:

- 1. Unconfined compressive strength, Qu ≥ 2500 ps; per ASTM D7012, Method C
- Slake Durability Index, SDI > 90%, per ASTM 14644 3.
- 3. Rock Quality Designation, RQD ≥ 65%, per SGE Section 6 4.
- 4. Total Unit weight ≥ 150-pcf
- Rock Mass Strength Properties:
 - a. Rock Mass Rating, RMR > 75, or
 - b. Geologic Strength Index: GSI ≥ 75 with Very Good or Good Joint Surface Conditions and Massive or Blocky Structure
- 6. Erodibility Index, K ≥ 100 per publication FHWA-HIF-12-003 (HEC 18) "Evaluating Scour at Bridges," Section 4.7.2
- 7. For interbedded rock formations, consider only the weaker material.
- 8. No Ordovician bedrock formation may be considered as scour resistant rock.

The following criteria were not met based on the laboratory test data and the encountered rock properties:

- Total Unit Weight of the bedrock greater than or equal to 150 pcf. The unit weights provided
 in the lab testing results on the bedrock samples ranged from 134 pcf to 138 pcf were less
 than the required 150 pcf, which does not meet the non-scour criteria.
- Slake Durability Index (SDI) > 90%. SDI testing was performed on two sandstone bedrock samples with results of 79% and 90%. The minimum value of 79% is recommend for use in design considerations, which does not meet the non-scour criteria. Furthermore, a less conservative approach of taking the average of the two tests results in a value of 85%, which also does not meet the non-scour criteria.

8

• Rock Mass Rating (RMR) > 75. The RMR, as determined from the collected rock core from Borings B-001-0-23 and B-002-0-23, was 74.

As the sandstone bedrock encountered at the project site does not meet all 8 criteria listed in ODOT BDM Section 305.2.1.2.b(B), it is considered a non-scour resistant rock. Therefore, the bottom of footing is to be founded at least one foot below the scour depth as calculated according to HEC-18.

5.4 Additional Recommendations

5.4.1 Site Preparation

 Site preparation activities at the bridge should be performed in accordance with Item 201 and Item 202 of the current edition of the CMS. These activities are anticipated to include the pavement removal, removal of the existing bridge structure, and possible relocation of existing utilities.

5.4.2 Settlement

• Modifications to the vertical roadway alignment within the project and are expected to be minor and as such, minimal settlement is anticipated to occur. In addition, any settlement of the bridge structure itself would be limited as the bridge foundations will bear on the competent sandstone encountered at or near the ground surface at the project site. However, additional analyses to estimate the magnitude of any drag forces acting on the foundations may need to be conducted if the roadway profile is raised.

6 LIMITATION

This report documents the findings are conclusions of HDR Engineering, Inc., for the geotechnical aspects related to the planning and design of the ATH-TR83-1.40 project in Athens County, Ohio. The report has been prepared for the use of the Athens County Engineer's Office for specific application to this project, in accordance with generally accepted engineering practice. No warranty, expressed or implied, is made. Any analyses or recommendations submitted are based on the field explorations performed at the locations indicated, on specific laboratory tests on individual samples taken during this exploration, and information obtained from outside sources. The report and analyses do not reflect variations that could occur between borings or at other points in time. Variations in conditions, if any, may become evident during the construction period, at which time a re-evaluation of the recommendations may become necessary. In the event of such changes, the recommendations and changes should be reviewed by HDR's geotechnical staff.

7 REFERENCES

State of Ohio Department of Transportation (Updated January 2023); "Specifications for Geotechnical Explorations."

State of Ohio Department of Transportation (Updated January 2023); "Geotechnical Design Manual."

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Ohio Department of Natural Resources, Division of Geologic Survey (2023); "Ohio Geology Interactive Map". https://ohiodnr.gov/business-and-industry/services-to-business-industry/gismapping-services/ohio-geology-interactive-map

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Ohio Department of Natural Resources, Division of Geologic Curvey, Sturgeon, M.T. et al. (1958); "Geologic Map of Athens County, Ohio" and Plate 2 Teays Stage Drainage, Athens County, Ohio".

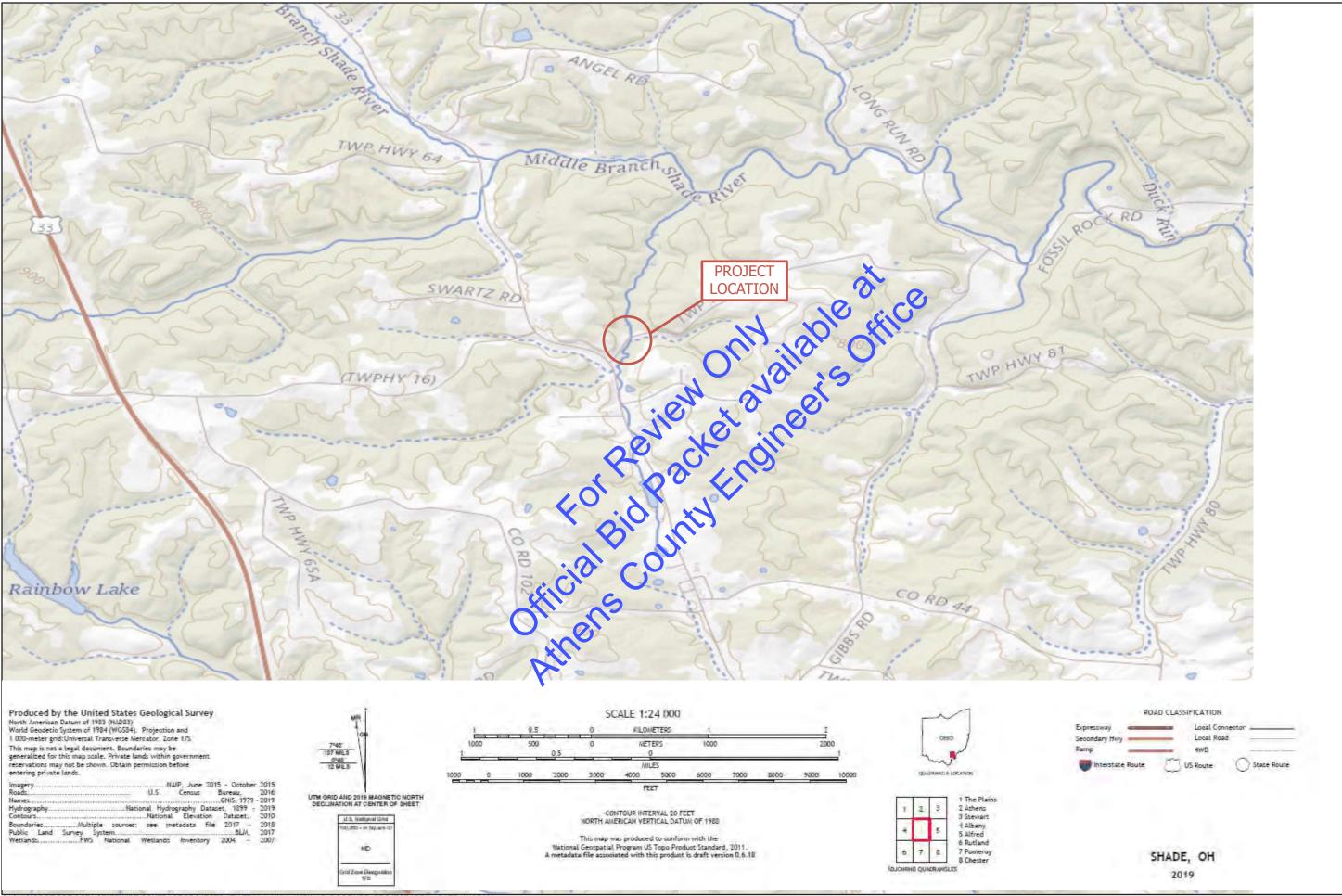
Ohio Department of Natural Resources, Division of Georgic Survey, Pavey, R.R. et al, (1999); "Quaternary Geology of Ohio".

Ohio Department of Natural Resources, Division of Seologic Survey, (1998) "Physiographic Regions of Ohio".

10

Appendix of Exphibits

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Calculated: LSH Checked: DMV

Map

Topographic

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Vicinity

Site

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2

Exhibit

.40

Project: ATH-TR83-1.

117461

PID:

G/OHIO/ODDT/ODT-OCEA STATEWIDE CONTRACT PROJECTS/ATH-TR83-1-40/7-2 WIP/MAP_DOCS/HDR_PROJECTAPRX DATE: 4/12/202

Calculated: LSH Checked: DMV

Ohio

of

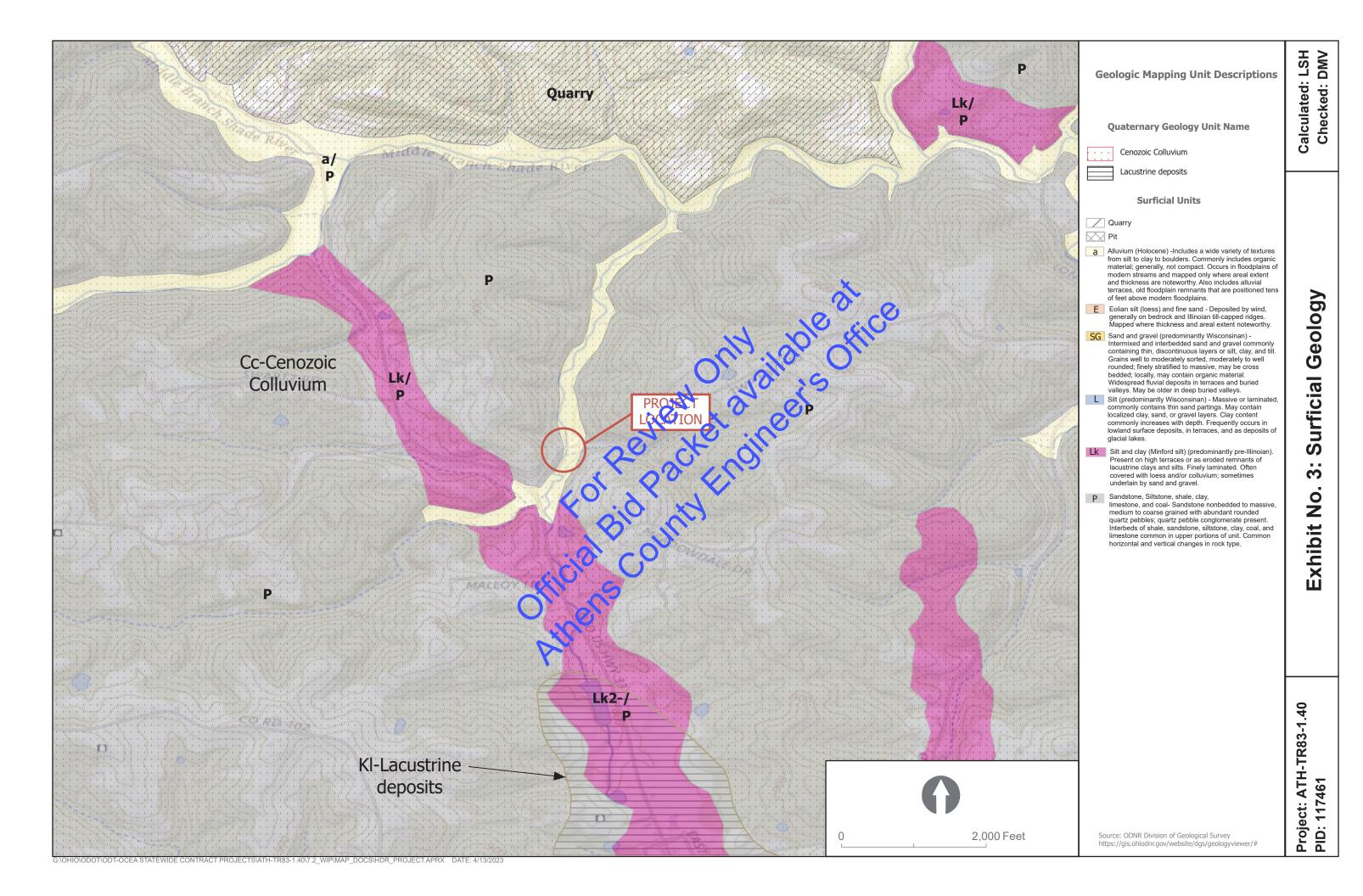
Regions

Physiographic

2

Exhibit No.

Project: ATH-TR83-1.40 PID: 117461





Map Unit Legend

BrD - Brookside silt loam, 15 to 25 percent slopes

KnL1AF - Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15 800

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

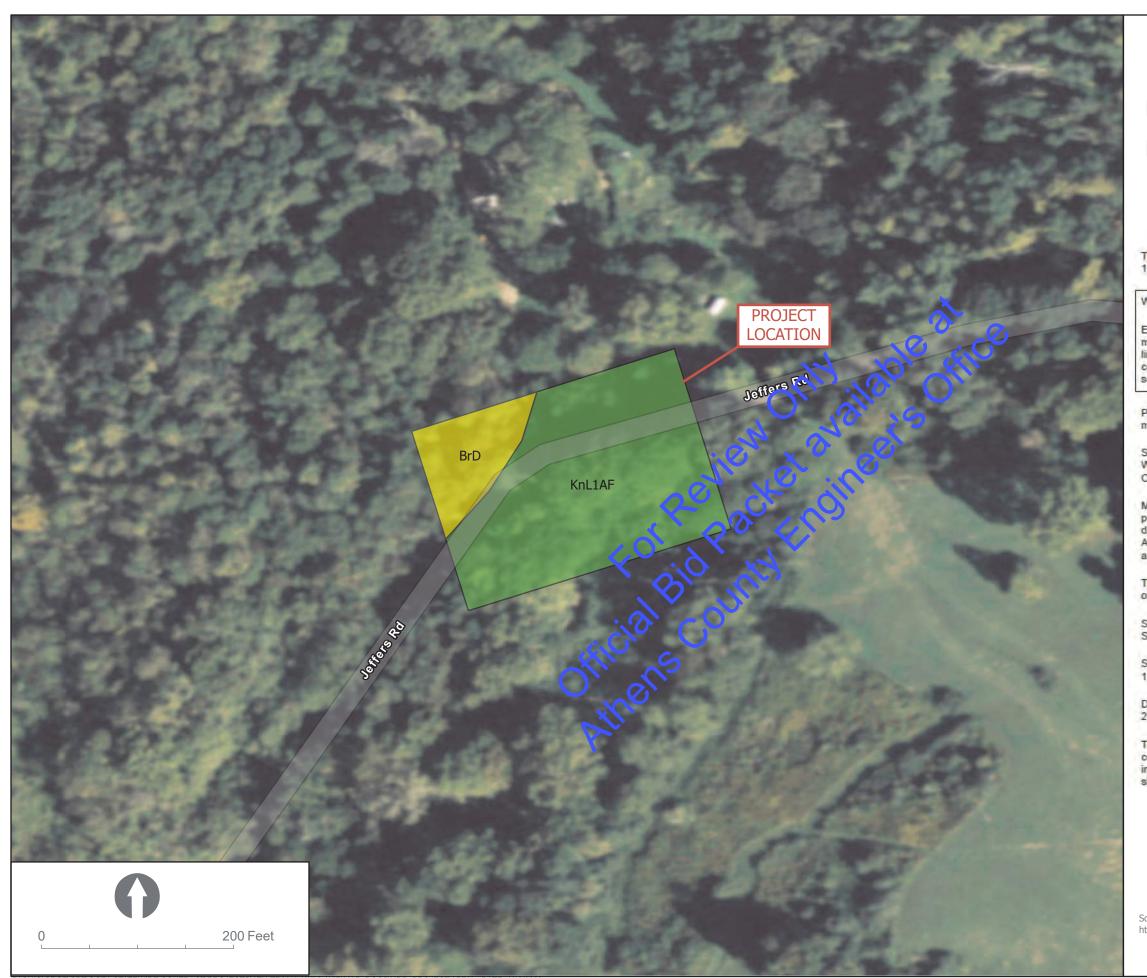
Soil Survey Area: Athens County, Ohio Survey Area Data: Version 24, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Source:Web Soil Survey 3/2023 https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx



Corrosion of Concrete

Map Unit Legend

BrD - Moderate Soil Rating

KnL1AF - Low Soil Rating

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio Survey Area Data: Version 24, Sep 8, 2022

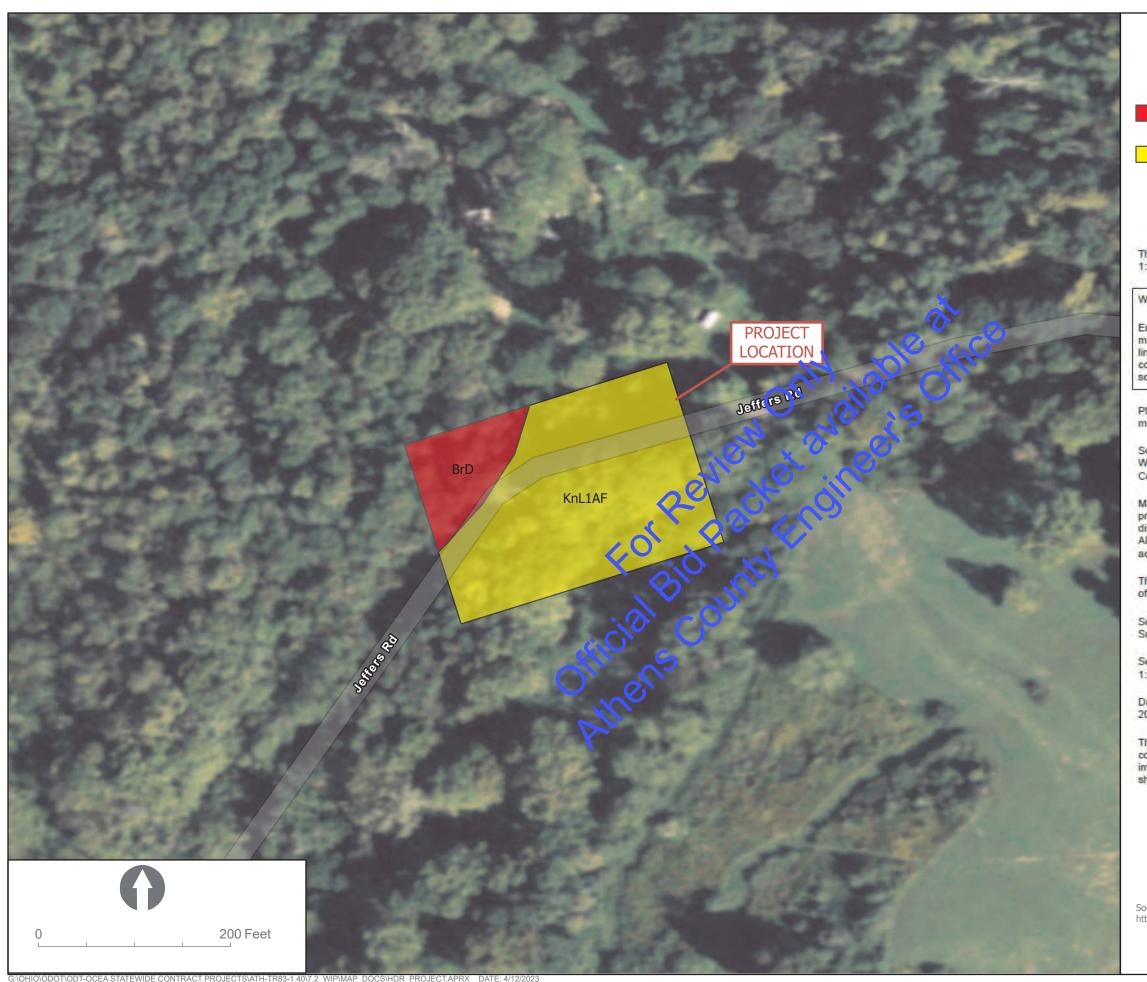
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Source:Web Soil Survey 3/2023 https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Calculated: LSH Checked: DMV



Corrosion of Steel

Map Unit Legend



BrD - High Soil Rating



KnL1AF - Moderate Soil Rating

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio Survey Area Data: Version 24, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Nov 7, 2020

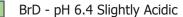
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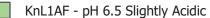
Source:Web Soil Survey 11/2022 https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Calculated: LSH Checked: DMV

pH (1 to 1 Water)

Map Unit Legend





MAP INFORMATION

The soil surveys that comprise your AOI were mapped at

Warning: Soil Map may not be valid at this scale.

PROJECT

LOCATION

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio Survey Area Data: Version 24, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

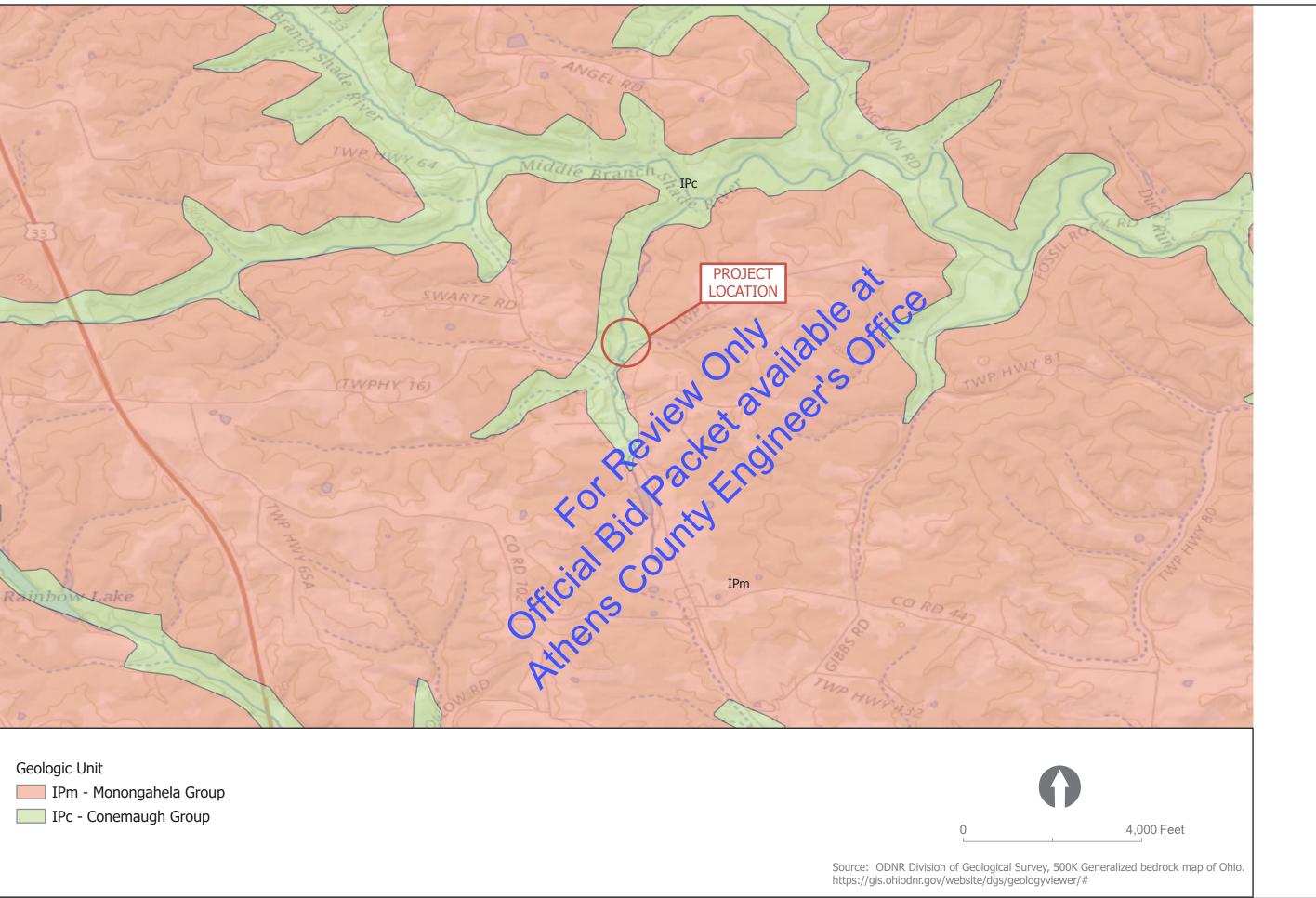
Date(s) aerial images were photographed: Oct 8, 2020-Nov 7,

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Source:Web Soil Survey 11/2022 https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

200 Feet

BrD



Project: ATH-TR83-1.40 PID: 117461

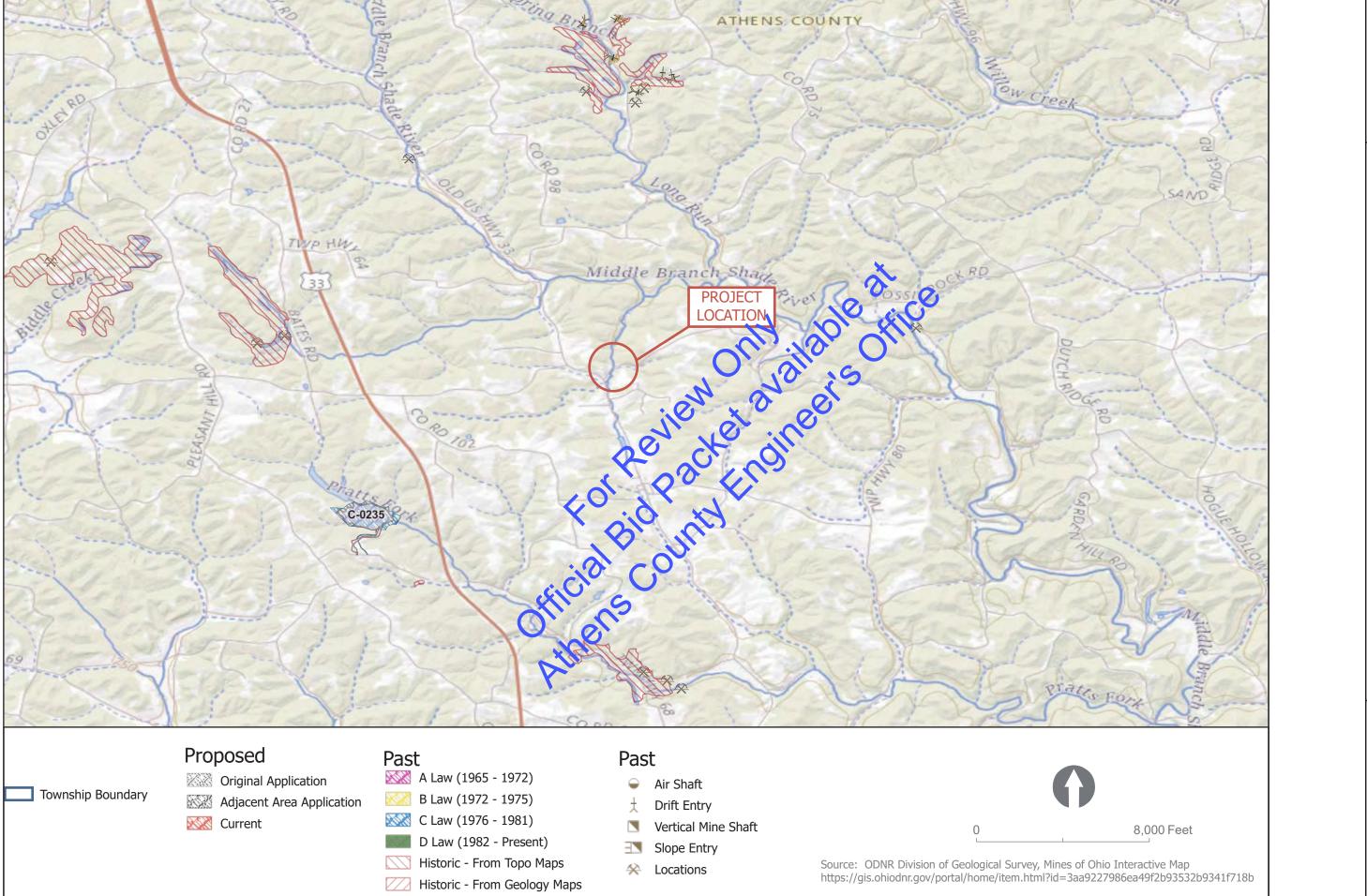
Calculated: LSH Checked: DMV

Bedrock Geology Map

5:

Exhibit No.

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Map

Ohio

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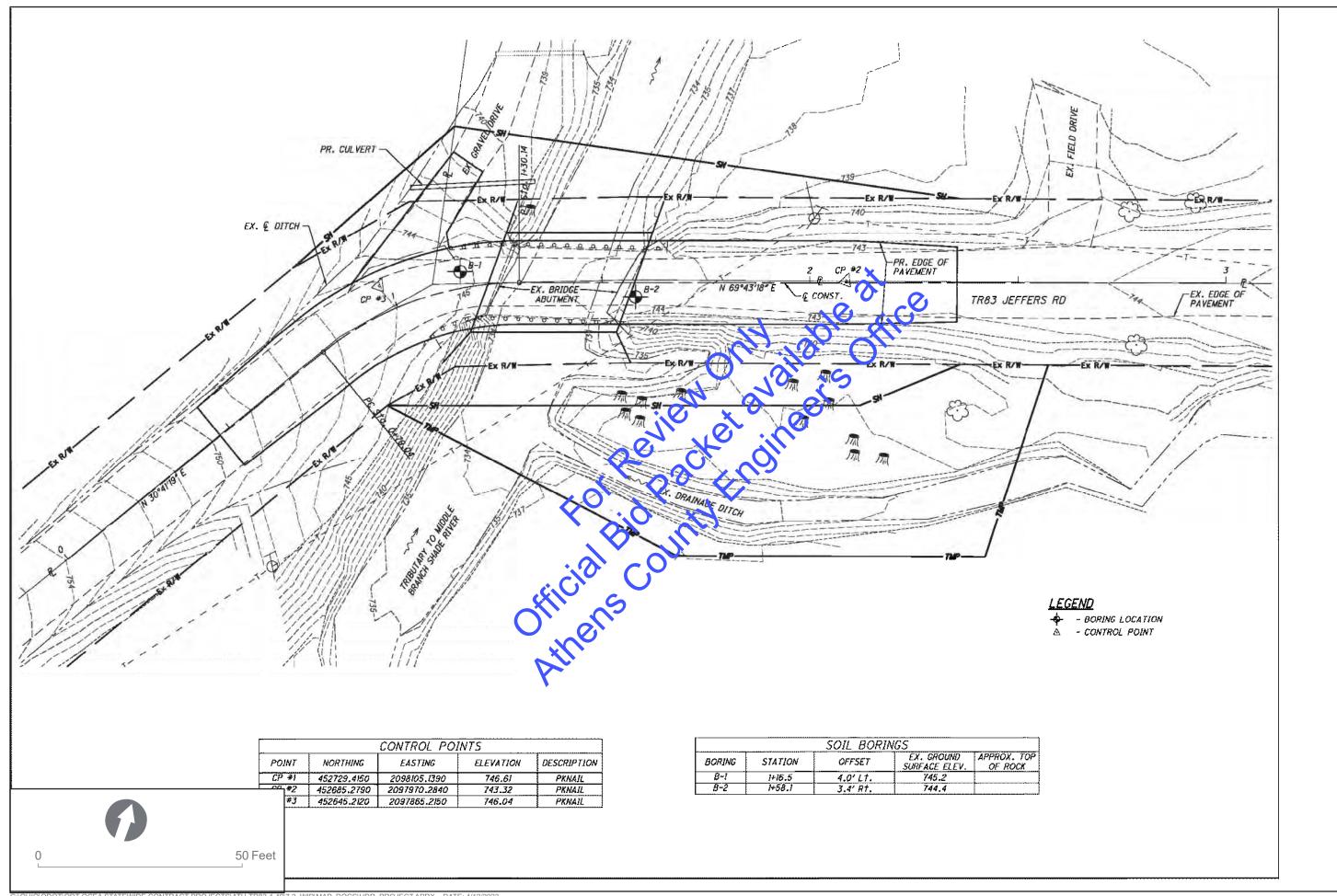
Project: ATH-TR83-1.40 PID: 117461

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Map Topography Bedrock 7: **Exhibit No.**

Calculated: LSH Checked: DMV

Project: ATH-TR83-1.40 PID: 117461



Calculated: LSH Checked: DMV Plan

Location **Boring** | ∞ **Exhibit No.**

Project: ATH-TR83-1.40 PID: 117461

Appendix B. Boring Logstand Rock Core Photos

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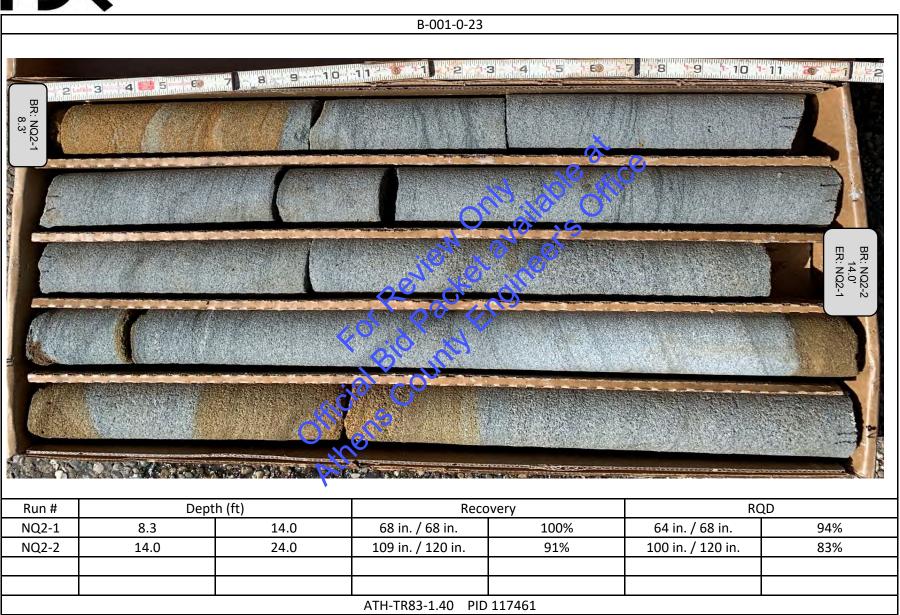
Official County France

Athens

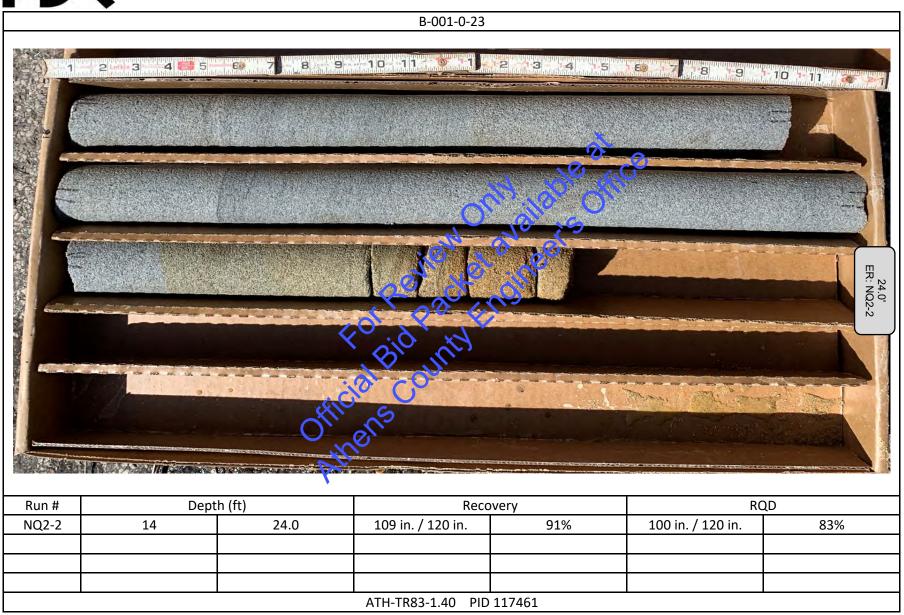
NOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCHED W/ QUIKCRETE PATCH OVER 4" BENTONITE CHIPS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 12.5 LB. BENTONITE POWDER; 47 LB. CEMENT MIXED WITH 25 GAL. WATER









PROJECT: ATH-TR83-01.40 TYPE: BRIDGE	DRILLING FIRM / OPE SAMPLING FIRM / LC	GGER: _F	IDR / A. BARATTA	_	IMER:	DIED	DIEDRICH RICH AUT	OMA	TIC	STAT	NME	NT: _			TR 8	3		. ———	RATION 2-0-23 PAG
PID: 117461 SFN:	DRILLING METHOD:		5" HSA / NQ2	- 1				3/7/22	_	ELEV								6.8 ft.	1 0F
START: 3/20/23 END: 3/20/23	SAMPLING METHOD	$\overline{}$	SPT / NQ2	-	RGY F			86.8		LAT /				ATTI			2.0430		<u> </u>
MATERIAL DESCRI AND NOTES	PIION	ELEV. 744.4	DEPTHS	SPT/ RQD		(%)	SAMPLE ID	(tsf)		cs			CL	LL	PL		wc	ODOT CLASS (GI)	HOL SEAL
ASPHALT (4")	Æ	744.0				(11)		()											****
AGGREGATE BASE (4.5")	/	743.7	√	5															
LOOSE, BROWN, SANDY SILT , LITTLE (GRAVEL, WET (FILL)	CLAY, TRACE	740.9	_ 2 -	2 2	6	67	SS-1	-	2	8	43	32	15	19	17	2	20	A-4a (2)	4 > L
MEDIUM DENSE, BROWN AND GRAY, STONE FRAGMENTS WITH SAND AND (FILL)	SIL DAMP	739.4	4	4 4	12	28	SS-2	-	61	4	6	- 29	9 -	NP	NP	NP	6	A-2-4 (V)	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
LOOSE, BROWN, GRAVEL AND/OR ST WITH SAND LITTLE SILT, TRACE CLAY		737.9	_ 6 -	3 3	9	50	SS-3	Ä	37	18	22	14	9	18	15	3	12	A-1-b (0)	
MEDIUM STIFF, BROWN, SILT AND CL TRACE GRAVEL, MOIST		736.4	_ 7 - _ 8 -	3 3 2	7	89	SS-4) - O	ر در	4	38	40	17	27	16	11	24	A-6a (5)	2/1/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2
MEDIUM STIFF, BROWN, SILT , SOME S CLAY, TRACE GRAVEL, WET	AND, LITTLE	†‡ †‡ 734.9	9 -	2 2 3	Z	100	95.Q	C		3	27	52	17	27	18	9	25	A-4b (7)	\$400 N
MEDIUM DENSE, BROWN, GRAVEL AN FRAGMENTS WITH SAND AND SILTER	ACE CLAY, WET	733.6	TR	2 3	29	100	SS-6C) -	8	20	42	20	10	21	14	7	22	A-2-4 (0)	
SANDSTONĘ BROWN, HIGHLY WEATH LITTLE SAND.	ERED, WEAK,	732.6	''` 11	003		33 _			-	-	-	-		-	-	-	9	Rock (V)	L-Greek
SANDSTONE BROWN, TRACE GRAY, MEATHERED, SLIGHTLY STRONG, CO THICK BEDDED, MICACEOUS, JOINT D MODERATELY FRACTURED TO FRACT TO OPEN APERTURE WIDTH, VERY RG BLOCKY STRUCTURE, FAIR TO GOOD 56%, REC 100%. ② 13.3' - 13.7': qu = 3,277 psi γ = 136 pc SANDSTONE BROWN AND GRAY, SLIC WEATHERED, SLIGHTLY STRONG, CO THICK BEDDED, MICACEOUS, JOINT D INTACT TO SLIGHLY FRACTURED, NAI APERTURE WIDTH, VERY ROUGH SUF	ARSE GRAINED, ISCONTINUITIES, URED, NARROW DUGH SURFACE, SURFACE; RQD of GHTLY ARSE GRAINED, ISCONTINUITIES, RROW TO OPEN	730.8	- 13 - 14 - 19 - 17 - 19 - 19 - 19 - 19 - 19 - 19	844	\$\cdot_{\cdot\}	100	NQ2-1											CORE	
MASSIVE STRUCTÚRE, GOOD TO VER SURFACE; RQD 96%, REC 100%. @ 11.8' - 12.8': SDI = 79.2% @ 25.4' - 25.8': qu = 2,366 psi γ = 135 pc	Y GOÓD	717.6	- 20 - - 21 - - 22 - - 23 - - 24 - - 25 - - 26 -	93		100	NQ2-2											CORE	

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 12.5 LB. BENTONITE POWDER; 47 LB. CEMENT MIXED WITH 25 GAL. WATER









Appendix 6 Laboratory Testing

Official County

Athers

Slake Durability Testing (ASIM D4644)

Official Eduration

Athens



SLAKE DURABILITY INDEX KENTUCKY METHOD 64-513-79 or ASTM D 4644

COUNTY:	Athens	PROJECT NO.: 10365701	
PROJECT NAME:	ATH-TR83-1.40		
BORING NO.:	B-001-0-23	STATION & OFF-SET: NA	
SAMPLE DEPTH:	14.0' to 15.0'	SAMPLE ELEVATION: NA	
SAMPLE DESCRIPT	ION: Gray Sandstone		
BEAKER NO.:	99	WEIGHT OF BEAKER:	<u>156.72</u> gm
INITIAL WEIGHT OF	SAMPLE (USE 10 PIEC	CES (Approx. 40 to 50 gm/piece))	\Q\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
SAMPLE + BEAKER	635.02 gm	DATE: 03-28-2023 TME: 1	1:30AM
0'	VEN DRY INITIAL WEIG	HT (After 12 Hrs. Drying (Mn.))	
AND DRUM AND P A PHOTOGRAPH O SAMPLE &	LACING DRUM IN OVEN F THE SAMPLE MUST B	I. BE TAKEN PRIOR TO BEING PLACED	DETERMINED BY WEIGHING SAMPLE ON DRUM. 451.51 gm
FIRST 10 MINUT	E CYCLE: DATE: 03	-29-2723 TIME: 11:00:00 AM	Temp.: 20.8 ° C
SECOND 10 MINUT	E CYCLE: DATE: 03	-30-2023 TME: 11:10:00 AM	Temp. : 20.8 ° C
OVEN D	RY FINAL WEIGHT (12 F	Hrs. Deing (Min.) After Second Cycle)	
SAMPLE & BEAKER	minus B 565.35 gm	EAKER (W2) =	<u>408.63</u> gm
SLAKE	DURABILITY INDEX =	(W2) X 100 SDI = 90.5	
Mositure Content =	5.9 %	Av	vg. Temp.= <u>20.8</u> ° C

TESTED BY: Mike Garrison



SLAKE DURABILITY INDEX KENTUCKY METHOD 64-513-79 or ASTM D 4644

COUNTY:	Athens	PROJECT NO.: 10365701	
PROJECT NAME	ATH-TR83-1.40		
BORING NO.	B-200-0-23	STATION & OFF-SET: NA	
SAMPLE DEPTH	11.8' to 12.8'	SAMPLE ELEVATION: NA	
SAMPLE DESCRIP	ΓΙΟΝ: Brown to Gray Sands	stone	
BEAKER NO.	94	WEIGHT OF BEAKER: 156.74)m
INITIAL WEIGHT OF	SAMPLE (USE 10 PIECES	S (Approx. 40 to 50 gm/piece))	8° C
SAMPLE + BEAKER	620.77 gm E	DATE: 03-28-2023 TME: 11:30-M	Allo
0	VEN DRY INITIAL WEIGHT	(After 12 Hrs. Drying (Min.)))
AND DRUM AND P A PHOTOGRAPH O SAMPLE &	LACING DRUM IN OVEN. F THE SAMPLE MUST BE	TAKEN PRIOR TO BEING PLACEUM DRUM.	D BY WEIGHING SAMPLE
FIRST 10 MINUT	E CYCLE: DATE: 03-29	3-2023 TIME: 11:00:00 AM Temp.:	20.8 ° C
SECOND 10 MINUT	E CYCLE: DATE: 03-30):2023 TME: <u>11:10:00 AM</u> Temp. : :	20.8 ° C
OVEN D	RY FINAL WEIGHT (12 Hrs	. Doing (Min.) After Second Cycle)	
SAMPLE & BEAKER		AKER (W2) = <u>342.56</u> 9 56.74 gm	gm
SLAKE	DURABILITY INDEX = -	(W2) (W1) X 100 SDI = 79.2	
Mositure Content =	: <u>7.3</u> %	Avg. Temp.=	<u>20.8</u> ° C

TESTED BY: Garth Walker

Unconfined Compression Fost of Rock (ASTM D 7012)

Official Ecounty

Athens



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UNCONFINED COMPRESSION TEST (ROCK CORE)

PROJECT NAME: ATH-TR83-1.40

SAMPLE NO.: RS-1 PROJECT NO.: 10365701 PROJECT COUNTY: Athens SAMPLE LOC. : B-001-0-23 SAMPLE DEPTH: 8.4' to 8.8' PROJECT STATE: Ohio LABORATORY NO.: 10365701 DATE TESTED : 3/30/2023 SUBMITTED BY: HDR DATE REPORTED: 3/31/2023

ROCK DESCRIPTION: Brown and Gray Sandstone

Machine Used: ELE CT-7250

Diameter: 1.98 in Area: 3.07 in² Height: 4.74 in Volume: 0.0084 ft³

RESULTS:

Air Dry Moisture: Air-Dry Density:

Maximum Stress: Elapsed Time: Rate of Loading:

Hickory Collins

4 Series Signature

50 Series Signature

6 Series

Approved By: Kin & () . 1b. Comments:



UNCONFINED COMPRESSION TEST (ROCK CORE)

PROJECT NAME: ATH-TR83-1.40

SAMPLE NO.: RS-2 PROJECT NO.: 10365701 PROJECT COUNTY: Athens SAMPLE LOC. : B-001-0-23 SAMPLE DEPTH : 20.1' to 20.5' PROJECT STATE: Ohio LABORATORY NO.: 10365701 DATE TESTED : 3/30/2023 SUBMITTED BY: HDR DATE REPORTED: 3/31/2023

ROCK DESCRIPTION: Gray Sandstone

Machine Used: ELE CT-7250 Diameter: 1.98 in

Area: 3.09 in² Height: 4.75 in Volume: 0.0085 ft³

RESULTS:

bs/ft3

50

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Offici Air Dry Moisture: Air-Dry Density:

Maximum Stress: Elapsed Time:

Rate of Loading:

Approved By: Kin & I.

Comments:



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UNCONFINED COMPRESSION TEST (ROCK CORE)

PROJECT NAME: ATH-TR83-1.40

SAMPLE NO.: RS-1 PROJECT NO.: 10365701 PROJECT COUNTY: Athens SAMPLE LOC. : B-002-0-23 SAMPLE DEPTH : 13.3' to 13.7' PROJECT STATE: Ohio LABORATORY NO.: 10365701 DATE TESTED : 3/30/2023 SUBMITTED BY : HDR DATE REPORTED: 3/31/2023

ROCK DESCRIPTION: Brown Sandstone

Machine Used: ELE CT-7250

Diameter: 1.98 in Area: 3.08 in² Height: 4.79 in Volume: 0.0085 ft³

RESULTS:

Air Dry Moisture: Air-Dry Density:

Maximum Stress: Elapsed Time: Rate of Loading:

bs/ft3
psi min. 2
psi

Comments:

Approved By:



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UNCONFINED COMPRESSION TEST (ROCK CORE)

PROJECT NAME: ATH-TR83-1.40

SAMPLE NO.: RS-2 PROJECT NO.: 10365701 PROJECT COUNTY: Athens SAMPLE LOC. : B-002-0-23 SAMPLE DEPTH : 25.4' to 25.8' PROJECT STATE: Ohio LABORATORY NO.: 10365701 DATE TESTED : 3/30/2023 SUBMITTED BY: HDR DATE REPORTED: 3/31/2023

ROCK DESCRIPTION: Gray Sandstone Machine Used: ELE CT-7250

Diameter: 1.99 in Area: 3.10 in² Height: 4.76 in Volume: 0.0085 ft³

RESULTS:

bs/ft3

bs/ft3

psi
min. 0

sec

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orici Air Dry Moisture: Air-Dry Density:

Maximum Stress: Elapsed Time: Rate of Loading:

Approved By: Kin Ella lb. Comments:

Appendix D. Amilyses

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Athens

Official Bid Inty From Chine County From South C

PROJECT: ATH-TR83-01.40 TYPE: BRIDGE	DRILLING FIRM / OPER			HAMI		DIED	DIEDRICH RICH AUT		IC	STAT ALIG	NME	NT: _			1+17 TR 83	3			ATION ID 1-0-23
PID: <u>117461</u> SFN: START: 3/20/23 END: 3/20/23	DRILLING METHOD: _ SAMPLING METHOD:		HSA / NQ2 PT / NQ2			ON DA		3/7/22 86.8	_	ELE\							.04315	1.0 ft. 51	PAGE 1 OF 1
MATERIAL DESCRIPTI AND NOTES		ELEV. 745.2	DEPTHS	SPT/ RQD	NI		SAMPLE ID	HP		GRAD	ATIO	N (%)		ERBE	RG	wc	ODOT CLASS (GI)	HOLE SEALED
ASPHALT (12")	\boxtimes	744.2				(70)	10	(101)	0.1	00		0.	02						
VERY STIFF TO HARD, BROWN, SANDY SII	LT, SOME CLAY,	743.2	- 1 -	12 13	27	67	SS-1A	4.5+	10		35	24	21		13	8	10	A-4a (2)	8
MEDIUM DENSE, BROWN, COARSE AND F LITTLE SILT, TRACE GRAVEL, TRACE CLAY		741.7	_ 3 —	6			SS-1B	-	_ 3_	12	60	16	9	15	NP	NP	9	A-3a (0)	7>1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SOFT TO MEDIUM STIFF, BROWN, TRACE SILT, LITTLE GRAVEL, LITTLE CLAY, DAMP	GRAY, SANDY	740.2	_ 4 -	1 1 1	3	33	SS-2	1.75	17	9	31	24	19	20	13	7	13	A-4a (2)	1 L 1 L
MEDIUM STIFF TO STIFF, BROWN, TRACE SPECKS, SANDY SILT , SOME CLAY, TRACE MOIST		738.7	- 5 - - 6 -	2 3 3	9	94	SS-3	0.75	2	11	34	29	24	25	16	9	20	A-4a (4)	L COPL
学 VERY DENSE, BROWN, SANDY SILT , MOIS @ 6.5': sandstone fragment in bottom of spoor		738.3	TR _ 7 _ - 8 —	50/5		100		2		30							_20	_A-4a (V)	
SANDSTONE, BROWN, HIGHLY WEATHER SANDSTONE, GRAY, SLIGHTLY WEATHER STRONG, COARSE GRAINED, VERY THICK MICACEOUS, JOINT DISCONTINUITIES, SLI	ED, SLIGHTLY BEDDED, IGHTLY TO	734	Approximate	e Cre	ek E	ed I	Elevati	On on											2000 4000 2000 4000 2000 1000
MODERATELY FRACTURED, NARROW APE VERY ROUGH SURFACE, INTACT OR MASS GOOD TO VERY GOOD SURFACE; RQD 87 @ 8.3' - 9.0': noted iron staining, brown to gray @ 8.4' - 8.8': qu = 3,577 psi γ = 138 pcf @ 14.0' - 15.0': SDI = 90.5%	SIVE STRUCTURE, %, REC 94%.	734	-11 - 12 - 13	1	2	100	NS ⁻¹											CORE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
@ 8.4' - 8.8': qu = 3,577 psi γ = 138 pcf @ 14.0' - 15.0': SDI = 90.5% G 14.5': lost water return			14	SON O	US.	<u>(7).</u>													
@ 15.9' - 16.2': brown, iron staining @ 16.5' - 17.2': brown, iron staining @ 16.9' - 22.7': intact fracturing		, sc. C	0 16 - 17 - 18 -	83		91	NQ2-2											CORE	
@ 20.1' - 20.5': qu = 3,108 psi γ = 136 pcf		P _X	- 20 - - 21 - - 22 -																
@ 23.0' - 24.0': brown, iron staining		721.2	EOB 23 -																2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1
ODOT SOIL BORI																			
NOTES: AUGER CUTTINGS ADDED TO HO							0.455												

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 12.5 LB. BENTONITE POWDER; 47 LB. CEMENT MIXED WITH 25 GAL. WATER

## START: 32023 END: 32023 SAMPLING METHOD: SPT NO2 ## MARKED LANGE SERPTON ## AND NOTES **AND NOTES** **AN			JUEN.	HD	R / A. BAF	RATTA	-	L RIG: MER:		DIEDRICH RICH AUT			ALIGN		OFFSI IT:	∟1.		₹36 <u>,</u> ₹83	3' R	1.		ATION II 2-0-23
SPITION SPIT	TART: 3/20/23 END: 3/20/23 T	-	;			2	· ·					_						_				PAGE 1 OF 1
ASPHALT (4") ASSPREATE BASE (4.5") LOSSE BROWN, SANDYSILT, LITTILE CLAY, TRACE GRAVEL, WET (FILL) MEDIUM DENSE, BROWN, AND GRAV, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WOIST WITH SAND LITTILE FROWN, SILT AND CLAY, "AND" SAND, TRACE GRAVEL, WET TRACE GRAVEL, WOIST TRACE GRAVEL, WET TRACE GRAVEL, WOIST TRACE GRAVEL, WET TRACE GRAVEL, WOIST TRACE GRAVEL, WET TRACE GRAVEL ANDORS TONE TRACE GRAVEL, WET TRACE GRAVEL GRAVEL TRACE GRAVEL, WET TRACE T			FU		71 / NQ2		_	RGY R		` ,						_				.04306		HOLE
AGRICATE BASE (4.5°) 1		014			DEPTI	HS		N ₆₀								-		_		wc		
COOSE BROWN, SANDY SILT, LITTLE CLAY, TRACE 740.9 3	()		x																			
MEDIUM DENSE, BROWN, AND GRAY, GRAYEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 1739.4 LOOSE, BROWN, GRAYEL ANDORS TONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST 737.9 738.4 739.4 -6 4 4 12 28 SS-2 -61 4 6 -29 NP NP NP NP 6 A-2-4 (V) 100 SEBROWN, GRAYEL ANDORS TONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, WITH SAND MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL, WET MEDIUM SENSE, BROWN, GRAYEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE BROWN, HIGHLY WEATHERED, WEAK LITTLE SAND ANDISTONE BROWN, TRACE GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, INTACT OR GOOD SURFACE, ROLD 5W, REC 100 38 31 30 30 30 30 30 30 30 30 30	LOOSE, BROWN, SANDÝ SILT , LITTLE CLA	Y, TRACE	\\\ /4	3.7/		- 1 T		6	67	SS-1	-	2	8	43	32 1	15	19	17	2	20	A-4a (2)	
MEDIUM STINE, BROWN, AND GRAY, GRAVEL AND Table	SKAVEL, WET (FILL)		74	.0.9		- 3 -			Ар	proxim	ate (Cre	ek E	ed	Elev	/ati	ion 7	734	1			477
LOOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND LITTLE SILT, TRACE CLAY, WOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL, MGIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL, WET MEDIUM DENSE, BROWN, SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND, SANDSTONE, BROWN, TRACE GRAY, MODERATELY WEATHERED, SIIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MIRACEOUS, JOINT DISCONTIBUTIES, MODERATELY FRACTURED DO SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD TO VERY GOOD SURFACE, BLOCK TO GOOD SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD TO VERY GOOD SURFACE, BLOCK TO GOOD			J•\\ ^\q			- 4 -	4 4 4				-									6	A-2-4 (V)	1 L 1
TRACE GRAVEL, MOIST 736.4 734.9			7.1 7.0			- 5/ - 6 -	4 3 3	9	50	SS-3	×	37	18	22	14	9	18	15	3	12	A-1-b (0)	A LYON
TRACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE 734.9 -9 - 2 180 9 25 A-4b (7) 734.9 -9 - 2 20 10 21 14 7 22 A-2-4 (9) -9 20 10 21 14 7 22 A-2-4 (9) -9 20 20 20 20 20 20 20 2	TRACE GRAVEL, MOIST		73	6.4	/	7 -	3 3 2	7	89	SS-4	<u>ن</u> د	د. <mark>1</mark>	3	38	40 1	17	27	16	11	24	A-6a (5)	
Tagget T	TRACE GRAVEL, WET	+ + + + + +	73	4.9		- - 9 -	2 2	2	100	98-G	Ö	1	3	27	52 1	17	27	18	9	25	A-4b (7)	
SANDSTONE, BROWN, TRACE GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTIACT TO SLIGHTLY STRONG AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACCE, TO BE TO THE TORS OF THE TO	FRAGMENTS WITH SAND AND SILT, TRACI	E CLAY, WET	73	3.6	734	— 10 — -	2 3	29	1000	SS-6 C	<u> </u>	8	20	42	20 1	10	21	14	7	22	A-2-4 (0)	A CELO
WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED TO FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 100%. © 13.3' - 13.7': qu = 3,277 psi \(\gamma \) = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHLY FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. © 11.8' - 12.8': SDI = 79.2% © 25.4' - 25.8': qu = 2,366 psi \(\gamma \) = 135 pcf		ED, WEAK,	73	2.6	110	11 	503		33_		\ <u>-</u> -	_	- 1	-	-	-	-	-		9	Rock (V)	7 Car
MODERATELY FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 100%. 100%.	WEATHERED, SLIGHTLY STRONG, COARS	E GRAINED.	73	8.0	732.6	— 12- — 3-	4	3	W)	V												4 M
@ 13.3' - 13.7': qu = 3,277 psi y = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, THICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, INTACT TO SLIGHLY FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. @ 11.8' - 12.8': SDI = 79.2% CORE @ 25.4' - 25.8': qu = 2,366 psi y = 135 pcf	MODERATELY FRACTURED TO FRACTURE OPEN APERTURE WIDTH, VERY ROUGH SI STRUCTURE, FAIR TO GOOD SURFACE; RO	D, NARROW TO URFACE, BLOCKY		4	ork	14 -	84	(),	100	NQ2-1											CORE	
MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. @ 11.8' - 12.8': SDI = 79.2% CORE 20 - 21 - 22 - 23 - 93 100 NQ2-2	@ 13.3' - 13.7': qu = 3,277 psi y = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTI WEATHERED, SLIGHTLY STRONG, COARS THICK BEDDED, MICACEOUS, JOINT DISCO NTACT TO SLIGHLY FRACTURED, NARRO'	E GRAINED, ONTINUITIES, W TO OPEN		C	(a) B	- 17 - - 18 - - 19 -																
@ 25.4' - 25.8': qu = 2,366 psi γ = 135 pcf	MASSIVE STRUCTÚRE, GOOD TO VERY GO RQD 96%, REC 100%.		Ö	(1)	ens	21 -																1
@ 25.4' - 25.8': qu = 2,366 psi γ = 135 pcf				Υ -		- - 24 -	93		100	NQ2-2											CORE	AND STATES
EOB	@ 25.4' - 25.8': qu = 2,366 psi γ = 135 pcf			7.6	— ЕОВ —	F F																
		MEDIUM DENSE, BROWN AND GRAY, GRASTONE FRAGMENTS WITH SAND AND SILT. OOSE, BROWN, GRAVEL AND/OR STONE WITH SAND, LITTLE SILT, TRACE CLAY, MOMEDIUM STIFF, BROWN, SILT AND CLAY, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND RACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OF RAGMENTS WITH SAND AND SILT, TRACE GRAVEL, WET MEDIUM DENSE, BROWN, HIGHLY WEATHER! MEDIUM DENSE, BROWN, TRACE GRAY, MODERAGE BROWN, HIGHLY WEATHER! MEDIUM DENSE, BROWN, TRACE GRAY, MODERATHERS WITH SAND AND SILT, TRACE GRAY, MODERATHERS, SLIGHTLY STRONG, COARS HICK BEDDED, MICACEOUS, JOINT DISCOMOBERATELY FRACTURED TO FRACTURE OF THE STRUCTURE, FAIR TO GOOD SURFACE; RESTRUCTURE, FAIR TO GOOD SURFACE; RESTRUCTURE, BROWN AND GRAY, SLIGHTLY STRONG, COARS HICK BEDDED, MICACEOUS, JOINT DISCOMTACT TO SLIGHLY FRACTURED, NARRO MASSIVE STRUCTURE, GOOD TO VERY GOOD FROM THE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACOM ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE WIDTH, VERY ROUGH SURFACE WIDTH WITH WITH WITH WITH WITH WITH WITH WI	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST MEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, TRACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE RAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND. SANDSTONE, BROWN, TRACE GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED TO FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 100%. 2) 13.3' - 13.7': qu = 3,277 psi γ = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, NATCOTTO SLIGHLY FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. 2) 11.8' - 12.8': SDI = 79.2% NOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTER AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOUSTES.	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST MEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE RAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, ITTLE SAND SANDSTONE, BROWN, TRACE GRAY, MODERATELY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED TO FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 00%. 2) 13.3' - 13.7': qu = 3,277 psi γ = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, NTACT TO SLIGHLY FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. 2) 11.8' - 12.8': SDI = 79.2% MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SINCTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS.	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST MEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE RAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, ITTLE SAND SANDSTONE, BROWN, TRACE GRAY, MODERATELY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED TO FRACTURED, NARROW TO DEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 00%. Q13.3' -13.7': qu = 3.277 psi \(\gamma\) = 136 pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, NTACT TO SLIGHLY FRACTURED, NARROW TO OPEN PERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; RQD 96%, REC 100%. Q1 1.8' - 12.8': SDI = 79.2% MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS, SURFACE	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) TOOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST MEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE RACE GRAVEL, WEIT RAGMENTS WITH SAND AND SILT, TRACE CLAY, WEIT RAMDSTONE, BROWN, HIGHLY WEATHERED, WEAK, ITTLE SAND. MITHE SAND. MITHE SAND. MODERATELY FRACTURED TO FRACTURED, NARROW TO DEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE, RQD 56%, REC 00%. 13.37 - 13.7°: qu = 3,277 psi \(\gamma = 136 \) pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED, NARROW TO DEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE, RQD 56%, REC 00%. 13.37 - 13.7°: qu = 3,277 psi \(\gamma = 136 \) pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED, NARROW TO OPEN PRETTURE WIDTH, VERY ROUGH SURFACE, INTACT OR MASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; AND SOM, REC 100%. 10.18 - 12.8°: SDI = 79.2% MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES: AUGER CUTTINGS ADDED TO HOLE DUE TO GROUT LOSS. SURFACE PATCH-MOTES.	AEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST AEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST AEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET TABLEDIUM DENSE, BROWN, GRAYEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND SANDSTONE, BROWN, TRACE GRAY, MODERATELY VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURED TO FRACTURED, NARROW TO DPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; RQD 56%, REC 10%. 2) 13.3* - 13.7*: qu = 3,277 psi	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST AEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE RAGAMENTS WITH SAND AND SILT, TRACE CLAY, WET SANDSTONE, BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND SANDSTONE, BROWN, TRACE GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES MODERATELY FRACTURED TO FRACTURED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY OPEN APERTURE WIDTH, VERY ROUGH SURFACE, ROD 56%, REC 00%. 313.3' - 13.7' qu = 3,277 psi \(\gamma = 136 \) pcf SANDSTONE, BROWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, NTACT TO SLIGHLY FRACTURED, NARROW TO OPEN PRETURE WIDTH, VERY ROUGH SURFACE, INTACT OR ARSSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; QD 96%, REC 100%. 20 11.8' - 12.8': SDI = 79.2% OOSES, BROWN AND GRAY, SLIGHTLY PROFILE OF THE STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, NTACT TO SLIGHLY FRACTURED, NARROW TO OPEN PRETURE WIDTH, VERY ROUGH SURFACE; NTACT TO SLIGHLY FRACTURED, NARROW TO OPEN PRETURE WIDTH, VERY ROUGH SURFACE, INTACT OR ARSSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; 20 - 22 - 23 - 93 - 24 - 25 - 26 - 26 - 26 - 26 - 26 - 26 - 26	IZEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST IZEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM DENSE, BROWN, GRAVEL AND/OR STONE IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, MOIST IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, WET IZEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, WET IZEDIUM STIFF, BROWN, SILT,	MEDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST MEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM DENSE, BROWN, SILT, TRACE CLAY, WET MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, RACE GRAVEL, WET MEDIUM STIFF, BROWN, SILT, TRACE CLAY, WET MEDIUM DENSE, BROWN, MICHEL AND/OR STONE RAGMENTS WITH SAND AND SILT, TRACE CLAY, WET MADSTONE, BROWN, HIGHLY WEATHERED, WEAK, ITTLE SAND MEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, 734.9 7	ADDITION STIFF, BROWN, AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST AEDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, WOIST AEDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "ASA, SAND, TORE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET AEDIUM STIFF, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET AEDIUM STIFF, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET AEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, WET AEDIUM STIFF, BROWN, HIGHLY WEATHERED, WEAK, T33.6, T34.9 TALL SAND, TORE BROWN, TRACE GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, WITH SAND AND STONE, BROWN, TRACE GRAY, MODERATELY FRACTURED SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE, ROD 56%, REC 100%. 2 13.3' -13.7': qu = 3,277 psi \(\frac{1}{2}\) = 136 pcf SANDSTONE, BROWN, AND GRAY, SLIGHTLY WEATHERED, NARROW TO OPEN APERTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE, ROD 56%, REC 100%. 2 11.8' - 12.8': SDI = 79.2% OOSE, BROWN, GRAVEL AND/OR STONE SAND, LITTLE CLAY, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRAINED, HICK BEDDED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY STRONG, COARSE GRA	Approximate of the provided and the prov	#EDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) COSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST ##EDIUM STIFF, BROWN, SILT AND CLAY, "AND" SAND, RACE GRAVEL, MOIST ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAVEL, WEIT ##EDIUM STIFF, BROWN, TRACE GRAY, MODERATELY WEATHERED, WEAK, ITTLE SAND. "AND STONE, BROWN, TRACE GRAY, MODERATELY WEATHERED, SILGHTLY STRONG, COARSE GRAINED, HICK SEODED, MICACEOUS, JOINT DISCONTINUITIES, MODERATELY FRACTURE WIDTH, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE; ROD 56%, REC 00%. ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE SAND. "AND STONE, BROWN, AND STONE, BROWN AND GRAY, SILGHTLY STRONG, COARSE GRAINED, HICK SEODED, MICACEOUS, JOINT DISCONTINUITIES, NITACT TO SILGHLY FRACTURED, NARROW TO OPEN PERTURE WIDTH, VERY ROUGH SURFACE; ROD 56%, REC 00%. ##EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE SAND. "AND STONE, BROWN AND GRAY, SILGHTLY STRONG, COARSE GRAINED, HICK SEODED, MICACEOUS, JOINT DISCONTINUITIES, NITACT TO SILGHLY FRACTURED, NARROW TO OPEN PERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; ROD 50%, REC 00%. ##EDIUM STONE BROWN AND GRAY, SILGHTLY STRONG, COARSE GRAINED, HICK SEODED, MICACEOUS, JOINT DISCONTINUITIES, NITACT TO SILGHLY FRACTURED, NARROW TO OPEN PERTURE WIDTH, VERY ROUGH SURFACE, INTACT OR ASSIVE STRUCTURE, GOOD TO VERY GOOD SURFACE; ROD 50%, REC 00%. REC 100%. ##EDIUM STONE STRUCTURE, GOOD TO VERY GOOD SURFACE; ROD 50%, REC 00%, REC 100%. ##EDIUM STONE STONE STONE STONE STONE STO	### ### ### ### ### ### ### ### ### ##	#EDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) OOSE BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND CLAY, "AND" SAND, MOIST ### HAND, LITTLE SILT, TRACE CLAY, MOIST 739.4 ### ### AND SILT, TRACE CLAY, MOIST 739.4 ### ### AND SILT, TRACE CLAY, "AND" SAND, RACE GRAVEL, MOIST 737.9 ### ### AND SILT, TRACE CLAY, WET ### ### AND SILT, TRACE CLAY, WET ### ### AND SILT, TRACE CLAY, WET ### AND STONE BROWN, GRAVEL AND/OR STONE ### RAGMENTS WITH SAND AND SILT, TRACE CLAY, WET ### AND STONE BROWN, HIGHLY WEATHERED, WEAK, 1732.6 ### AND STONE BROWN, TRACE GRAY, MODERATELY WEATHERED, SUGHT LY STRONG, COARSE GRAINED, MICKEDIS, JOINT DISCONTINUITIES, MOIST BROWN, AND GRAY, SLIGHTLY STRONG, COARSE GRAINED, MICKEDIS, JOINT DISCONTINUITIES, MOIST BROWN, AND GRAY, SLIGHTLY STRONG, COARSE GRAINED, MICKEDIS, JOINT DISCONTINUITIES, MOIST BROWN, AND GRAY, SLIGHTLY STRONG, COARSE GRAINED, MICKEDIS, JOINT DISCONTINUITIES, MICKEDIS, JOINT DIS	#EDIUM DENSE, BROWN AND GRAY, GRAYEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 7739.4	#EDIUM DENSE, BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 739.4 OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAID, SILT BROWN, SILT AND CLAY, "AND' SAND, TITLE SILT, TRACE CLAY, MOIST #EDIUM STIFF, BROWN, SILT AND CLAY, "AND' SAND, RACE GRAVEL, MOIST #EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "AND' SAND, RACE GRAVEL, WET #EDIUM STIFF, BROWN, SILT, SOME SAND, LITTLE CLAY, "AND' SAND, RACE GRAVEL, WET #EDIUM STIFF, BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND, NAMES TONE BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND, NAMES TONE BROWN, HIGHLY WEATHERED, WEAK, LITTLE SAND, NAMES TONE BROWN, HIGHLY WEATHERED, WICK SENDED, MOACE CUS, MOIST DOING BROWN AND GRAY, SLIGHTLY WEATHERED, SUICH LIX STRONG, COARSE GRAINED, MOYER SHOWN AND GRAY, SLIGHTLY WEATHERED, SUICH STRONG, COARSE GRAINED, MOYER SHOWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, MOYER SHOWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, MOYER SHOWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, MOYER SHOWN AND GRAY, SLIGHTLY WEATHERED, SLIGHTLY STRONG, COARSE GRAINED, MOYER STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC 10%. 2) 13.3* 13.7* qu = 2,377 psi \(\gamma \) 135 pcf **ANDSTONE BROWN AND GRAY, SLIGHTLY WEATHERED, SURGHT TO SLIGHLY STRONG, COARSE GRAINED, MOYER STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC 10%. 2) 13.4* 1.5* qu = 2,366 psi \(\gamma \) = 135 pcf **TITLE SHOWN AND GRAY, SLIGHTLY WEATHERED, SURGHT TO SLIGHLY STRONG, COARSE GRAINED, MOYER STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC 10%. 2) 25.4* - 25.8*: qu = 2,366 psi \(\gamma \) = 135 pcf **TITLE SHOWN AND GRAY, SLIGHTLY WEATHERED, SURGHT STRONG TO OPEN ARROWS TO	#EDIUM DENSE, BROWN AND GRAY, GRAYEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 739.4 OOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS ##THITLE SILT, TRACE CLAY, MOIST 737.9 ##THITLE SILT, TRACE CLAY, MOIST 737.9 ##THITLE SILT, TRACE GRAY, GRAYEL AND/OR STONE FRAGMENTS ##THITLE SILT, TRACE SHOWN, SILT, SOME SAND, RACE GRAYEL, WET ##THITLE SILT, TRACE SHOWN, SILT, SOME SAND, LITTLE CLAY, "RACE GRAYEL, WET ##THITLE SILT, TRACE GRAY, MODERATELY *#TRACE GRAYEL, WET ##THITLE SHOWN, HIGHLY WEATHERED, WEAK, TRACE SHOWN, TRACE GRAY, MODERATELY FRAGMENTS WITH SAND BROWN, HIGHLY WEATHERED, WEAK, TRACE SHOWN, STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC *#TOSCHOOL BROWN AND GRAY, SLIGHTLY *#THITLE SURD HAVE WITH STRONG, COARSE GRAINED, HICK SEIDED, MICKESCED, SUICH STRONG, SUICH SICK SHOWN, STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC *#TOSCHOOL BROWN AND GRAY, SLIGHTLY *#THITLE SUICH TRACE GRAY, MODERATELY FRACTURED, MARROW TO OPEN APERTURE WIDHTH, VERY ROUGH SURFACE, BLOCKY ON STRUCTURE, FAR TO GOOD SURFACE; ROD 56%, REC *#TOSCHOOL BROWN AND GRAY, SLIGHTLY **VEATHERED, SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK SEIDED, MICKECCUS, JOINT DISCONITIONITIES, NITACT TO SLIGHTLY STRONG, COARSE GRAINED, HICK	#EDIUM DENSE_BROWN AND GRAY_GRAVELAND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 739.4 OOSE_BROWN, GRAVELAND/OR STONE FRAGMENTS 739.4 FEDIUM DENSE_BROWN SILT AND CLAY, "AND" SAND, TARCE CLAY, MIST THE SILT, TRACE CLAY, MIST TO GOOD SURFACE GRAVED, WEAK THE CD. SILT FACE GRAY. MODERNEY WEATH-RED, SILGHTLY STRONG, COANSE GRAINED, HICK BEDDED, MIGACEOUS, JOINT DISCONTINUTIES, WANDSTONE, BROWN, TRACE GRAY, MODERATELY WEATH-RED, SILGHTLY STRONG, COANSE GRAINED, HICK BEDDED, MIGACEOUS, JOINT DISCONTINUTIES, WANDSTONE, BROWN SILT, VERY ROUGH SURFACE, BLOCKY STRUCTURE, FAIR TO GOOD SURFACE, RICCE GRAY, SILT SILT SILT FAIR CORD, SIL	## ADDITION DENSE BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, DAMP (FILL) 799.4	Approximate Creek Bed Elevation 734	## Approximate Creek Bed Elevation 734 ## Approximate Creek Bed Elevation 73

Soil Strength Parameter Determination

Athens

		Undr	ained Shear	Strength (Su) (psf)	Dry Unit We	eight (pcf)	Moist Unit \	Wt. (pcf)				Long-Term	Strength Va	llues		Adopted Long Term Strength
Layer				lues	Tested		. ,		. ,	Adopted Short Term Parameters		N ₆₀ Value	ODOT GB-7 Co	rrelations	Tes	ted	- Parameters
		PPR	Sowers	T and P	Values	Correlation	Tested	Correlation	Tested			N ₆₀ value	Cohesion (psf)	phi (deg)	Cohesion (psf)	phi (deg)	
	Max	N/A	2025	3591		105		125			Max	27	250	28			
	Min	N/A	225	399		90		105		S _u = 1300 psf	Min	3	38	19			c' = 120 psf
Layer 1	Average	N/A	854	1308		98		118		$\Phi = $ 0 deg	Average	10	119	23			Φ' = 23 deg
	Std Dev	N/A	665	1148		6		8		<u></u>	Std Dev	9	74	3			
COHESIVE SOILS										Y _{dry} = 100 pcf							Y _{dry} = 100 pcf
	Avg + Std	N/A	1519	2456		104		126		Y _{moist} = 120 pcf	Avg + Std	18	193	26			Y _{moist} = 120 pcf
	Avg - Std	N/A	190	159		91		109			Avg - Std	1	46	20			
	Max	N/A	N/A	N/A		115		125			Max	29	N/A	34			
	Min	N/A	N/A	N/A		100		120		$S_u = $ 0 psf	Min	9	N/A	30			c' = 0 psf
Layer 2	Average	N/A	N/A	N/A		105		122		Φ = 30 deg	Average	17	N/A	31			Φ' = 30 deg
	Std Dev	N/A	N/A	N/A		7		3			Std Dev	11	N/A	2			
GRANULAR SOILS										$Y_{dry} = 105$ pcf		•					Y _{dry} = 105 pcf
	Avg + Std	N/A	N/A	N/A		112		125		Y _{moist} = 120 pcf	Avg + Std		N/A	33			Y _{moist} = 120 pcf
	Avg - Std	N/A	N/A	N/A		98		119			Rvy - Std		N/A	29			<u> </u>

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Avg + Std

Values for Soil Strength	Correlation
Reference	Value
HI PI (Sowers)	0.25
MD PI (Sowers)	0.175
LO PI (Sowers)	0.075
T&P	0.133

																	Correlated				Correlated	Correlated			
Layer 1														Shor	-Term Cohes	ion (psf)	LT Cohesion		Midpoint	Midpoint	Dry Unit Wt.	Moist Unit Wt.		Assumed	Computed
		%		%	%	%	%	%				%			N-values		(psf)	phi	Sample	Sample	(pcf)	(pcf)	Correlated	Specific	Void
	N ₆₀	Rec	HP	Gr	CS	FS	Silt	Clay	LL	PL	PI	WC		PPR	Sowers	T & P	per GB-7	(deg)	Depth (ft.)	Elevation (ft.)	per GB-7	per GB-7	C _c	Gravity (G _s)	Ratio (e)
Max	27	100	1.8	17	11	43	52	24	27	18	11	25	Max	N/A	2025	3591	250	28	9.0	-2.0	105	125	0.153	2.72	0.886
Min	3	33	0.8	1	3	27	24	15	19	13	2	10	Min	N/A	225	399	38	19	2.0	-9.0	90	105	0.081	2.72	0.616
Average	10	79	1.3	6	8	35	34	19	23	16	8	19	Average	N/A	854	1308	119	23	5.3	-5.3	98	118	0.119	2.72	0.746
Std Dev	9	25	0.7	7	3	6	11	3	4	2	3	5	Std Dev	N/A	665	1148	74	3	2.7	2.7	6	8	0.032	0.00	0.108
Avg + Std	18	103	2.0	12	11	40	44	22	27	18	11	24	Avg + Std	N/A	1519	2456	193	26	8.0	-2.6	104	126	0.151	2.72	0.854
Avg - Std	1	54	0.5	-1	4	29	23	16	20	13	5	13	Avg - Std	N/A	190	159	46	20	2.6	-8.0	91	109	0.086	2.72	0.639

Correlated

																						Short-	Term Cohes	sion (psf)	LT Cohesion		Midpoint	Midpoint	Dry Unit Wt.	Moist Unit Wt.		Assumed	Computed	
						Sample		%		%	%	%	%	%				%	ODOT				N-values		(psf)	phi	Sample	Sample	(pcf)	(pcf)	Correlated	Specific	Void	
Alignment	Surface Elevation	Exploration ID	From		To	ID	N ₆₀	Rec	HP	Gr	CS	FS	Silt	Clay	LL	PL	PI	WC	Class.	Soil Type	Layer	PPR	Sowers	T & P	per GB-7	(deg)	Depth (ft.)	Elevation (ft.)	per GB-7	per GB-7	C _c	Gravity (G _s)	Ratio (e)	
		B-001-0-23	1	-	2	SS-1A	27	67	4.5+	10	10	35	24	21	21	13	8	10	A-4a	Cohesive	1	#VALUE!	2025	3591	190	26	2.0	-2.0	105	125	0.099	2.72	0.616	
		B-001-0-23	3.5	-	5	SS-2	3	33	1.75	17	9	31	24	19	20	13	7	13	A-4a	Cohesive	1	1750	225	399	38	19	4.0	-4.0	90	105	0.09	2.72	0.886	
		B-001-0-23	5	-	6.5	SS-3	9	94	0.75	2	11	34	29	24	25	16	9	20	A-4a	Cohesive	1	750	675	1197	107	22	6.0	-6.0	105	125	0.135	2.72	0.616	
		B-001-0-23	6.5	-	6.92	SS-4	Refusal	100	-	-	-	-	-	-	-	-	-	20	A-4a	Cohesive	1	N/A	N/A	N/A	250	28	7.0	-7.0				2.72		
		B-002-0-23	1	-	2.5	SS-1	6	67	-	2	8	43	32	15	19	17	2	20	A-4a	Cohesive	1	N/A	450	798	75	21	2.0	-2.0	95	110	0.081	2.72	0.787	
		B-002-0-23	6.5	-	8	SS-4	7	89	-	1	4	38	40	17	27	16	11	24	A-6a	Cohesive	1	N/A	1225	931	88	22	7.0	-7.0	95	120	0.153	2.72	0.787	
		D 000 0 00	0		0.5	CC F	7	100		4	2	27	E0	47	27	40	0	O.F.	A 11-	Cabaaius	4	NI/A	EDE	024	0.0	22	0.0	0.0	O.F.	100	0.452	0.70	0.707	

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Values for Soil Strength	Correlation
Reference	Value
HI PI (Sowers)	0.25
MD PI (Sowers)	0.175
LO PI (Sowers)	0.075
T&P	0.133

																		Correlated				Correlated	Correlated			
Layer 2															Shor	t-Term Cohes	ion (psf)	LT Cohesion		Midpoint	Midpoint	Dry Unit Wt.	Moist Unit Wt.		Assumed	Computed
			%		%	%	%	%	%				%			N-values		(psf)	phi	Sample	Sample	(pcf)	(pcf)	Correlated	Specific	Void
		N ₆₀	Rec	HP	Gr	CS	FS	Silt	Clay	LL	PL	PI	WC		PPR	Sowers	T & P	per GB-7	(deg)	Depth (ft.)	Elevation (ft.)	per GB-7	per GB-7	C _c	Gravity (G _s)	Ratio (e)
Max	x	29	100	N/A	61	20	60	20	10	21	15	7	22	Max	N/A	N/A	N/A	N/A	34	10.0	-2.0	115	125	0.099	2.71	0.691
Min	n	9	28	N/A	3	4	6	14	9	15	14	3	6	Min	N/A	N/A	N/A	N/A	30	2.0	-10.0	100	120	0.045	2.65	0.438
Avera	age	17	59	N/A	27	14	33	17	9	18	15	5	12	Average	N/A	N/A	N/A	N/A	31	5.5	-5.5	105	122	0.072	2.70	0.608
Std D)ev	11	37	N/A	27	7	24	3	1	3	1	3	7	Std Dev	N/A	N/A	N/A	N/A	2	3.4	3.4	7	3	0.027	0.03	0.119
Avg +	Std	27	96	N/A	54	21	56	20	10	21	15	8	19	Avg + Std	N/A	N/A	N/A	N/A	33	8.9	-2.1	112	125	0.099	2.73	0.727
Avg -	Std	6	22	N/A	0	6	9	14	9	15	14	2	5	Avg - Std	N/A	N/A	N/A	N/A	29	2.1	-8.9	98	119	0.045	2.67	0.488

Correlated

Correlated

																					Sho	ort-Term Cohe	sion (psf)	LT Cohesion		Midpoint	Midpoint	Dry Unit Wt.	Moist Unit Wt.		Assumed	Computed
					Sample		%		%	%	%	%	%				%	ODOT				N-values	;	(psf)	phi	Sample	Sample	(pcf)	(pcf)	Correlated	Specific	Void
Alignment Surface Elev	ation Exploration ID	From		To	ID	N ₆₀	Rec	HP	Gr	CS	FS	Silt	Clay	LL	PL	PI	wc	Class.	Soil Type	Layer	PPR	Sowers	T & P	per GB-7	(deg)	Depth (ft.)	Elevation (ft.)	per GB-7	per GB-7	C _c	Gravity (G _s)	Ratio (e)
	B-001-0-23	2	-	2.5	SS-1B	-	-	-	3	12	60	16	9	15	NP	NP	9	A-3a	Granular	2	N/A			-		2.0	-2.0	115		0.045	2.65	0.438
	B-002-0-23	3.5	-	5	SS-2	12	28	-	61	4	6	-	-	NP	NP	NP	6	A-2-4	Granular	2	N/A				30	4.0	-4.0	100	120	N/A	2.71	0.691
	B-002-0-23	5	-	6.5	SS-3	9	50	-	37	18	22	14	9	18	15	3	12	A-1-b	Granular	2	N/A				30	6.0	-6.0	100	120	0.072	2.71	0.691
	B-002-0-23	9.5	-	11	SS-6	29	100	-	8	20	42	20	10	21	14	7	22	A-2-4	Granular	2	N/A				34	10.0	-10.0	105	125	0.099	2.71	0.611

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Shallow Foundation Personeters

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Athens

<u>Client:</u> Athens County Engineer's Office

Project: ATH-TR83-1.40

Subject: Bedrock Bearing Capacity

Reference: Ohio DOT Bridge Design Manual (2020 Edition)

AASHTO LRFD Bridge Design Manual (2020)

Page: 1 of 6

 ${\tt ODOT~BDM~305.2.1.2.b-Spread~Footing~Elevations~For~Foundations~Inside~the~Limits~of~the~100-Yr~Flood~Plain}$

NOTE: "Scour reistant rock shall have the following properties to an elevation at least 4-ft below the Thalweg" (ODOT BDM 205.2.1.2.b-B)

	Meets						
	Requirement	Project Val	ues Non-Scour red			<u>Reference</u>	<u>Notes</u>
B-1 Unconfined Compressive Strength, Qu	Yes	3000	psi Qu >	2500	psi	ASTM D7012 - Method C	See "Rock Strength Parameter Determination"
B-2 Slake Durability, SDI	No	79	% SDI >	90	%	ASTM D4644	See "Rock Strength Parameter Determination"
B-3 Rock Quality Designation, RQD	Yes	80	% RQD >	65	%	ODOT SGE Section 6	See "Rock Strength Parameter Determination"
B-4 Total Unit Weight, Y	No	135	pcf Y >	150	pcf		See "Rock Strength Parameter Determination"
B-5 Rock Mass Strength	No	or	Rock Mass Rating <u>2</u> Geologic Strength Index, GSI <u>2</u> with VG or Good Joint Su Massive or blocky Struct	75 rface Cond	or ditions	AASHTÖ (R.D. 10.4.6.4 GSI) hot	applicable to Spread footings
B-6 Erodibility Index, K	Yes Kb = Kd = Qu = Ms = Jr = Js = Js =	1.5 Joint Rou	Ms = Ou Ms = Ou Ms = (0.78) Qu ^{1.05} Number (Default value = 1) ghness Number (Oe aut. value = 1) ration Number (Default value = 5) oint Orientation Parameter (Default va	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	000	for O = 20 MPa (ODOT BDM 305.2.1. for O = 20 MPa (ODOT BDM 305.2.1. for Ca < 10 MPa (ODOT BDM 305.2.1. spint Set - group of joints has the same Small-scale features and intermediate Add 1.0 if mean spacing of the rele - Jr = 0.5 for planar, slickensided join - Due to lack of detailed information, a	.2.b) 1.2.b) dip angle and a strike angle scale features. evant joint set is greater than 3m, tts having lineation (assuming favorable orientation
B-7 Consider Weaker Interbedded Layers	Yes	Yes No weake	er interbedded for klavers encountere	, J		ODOT BDM 305.2.1.2.b: B-7 For Inte	rbedded rock formations, consider only weaker material
B-8 Non-Ordovician Rock Formation ALL 8 Criteria Met	Yes 5	Yes No	er interbedded rolk layers encouncele			ODOT BDM 305.2.1.2.b: B-8 No Ordo	ovician bedrock formation may be considered as scour resistant

Calculated: DCM Date: 4/12/2023

Checked: DMV Date: 4/14/2023

Athens County Engineer's Office Client:

Project: ATH-TR83-1.40

Bedrock Bearing Capacity Subject:

Ohio DOT Bridge Design Manual (2020 Edition) Reference:

AASHTO LRFD Bridge Design Manual (2020)

2 of 6 Page:

ODOT BDM 305.2.1.2.b - Spread Footing Elevations For Foundations Inside the Limits of the 100-Yr Flood Plain

Reference: FHWA -HIF-12-003: Evaluating Scour at Bridges (5th Edition, April 2012)

Та	ble 4.22. Values of the Rock Mass Strength F	Parameter M _s .	
Hardness	Identification in Profile	Unconfined Compressive Strength (MPa)	Mass Strength Number (Ms)
Very soft rock	Material crumbles under firm (moderate) blows with sharp end of geological pick and	Less than 1.7	0.87
	can be peeled off with a knife; is too hard to cut triaxial sample by hand.	1.7 – 3.3	1.86
Soft rock	Can just be scraped and peeled with a knife; indentations 1 mm to 3-mm show in the	3.3 – 6.6	3.95
	specimen with firm (moderate) blows of the pick point.	6.6 – 13.2	8.39
Hard rock	Cannot be scraped or peeled with a knife; hand-held specimen can be broken with hammer end of geological pick with a single firm (moderate) blow.	13.2 – 26.4	17.70
Very hard rock	Hand-held specimen breaks with hammer end of pick under more than one blow.	26.4 – 53.0 53.00 – 106.0	35.0 70.0
Extremely hard rock	Specimen requires many blows with geological pick to break through intact material.	Larger than 212.0	280.0

	hammer end of geological pick with single firm (moderate) blow.	а	13.2 – 26.4	17.70			900 - 380	O	×	Sr
Very hard rock	Hand-held specimen breaks with ha end of pick under more than one blo		26.4 - 53.0 53.00 - 106.0	35.0 70.0			300 - 160 60 153		10	fil Si
Extremely hard rock	Specimen requires many blows with geological pick to break through inta material.		Larger than 212.0	280.0		8	> 30750	ac)		<u>w</u>
	f RQD ranging between 5 and 100, ar ranges between 1 and 100 for rock.		0 0	veen 1 and	Ó		5	×	1	(2 (3 **
	Table 4.23. Rock Joint Set	Number .	J _n .	`	•	2 5		S		
	Number of Joint Sets	Joint	Set Number (Jn))		V				
Intact,	no or few joints/fissures		1.00	7 .				O'		
One jo	int/fissure set		1.22		O		·			
One jo	int/fissure set plus random		1.50	\mathbf{I})			
Two jo	int/fissure sets		1.83			C				
Two jo	int/fissure sets plus random		2.24	3.		9				
Three	oint/fissure sets		2.7	T ,	1					
Three	joint/fissure sets plus random		3.34	(75					
Eour ic	int/fissure sets		4.09							
rour jo	e joint/fissure sets		5.00							

Pafaranca: EH\MA	-HIE-12-003	: Evaluating Scour at Bridges (5th Edition, A)	nril 2012\

Table 4	.20. Geomecha	anics Rating A	djustment for .	Joint Orie	ntations (after A	ASHTO 2010).
Orienta	tions of Joints	Very Favorable	Favorable	Fair	Unfavorable	Very Unfavorable
	Tunnels	0	-2	-5	-10	-12
Ratings	Foundations	0	-2	-7	-15	-25
	Slopes	0	-5	-25	-50	-60

Table 4.24. Joint Roughness Number J _r .	
Condition of Joint	Joint Roughness Number J _r
Stepped joints/fissures	4.0
Rough or irregular, undulating	3.0
Smooth undulating	2.0
Slickensided undulating	1.5
Rough or irregular, planar	1.5
Smooth planar	1.0
Slickensided planar	0.5
Joints/fissures either open or containing relatively soft gouge of sufficient thickness to prevent joint/fissure wall contact upon excavation	1.0
Shattered or micro-shattered clays	1.0

Table 4.25. Joint Alteration	Number J _a .							
2	Joint Alteration Number (J _a) for Joint Separation (mm)							
Description of Gourse	1.0 (1)	1.0 -5.0 ⁽²⁾	5.0 ⁽³⁾					
Tightly healed, had 1 hon-softering impermeable	0.75	-	-					
Chaltered joint valls, surface staining only	1.0	-	-					
Slightly altered, non-cottening, non-cohesive rock mineral or crushed rock filling	2.0	2.0	4.0					
Northening, slightly clayey non-cohesive filling	3.0	6.0	10.0					
Non softening, ston ly over-consolidated clay eral filling, with or without crushed rock	3.0	6.0**	10.0					
Softening powfriction clay mineral coatings and small quanties of swelling clays	4.0	8.0	13.0					
Softening hoderately over-consolidated clay mineral filling, with or without crushed rock	4.0	8.00**	13.0					
Shattered or micro-shattered (swelling) clay gouge, with or without crushed rock	5.0	10.0**	18.0					

(1) Joint walls effectively in contact.

psi < 250 250 - 480 480 - 950 950 - 1900

- (2) Joint walls come into contact after approximately 100-mm shear.
- (3) Joint walls do not come into contact at all upon shear.
- **Also applies when crushed rock occurs in clay gouge without rock wall contact.

BDM Section 300 - Detail Design

- c. If the Rock Joint Set Number, Jn, cannot be determined from observation or bore hole data, then assume $J_n = 5$.
- d. If the Joint Roughness Number, Jr. cannot be determined from observation or bore hole data, then assume $J_t = 1$.
- e. If the Joint Alteration Number, Ja, cannot be determined from observation or bore hole data, then assume $J_a = 5$.
- f. If the Relative Joint Orientation Parameter, J_s, cannot be determined from observation or bore hole data, then assume $J_s = 0.4$.
- 7. For interbedded rock formations, consider only the weaker material.
- No Ordovician bedrock formation may be considered as scour resistant rock.

Client: Athens County Engineer's Office

Project: ATH-TR83-1.40

Subject: Bedrock Bearing Capacity

<u>Reference:</u> Ohio DOT Bridge Design Manual (2020 Edition)

AASHTO LRFD Bridge Design Manual (2020)

Page: 3 of 6

ODOT BDM 305.2.1.2.b - Spread Footing Elevations For Foundations Inside the Limits of the 100-Yr Flood Plain

		Table 4.19. Geon	nechanics Cla	ssification	of Rock Mas	ses (AAS	SHTO	2010).				
lative	PARAMETER	PARAMETER RANGES OF VALUES										
ating	Strength of intact rock	Point load strength index	>1,200 psi	600 to 1,200 ps		150 t	300 si		low range – ssive test is p			
	material	Uniaxial compressive strength	>30,000 psi	15,000 f 30,000 p				1,500 to 3,600 psi	500 to 1,500 psi	150 to 500 psi		
2	Relative Rating		15	12	7	4	,	2	1	0		
	2. Drill core quality RQD	90% to 100%	75% to	90%	50% to 75	1%	25% to 50%		T .	25%		
17	Relative Rating	20	17		13	13 8		8		8 3		3
	3. Spacing of joints	>10 ft	3 to 10) ft	1 to 3 f		2 in. to 1 foot		<2 in.			
25	Relative Rating	30	25		20		10		5			
	4. Condition of joints	Very rough surfaces Not continuous No separation Hard joint wall rock	Slightly rouse surfaces Separation Hard joint wards	<0.05"	Slightly rough surfaces Separation <0 Soft joint wall	.05"	Slickensided sur or Gouge <0.2 in th or Joints open 0.05 Continuous joints		Soft gou or Joints o			
20	Relative Rating	25	20		12			6		0		
	5, Ground water conditions	Inflow per 30 ft tunnel length	None	9	<400 gallor	is/hr		00 to 2,000 gallons/hr	>2,000	gallons/hr		
	(use one of the three evaluation criteria as appropriate to the	Ratio= joint water pressure/ major principal stress	0		0.0 to 0.	2	0.2 to 0.5		O,	>0.5		
	method of exploration)	General Conditions	Complete	ly Dry	Moist only (interstitial water)		Water under moderate pressure		S ave	err mater olerr		
10	Relative Rating		10		7			4		0		

Table 4	Table 4.21. Geomechanics Rock Mass Classes Determined From Total Ratings (AASHTO 2010).											
RMR (Note 1)	1 100 to 81 80 to 61 60 to 41 40 to 21 <20											
Class No.	I	П	III	IV	V							
Description	Very good rock	Good rock	Fair rock	Poor rock	Very poor rock							

Note 1: RMR is adjusted for structural application and rock joint orientation as per Table 4.20 prior to evaluating the Class No.

Table 4.26.	Relative Orientation	Paramete	er J _s .					
Dip Direction of Closer Spaced Joint Set (degrees)	Dip Angle of Closer Spaced Joint Set (degrees)	Ratio of Joint Spacing, r						
Dip Direction	Dip Angle	Ratio 1:1	Ratio 1:2	Ratio 1:4	Ratio 1:8			
180/0	90	1.14	1.20	1.24	1.26			
In direction of stream flow	89	0.78	0.71	0.65	0.61			
In direction of stream flow	85	0.73	0.66	0.61	0.57			
In direction of stream flow	80	0.67	0.60	0.55	0.52			
In direction of stream flow	70	0.56	0.50	0.46	0.43			
In direction of stream flow	60	0.50	0.46	0.42	0.40			
In direction of stream flow	50	0.49	0.46	0.43	0.41			
In direction of stream flow	40	0.53	0.49	0.46	0.45			
In direction of stream flow	30	0.63	0.59	0.55	0.53			
In direction of stream how	20	0.84	0.77	0.71	0.67			
In direction of stream flow	10	1.25	1.10	0.98	0.90			
In cirrection of stream flow	5	1.39	1.23	1.09	1.01			
In disection of stream flow	1	1.50	1.33	1.19	1.10			
0// 80	0	1.14	1.09	1.05	1.02			
Against di ection of stream flow	-1	0.78	0.85	0.90	0.94			
Agains direction of stream flow	-5	0.73	0.79	0.84	0.88			
Against direction of stream flow	-10	0.67	0.72	0.78	0.81			
Against direction of stream flow	-20	0.56	0.62	0.66	0.69			
Against direction of stream flow	-30	0.50	0.55	0.58	0.60			
Against Arection of stream flow	-40	0.49	0.52	0.55	0.57			
Against direction of stream flow	-50	0.53	0.56	0.59	0.61			
Against direction of stream flow	-60	0.63	0.68	0.71	0.73			
Ygainst direction of stream flow	-70	0.84	0.91	0.97	1.01			
Against direction of stream flow	-80	1.26	1.41	1.53	1.61			
Against direction of stream flow	-85	1.39	1.55	1.69	1.77			
Against direction of stream flow	-89	1.50	1.68	1.82	1.91			
180/0	-90	1.14	1.20	1.24	1.26			

Notes

- 1. For intact material take J_s = 1.0.
- 2. For values of r greater than 8 take J_s as for r = 8.
- If the flow direction FD is not in the direction of the true dip TD, the effective dip ED is determined by adding the ground slope to the apparent dip AD: ED = AD + GS

Reference: FHWA -HIF-12-003: Evaluating Scour at Bridges (5th Edition, April 2012)

Table 4	.20. Geomecha	anics Rating Ad	djustment for J	Joint Orie	ntations (after A	ASHTO 2010).
Orienta	tions of Joints	Very Favorable	Favorable	Fair	Unfavorable	Very Unfavorable
	Tunnels	0	-2	-5	-10	-12
Ratings	Foundations	0	-2	-7	-15	-25
	Slopes	0	-5	-25	-50	-60



4/12/2023 Calculated: DCM Date: Checked: DMV Date: 4/14/2023

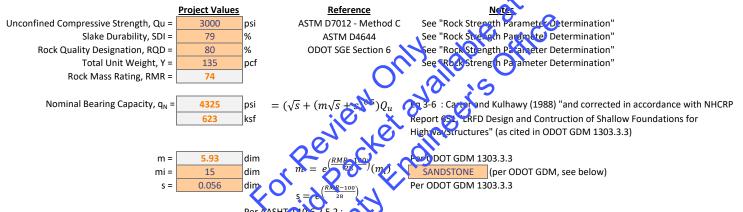
Client: Athens County Engineer's Office ATH-TR83-1.40 Project: **Bedrock Bearing Capacity** Subject:

Page: 4 of 6

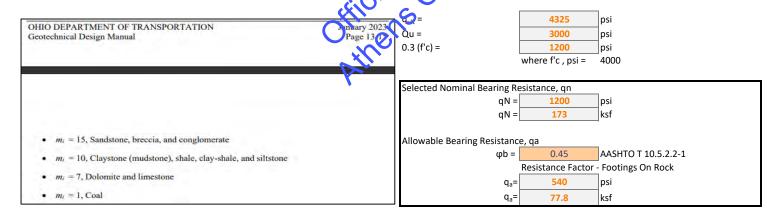
Ohio DOT Bridge Design Manual (2020 Edition) Reference:

AASHTO LRFD Bridge Design Manual (2020)

Carter, J. P., and F. H. Kulhawy. Analysis and Design of Drilled Shaft Foundations Socketed into Rock, Report No. EL-5918. 1988



ded value waresumptive bearing resistance exceeds either the unconfined compressive strength of the rock or resistance of the concrete, the presumptive bearing resistance shall be taken as the lesser of the unconfined $^{\prime}$ (ngth of the rock or the nominal resistance of the concrete. The nominal resistance of concrete shall be taken as 0.3 $^{\prime}$ c .



FDS

Relative Rating

2

17 25

20

10

RMR 74

	Table 4.19. Geom	ecnanics Cla	ssification	of Rock Mass	es (AA	SHIO	2010).					
PARAMETER				RANGES OF VA	LUES							
Strength of intact rock	Point load strength index	>1,200 psi	600 to 1,200 ps			to 300 osi	For this low range - compressive test is			ange – uniaxial lest is preferred		
material	Uniaxial compressive strength	>30,000 psi	15,000 t 30,000 p				1,500 to 3,600 psi	500 to 1,500 pr	15 si	i0 to 500 psi		
Relative Rating		15	12	7		4	2	1		0		
2. Drill core quality RQD	90% to 100%	75% to 9	90%	50% to 759	6	2	5% to 50%	T	<25%	6	4	
Relative Rating	20	17		13			8		3	_	11,	
3. Spacing of joints	>10 ft	3 to 10	ft	1 to 3 ft		2	in. to 1 foot		<2 in	O		
Relative Rating	30	25		20			10		1			
4. Condition of joints	Very rough surfaces Not continuous No separation Hard joint wall rock	Slightly roug surfaces Separation Hard joint w	<0.05"	Slightly rough surfaces Separation < 0.0 Soft joint wall ro		or Goug or -	ensided surface ge <0.2 in thick s occo 0.20 in cos junts	0011	Tonas,	0.2" thick 0.2" thick	17/10/0	
Relative Rating	25	20		12		4	6	2	0	6		
5, Ground water conditions	Inflow per 30 ft tunnel length	None		<400 gallons	Mr		00 to 2,900 gallons/b	>2,	000 gali	nns/hr		
(use one of the three evaluation criteria as appropriate to the	Ratio= joint water pressure/ major principal stress	0		0.0 to 0.2		~	0.2 to 0.5	S	>0.5	7		
method of exploration)	General Conditions	Complete	y Dry	Moist only (inter water)	stitial		Vater under erate pressure		evere w probler			
Relative Rating		10		47.			4		0		1	

Reference: FHWA -HIF-12-003: Evaluating Scorr at Bridges (5th Edition, April 2012)

Table 10.5.5.2.2-1—Resistance Factors for Geotechnical Resistance of Shallow Foundations at the Strength Limit State

		Method/Soil/Condition	Resistance Factor
		Theoretical method (Munfakh et al., 2001), in clay	0.50
		Theoretical method (Munfakh et al., 2001), in sand, using CPT	0.50
Bearing Resistance	· · ·	Theoretical method (Munfakh et al., 2001), in sand, using SPT	0.45
Bearing Resistance	φ_b	Semi-empirical methods (Meverhof, 1957), all soils	0.45
		Footings on rock	0.45
		Plate Load Test	0.55
		Precast concrete placed on sand	0.90
		Cast-in-Place Concrete on sand	0.80
Sliding	φτ	Cast-in-Place or precast Concrete on Clay	0.85
ľ		Soil on soil	0.90
	φ_{ep}	Passive earth pressure component of sliding resistance	0.50

BEDROCK TESTING

						Moist	Compre	essive	Eı	r			Em (Hoek & E	Brown)	Lesser of	Em (Y	'ang)
Project	Exploration ID	Sample	Sample	Rock	Color	Unit	Stren	gth	Mod	ulus	GSI	GSI Modu		s	Er vs Em	Mod	ulus
		Depth (ft)	ID	Туре		Weight (pcf)	(psi)	(MPa)	(psi)	(MPa)	Range	USE	(GPa)	(psi)	(psi)	(MPa)	(psi)
ATH-TR83-1.40	B-001-0-23	8.4	RS-1	Sandstone	Brown/Gray	137.5	3577	24.7			75-85	80	27.9	4050419	4050419		
ATH-TR83-1.40	B-001-0-23	20.1	RS-2	Sandstone	Gray	136.3	3108	21.4			75-85	80	26.0	3775557	3775557		
ATH-TR83-1.40	B-002-0-23	13.3	RS-1	Sandstone	Brown	135.5	3277	22.6			65-75	70	15.0	2180112	2180112		
ATH-TR83-1.40	B-002-0-23	25.4	RS-2	Sandstone	Gray	134.5	2366	16.3			75-85	80	22.7	3294184	3294184		
	1			Sandstone	Maximum	137.5	3577						Sandstone	Maximum	4,050,419	·	
					Minimum	134.5	2366	1				'		Minimum	2,180,112	1	
					Average	136	3082	1						Average	3,325,068	1	
					Std Dev	1	515	1						Std Dev	824,814	1	
					Adopted Value	135	3000	1					Δι	donted Value	3 325 000		

Table 10.4.6.5-1—Estimation of E_m Based on GSI

Expression	Notes/Remarks	Reference			
$E_m(GPa) = \sqrt{\frac{q_u}{100}} \frac{GSI - 10}{40} \text{for } q_u \le 100 \text{ MPa}$ $E_m(GPa) = 10^{\frac{GSI - 10}{40}} \text{for } q_u \le 100 \text{ MPa}$	Accounts for rocks with q_u < 100 MPa; notes q_u in MPa	Hoek and Brown (1997); Hoek et al. (2002)			
$E_m = \frac{E_R}{100} e^{\frac{GSI}{21.7}}$	Reduction factor on intact modulus, based on GSI	Yang (2006)			

Notes: E_r = modulus of intact rock, E_m = equivalent rock mass modulus, GSI = geometric geometric graph, and 1 MPa = 2.09 ksf.	ological str	ength inde	$ex, q_u = un$	iaxial com	npressive
GSI FOR HETEROGENEOUS ROCK MASSES SUCH AS FLYSCH (Marinos.P and Hoek. E, 2000) From a description of the lithology, structure and surface conditions (particularly of the bedding planes), choose a box in the chart. Locate the position in the box that corresponds to the condition of the discontinuities and estimate the average value of GSI from the contours. Do not attempt to be too precise. Quoting a range from 33 to 37 is more realistic than giving GSI = 35. Note that the Hoek-Brown criterion does not apply to structurally controlled failures. Where unfavourably oriented continuous weak planar discontinuities are present, these will dominate the behaviour of the rock mass. The strength of some rock masses is reduced by the presence of groundwater and this can be allowed for by a slight shift to the right in the columns for fair, poor and very poor conditions. Water pressure does not change the value of GSI and it is dealt with by using effective stress analysis. COMPOSITION AND STRUCTURE	VERY GOOD - Very rough, fresh unweathered surfaces	GOOD - Rough, slightly weathered surfaces	FAIR - Smooth, moderately weathered and altered surfaces	POOR - Very smooth, occasionally slickensided surfaces with compact coatings or fillings with angular fragments	VERY POOR - Very smooth slicken- sided or highly weathered surfaces with soft clay coatings or fillings
A. Thick bedded, very blocky sandstone The effect of pelitic coatings on the bedding planes is minimized by the confinement of the rock mass. In shallow tunnels or slopes these bedding planes may cause structurally controlled instability.	70	A			
B. Sand- stone with thin inter- layers of siltstone C. Sand- stone and siltstone in siltstone in similar amounts D. Siltstone or silty shale with sand- stone layers shale with sandstone layers		50 B 40	C D	E	
C,D, E and G - may be more or less folded than llustrated but this does not change the strength. Tectonic deformation, faulting and loss of continuity moves these categories to F and H.			30	F 20	
G. Undisturbed silty or clayey shale with or without a few very thin sandstone layers H. Tectonically deformed silty or clayey shale forming a chaotic structure with pockets of clay. Thin layers of sandstone are transformed into small rock pieces.			G	Н	, 10

→ : Means deformation after tectonic disturbance

GEOLOGICAL STRENGTH INDEX FOR JOINTED ROCKS (Hoek and Marinos, 2000) From the lithology, structure and surface conditions of the discontinuities, estimate the average value of GSI. Do not try to be too precise. Quoting a range from 33 to 37 is more realistic than stating that GSI = 35. Note that the table does not apply to structurally controlled failures. Where weak planar structural planes are present in an unfavourable orientation with respect to the excavation face, and will dominate the rock mass behive up the shear strength of surfaces in one state of the surfaces in the surfaces in the surfaces in the surface of the surfaces in the surface of the surfaces in the surface of the surfaces in the surfaces in the surface of the surface o N/A ISINTEGRATED - poorly inter-locked, heavily broken rock mass with mixture of angular and rounded rock pieces LAMINATED/SHEARED - Lack

Figure 10.4.6.4-1—Determination of GSI for Jointed Rock Mass (Hoek and Marinos, 2000)

BEDROCK QUALITY

			Ground	Foundation	Depth	Range (ft.)	Thickness	Layer RQD	Weighted
Project	Exploration ID	Rock Type	Surface Elev (ft)	Elev. (ft)	From	To***	(ft)	(%)	RQD*(Length / Total Length)
ATH-TR83-1.40	B-001-0-23	Sandstone	745.2	732.6	12.6	16.6	4	87	29.0
ATH-TR83-1.40	B-002-0-23	Brn Sandstone	744.4	732.6	11.8	15.8	4	56	18.7
ATH-TR83-1.40	B-002-0-23	Sandstone	744.4	732.6	11.8	15.8	4	96	32.0
*** Approx RQD of	layer within 4 ft o	l of Foundation eleva	tion			Sandstone	12	RQD SUM	80
Notes:						Maximum	4	96	
1) Foundation Elev	ation based on a	pproximate creek b	ed elevation			Minimum	4	56	

2) Approx RQD of layer within 4 ft of Foundation elevation/Thelwag 2) Brown Candstone is note recommended for foundation bearing

		SLA	KE DURABILIT	<u>ΓΥ</u>			
			Ground	Testing	Depth	Range (ft.)	Slake
Project	Exploration ID	Rock Type	Surface Elev (ft)	Elev. (ft)	From	То	Durability (%)
ATH-TR83-1.40	B-001-0-23	Sandstone	745.2	731.2	14	15	90.5
ATH-TR83-1.40	B-002-0-23	Sandstone	744.4	732.6	11.8	12.8	79.2
						Sandstone	SDI (%)

Drilled Spart Foundation Parameters

Official County

Athens



Calculated: DCM Date: 4/12/2023 Checked: DMV Date: 4/14/2023

Athens County Engineer's Office Client: ATH-TR83-1.40 Project: Subject: **Bedrock Bearing Capacity** Page:

Ohio DOT Bridge Design Manual (2020 Edition) Reference: AASHTO LRFD Bridge Design Manual (2020)

Carter, J. P., and F. H. Kulhawy. Analysis and Design of Drilled Shaft Foundations Socketed into Rock, Report No. EL-5918. 1988

	Project Values	<u>Reference</u>	Notes
Unconfined Compressive Strength, Qu =	3000 psi	ASTM D7012 - Method C	See "Rock Strength Parameter Determination"
Slake Durability, SDI =	79 %	ASTM D4644	See "Rock Strength Parameter Determination"
Rock Quality Designation, RQD =	80 %	ODOT SGE Section 6	See "Rock Strength Parameter Determination"
Total Unit Weight, Y =	135 pcf		See "Rock Strength Parameter Determination"
Rock Mass Rating, RMR =	74		
AASHTO 10.8.3.5.4b - Side Resistance			
Side Resistance, qs =	0.56 ksf		
	561 psf		
	$\frac{q_s}{p_a} = C \sqrt{\frac{q_u}{p_a}}$	AASHTO Eq. 10.8.35.4b-1	Per ODOT GDM do NOT use Eq 10.8.3.5.4b-2
Atmospheric pressure, pa =	2.12 ksf	As provided in AASHTO 10.8.3 5.3 b	
Regression Coefficient, C =	1 (dim)	As provided in AASHTO 10.8.3 5.40	.6.0
Uniaxial Compressive Strength of Rock, qu =	3 ksf	ASTM D7012 - Method (ee "Rock Strength Parameter Determination"
AASHTO 10.8.3.5.4c - Tip Resistance Tip ResistanceSide Resistance, qp =	7.50 ksf 7500 psf	n Asignar	3
	$q_p = 2.5q_{\nu}$	AASHTO Eq. 10 8.3.5.4c-1	Assumes
		10	1) Embedment > 1.5 B
		(), ² (),	2) No karst or clay-filled seams
	. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		3) No adverse jointing identified such that
			jointing will control bearing failure
Uniaxial Compressive Strength of Rock, qu	3 C) of	ASTM D7012 - Method C	See "Rock Strength Parameter Determination"
Per ODOT GDM 1306.4.2:	3,000		

For the calculation of foch socket ne minal tip resistance, typically use AASHTO LRFD Equation 10.8.3.5.4c-1 (qn = 3.3u). Do not use AASHTO LRFD Equation 10.8.3.5.4c-2 (the Hock-Brown Geologic Strength Ladex [GST] method) for the calculation of nominal tip resistance, unless (1) a rock socket length of less than 1.5B is used, where B is the diameter of the drilled shaft; (2) voids or karst or clay filled search are identified within the bearing stratum; or (3) bedrock with adverse jointing is identified, such that the structure of the joints will control the mode of bearing failure. Case (2) should not be currently design, and case (3) is rare except for when the bedrock surface is steeply sloping. The bedrock in Ohio is generally flat, and except for on Appalachian hillsides, steep preplacial valleys, or the sides of rock cut excavations, the rock at the bottom of a rock socket steep preglacial valleys, or the sides of rock cut excavations, the rock at the bottom of a rock socket has nowhere to go in a bearing capacity failure. The Hoek-Brown GSI method is not appropriate for rock socket tip resistance in Ohio bedrock unless there is some structural discontinuity that results in a critical feature controlling the bearing resistance. In most instances, the GSI method is extremely conservative and unrealistic. If using AASHTO LRFD Equation 10.8.3.5.4c-2, justify its use in accordance with BDM Section 305.4.2.

BEDROCK TESTING

						Moist	Compre	essive	Eı	r			Em (Hoek & E	Brown)	Lesser of	Em (Y	'ang)
Project	Exploration ID	Sample	Sample	Rock	Color	Unit	Stren	gth	Mod	ulus	GSI		Modulu	s	Er vs Em	Mod	ulus
		Depth (ft)	ID	Туре		Weight (pcf)	(psi)	(MPa)	(psi)	(MPa)	Range	USE	(GPa)	(psi)	(psi)	(MPa)	(psi)
ATH-TR83-1.40	B-001-0-23	8.4	RS-1	Sandstone	Brown/Gray	137.5	3577	24.7			75-85	80	27.9	4050419	4050419		
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	1			Sandstone	Maximum	137.5	3577						Sandstone	Maximum	4,050,419	·	
					Minimum	134.5	2366	1				'		Minimum	2,180,112	1	
					Average	136	3082	1						Average	3,325,068	1	
					Std Dev	1	515	1						Std Dev	824,814	1	
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$E_m = \frac{E_R}{100} e^{\frac{GSI}{21.7}}$	Reduction factor on intact modulus, based on GSI	Yang (2006)		

Notes: E_r = modulus of intact rock, E_m = equivalent rock mass modulus, GSI = geometric geometric graph, and 1 MPa = 2.09 ksf.	ological str	ength inde	$ex, q_u = un$	iaxial com	npressive
GSI FOR HETEROGENEOUS ROCK MASSES SUCH AS FLYSCH (Marinos.P and Hoek. E, 2000) From a description of the lithology, structure and surface conditions (particularly of the bedding planes), choose a box in the chart. Locate the position in the box that corresponds to the condition of the discontinuities and estimate the average value of GSI from the contours. Do not attempt to be too precise. Quoting a range from 33 to 37 is more realistic than giving GSI = 35. Note that the Hoek-Brown criterion does not apply to structurally controlled failures. Where unfavourably oriented continuous weak planar discontinuities are present, these will dominate the behaviour of the rock mass. The strength of some rock masses is reduced by the presence of groundwater and this can be allowed for by a slight shift to the right in the columns for fair, poor and very poor conditions. Water pressure does not change the value of GSI and it is dealt with by using effective stress analysis. COMPOSITION AND STRUCTURE	VERY GOOD - Very rough, fresh unweathered surfaces	GOOD - Rough, slightly weathered surfaces	FAIR - Smooth, moderately weathered and altered surfaces	POOR - Very smooth, occasionally slickensided surfaces with compact coatings or fillings with angular fragments	VERY POOR - Very smooth slicken- sided or highly weathered surfaces with soft clay coatings or fillings
A. Thick bedded, very blocky sandstone The effect of pelitic coatings on the bedding planes is minimized by the confinement of the rock mass. In shallow tunnels or slopes these bedding planes may cause structurally controlled instability.	70	A			
B. Sand- stone with thin inter- layers of siltstone C. Sand- stone and siltstone in siltstone in similar amounts D. Siltstone or silty shale with sand- stone layers shale with sandstone layers		50 B 40	C D	E	
C,D, E and G - may be more or less folded than llustrated but this does not change the strength. Tectonic deformation, faulting and loss of continuity moves these categories to F and H.			30	F 20	
G. Undisturbed silty or clayey shale with or without a few very thin sandstone layers H. Tectonically deformed silty or clayey shale forming a chaotic structure with pockets of clay. Thin layers of sandstone are transformed into small rock pieces.			G	Н	, 10

→ : Means deformation after tectonic disturbance

GEOLOGICAL STRENGTH INDEX FOR JOINTED ROCKS (Hoek and Marinos, 2000) From the lithology, structure and surface conditions of the discontinuities, estimate the average value of GSI. Do not try to be too precise. Quoting a range from 33 to 37 is more realistic than stating that GSI = 35. Note that the table does not apply to structurally controlled failures. Where weak planar structural planes are present in an unfavourable orientation with respect to the excavation face, and will dominate the rock mass behive up the shear strength of surfaces in one state of the surfaces in the surfaces in the surfaces in the surface of the surfaces in the surface of the surfaces in the surface of the surfaces in the surfaces in the surface of the surface o N/A ISINTEGRATED - poorly inter-locked, heavily broken rock mass with mixture of angular and rounded rock pieces LAMINATED/SHEARED - Lack

Figure 10.4.6.4-1—Determination of GSI for Jointed Rock Mass (Hoek and Marinos, 2000)

BEDROCK QUALITY

			Ground	Foundation	Depth	Range (ft.)	Thickness	Layer RQD	Weighted
Project	Exploration ID	Rock Type	Surface Elev (ft)	Elev. (ft)	From	To***	(ft)	(%)	RQD*(Length / Total Length)
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ATH-TR83-1.40	B-002-0-23	Brn Sandstone	744.4	732.6	11.8	15.8	4	56	18.7
ATH-TR83-1.40	B-002-0-23	Sandstone	744.4	732.6	11.8	15.8	4	96	32.0
*** Approx RQD of	layer within 4 ft o	l of Foundation eleva	tion			Sandstone	12	RQD SUM	80
Notes:						Maximum	4	96	
1) Foundation Elev	ation based on a	pproximate creek b	ed elevation			Minimum	4	56	

2) Approx RQD of layer within 4 ft of Foundation elevation/Thelwag 2) Brown Candstone is note recommended for foundation bearing

		SLA	KE DURABILIT	<u>ΓΥ</u>			
			Ground	Testing	Depth	Range (ft.)	Slake
Project	Exploration ID	Rock Type	Surface Elev (ft)	Elev. (ft)	From	То	Durability (%)
ATH-TR83-1.40	B-001-0-23	Sandstone	745.2	731.2	14	15	90.5
ATH-TR83-1.40	B-002-0-23	Sandstone	744.4	732.6	11.8	12.8	79.2
						Sandstone	SDI (%)



Project: ATH-TR83-1.40

Client: Athens County Engineer's Office Task: Generalized LPILE Parameters

Calculated By: DCM Date: Checked By: DMV Date:

4/13/2023 4/14/2023

Soil Lateral Design Profile

	Elevation				Unit W	/t (pcf)			
Soil Type	Top (ft)	Bottom (ft)	Cohesion (psf)	Phi (deg)	Total	Effective	ε50	k (pci)	
Cohesive Soils	745	742	1300	0	120	57.6	0.007	N/A	
Granular Soils	742	740	0	30	120	57.6	N/A	60	
Cohesive Soils	740	735	1300	0	120	57.6	0.007	N/A	
Granular Soils	735	734	0	30	120	57.6	N/A	60	

Note: ε50 and k values per LPile Technical Manual.

ε50 tables from LPile Technical Manual

Consistency of Clay	E50
Soft	0.020
Medium	0.010
Stiff	0.005

0.010		MN/m^3
0.005	11,	(pci)
of \$50 for Stiff to I		Table 3-7 Representative Values of k
€50		Recommende VA
0.007		O O
0.005	• (3/4 9/ Ol
0.004	1	
	al Col	Mr,
Offi	ans	
× ×	No.	
b.		
	0.005 of &₀ for Stiff to H &₀ 0.007 0.005 0.004	0.005 of € ₅₀ for Stiff to Hard Clays € ₅₀ 0.007 0.005

k tables from LPile Technical Manual

Table 3-6 Representative \	Values of k for Fine Sand Below the	Water Table for Static and Cyclic
	Loading	
1		

Recommended k	Relative Density					
Recommended k	Loose	Medium	Dense			
MN/m ³	5.4	16.3	34			
(pci)	(20.0)	(60.0)	(125.0)			

Water Table for Static and Cyclic

Perummen (e.)	Relative Density										
Recommende! k	Loosi	Medium	Dense								
MN/m ³	6.9	24.4	61.0								
(text)	(25.0)	(90.0)	(225.0)								

Scor Analysis Parameters

Official County

Athens



Project: ATH-TR83-1.40

Client: Athens County Engineer's Office

Task: Scour Analysis Parameter Determination

Calculated By: DCM Checked By: DMV Date: Date: 4/13/2023 4/14/2023

Reference

ODOT Geotechnical Design Manual (GDM)

Critical Shear Stress (Tc)

Cohesive Soils (GDM 1301.1.1)

 $a (w/f)^{-2.0} (PI/100)^{1.3} (qu)^{0.4}$

Reference

ODOT Geotechnical Design Manual (GDM)

Erosion Category (EC)

Cohesive Soils (GDM 1302.2)

	IC =	a (w/f) (Pi/	/ TO	u) (qu)										
		Tc (Pa) =	. (Critical Shea	ar Stress			EC =	4.5 - (3 / 1.07 ^{PI}	')	where $1.5 \le EC < 4.5$			
		w (dim) =	'	Water Conte	ent					~ C	PI = Plasticity index (dim)		
		F (dim) =	- 1	Fraction of F	Fine Particle	s (< 75 um)				7) . C	PI = Plasticity index (
		PI (dim) =	: 1	Plasticity Ind	dex (use mir	n PI = 4)		Granular Soils (CDM 1302(2)	S COLO				
		qu (psf) =	: 1	Unconfined	Compressiv	e Test		EC =	1.2 [1.53333+1	og (D <u>5</u> 0)]				
				c (psf) = 1/2	qu	cohesion		O_{I} .			where 1 <u><</u> EC <u><</u> 6			
		a =		0.01		unit conversio	n	\sim	10, 10					
						0.01 = U.S. Cu	stomary units	No	7 °C.					
						0.1 = S.I.	•.(ر 🗴 کر						
	Granular Soi	ils (GDM 1302	.1.2	2)				0	~					
	Tc (Pa) =	D50 (mm)					200							
		Tc (psf) =		Critical Shea	ar Stress (Pa)		\sim						
		D50)	mean partic	le grain size	(mm), > or = 0	.2 n/m	0 ()						
							on stomary units							
	Sample	Florest	tion	(f+)	D50	Moisture	Fines (< 75um)	Nasticiy	Unconfined	Compressive	Unit conversion			
Boring No.		Elevat	LIOI	1 (11)	טפט) Worsture Fillestey		Hasticiy	Streng	gth, Qu	Unit conversion	Tc (Pa)	Tc (psf)	EC (dim)
		Тор		Bottom	(mm)	w (dim)	F (dim)	PI (dim)	Qu (psf) ¹	Qu (Pa)	a (dim)			
B-001-0-23	SS-1A	744.2	-	743.2	0.0986	10	0 45	8	2600	124488.9	0.01	0.829	0.017	2.75
	SS-1B	743.2	-	742.7	0.1542	2.C	25	0	GRANULAR	Granular	0.01	0.154	0.003	1.23
	SS-2	741.7	-	740.2	0.1128	73	3 3	7	2600	124488.9	0.01	0.376	0.008	2.63
	SS-3	740.2	-	738.7	0.0487	20	53	9	2600	124488.9	0.01	0.335	0.007	2.87
B-002-0-23	SS-3	739.4	-	737.9	0.6922	12	23	3	GRANULAR	Granular	0.01	0.692	0.014	2.01
	SS-4	737.9	-	736.4	0.0528	24	57	11	2600	124488.9	0.01	0.349	0.007	3.07
	SS-5	736.4	-	734.9	0.0277	2	69	9	2600	124488.9	0.01	0.394	0.008	2.87
	CC C	7240		722.4	0.1727	22	20	7	2500	424400.0	0.01	0.004		
	SS-6	734.9	-	733.4	0.1727		30	7	2600	124488.9	0.01	0.064	0.001	2.63

See soil parameter determination sheet summary

0.0208854 psf

dimensionless dim =



Project: ATH-TR83-1.40

Client: Athens County Engineer's Office

Task: Scour Analysis Paramter Determination

Calculated By: DCM Date: 4/13/2023 4/14/2023 Checked By: DMV Date:

For scour equations that require a D₅₀ input, an equivalent D₅₀ (D_{50, equivalent}) needs to be calculated for cohesive soils and bedrock using the equation, D_{50, equivalent} (mm) = τ_e (Pa). It is important to note that although τ_e is reported in psf units, the units must be in Pascals for this relationship.

1302.1.1 Cohesive Soils

Determine scour critical shear stress of a cohesive soil through publication FHWA-HRT-15-033. Figure 54, "Equation. Predictive relation for critical shear stress,"

$$\tau_c = \alpha \left(\frac{w}{F}\right)^{-2.0} \left(\frac{PI}{100}\right)^{1.3} \, q_u^{0.4}$$

where:

τ_c = Critical shear stress, psf (Pa)

w = Water content, dimensionless

 $F = Fraction of fine particles (< 75 \mu m)$ by mass, dimensionless

PI = Plasticity index, dimensionless

qu = Unconfined compressive strength, psf (Pa)

α = Unit conversion constant, 0.01 in U.S. customary units and 0.1 in S.I.

For example, if w = 11, F = 60, PI = 7, and $q_u = 6500$ psf = 311,200 Pa, then:

$$\tau_c = 0.1 \times \left(\frac{11}{60}\right)^{-2.0} \times \left(\frac{7}{100}\right)^{1.3} \times (311,200)^{0.4} = 14.77 \, Pa = 0.308 \, psf.$$

Determine scour critical shear stress of a granular soil as a function of the mean particle grain size using the equation in HEC 18 Figure 4.6, "Critical shear stress vs. particle grain size (B fact et al. 2011)."

$$\tau_c(Pa) = D_{50}(mm)$$

where:

 τ_c = Critical shear stress (Pa)

 D_{50} = mean particle grain size (mm), ≥ 0.2 mm

Determine scour critical shear stress of a non-scour resistant bedrock of arranging HEC 18 Equations 7.38 for 'Critical Stream Power' and 7.39 'Approach Flow Stream Power' to derive the critical shear stress for non-scour resistant bedrock as follows:

$$\tau_c = \rho \left(\frac{1000 K^{0.75}}{7.853 \rho} \right)^{2/3}$$

January 2023 Page 13-2

OHIO DEPARTMENT OF TRANSPORTATION Geotechnical Design Manual

1302.2 Erosion Category

If the ultimate scour calculated by the design engineer proves excessive, then the design engineer will perform a time-rate of scour analysis in accordance with L&DV2, Section 1008.10.4.2. For this analysis, the geotechnical engineer will need to provide the erosion category (EC) for each stratum, which is dimensionless.

where:

ticle grain size (mm), ≥ 0.2 mm

OKIO DEPARTMENT OF TRANSPORTATION Geoty innical Design Manual

January 2023 Page 13-3

Treat bedrock as a cohesionless (granular) soil where the equivalent D50 = spacing between horizontal discontinuities divided by 2.5.



April 27, 2016

Athens County Engineers

Attn: Mr. Donnie Stevens II, P.E., SI

Athens County Assistant Engineer

Office: [740] 593 5514

Email: dstevans@athensoh.org

Re: Transmittal Letter

Township Road 471 – Allison Road Bridge Replacement

Athens County, Ohio

Terracon Project No. N4165062

Dear Mr. Stevens:

Terracon Consultants, Inc. (Terracon) has completed two (2) test borings for Township Road 471 - Allision Road Bridge Replacement project located in Athens County Ohio. This study was performed in general accordance with our proposal PN4155062 dated February 11, 2016. Authorization to proceed with the services was provided via signed agreement dated March 14, 2016.

The subsurface exploration phase for this project was completed on March 25, 2016. The final boring logs are presented in Appendix A of this transmittal letter. A Field Exploration Description is also enclosed as Exhibit A-1

Descriptive classifications of the soils indicated on the boring logs are in accordance with the enclosed ODOT Quick Reference for visual Description of Soils, ODOT Classification System Summary and ODOT Quick Reference Guide for Rock Description summary enclosed in Appendix C. Soil classification was based on visual-manual procedures and laboratory testing of selected soil samples. A Laboratory Testing Description is enclosed as Exhibit B-1, and results of our laboratory testing are included with this report in Appendix B.

Suggested soil and rock parameters for analysis and design of drilled shafts (should the foundation option be selected by the designer) have been developed and are included in Exhibits C-4 and C-5

We appreciate the opportunity to be of service to you on this project. Please contact us concerning any questions that may arise during review of the report, or if you require additional information as you proceed through the final design and construction stage of this project.



Township Road 471 - Allison Road Bridge Replacement Athens County, Ohio April 27, 2016 Terracon Project No. N4165062



Sincerely,

Terracon Consultants, Inc.

Robit Singh

Staff Geotechnical Engineer

F.A. KAYSER Kon

Yogesh S. Rege, P.E.

Principal | Geotechnical Department Manager

Attachments: Appendix A FIELD EXPLORATION

> Exhibit A-1 Field Exploration Description

Exhibit A-2 Site Location Plan Exhibit A-3 Boring Location Plan

Exhibit A-4 and A-5 **Boring Logs**

Appendix B

Exhibit B-1

Exhibit B-2 to B-5

Appendix C

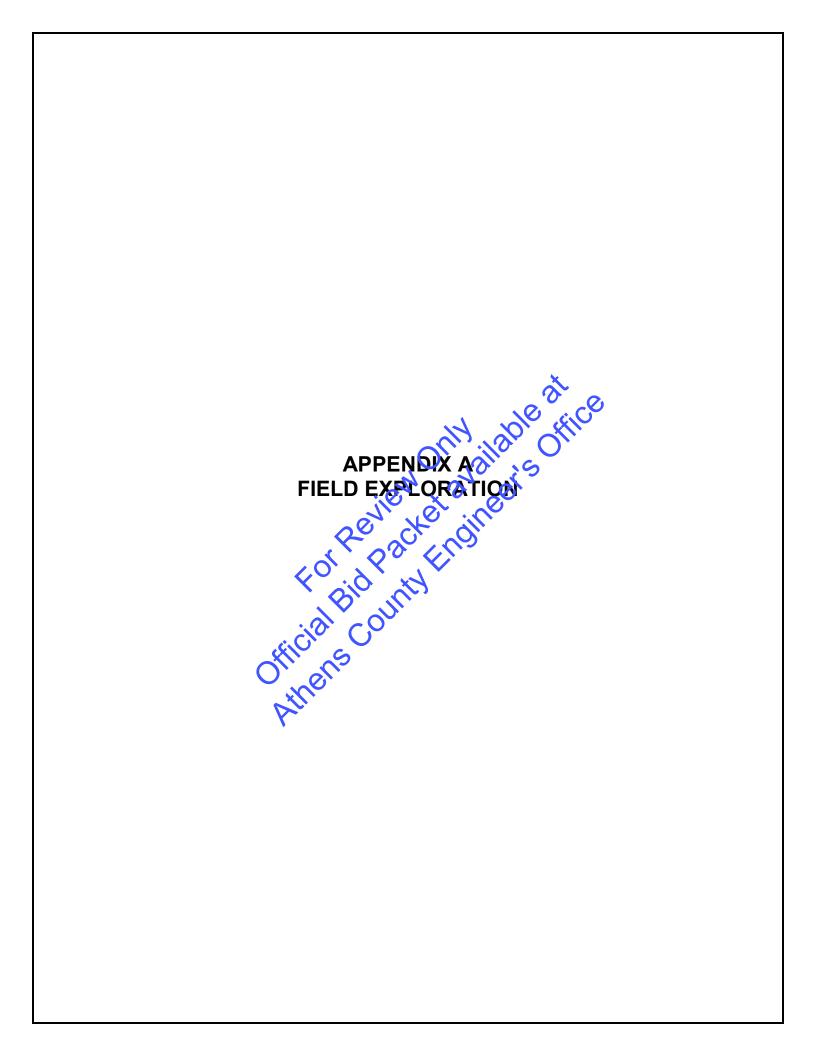
Exhibit C-1 Reference for Visual Description of Soils

Quick Refe orilled Shaft Design LPile Parameters Exhibit C-2 ODO Classification System Summary

ODOF Quick Reference Guide for Rock Description Exhibit C-3

orlled Shaft Design Parameters Exhibit C-4

Exhibit C-5



Township Road 471 – Allison Road Bridge Replacement
■ Athens County, Ohio April 27, 2016
■ Terracon Project No. N4165062



Field Exploration Description

The subsurface exploration consisted of drilling and sampling two (2) borings at the site to a depth range of about 35 feet below existing grades. The boring locations were staked/marked in the field by the Athens County Engineer prior to drilling. The approximate boring locations are shown on the site plan and ground surface elevations were provided to us by the Athens County Engineer. Ground surface elevations are rounded to the nearest 0.1 feet. The locations and elevations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

The borings were drilled with a rotary drill rig using continuous flight hollow-stem augers to advance the boreholes. Samples of the soil encountered in the borings were obtained using the split barrel sampling procedures.

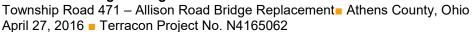
In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D. split-barrel sampler the last 12 inches of the typical total 18 inch penetration by means of a 140-pound auto-hammer with a free fall of 30 inches, is the standard penetration resistance value (SPT-N). This value is used to estimate the in-situ relative density of cohesionless soils and consistency of cohesive soils.

An automatic SPT hammer was used to advance the split-barrel sampler in the borings performed on this site. A significantly greater efficiency is achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. This higher efficiency has an appreciable effect on the SPT-N value. The effect of the automatic hammer's efficiency has been considered in the interpretation and analysis of the subsurface information for this report. Based on the model of rig used for this project, an energy ratio for hammer efficiency of 79.7 has been assumed.

Rock coring was using a NQ2-size double tube-swivel core barrel. Recovery and rock quality designation (RQD) were calculated for the core samples and are noted at their depths of occurrence on the boring log. RQD is the percent of total length cored consisting only of rock pieces at least 4 inches or more in length and is a measure of the integrity of the rock mass in-situ.

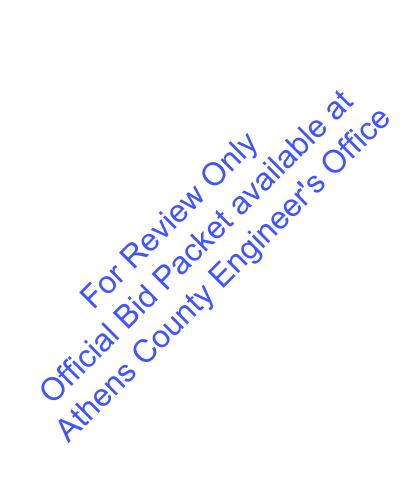
The samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification. Information provided on the boring logs attached to this report includes visual soil and bedrock descriptions, consistency evaluations, the boring depth, sampling intervals, and any groundwater conditions. The borings were backfilled with bentonite grout prior to the drill crew leaving the site.

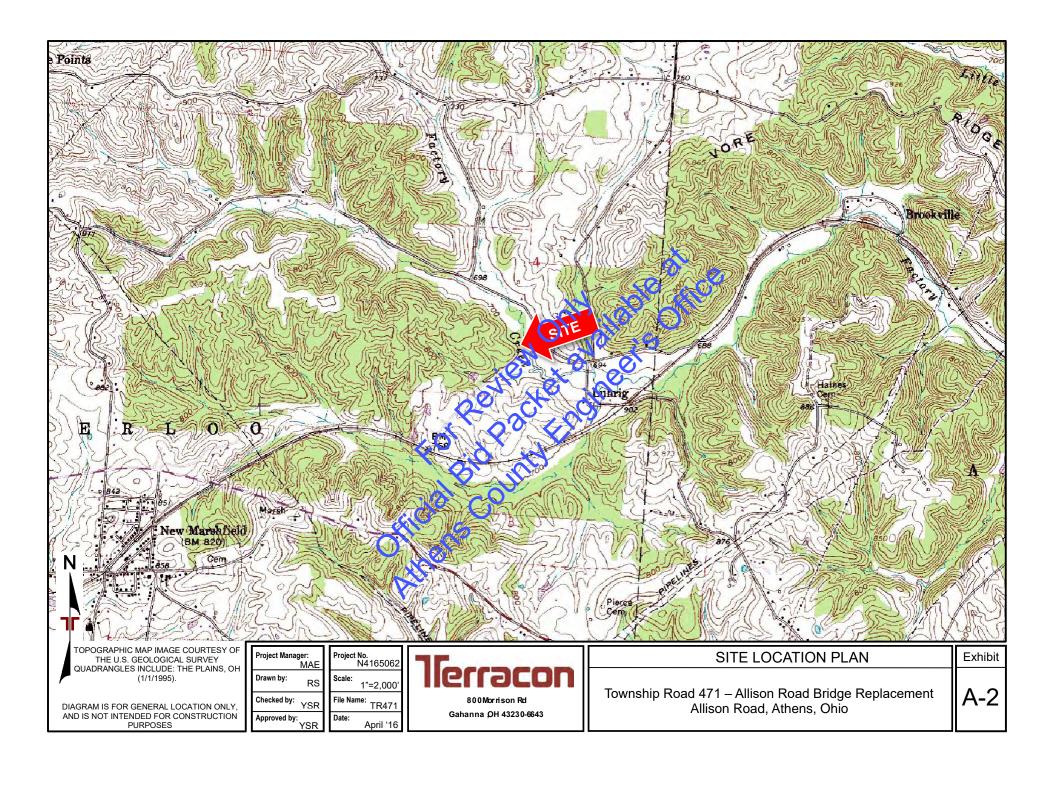
Field logs of the borings were prepared by the drill crew. These logs included visual classifications of the materials encountered during drilling, as well as the driller's interpretation of the subsurface conditions between samples. The final boring logs included with this report represent the engineer's

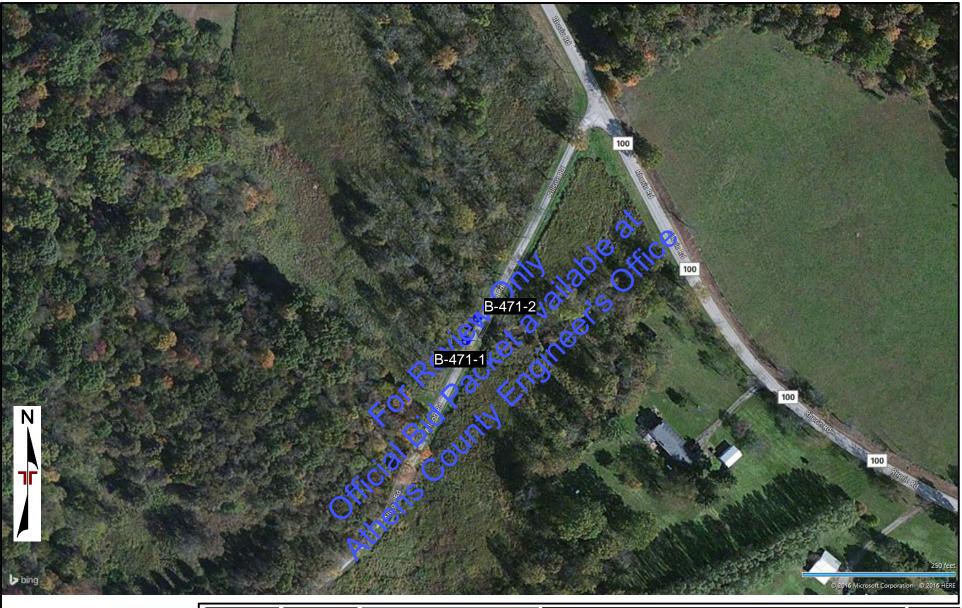




interpretation of the field logs and includes modifications based on laboratory observation and tests of the samples.







AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES Project Manager:
MAE
Drawn by: RS
Checked by: YSR
Approved by:
YSR

Project No.
N4165062
Scale:
AS SHOWN
File Name:
TR471
Date:
April '16

S00 Morrison Rd
Gahanna, OH 43230-6643

BORING LOCATION PLAN

Township Road 471 – Allison Road Bridge Replacement Allison Road, Athens, Ohio Exhibit

A-3

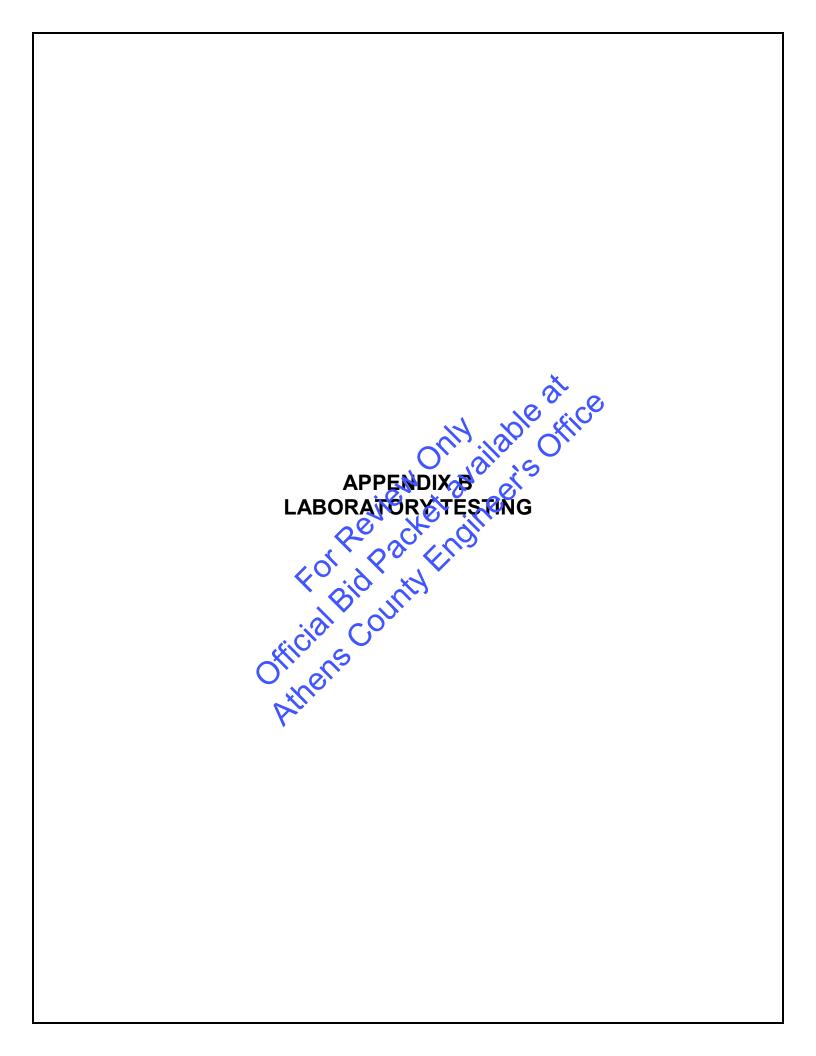
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NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 50 GAL. BENTONITE GROUT

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 50 GAL. BENTONITE GROUT



Township Road 471 – Allison Road Bridge Replacement

■ Athens County, Ohio April 27, 2016

■ Terracon Project No. N4165062

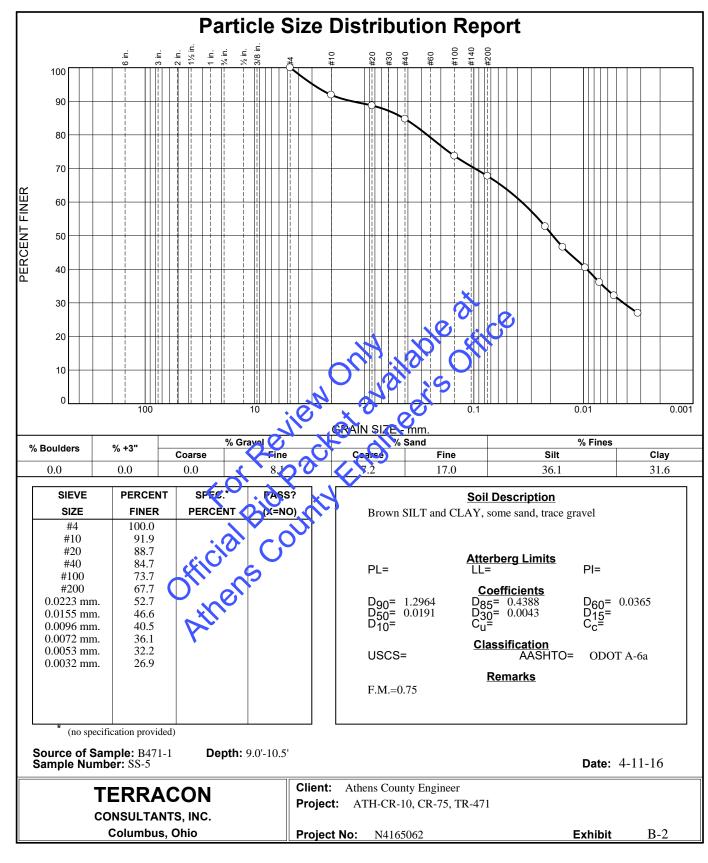


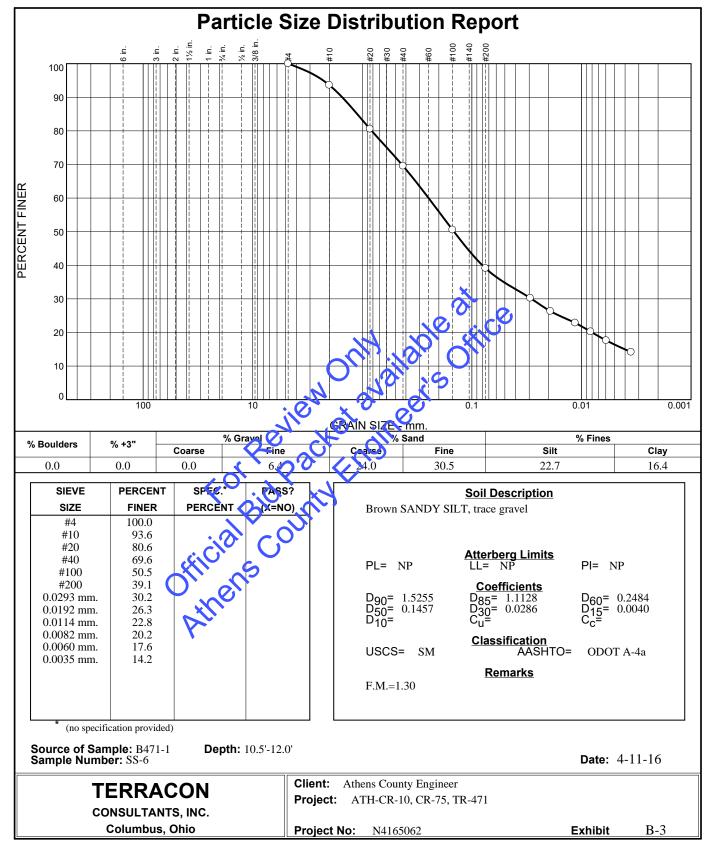
Laboratory Testing Description

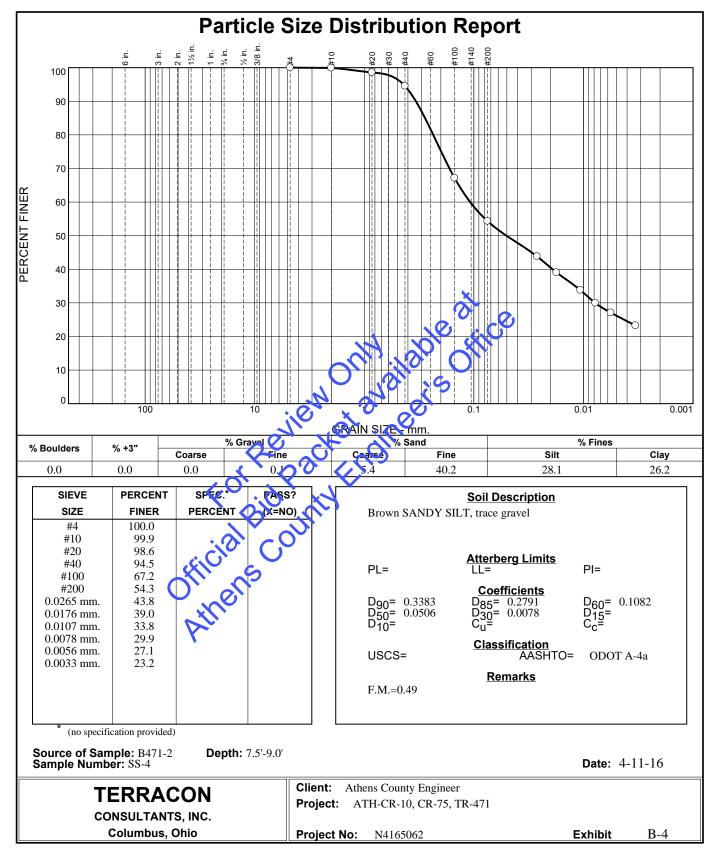
Classification was predominantly by visual-manual procedures. Gradation analyses tests were performed on selected soil samples. The results of all tests performed are shown on the boring logs, and the data sheets have been included in Appendix B.

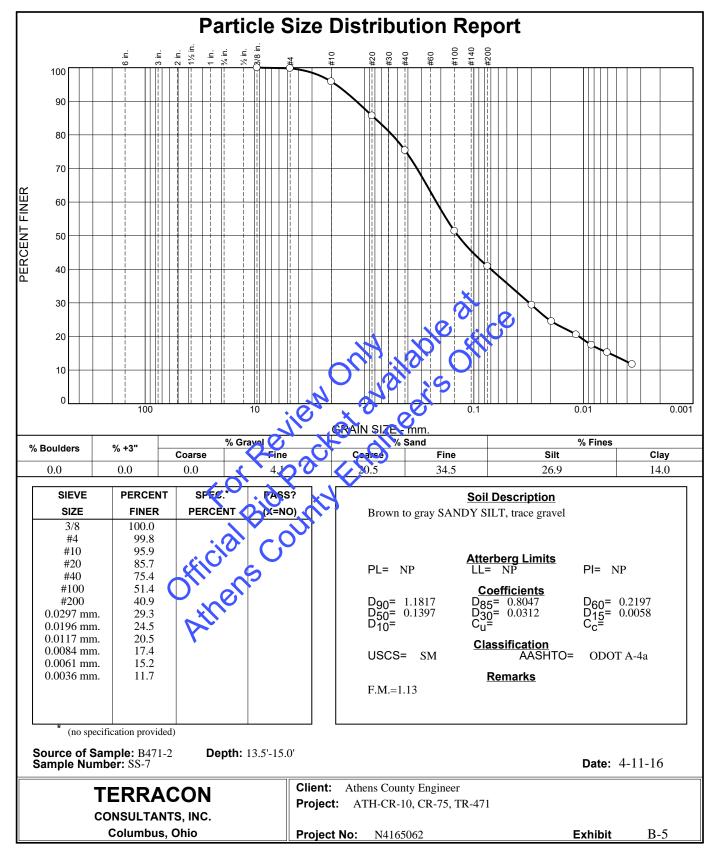
Descriptive classifications of the soil and rock as indicated on the boring log are in accordance with the enclosed Ohio Department of Transportation (ODOT) Soil Classification System. Also shown are estimated ODOT Soil Classification Symbols based on visual classification. A brief description of this classification system is attached to this report.

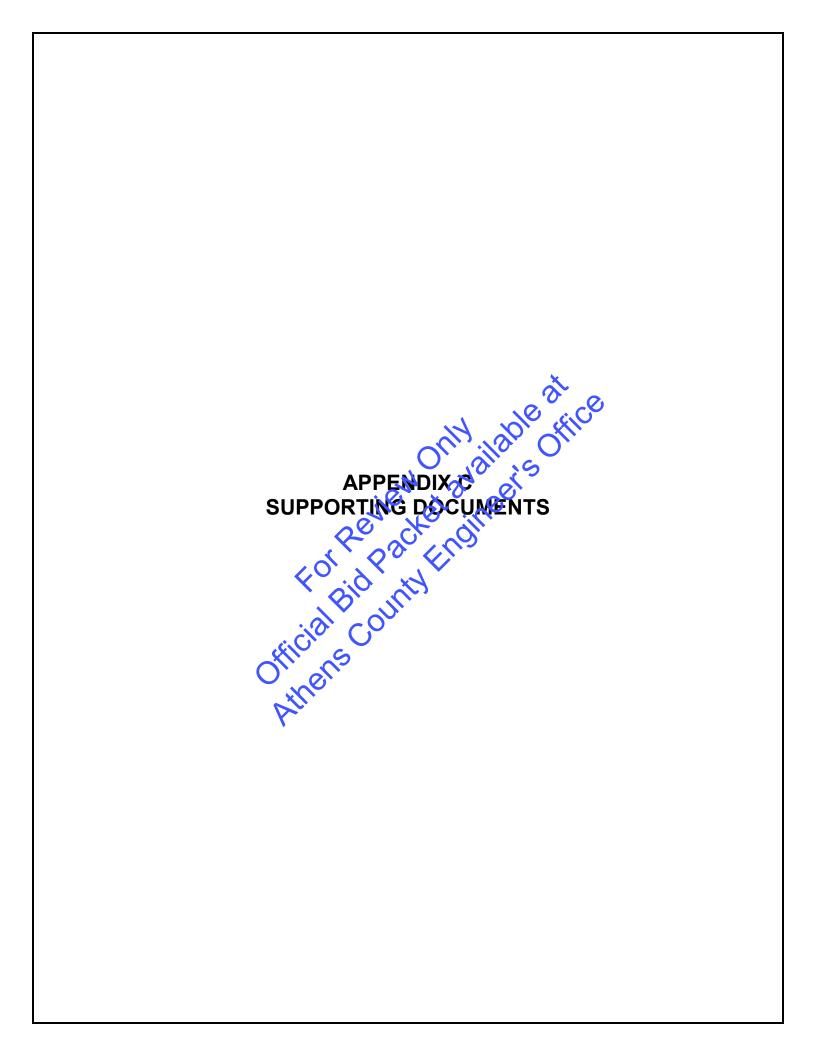












APPENDIX A.1 - ODOT Quick Reference for Visual Description of Soils

1) STRENGTH OF SOIL:

Non-Cohesive (granular) Soils - Compactness	
Description	Blows Per Ft.
Very Loose	<u>≤</u> 4
Loose	5 – 10
Medium Dense	11 – 30
Dense	31 – 50
Very Dense	> 50

2) COLOR:

If a color is a uniform color throughout, the term is single, modified by an adjective such as light or dark. If the predominate color is shaded by a secondary color, the secondary color procedes the primary color. If two major and distinct colors are swirled throughout the soil, the colors are modified by the term "mottled"

3) PRIMARY COMPONENT

Use **DESCRIPTION** from ODOT Soil Classification Chart on Back

Cohesive (fine grained) Soils - Consistency

	51411164) 89		•
Description	Qu (TSF)	Blows Per Ft.	Hand Manipulation
Very Soft	< 0.25	<2	Easily penetrates 2" by fist
Soft	0.25-0.5	2 - 4	Easily penetrates 2" by thumb
Medium Stiff	0.5-1.0	5 - 8	Penetrates by thumb with moderate effort
Stiff	1.0-2.0	9 - 15	Readily indents by thumb, but not penetrate
Very Stiff	2.0-4.0	16 - 30	Readily indents by thombnail
Hard	>4.0	>30	In lest with difficulty by thankfrail

4) COMPONENT MODIFIERS:

0% - 10%
10% - 20%
20% - 35%
35% -50%

5) Soil Organic Content

5) Son Organic	Content
Description	% by Weight
Slightly Organic	2% - 4%
Moderately Organic	4% - 10%
Highly Organic	> 10%

6) Relative Visual Moisture

Powdery;		Criteria	
Water content well below the plastic limit Leaves very little moisture when pressed between fingers; Crumbles at or before rolled to \(^1/8\)"; Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to \(^1/8\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^1/8\)" or smaller before crumbles; Wet Wet Voids filled with free water, can be poured from split spoon.	Description	Cohesive Soil	Non-cohesive Soils
Water content well below the plastic limit Leaves very little moisture when pressed between fingers; Crumbles at or before rolled to \(^1/8\)"; Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to \(^1/8\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^1/8\)" or smaller before crumbles; Wet Wet Wet Wet Water content well below the plastic limit into to little surface moisture Free water on surface, moist (shiny) appearance Voids filled with free water, can be poured from split spoon.	1 KO	Powdery;	No moisture present
Leaves very little moisture when pressed between fingers; Crumbles at or before rolled to \(^{1}/_{8}\)"; Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to \(^{1}/_{8}\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^{1}/_{8}\)" or smaller before crumbles; Wet Voids filled with free water, can be poured from split spoon.	Dry	Cannot be rolled;	
between fingers; Crumbles at or before rolled to \(^1/_8\)"; Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to \(^1/_8\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Wet Wet between fingers; Rolled to \(^1/_8\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^1/_8\)" or smaller water, can be poured from split spoon.	0	Water content well below the plastic limit	
Crumbles at or before rolled to \(^1/8\)"; Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to \(^1/8\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^1/8\)" or smaller before crumbles; Wet Wet Crumbles at or before rolled to \(^1/8\)"; moisture Free water on surface, moist (shiny) appearance Voids filled with free water, can be poured from split spoon.	*KC	Leaves very little moisture when pressed	Internal moisture, but
Water content below plastic limit Leaves small amounts of moisture when pressed between fingers; Rolled to ½ or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to ½ or smaller before crumbles; Wet Wet Wet Wet Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to ½ or smaller before crumbles; Free water on surface, moist (shiny) appearance Woids filled with free water, can be poured from split spoon.	Homn		no to little surface
Leaves small amounts of moisture when pressed between fingers; Rolled to ½" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Wet Very mushy; Rolled multiple times to ½" or smaller before crumbles; Voids filled with free water, can be poured from split spoon.	Vamp	Crumbles at or before rolled to $^{1}/_{8}$ ";	moisture
moist (shiny) Rolled to ½" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to ½" or smaller before crumbles; Wet Wet moist (shiny) appearance Voids filled with free water, can be poured from split spoon.		Water content below plastic limit	
Moist Rolled to \(^{1}/_{8}\)" or smaller before crumbling; Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to \(^{1}/_{8}\)" or smaller before crumbles; Voids filled with free water, can be poured from split spoon.		Leaves small amounts of moisture when	Free water on surface,
Water content above plastic limit to -3% of the liquid limit Very mushy; Rolled multiple times to 1/8" or smaller water, can be poured from split spoon.			moist (shiny)
wet of the liquid limit Very mushy; Rolled multiple times to 1/8" or smaller water, can be poured from split spoon.	Moist	Rolled to ¹ / ₈ " or smaller before crumbling;	appearance
Wet Very mushy; Rolled multiple times to ¹ / ₈ " or smaller before crumbles; Voids filled with free water, can be poured from split spoon.		Water content above plastic limit to -3%	
Wet Rolled multiple times to ¹ / ₈ " or smaller water, can be poured from split spoon.		of the liquid limit	
before crumbles; from split spoon.			Voids filled with free
before crumbles; from split spoon.	Wat	Rolled multiple times to $\frac{1}{8}$ or smaller	water, can be poured
37 1 1 1 1 1 1 1 1	wei	before crumbles;	from split spoon.
Near or above the liquid limit		Near or above the liquid limit	



CLASSIFICATION OF SOILS Ohio Department of Transportation

(The classification of a soil is found by proceeding from top to bottom of the chart. The first classification that the test data fits is the correct classification.)

SYMBOL	DESCRIPTION	Classifo	otion OHIO	LL _O /LL × 100*	% Pass #40	% Pass #200	Liquid Limit (LL)	Plastic Index (PI)	Group Index Max.	REMARKS
0000	Gravel and/or Stone Fragments	Α-			30 Max.	15 Max.		6 Max.	0	Min. of 50% combined gravel, cobble and boulder sizes
0.0.0	Gravel and/or Stone Fragments with Sand	Α-1	1-b		50 Max.	25 Max.		6 Max.	0	
F.S.	Fine Sand	Α-	-3		51 Min.	10 Max.	NON-P	LASTIC	0	
, , ,	Coarse and Fine Sand		A-3a			35 Max.		6 Max.	0	Min. of 50% combined coarse and fine sand sizes
6.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	Gravel and/or Stone Fragments with Sand and Silt		2-4 2-5			35 Max.	40 Max. 41 Min.	10 Max.	0	
6.0.0 0.0.0 0.0.0	Gravel and/or Stone Fragments with Sand, Silt and Clay		2-6 2-7			35 Max.	40 Mex 41 Min.	KINDO KINDO	4	
	Sandy Silt	A-4	A-4a	76 Min.	OL		6 00.	10 Max.	8	Less than 50% silt sizes
+ + + + + + + + + + + + + + + + + + + +	Silt	A-4	A-4b	√b Min.	ex	5. Vine	40 Max.	10 Max.	8	50% or more silt sizes
	Elastic Silt and Clay	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	5	OMin.	(A)	36 Min.	41 Min.	10 Max.	12	
	Sil† and Clay	A-6	?	76 Nin		36 Min.	40 Max.	11 - 15	10	
	Silty Clay	A-6	4 =6b	76 Min.		36 Min.	40 Max.	16 Min.	16	
	Elastic Clay	10 V	7-5	76 Min.		36 Min.	41 Min.	≦LL-30	20	
	Clay	Α-	7-6	76 Min.		36 Min.	41 Min.	>LL-30	20	
+ + + + + + + +	Organic Silt	A-8	A-8a	75 Max.		36 Min.				W/o organics would classify as A-4a or A-4b
	Organic Clay	A-8	A-8b	75 Max.		36 Min.				W/o organics would classify as A-5, A-6a, A-6b, A-7-5 or A-7-6
	Sod and Topsoil	1	CLASS trolled Describe	SIFIED BY	Y VISUAL	INSPECT Bouldery			P Pe	at

* Only perform the oven-dried liquid limit test and this calculation if organic material is present in the sample.

APPENDIX A.2 – ODOT Quick Reference Guide for Rock Description

1: ROCK TYPE: Common rock types are: Claystone; Coal; Dolomite; Limestone; Sandstone; Siltstone; & Shale.

2: COLOR: To be determined when rock is wet. When using the GSA Color charts use only Name, not code.

Description	Field Parameter
I I	No evidence of any chemical or mechanical alternation of the rock mass. Mineral crystals have a bright
Unweathered	appearance with no discoloration. Fractures show little or no staining on surfaces.
Slightly	Slight discoloration of the rock surface with minor alterations along discontinuities. Less than 10% of the
weathered	rock volume presents alteration.
Moderately	Portions of the rock mass are discolored as evident by a dull appearance. Surfaces may have a pitted
Moderately weathered	appearance with weathering "halos" evident. Isolated zones of varying rock strengths due to alteration
weathered	may be present. 10 to 15% of the rock volume presents alterations.
Highly	Entire rock mass appears discolored and dull. Some pockets of slightly too moderately weathered rock
weathered	may be present and some areas of severely weathered materials may be present.
Severely	Majority of the rock mass reduced to a soil-like state with relic rock structure discernable. Zones of note
weathered	resistant rock may be present, but the material can generally be molded and crumbled by hand pressures.
	-1/2 Oth

	Field Parameter
v Woolz	Core can be carved with a knife and scratched by fingernail. Can be excavated readily with a point of a
y weak	pick. Pieces 1 inch or more in thickness can be broken by finger pressure.
Woolz	Core can be grooved or gouged readily by a knife or pick. Can be excavated in small tragments by
veak	moderate blows of a pick point. Small, thin pieces can be broken by finger pressure.
ightly	Core can be grooved or gouged 0.05 inch deep by firm pressure of a knife or pick point. Can be excavated
trong	in small chips to pieces about 1-inch maximum size by hard blows of the point of a geologist's pick.
derately	Core can be scratched with a knife or pick. Groove or gouges to 1/4" deep can be excavated by hand blows
trong	of a geologist's pick. Requires moderate hammer blows to detach hand specimen.
trong	Core can be scratched with a knife or pick only with difficulty. Requires hard hammer blows to detach
uong	hand specimen. Sharp and resistant edges are present on hand eperimen.
Very	Core cannot be scratched by a knife or sharp pick. Kreaking of hand specimens requires hard repeated
trong	blows of the geologist hammer.
remely	Core cannot be scratched by a knife or sharp pick. Chipping of hand specimens requires hard repeated
trong	blows of the geologist hammer.
i tttt t	rong lerately rong rong Very rong remely

*KI
Angillaceous - clayey
Carbonaceous - contains carbon
Crystalline – contains crystalline structure
Fissile – thin planner partings
Micaceous – contains mica
Stylolitic – contain stylotites (suture like structure)

Co	mponent	Grain Diameter	
F	Boulder	>12"	
	Cobble	3"-12"	
(Gravel	0.08"-3"	
	Coarse	0.02"-0.08"	
Sand	Medium	0.01"-0.02"	
Sa	Fine	0.005"-0.01"	
	Very Fine	0.003"-0.005"	

Description	Thickness
Very Thick	>36"
Thick	18" – 36"
Medium	10" – 18"
Thin	2" – 10"
Very Thin	0.4" – 2"
Laminated	0.1" – 0.4"
Thinly Laminated	<0.1"

6: Bedding

Arenaceous – sandy
Calcareous - contains calcium carbonate
Conglomeritic - contains rounded to subrounded gravel
Ferriferous – contains iron
Friable – easily broken down
Siliceous – contains silica

3: WEATHERING

7: DESCRIPTORS

recciated – contains angular to subangular gravel
Cherty- contains chert fragments
Polomitic- contains calcium/magnesium carbonate
ossiliferous – contains fossils
yritic – contains pyrite
uggy – contains openings

APPENDIX A.2 – ODOT Quick Reference Guide for Rock Description

8: DISCONTINUITIES

a: Discontinuity Types

Type Parameters Fracture which expresses displacement parallel to the Fault surface that does not result in a polished surface. Planar fracture that does not express displacement. Joint Generally occurs at regularly spaced intervals. Fracture which expresses displacement parallel to the Shear surface that results in polished surfaces or slickensides. **Bedding** A surface produced along a bedding plane. A surface produced along a contact plane. Contact (generally not seen in Ohio)

g	Description	Spacing
b: Degree of Fracturing	Unfractured	> 10 ft.
	Intact	3 ft. – 10 ft.
	Slightly fractured	1 ft. – 3 ft.
	Moderately fractured	4 in. – 12 in.
	Fractured	2 in. – 4 in.
	Highly fractured	< 2in.
	★	

th	Description	Spacing
Width	Open	> 0.2 in.
	Narrow	0.05 in 0.2 in.
	Tight	<0.05 in.

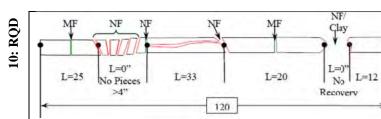
			7 2/0	ي
3	Description	Criteria		\bigcirc
9	Very Rough	Near vertical steps and ridges occur on the discontinuity surface.	Ruy	n Re
	Slightly Rough	Asperities on the discontinuity surface are distinguishable and an be felt		
	Slickensided	Surface has a smooth, glassy finish with visual evidence of striation		L R _R
SI	I DESCRIPTION	4 00 45	(9)	
	Description	Parameters	Description	
	Intact or Massive	Intact rock with few widely spaced discontinuities	Very Good	Ve
	Blocky	Intact rock with few widely spaced discontinuities Well interlocked undisturbed rock mass consisting of cubical blocks formed by three interesting discontinuity sets	Good	Ro
	Very Blocky	Interlocked partially disturbed mass with multi-faceted congular		

: CTCOVER	Run Recovery = $\left(\frac{R_R}{L_R}\right) * 100$	$Unit \operatorname{Recov} ery = \left(\frac{R_U}{L_U}\right) * 100$
1	$L_R = Run Length$	L _U = Rock Unit Length
	R _R – Run Recovery	R _U – Rock Unit Recovery

9: GSI DESCRIPTION

ב	Description	Parameters
3	Intact or Massive	Intact rock with few widely spaced discontinuities
3	Blocky	Well interlocked undisturbed rock mass consisting of cubical
בֿ		blocks formed by three interesting discontinuity sets
રં	Very Blocky	Interlocked, partially disturbed mass with multi-faceted angular
		blocks formed by 4 or more joint sets
	Blocky/Disturbed/	Angular blocks formed by many intersecting discontinuity sets,
	Seamy	Persistence of bedding planes
	Disintegrated	Poorly interlocked, heavily broken rock mass with mixture of
		angular and rounded rock pieces
	Laminated/Sheared	Lack of blockiness due to close spacing of weak shear planes

on.	Description	Parameters				
liti	Very Good	Very rough, fresh unweathered surfaces				
Surface Condition	Good	Rough, slightly weathered, iron stained surface				
	Fair	Smooth, moderately weathered and altered surfaces				
b: Su	Poor	Slickensided, highly weathered surface with compact coatings or fillings or angular fragments				
	Very Poor	Slickensided, highly weathered surfaces with soft clay coating or fillings				



$$RQD = \left(\frac{\sum Length \ of \ Pieces > 4inches}{Total \ Length \ of \ Core}\right) *100$$

$$RQD = \left(\frac{25 + 33 + 20 + 12}{120}\right) *100 = 75\%$$

Geotechnical Engineering Services

Township Road 471 – Allison Road Bridge Replacement Athens County, Ohio April 28, 2016 Terracon Project No. N4165062



Exhibit C-4: Drilled Shaft Design Parameters

Test Boring: B-471-1

	g. D +1 1 1								
Soil Layer Number	Soil Type	Depth to Bottom of Layer ⁽¹⁾ (feet)	Un- drained Shear Strength (psf)	Unit Weight (pcf)	Adhesion Factor	Friction Angle (°)	Horizontal Stress Coefficient	Bearing Capacity Factor	Bearing Capacity Factor
		(ICCI)						Nc	Nq
1	Clay	10.5	500	123	0.55			7	
2	Sand	13.5		110		28	0.4		25
3	Sand	18.5		118		31	0.44		37
4	Sand	23.5		110		28	0.4		25
5	Clay (Shale modeled as Clay)	30.5	6000	132	0.4	2010	dice	7	
6	Clay (Siltstone modeled as Clay)	35	6000	132	0.40	0 (7	

Groundwater was encountered at 6 feet

Test Boring: B-471-2

Soil Layer Number	Soil Type	Depth to Bottom of Layer ⁽¹⁾ (feet)	Un- drained Shear Strength (psf)	Unit Weight (pcf)	Adhesion Factor	Friction Angle (degrees)	Horizontal Stress Coefficient	Bearing Capacity Factor	Bearing Capacit y Factor
		KILO	S					Nc	N_{q}
1	Sand	O 9	- N	110		28	0.4		25
2	Sand	21		115		30	0.43		32
3	Clay (Shale modeled as Clay)	25	5000	132	0.46			7	
4	Clay (Siltstone modeled as Clay)	35	6000	132	0.4			7	

Groundwater was encountered at 5.5 feet

Notes:

- (1) Depth referenced to existing ground surface.
- (2) The side resistance of the uppermost 2 feet of the soil should be ignored due to the potential for disturbance caused during the drilled shaft construction operation.

Geotechnical Engineering Services

Township Road 471 – Allison Road Bridge Replacement Athens County, Ohio April 28, 2016 Terracon Project No. N4165062



Exhibit C-5: LPile™ Design Parameters

Test Boring: B-471-1

Depth to top of soil layer (feet)	Depth to bottom of soil layer (feet)	Soil Model	Effective Unit Weight (pcf)	Friction Angle (°)	k value (pci)	Un- drained cohesion (psf)	Strain Factor (ε ₅₀)
0.0	6.0	Soft clay w/o free water	123.0		75	500	0.020
6.0	10.5	Soft clay w/o free water	60.6		75	500	0.020
10.5	13.5	Sand	47.6	28	25		
13.5	18.5	Sand	55.6	31	60		
18.5	23.5	Sand	47.6	28	25		
23.5	30.5	Stiff clay w/o free water	69.6	-	2000	6000	0.004
30.5	35	Stiff clay w/o free water	69.6		2000	6000	0.004

Groundwater was encountered at 6 feet

Test Boring: B-471-2

Depth to top of soil layer (feet)	Depth to bottom of soil layer (feet)	Soil Model	Effective Unit Weight	Friction Angle (°)	k value (pci)	Un- drained cohesion (psf)	Strain Factor (ɛ₅₀)
0.0	5.5	Sand	110.0	28	25		1
5.5	9.0	Sand	41.6	28	35		1
9.0	21.0	Şand	52.6	30	50		ŀ
21.0	25.0	Stiff clay w/o free water	69.6		1800	5000	0.004
25.0	35.0	Stiff clay w/o free water	69.6		2000	6000	0.004

Groundwater was encountered at 5.5 feet

Notes:

(1) The lateral resistance of the uppermost 2 feet of the soil should be ignored due to the potential for disturbance caused during the drilled shaft construction operation.

APPENDIX E

Environmental Document



DISTRICT 10 338 MUSKINGUM DR. • MARIETTA, OH 45750 • 740-568-3900

Environmental Document

for

ATH TR 83 1.40 PID 117461

Environmental Document Level: C2

Approved: 1/4/20

Prepared By: District 10

Rackel Goodpaster

E-mail: Rachel Goodpaster@dot.ohio.gov

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by ODOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 14, 2020, and executed by FHWA and ODOT.

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Approved: 1/4/2023

C2

PID: 117461
Project Sponsor: ATHENS COUNTY ENGINEER
ODOT District: 10
Funding Source: Federal

No

Project Description:

Private Funding:

The project is a design build bridge replacement at Township Road 83 and an Unnamed Tributary to the Middle Branch Shade River, 7 miles south southeast of Athens, Lodi Township, Athens County, Ohio. The existing steel multi-beam bridge with wood deck will be replaced on the same alignment with a similarly sized bridge.

Approximately 75 linear feet of the Unnamed Tributary to the Shade River may be impacted with a mix of permanent and temporary fills. In addition, a maximum of 125 linear feet of a second stream (UNT to UNT to Middle Br. Shade R.) located within the southeast quadrant may be impacted. The stream realignment may be needed to accommodate the new bridge approach. In addition, an estimated 0.14 acre of Suitable Wooded Habitat (SWH) may be removed. All SWH is within 100 feet from edge of pavement.

Both permanent and temporary ROW will be needed in order to construct the project. A project description was posted on the District website on 10.16/2022. No comments or objections were received.

Utilities consist of Frontier Communications and American Electric Power and will be handled appropriately prior to construction.

A detour will be necessary during the bridge eplacement. The detour will consist of using CR 33A (Old US 33) to CR 44 (Shade Rd) to CR 42 (Fossil Rock Rd) to TR 83 (Jeffers Rd). Detour letters were sent to local EMS, sheriff, and school district of 11/7/2022. No comments or objections were received.

The environmental document and associated studies are being prepared using schematic design. A copy of the plans are included in the project file.

STIP Reference #: 21-24 STIP SLI Group Project

Select the appropriate project type:

(28) Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e). *Examples include: Railroad projects that close or relocate at-grade crossings*

In accordance with 23 CFR 771.117(e), the proposed project <u>cannot</u> be processed as a C2 CE, if it involves -

1. a. Acquisition of more than a minor amount of right-of-way



Approved: 1/4/2023

- 2. b. Residential or non-residential displacements
- 3. c. A Coast Guard, Individual Section 404 and/or a Section 10 permit
- 4. d. A Section 106 finding of Adverse Effect
- 5. e. A Section 4(f) Programmatic or Individual Evaluation
- 6. f. A finding of May Affect, Likely to Adversely Affect to Threatened and Endangered Species
- 7. g. Construction of temporary access, or the closure of existing road, bridge, or ramps, that would result in major traffic disruptions
- 8. h. Changes in access control
- 9. i. Floodplain encroachment other than functionally dependent uses (e.g., bridges, wetlands) or actions that facilitate open space use (e.g., recreational trails, bicycle and pedestrian paths)
- 10. j. Construction activities in, across or adjacent to a river component designated or proposed for inclusion in the National System of Wild and Scenic Rivers
- 11. k. No minor public or agency controversy on environmental grounds (no opposition from any organized groups or agencies and no unresolved environmental coordination)
- 12. 1. If an EJ Analysis Report is required, the project must be processed as a D-level CE or higher level document

For certification purposes, documentation is required to illustrate to significant impacts will occur to the following environmental resources and that no unusual circumstances exist that would warrant a

the following environmental resources and that no unusual circumstances exist that would higher level of NEPA document. Upload all supporting documentation to the project file.

Waterways:

Present; No Coast G 404, and/or Se 404, a Present; No Coast Guard, Individual 404, and/or Section 10 Permit required Permit Determination and/or Permit Application Approval Pending No No Present; No finding of May Affect, Likely to Adversely Affect May Affect, Not Likely to Adversely Affect **Endangered Species - Coordination Date** 12/21/2022 **Endangered Species - Critical Habitat Present/Impacted** Indiana bat Northern long-eared bat

Endangered Species - Other Critical Habitat Present/Impacted:

100-Year Floodplain:

No Encroachment Within a Special Flood Hazard Area (SFHA)

No

Section 4(f): Not present



PID 117461 ATH TR 83 1.40 Approved: 1/4/2023

Not present Section 6(f):

Cultural Resources: Present; No Finding of Adverse

Effect

Cultural Resources Coordination:

Minimum Potential to Cause Effect Appendix B

Cultural Coordination ODOT Approval/SHPO Resources **Concurrence Date**

11/10/2022

Since no Tribe was interested in this project based on their customized preferences, no further Tribal consultation was conducted.

Projects that meet C2 criteria are not anticipated to have impacts to the following environmental resources. If resources are present, documentation is only required if there is a potential for impacts.

Air Quality: Studies Not Required

Air Quality - Coordination with OES:

No

Noise:

Studies Not Required

Noise Coordination - OES Approval Date:

12/29/2022

Hazardous Materials - ESA Screening Conducted

Studies Not Required

Farmland:

Non-Urbanized Area; No Impacts in Accordance With the Farmland MOU, 7 CFR 658, and ORC 929.05

Scenic Rivers

No National Wild and Scenic River Within 1000 Feet of the Proposed Project Area

e is

e is

cordance when only a label of Nor Projects that meet C2 criteria must be in accordance with ODOT's UP Guidance and activities conducted for Public Involvement are commensurate to the project's type and scope of work.

Underserved Populations

Present: No UPIAR Required, Does Not Exceed UP Guidance Criteria, and No Issues Raised During Public Involvement

Identified Underserved Populations

Census Block Group #	% Minority	% Low Income	% Older Adults	% Limited English Proficiency (LEP)				
390099737002	8	41	19	0				
390099737001	7	36	18	0				

Underserved Populations Remarks

The proposed project will have no disproportionately high and adverse effects to minority or low-income populations or disparate impacts to a Title VI population based upon the table above, the attached mapping, and the answers to the questions above. No concerns related to impacts on Environmental Justice or Title VI populations were raised as a result of public involvement activities conducted as part of the proposed project. Therefore, in accordance with the protections of Executive Order 12898, FHWA Order 6640.23a and Title VI of the Civil Rights Act of 1964, no further analysis is required.



Approved: 1/4/2023

Public Involvement:

Minimum PI Requirements Met; No Minor Public or Agency Controversy on Environmental Grounds

Environmental Commitments

Yes





PID 117461 ATH TR 83 1.40

Approved: 1/4/2023

Environmental Commitments

C2

1) The project area is within the range of federally listed bats. Less than 0.14 acre of suitable wooded habitat could be removed. The following note will be added to the plans and, it will be the responsibility of the County to make sure trees are removed prior to April 1, 2023.

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. 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 FEÉT ABOVE THE GROUND SÚRFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

2) No Asbestos or Asbestos Below Regulatory Limits A certified asbestos hazard evaluation specialist surveyed the bridge structure scheduled for demolition and/or rehabilitation; the survey determined that no asbestos is present on the bridge structure.

ODOT shall provide a copy of the Ohio Environmental Protection Agency Notification of Demolition and Renovation form, partially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form 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

OR

Asbestos Program
Ohio EPA, DAPC
50 W. Town St. Suite 700
Columbus, OH 43215

The contractor shall provide a copy of the completed form 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 servery and comple

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 10 Office, 338 Muskingum Drive Marietta, OH 45850.

Basis for Payment: The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.



PID 117461 ATH TR 83 1.40

Approved: 1/4/2023

Preparers and Approvals

Form Preparer District 10

Contact: Rachel Goodpaster

Rachel.Goodpaster@dot.ohio.gov

Supporting Form Preparer(s): Michael Austin

Rachel Goodpaster

Approvals & Electronic Signatures

Approved & Electronically Signed By:	Approval Date:
Rachel Goodpaster (PROGRAM ADMIN 3) Richal Goodpaster (PROGRAM ADMIN 3) OKICA BIOLINA OKICA BIOLINA	1/4/2023
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PID 117461 ATH TR 83 1.40

Approved: 1/4/2023

Appendix

General

Aerial Map.pdf

Correspondence with Emergency and Public Services.pdf

General Photographs.pdf

USGS Quadrangle Topographical Map.pdf

ESA

Regulated Materials Review Form.pdf

FEMA FIRM.pdf

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WCF Grant Listing.pdf

ublic Involvement

rrespondence with Stakeholders.pdf

post - No comments.pdf

nits

FIRM.pdf



DISTRICT 10 338 MUSKINGUM DR. • MARIETTA, OH 45750 • 740-568-3900

Environmental Document

for

ATH TR 471 0.01 PID 117464

Environmental Document Level: C2

Approved: 1/5/20

Prepared By: District 10

Rackel Goodpaster

E-mail: Rachel Goodpaster@dot.ohio.gov

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by ODOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 14, 2020, and executed by FHWA and ODOT.

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Athens County Engineer's Office

Athens



Approved: 1/5/2023

C2

PID: 117464
Project Sponsor: ATHENS COUNTY ENGINEER
ODOT District: 10
Funding Source: Federal
Private Funding: No

Project Description:

The project is a design build bridge replacement at Township Road 471 and Factory Creek, 5 miles west of Athens, Waterloo Township, Athens County, Ohio. The existing slab concrete bridge will be replaced with a similar structure on nearly the same alignment.

Approximately 75 linear feet of Factory Creek may be impacted by permanent and temporary fills. A temporary road may be used upstream of the bridge during construction. Terrestrial impacts will occur primarily to shrub-scrub habitat and a small amount of forest lining Factory Creek. Approximately 0.05 acre of Suitable Wooded Habitat (SWH) may need removal but will be cut during winter months. Some of the trees plovided habitat for roosting bats and all trees are within 100 feet from the edge of pavement. National Weband Inventory maps show an extensive wetland within the southwest quadrant of the project area. No such wetland was found.

Temporary ROW will be needed in order to construct the project. A project description was posted on the District website on 11/16/2022. No comments or objections were received. Communication with landowners was completed by ODOT District 10 right of way staff.

The bridge will be closed during the replacement project. A temporary road may be built adjacent the project during construction.

Utilities consist of American Electric Power, Le-AX Witer, and Frontier Communications and will be handled appropriately prior to construction.

The environmental document and associated studies are being prepared using schematic plan sheet. A copy of the plans are included in the project file.

STIP Reference #:

21-24 STIP SLI Group Project

Select the appropriate project type:

(28) Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e). *Examples include: Railroad projects that close or relocate at-grade crossings*

In accordance with 23 CFR 771.117(e), the proposed project <u>cannot</u> be processed as a C2 CE, if it involves -

- 1. a. Acquisition of more than a minor amount of right-of-way
- 2. b. Residential or non-residential displacements



Approved: 1/5/2023

- 3. c. A Coast Guard, Individual Section 404 and/or a Section 10 permit
- 4. d. A Section 106 finding of Adverse Effect
- 5. e. A Section 4(f) Programmatic or Individual Evaluation
- 6. f. A finding of May Affect, Likely to Adversely Affect to Threatened and Endangered Species
- 7. g. Construction of temporary access, or the closure of existing road, bridge, or ramps, that would result in major traffic disruptions
- 8. h. Changes in access control
- 9. i. Floodplain encroachment other than functionally dependent uses (e.g., bridges, wetlands) or actions that facilitate open space use (e.g., recreational trails, bicycle and pedestrian paths)
- 10. j. Construction activities in, across or adjacent to a river component designated or proposed for inclusion in the National System of Wild and Scenic Rivers
- 11. k. No minor public or agency controversy on environmental grounds (no opposition from any organized groups or agencies and no unresolved environmental coordination)
- 12. 1. If an EJ Analysis Report is required, the project must be processed as a D-level CE or higher level document

For certification purposes, documentation is required to illustrate no agnificant impacts will occur to the following environmental resources and that no unusual circum tances exist that would warrant a

the following environmental resources and that no unusual circum fances exist that would higher level of NEPA document. Upload all supporting document to the project file.

Waterways:

Present; No Coast G 404, and/or Se 404, and/or Se 404, and/or Se 404, and/or Se 405 and Application Applicati Present; No Coast Guard, Individual 404, and/or Section 10 Permit required Permit Determination and/or Permit **Application Approval Pending** No No Present; No finding of May Affect, Likely to Adversely Affect May Affect, Not Likely to Adversely Affect Endangered Species - Coordination Date 12/26/2022 Endangered Species - Critical Habitat Present/Impacted Indiana bat

Northern long-eared bat

Endangered Species - Other Critical Habitat Present/Impacted: No

100-Year Floodplain: No Encroachment Within a Special Flood Hazard Area (SFHA)

Section 4(f): Not present

Section 6(f): Not present



Approved: 1/5/2023

Cultural Resources:

Present; No Finding of Adverse

Cultural Resources Coordination:

Minimum Potential to Cause Effect Appendix B

Cultural Resources Coordination ODOT Approval/SHPO Concurrence Date

11/10/2022

Since no Tribe was interested in this project based on their customized preferences, no further Tribal consultation was conducted.

Projects that meet C2 criteria are not anticipated to have impacts to the following environmental resources. If resources are present, documentation is only required if there is a potential for impacts.

Studies Not Required Air Quality:

Air Quality - Coordination with OES:

Noise:

Noise Coordination - OES Approval Date:

Hazardous Materials - ESA Screening Conducted

Farmland:

N

Studies Not Requirec

01/03/2023

nducted

Studies Not Required

Studies Not Required

Studies Not Required

Accordance With the Farmland

MOU, 7 CFR 658, and ORC 920

No National 11/2

Scenic Rivers

Projects that meet C2 criteria must be in accordance with ODOT's UP Guidance and activities conducted for Public Involvement are commensurate to the project's type and scope of work.

Underserved Populations

Present; No UPIAR Required, Does Not Exceed UP Guidance Criteria, and No Issues Raised During Public

Involvement

Identified Underserved Population

Census Block Group #	% Minority	% Low Income	% Older Adults	% Limited English Proficiency (LEP)
390099732002	6	29	18	0

Underserved Populations Remarks

The proposed project will have no disproportionately high and adverse effects to minority or low-income populations or disparate impacts to a Title VI population based upon the table above, the attached mapping, and the answers to the questions above. No concerns related to impacts on Environmental Justice or Title VI populations were raised as a result of public involvement activities conducted as part of the proposed project. Therefore, in accordance with the protections of Executive Order 12898, FHWA Order 6640.23a and Title VI of the Civil Rights Act of 1964, no further analysis is required.



Approved: 1/5/2023

Minimum PI Requirements Met; No Minor Public or Agency Controversy on Environmental Grounds

Environmental Commitments

Yes





Approved: 1/5/2023

Environmental Commitments

C2

1) THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. 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.

2) No Asbestos or Asbestos Below Regulatory Limits A certified asbestos hazard evaluation specialist surveyed the bridge structure scheduled for demolition and/or rehabilitation; the survey determined that no asbestos is present on the bridge structure.

ODOT shall provide a copy of the Ohio Environmental Protection Agency, Notification of Demolition and

ODOT shall provide a copy of the Ohio Environmental Protection Agency Notification of Demolition and Renovation form, partially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form 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

OR

Asbestos Program Ohio EPA, DAPC 50 W. Town St. Suite 700 Columbus, OH 43215

The contractor shall provide a copy of the completed form 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 lates 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 10 Office, 338 Muskingum Drive Marietta, OH 45850. Marietta, OH 45850.

Basis for Payment The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.



PID 117464 ATH TR 471 0.01

Approved: 1/5/2023

Preparers and Approvals

Form Preparer District 10

Contact: Rachel Goodpaster

Rachel.Goodpaster@dot.ohio.gov

Supporting Form Preparer(s): Michael Austin

Rachel Goodpaster

Approvals & Electronic Signatures

Approved & Electronically Signed By:	Approval Date:
Rachel Goodpaster (PROGRAM ADMIN 3)	Approval Date: 1/5/2023 View dayailar of the control of the cont
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Approved: 1/5/2023

Appendix

General

Aerial Map.pdf

General Photographs.pdf

USGS Quadrangle Topographical Map.pdf

ESA

Regulated Materials Review Form.pdf

Cultural Resources

Minimal Potential to Cause Effect - Appendix B

Records Check.pdf

Section 106 Scoping Request Form.pdf

Ecological

ODNR Scenic River MOA Conditions

USFWS/ODNR Ecological MOA Conditions

Section 4(f)

Boater Amenities Map - No resources.pdf

Section 6(f)

LWCF Grant Listing.pdf

Underserved Populations

Census Mapping.pdf

Public Involvement

Project Description - Webpost.pdf

Webpost - No comments.pdf

Permits

FEMA FIRM.pdf

Local Let - Permit Letter.pdf

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APPENDIX F

Existing Bridge Photos

Official Scott Andrews Countries Countries

Structure Number: 0549452

Facility Carried: TR 83 Jeffers



12/30/22



12/30/22

Structure Number: 0549452
Facility Carried: TR 83 Jeffers



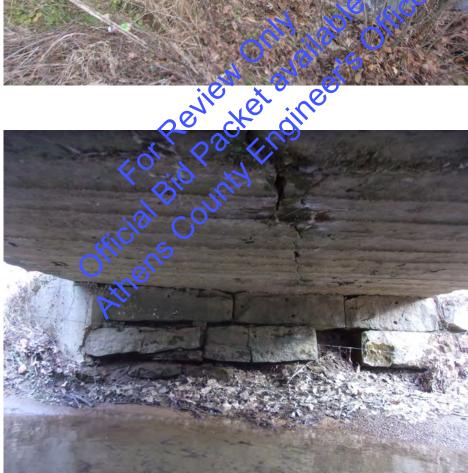
Structure Number: 0549452
Facility Carried: TR 83 Jeffers



12/30/22









12/13/22







APPENDIX G

Asbestos Letters & 10 Day Notification Forms

SPECIAL PROVISIONS

OEPA Notification of Demolition and Renovation **FOR**

ATH-TR 83-1.4 PID 117461 CRS: 3/13/2023 DATE:

The following form is the OEPA Notification of Demolition and Recovation form for the existing structure: SFN0549452

These sections of the Notification form need to be completed prior to submission:

- Owner/Coordinating Entity Asbesto 5. Abatement Contractor and Onsite Demolition contractor Information ?
 - On-site Demolition Contractor
 - Asbestos Abatement Contractor (if applicable)
- Scheduled Dates of Demolition or Renovation (original notification is required 10 8. working days prior to the start of work)
- Asbestos Removal Dates and Work Hours (if applicable) 9.
- Planned Demolition or Renovation Work 10.
- Asbestos Description and Engineering Controls (if applicable) 11.
- Asbestos Waste Transporters (if applicable)
 Asbestos Waste Disposal (if applicable) 12.
- 13.
- Asbestos Abatement Signature (if applicable) 17.
- Demolition and Renovation Signature 18.

The form must be submitted at least 10 working days in advance of the start of demolition.

The form (and required fee) must be submitted to the following address or via the online option:

Asbestos Program Ohio EPA, DAPC P.O. Box 1049 Columbus, OH 43216-1049



Notification of Demolition and Renovation/Abatement Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, including payment, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use	Only	Notification #:			Postma	rked:	/ /		R	eceived:	/ /			Hand-Deliv	vered
1) Notificati	ion Info	ormation (Check	all that ap	ply)											
□ Original	☐ Re	evision # (count):		Installation	☐ Emer	gency	☐ Ann	ual	Can	cellation	County: At	hens			
2) Owner, A	sbesto	Abatement Cor	tractor, B	illing and Fire D	epartment	t Informa	ition							Re	vised?
Owner											·				
Name: Athens	County	/ Engineers Offic	9								Is	this a c	ompany?	☐ Yes [⊠ No
Address: 1600	00 Cana	anville Rd					Co	ntact P	erson: J	leff Maide	en .				
City: Athens						State: C	ЭН				Zip: 45	701 -			
Email: jmaider	n@athe	nsoh.org				Phone:	(740)	593	- 551	4	Fax: ()	-		
Asbestos Abat	ement	Contractor (if ap	plicable)								<u> </u>				
Name:							Licen	se #: A	AC	9	<i>O</i>	Expira	tion Date:	/ /	
Address:							Co	ntact P	erson:	76	ريرن				
City:						State:		112	.50	9 C	Zip:	-			
Email:						Phone:	()		3/11	16	Fax: ()	-		
Billing Contact						1	7	2		5					
Is this contact	associa	ited with the	Owner,	Asbestos Ab	atement C	ortiaetoi	r, or 🔼	Demol	ition co	ntractor (if not instal	lation) :)		
Address:					<u> </u>	3	Cc	ntact ^p	erson:						
City:					<u></u>	Stau:	<u>ر ر</u>	<u>(7</u>			Zip:	-			
Email:				/ C		Phone:	(, \		-		Fax: ()	-		
Fire Departme	nt (if a	oplicable)		<u> </u>	<u>0</u>	<u> </u>	3								
Name:					<u> </u>										
Address:				:0		5	Co	ntact P	erson:						
City:				KIO,	6	State:					Zip:	-			
Email:				$O_{j,j}$		Phone:	()		-		Fax: ()	-		
3) Ohio Asbe	estos H	azard Evaluation	Specialis	t and Evaluation	Procedur	e								Re	vised?
Evaluation Spe	ecialist:	Brandon Beck		Dr.			Certifica	ation #:	ES 547	7784	Expira	ation Da	ite: 12 / 1	L / 2023	
	_	analytical metho ory II non-friable		•	•	of and to		_		of regula				terial (RAC ain Below):	
		concrete, steel, a													
4) Procedure	es to be	followed should	d unexpec	ted RACM be di	scovered (check all	that ap	ply)						Re	evised? 🔲
☐ Stop work	and ke	ep wet	Evacu	ate area		Demarcat	te area			☐ Co	ontact licen	sed aba	tement c	ontractor	
☐ Contact di	strict o	ffice/local air aut	hority												
Other (Exp	olain):														
		ion (check all th												Re	vised?
Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: Implosion Fire Training Wet Methods Manual Demolition Mechanical Demolition Other (Explain):															
Description of	affecte	ed facility compo	nents (incl	ude attachment											
					Page	1	of								

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

Mail completed form and payment to: Ohio EPA, DAPC – Asbestos 50 W. Town St., 7th Floor or P.O. Box 1049 Columbus, OH 43216-1049

6) Asbestos Description and	Engineering Controls (i	f asbestos is being ab	ated)							Revised?
For the material listed in each ensure proper waste handling		pe(s) of ACM to be aba	ated, engineeri	ng con	ntrols and wo	rk practices	to be use	d to mini	mize emi	ssions and
Type of ACM to be abated:	Surfacing	☐ Mechanical	☐ Other							
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE		☐ AFD	☐ O1	her:			
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechar	nical	Other:					
7) Asbestos Waste Transpor	ter (if applicable)									Revised?
Transporter #1 Name:										
Address:				Conta	act Person:					
City:			State:				Zip:	-		
Email:			Phone: ()	-		Fax: ()	-	
Transporter #2 Name (if applic	cable):									
Address:				Conta	act Person:	<u> </u>				
City:			State:			0	Zin:	-		
Email:			Phone: ()		0 0	Fax: ()	-	
8) Asbestos Waste Disposal	Site (if applicable)			77	1,0					Revised?
Name:			<u> </u>	\'	allo_					
Address:			<u>_N</u> _	Cont	act Person	9				
City:			State:	.0.	00.		Zip:	-		
Email:		0	Phone: ()	100		Fax: ()	-	
9) Emergency Demolition (c	omplete if you checked	"Emergency" above a	and "Derholitic	n" ler	any project)					Revised?
A copy of the issued order, inc	luding the following info	ormation, it ust be at	ached to this n	otifica	tion.					
Government Official Issuing O	rder:	6:0	Title							
Agency:		, &	Authorit	of Or	der (Citation	of Code):				
Date of Order: / /		.0 ~	Demoliti	on Dat	e: / /					
10) Emergency Renovation/A	batement (complete if	you checked "Emerge	ency" above ar	ıd "Reı	novation/Aba	atement" fo	r any pro	ject)		Revised?
Date of Emergency: / /		11. 42	Time of E	merge	ency: :	☐ a.m.	p.m	ı .		
Description of Sudden, Unexp	ected Event:	the.								
Explanation of how the event	caused unsafe conditio	s or equipment dama	ige:							
11) Attestation										Revised?
In accordance with Ohio Admi the Administrative Code will so is prohibited by law and I certi	upervise the stripping ar	nd removal described	by this notifica	tion. I	acknowledge	•		• ,		
Signature:					Dat	te: / /				
Name:			Title:							
Organization:										



Notification of Demolition and Renovation/Abatement Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only	Project ID #	‡ :							
A. Facility Descri	ption								Revised?
Building Name (if ag	oplicable): ATI	H-TR83-1.4 PID 117461		Site L	ocation (specific): 0.0	1 miles Eas	st of CR 167		
Address: Township	Road 83 at mi	lepoint 1.4				Co	unty: Athens		
City: Shade				State:	: OH	Zip	o: 45776 -		
Building Size (square	e feet): 560				No. of Floors: 1			Age: 62	
Present Use: Count	y Road bridge	2			Prior Use: County Ro	oad bridge			
B. Type of Opera	ition (check a	ll that apply)							Revised?
□ Demolition	Reno	ovation/Abatement – Ty	pe: Remova		Repair	ulation	Enclosure		
C. Asbestos Pres	ent (check on	e)							Revised?
☐ Yes		No, previously abated	d Year A	bated:	1		×		
D. Approximate	Amount of As	bestos-Containing Mate	erials (complete	table l	below and Section 1	#6 if asbes	tos is present)		Revised?
			Material to	be Rer	moved		S C M	aterial NOT to b	e Removed
			Non-fria	ble Asl	bestos-Contaming Ma	aterial	Non-fria	ble Asbestos-Co	ntaining Material
		RACM	Catego	ry I	Catego	cry II	Cate	gory I	Category II
Pipes (linear feet)					N N				
Surface area on oth components (ft ²)	er facility			16		e e			
Volume if length or	area cannot								
be measured (ft ³)									
E. Asbestos Abar	tement Sched	ule and Abatement Spe	/ () · · · · ·	otifica	ation is required 10 w	vorking da	ys prior to the s	tart of work)	Revised?
Setup Date: /	/	Abaten	nent Date: /	1		C	Complete Date:	/ /	
(Shift 1) Time	Monday	, Tuesday	Verines	day	Thursday	F	riday	Saturday	Sunday
start/end on site			: 0 C	O_{\bullet}					
Abatement Specialis	st Name:		<u>(),</u>	Cert	tification #: AS			Expiration Da	te: / /
(Shift 1) Time	Monday	, Tuesday	Wednes	day	Thursday	F	riday	Saturday	Sunday
start/end on site			6					1	
Abatement Speciali		<u> </u>		Cert	tification #: AS			Expiration Da	te: / /
F. Demolition Co	ontractor (if a	pplicable)							Revised?
Name:					<u> </u>				
Address:				1	Contact Per	rson:	1		
City:				State	:		Zip:	-	
Email:				Phon	e: () -		Fax	:()	-
G. Demolition Sc	hedule (origi	nal notification is requir	ed 10 working d	ays pr	ior to the start of wo	rk)			Revised?
Start Date: /	/			Comp	lete Date: / /				
H. Project Hold									Revised?
Hold Begin Date:	/ /			Work	Resume Date: /	/			

OHIO ENVIRONMENTAL PROTECTION AGENCY INSTRUCTIONS FOR COMPLETING NOTIFICATION OF DEMOLITION AND RENOVATION/ABATEMENT FORM

General Information

These directions are for submitting hardcopy notifications to the Ohio EPA. Ohio EPA strongly encourages notifications to be submitted electronically via the Ohio EPA eBusiness Center located at ebiz.epa.ohio.gov.

Who must submit this notification? [OAC 3745-20-03 and OAC 3745-22-04(C)(4)]

- The <u>owner or operator</u> means any person who leases, operates, controls, or supervises the facility being demolished or renovated, or any person who owns, leases, operates, controls or supervises the demolition or renovation (activity), or both.
- Asbestos Abatement Contractor means a contractor who is currently licensed by the Ohio EPA as an Asbestos Hazard
 Abatement Contractor.

The Ohio EPA notification of demolition and renovation form is required for:

- <u>Every demolition</u> of a facility, regardless of whether asbestos is involved. This includes all structures that will be intentionally burned for fire training purposes.
- A <u>renovation</u> when the amount of regulated asbestos-containing material (RACM) stripped, removed, dislodged, cut, drilled, or similarly disturbed exceeds 260 linear feet on pipes or 160 square feet on other facility components or 35 cubic feet off facility components.
- An <u>abatement</u> when the activity involves the removal, renovation, enclosure, repair or encapsulation of friable asbestos-containing material in an amount greater than 50 linear feet on pres or 50 square feet on other facility components.

When must I submit this notification?

ORIGINAL: The original notification must be <u>postmarked</u> or <u>hand delivered</u> to the Ohio EPA Central Office at least 10 working days (Monday-Friday excluding weekends) before operations begin. Please see example table below to help determine when to submit the original notification.

E-mail or FAX is not acceptable for original notification.

July

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 day 1	4 day 2	5 day 3	6
7	8 day 4	9 Lay 5	10 day 6	11 day 7	12 day 8	13
14	15 day 9	16 day 10	17 *	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Post mark date (and Day 1 of 10-day clock): July 3rd.

Note: Holidays are counted when they fall on a working day.

Completion of 10-day prior notification period: July 16th.

<u>REVISIONS</u>: A revised notification must be submitted if there is any change in the notification which renders information in the notification no longer accurate. Examples of changes include but are not limited to: if the amount of RACM changes by at least 20 percent, any changes in work schedules (dates or hours), any change in owner or operator, a change in the asbestos hazard abatement specialist onsite, or any change in the name or location of selected waste disposal site. A revised notification may be initiated by phone, however, must be followed in writing by either email or fax. Revisions shall be submitted as soon as possible but not later than one working day following discovery of the change.

^{*} First day work can commence (day following the 10th working day): July 17th.

EMERGENCY DEMOLITION OR RENOVATIONS: The notification must be submitted as early as possible before, but not later than, the following working day from start of demolition or renovation/abatement activities. The notification must include the supplemental information required in Sections 9 or 10.

Where do I send my notification?

Send the notification to: Ohio EPA Central Office, Division of Air Pollution Control, P.O. Box 1049, Columbus, Ohio 43216-1049.

How does Ohio EPA assess fees? [ORC 3745.11(G) and OAC 3745-22-04(C)]

Per ORC 3745.11(G), an owner or operator who is responsible for an asbestos demolition or renovation/abatement project regulated under OAC Chapter 3745-20, shall pay the fees set forth in the following schedule. This applies when thresholds are greater than or equal to: 260 linear feet; 160 square feet; or 35 cubic feet.

- Each notification \$75 plus,
- Asbestos removal \$3/unit (1 unit = any combination of linear feet or square feet equal to fifty) and/or
- Asbestos cleanup \$4/cubic yard

Per OAC 3745-22-04(C), if the renovation/abatement project involves removal, encapsulation, enclosure or repair of greater than 50 square feet or 50 linear feet of RACM, the Ohio EPA licensed asbestos hazard abatement contractor is responsible for paying the fees set forth in the following schedule.

- If notification is not an installation, \$65 fee, or
- If notification is an installation, \$65 fee for each address where RACM exceeds 50 square feet or 50 linear feet.

The fees shall be submitted with the original notification. Projects may be subject to both regulatory fee requirements above. Please be aware that some local air agencies may have additional fees.

Who can help answer questions about completing this notification?

Contact the Ohio EPA Central Office at 614-466-0061 or by email at asbestos@epasonio.gov.

Line by-line instructions

[Below listed instructions are for hardcopy form submission only]

Section 1: General Information

- 1. Check the type of notification (all that apply):
 - "Original" is the first notification submitted for a project; hardcopy is required to be post-marked or hand-delivered
 working-days prior to start of work.
 - "Revision" is any notification submitted after the original due to any change which renders information on the form no longer accurate. Examples of changes requiring a revision include but are not limited to: if the amount of RACM changes by at least 20 percent, any changes in work schedules (dates or hours), any change in owner or operator, a change in the asbestos hazard abatement specialist onsite, or any change in the name or location of selected waste disposal site. Revisions shall be numbered chronologically with Revision #1 being the first time any items on the notification form were changed. If revision is marked, please include the Revision # and check the "Revised" box for each section where information is revised. A "Revised" box is located near the upper right hand side of each section throughout the form.
 - o "Installation" means any building or structure or any group of buildings or structures at a single demolition or renovation/abatement site that are under the control of the same owner or operator, or owner or operator under common control. This would include projects where multiple addresses are included in a common project, have the same owner, and are being completed in the same county (i.e. land banks, residential cooperatives, highway projects involving multiple facility demolitions, etc.). If the project includes more than one structure or address, be sure to complete a separate "Section 2: Project Address Specific Information" page for each address.
 - "Emergency" includes emergency demolitions and emergency renovation/abatement operations. Emergency
 demolition means any demolition operation conducted under a written order issued by a state or local
 governmental agency because a facility is structurally unsound and in danger of imminent collapse. Emergency

renovation/abatement means a renovation/abatement operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by non-routine failures of equipment, by actions of fire or emergency medical personnel pursuant to duties within their official capacities, or by significantly damaged friable asbestos-containing material causing an environmental health hazard (as assessed by an asbestos hazard evaluation specialist). The notification must be submitted as early as possible before, but not later than, the following working day from start of demolition or renovation/abatement activities. The notification must include the supplemental information required in Sections 9 or 10.

- o "Annual" refers to planned renovation operations over a calendar year involving a series of non-scheduled operations that are collectively greater than the threshold limits; these notifications must be submitted in the month prior to the beginning of the calendar year. See separate guidance document or contact Ohio EPA Central Office to determine if the project will meet Annual notification requirements.
- o "Cancellation" is submitted to indicate a project has been cancelled and work will not be completed.
- o "County" is for listing the County in which the project will occur.
- 2. Provide owner, asbestos abatement contractor, billing, fire department Information (all that apply):
 - o In the "Owner" line, list the property owner [individual(s) who own(s) the property at the time of demolition/renovation (Note, this may be a government or private entity)] or list the coordinating Entity (i.e., land bank, municipality, etc.) if the facility is part of a larger project or installation. Include address, contact person, phone, fax, and email for the listed Owner.
 - Specify the name, address, contact person, phone, fax, email, and Ohio Environmental Protection Agency license number (ACXXXX) for the "Asbestos Abatement Contractor" (in regulated asbestos containing material(s) is being abated).
 - Specify the billing contact for the project of the Demolition Contractor (if project is not an installation).
 - Specify the name, address, connect person, phone, and email, for the "Fire Department" (if demolition of a facility is by intentional burning).
- 3. For any project subject to OAC 3745-20, include the Asbestos Hazard "Evaluation Specialist" Name, "Certification # (ESXXXX)", and "procedure used to detect and include asbestos". Analytical methods could include the collection of samples and sample analyses by polarized light microscopy (PLM) with dispersion staining. For samples that test under 10% asbestos content: An owner or operator may (a) elect to assume material to be greater than 1% asbestos, or, (b) require verification by point counting in which the point counting result will supersede the PLM estimation; Both choice and result should be stated on the notification. Explain any other method(s) used. All owners/operators should have the records of the asbestos assessment and analyses (inspection/survey report) on-site during active operations for reference and inspection. Such records would include a list of materials assessed, locations sampled and the sample results; this information can be found within the asbestos inspection report.
- **4.** Describe the specific procedures to be followed in the event unexpected regulated asbestos-containing material (RACM) is found or non-friable asbestos-containing material becomes friable RACM.

 Examples:
 - A. Stop work, evacuate area, and demarcate the area.
 - B. Wetting of ACM with amended water and using wet cleaning methods.

Should the discovery of unexpected RACM change the original amount of asbestos to be abated by 20 percent or more, you must submit a revised notification pursuant to OAC 3745-20-03. A revised notification must reflect the change in the amount of affected asbestos-containing material. The revised notification must also reflect the new asbestos removal start date, if applicable.

5. Select the appropriate box (*Implosion, Fire Training, Wet Methods, Manual Demolition, Mechanical Demolition or Other*). Underneath the check boxes, write a brief summary of the specific method to be used on this project. In the box *Description*

of affected facility components, include detailed information for each component where RACM is being removed. "Fire Training" refers to the demolition of a facility by intentional burning. All asbestos containing material, including Category I and Category II non-friable ACM, must be removed in accordance with OAC 3745-20 before burning. Additional requirements also apply; please contact the Ohio EPA District Office or Local Air Agency with jurisdiction for additional information (See attached map).

- **6.** For the materials listed in each project, on the line for *Type of ACM to be abated*, check the appropriate box (*Surfacing*, *Mechanical or Other*). If "Other" is selected, specify what the asbestos material is. At least one box must be checked, but if multiple types of asbestos are being removed, multiple boxes may be checked. On the line for *Engineering Controls*, select the appropriate box (*Wet Methods, Glove Bag, NPE, AFD or Other*). If "Other" is selected, specify the method(s) to be used. At least one type of engineering control must be selected, but multiple methods may be selected. On the line for *Work Practices*, select the appropriate box (*Intact Removal, Manual, Mechanical or Other*). If "Other" is selected, specify what the work practice method is. At least one work practice box must be selected but more than one may be selected.
- 7. Please complete the information for this section if asbestos containing material is being removed. On the name line, enter the name of the transporter company (example: *Jones Waste Hauler*) and complete the other fields in accordance to the information relating to this company. If more than one transporter is being used, complete the information for the second transporter in this same manner. NOTE: you must also complete a Waste Shipment Record prior to consigning any asbestos containing waste materials (ACWM).
- 8. Enter the name of the waste disposal site and complete all the other fields based on the physical location of the site. Check the following Ohio EPA website for an updated list of approved asbestos accepting waste disposal sites: www.epa.ohio.gov/dapc/atu/asbestos.aspx
- 9. This section must be completed for emergency demolitions that meet the definitions and requirements of the regulation. If a facility is not in imminent danger of collapse, it is not an emergency demolition even though it may be ordered to be demolished due to hazardous conditions. Provide the name, title and againty of the state or local governmental representative who has ordered the demolition. The Authority of Order is the applicable state or local regulation under which the demolition order has been issued. You must attach a copy of the semolition order to the notification.
- 10. This section shall be completed for emergency renovations a stement that meet criteria described in OAC 3745-20-01 and OAC 3745-22-03(H). You must provide detail or the four items listed in this section, including a description of how the project meets the "emergency" requirements of OAC 3745-22-03(H). A separate sheet may be needed.
- 11. The person signing this notification is attesting to the fact that in accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), they are certifying that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification, and are acknowledging that the submission of false or misleading statements is problemed by law and certifying that facts contained in this notification are true, accurate, and complete.

Section 2: Project Address Specific Information

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

- **A.** Describe the building(s) or structure(s) affected by the operations. Include building size in square feet, specific site location, number of floors, and age in years. Also include the present and prior use (i.e., industrial, commercial, institutional, residential, vacant, etc.) of the building(s).
- **B.** Identify the type of operation. Definitions of these terms can be found in OAC 3745-20-01.
 - o "Demolition" means the wrecking, or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
 - "Renovation" means altering a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos-containing material in an amount greater than 260 linear feet, 160 square feet, or 35 cubic feet from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

- o "Abatement" refers to any Asbestos hazard abatement activity involving the removal, renovation, enclosure, repair, or encapsulation of reasonably related friable asbestos-containing materials in an amount greater than 50 linear feet or 50 square feet. Asbestos hazard abatement activity also includes any such activity involving such asbestos-containing materials in an amount of 50 linear or 50 square feet or less if, when combined with any other reasonably related activity in terms of time and location of the activity, the total amount is in an amount greater than 50 linear or 50 square feet.
- **C.** Declare whether or not asbestos is present in any quantity. This includes assumed asbestos containing materials such as roofing and flooring. Also specify if the facility was previously abated and year when previous asbestos abatement occurred (if applicable).
- D. Specify the amount of regulated asbestos-containing material (RACM) to be removed as follows: linear feet on pipes, square feet (surface area) on facility components, and total cubic feet (volume) on or off all facility components. Asbestos containing demolition debris and related materials shall be quantified in cubic feet (volume) Convert any cubic yardage measurements to cubic feet (1 cubic yard = 27 cubic feet). Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in the affected part of the facility that will be removed before demolition. Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in good condition in the affected part of the facility that will not be removed before demolition.
- E. Specify the scheduled dates for asbestos removal, the hours of operation, and the days of the week that asbestos removal operations will be active onsite. Please note, the setup date must be at least 10 working-days after postmark or hand-deliver date. Also include the name, certification number, and expiration date of the arbestos hazard abatement specialist scheduled to be onsite in charge of the asbestos abatement project. Additional boxes have been provided in the event the project involves more than one shift.
- F. Specify the name, address, contact person, phone, fax, and email on the Demolition Contractor, if applicable.
- G. Specify the starting and ending dates for demolition even when no aspectos-containing materials are present. Should the demolition not begin on the start date listed, a revised notification form shall be submitted prior to the listed start date. Please note the start date must be at least 10 working days after postmant or hand-deliver date.
- **H.** If a project is being placed on hold, specify the dates as follows:
 - o "Hold Begin Date" indicate date that the egularly scheduled demolition or renovation/abatement operations will be put on hold at the facility.
 - "Work Resume Date" indicate date that the regularly scheduled demolition or renovation/abatement operations will resume at the facility. If a project was previously placed "On Hold", the Ohio EPA must receive notification of returning to the project at least one (Dworking day prior to resuming demolition and/or renovation/abatement activities.

Be sure to indicate the correct page numbers across the bottom of the notification once all the pages are complete.

The asbestos regulations, notification forms, guidance, local contacts, and other information can be found on Ohio EPA's asbestos program web site at www.epa.ohio.gov/dapc/atu/asbestos.aspx

Notification Fee Worksheet





Work on projects cannot begin until 10 working days after a COMPLETE original notification form, <u>including payment</u>, is submitted to Ohio EPA. The form and instructions with definitions are available at <u>epa.ohio.gov/asbestos</u>. The form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? <u>asbestos@epa.ohio.gov</u> or 614-466-0061

Licensing Project Notification Fee(s):

A \$65 notification licensing fee is due per project if it involves an abatement\renovation with RACM greater than 50 linear or square feet or greater than or equal to 35 cubic feet. Complete the table below with RACM amounts from each project listed in Section 2.D. of the Notification form. Place \$65 in each row where this criterion is met.

Project I				ion form. Place 505			
Project	Demo	Reno	Linear Ft.	Square Ft.	Cubic Ft.	License Fee	
1							
2							
3							
4					*		
5					9 C		
6					10 30		
7				13	10, 1		
8				$O_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_$	10		
9				7,0	35		
10			_	.0,	SO,		
		Total:		y let in	X	\$	1

Applicable NESHAP Project Notification Fees:

The NESHAP notification fees below apoly if one of the following are on the completed notification form:

- The project(s) is part of an installation or
- At least one project is a demolition; or
- At least one project is a renovation/abatement with the total RACM being greater than or equal to 260 linear feet, 160 square feet, or 35 copic feet.

NESHAP Notifi	cation Fee	A fee of 575.		\$	2
RACM Fee	-	charged per unit of the total linear hat total and dividing by 50. Only	•	A unit is calculated	
	(b) Tota (c) Num	I linear feet + Total sq. ft = I in (a) divided by 50 = ber in (b) rounded down to a who iply the whole unit in (c) by \$3 = _	e unit =	\$	3
Clean-Up Fee		charged per cubic yard of RACM. (v 27. Only whole cubic yards are ch	, ,	total cubic feet and	
	(b) Num	l cubic feet divided by 27 = ber in (a) rounded down to a whol ciply the whole cubic yard in (b) by	· ————	\$	4
			Total Amount Due	\$	

You must include a check or money order, payable to Treasurer State of Ohio, with your project notification form for your notification to be complete.

SPECIAL PROVISIONS

OEPA Notification of Demolition and Renovation **FOR**

CRS: ATH-471-0.01 PID 117464 3/13/2023 DATE:

The following form is the OEPA Notification of Demolition and Recovation form for the existing structure: SFN0547867

These sections of the Notification form need to be completed prior to submission:

- Owner/Coordinating Entity Asbesto 5. Abatement Contractor and Onsite Demolition contractor Information ?
 - On-site Demolition Contractor
 - Asbestos Abatement Contractor (if applicable)
- Scheduled Dates of Demolition or Renovation (original notification is required 10 8. working days prior to the start of work)
- Asbestos Removal Dates and Work Hours (if applicable) 9.
- Planned Demolition or Renovation Work 10.
- Asbestos Description and Engineering Controls (if applicable) 11.
- Asbestos Waste Transporters (if applicable)
 Asbestos Waste Disposal (if applicable) 12.
- 13.
- Asbestos Abatement Signature (if applicable) 17.
- Demolition and Renovation Signature 18.

The form must be submitted at least 10 working days in advance of the start of demolition.

The form (and required fee) must be submitted to the following address or via the online option:

Asbestos Program Ohio EPA, DAPC P.O. Box 1049 Columbus, OH 43216-1049



Notification of Demolition and Renovation/Abatement Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, including payment, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use	Only	Notification #:			Postma	rked:	/ /			Received:	/	/] Hand-[Delivered	
1) Notificati	ion Info	ormation (Check	all that ap	ply)													
□ Original	☐ Re	evision # (count):		☐ Installation	☐ Emer	gency	☐ An	nual		Cancellation	Coun	ty: Ath	ens				
2) Owner, A	sbesto	Abatement Cor	tractor, B	illing and Fire D	epartmen	t Informa	ition									Revised?	
Owner												,					
Name: Athens	County	/ Engineers Offic	е									ls t	his a co	ompany	? 🗌 Y	es 🛛 No	
Address: 1600	00 Cana	anville Rd					C	ontact	Perso	n: Jeff Maid	en						
City: Athens						State: C	ЭН				Zi	p: 4570	01 -				
Email: jmaider	n@athe	nsoh.org				Phone:	(740) 593	- 5	5514	Fa	ax: ()	-			
Asbestos Abat	ement	Contractor (if ap	plicable)								X						
Name:							Lice	nse #:	AC	-	<u>D. </u>	0	Expirat	ion Date	e: /	/	
Address:							C	ontact	Perso	n:	(2)	\mathcal{O}					
City:						State:		912		8 C	Zi	p:	-				
Email:						Phone:)	%	5	Fa	ax: ()	-			
Billing Contact						1	7	2	1	2							
Is this contact	associa	ited with the	Owner,	Asbestos Ab	atement C	Contractor	r, or 🔼	Demo	olition	Contractor	(if not	installa	ation)?				
Address:						3	190	ontact	Perso	n:							
City:						Stau:	J	<u>0</u>			Zi	p:	-				
Email:				/ (Phone:	(-		Fa	ax: ()	-			
Fire Departme	nt (if a	oplicable)		<u> </u>	<u>0</u>	<u> </u>	3										
Name:					<u> </u>												
Address:				:0	•	9	C	ontact	Perso	n:							
City:				KIO,	6	State:					Zi	p:	-				
Email:				$O_{j,j}$	12	Phone:	()	-		Fa	ax: ()	-			
3) Ohio Asbe	estos H	azard Evaluation	Specialis	t and Evaluation	Procedur	е										Revised?	
Evaluation Spe	ecialist:	Brandon Beck		Dr.			Certific	cation #	#: ES	547784	I	Expirat	ion Da	te: 12 /	1 / 202	.3	
	_	analytical metho ory II non-friable	-		-	of and to				tity of regul nt				_	aterial (lain Bel	-	
Bridge is comp	osed e	ntirely of concre	te and sto	ne. No suspecte	d material	identified	d during	ginspec	ction.								
4) Procedure	es to be	followed should	d unexpec	ted RACM be di	scovered (check all	that ap	oply)								Revised?	
☐ Stop work	and ke	ep wet	Evacu	ate area		Demarcat	te area			□ c	ontact	license	ed aba	tement	contrac	tor	
☐ Contact di	strict o	ffice/local air aut	hority														
Other (Exp	olain):																
5) Planned D	Demolit	ion (check all th	at apply)													Revised?	
Describe demo		work to be perfor Fire Training [ised:] Othe	r (Expl	ain):				
Description of	affecte	ed facility compo	nents (incl	ude attachment													
					Page	9 1	of										

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

Mail completed form and payment to: Ohio EPA, DAPC – Asbestos 50 W. Town St., 7th Floor or P.O. Box 1049 Columbus, OH 43216-1049

6) Asbestos Description and	Engineering Controls (i	f asbestos is being ab	ated)							Revised?
For the material listed in each ensure proper waste handling		pe(s) of ACM to be aba	ated, engineeri	ng con	ntrols and wo	rk practices	to be use	d to mini	mize emi	ssions and
Type of ACM to be abated:	Surfacing	☐ Mechanical	☐ Other							
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE		☐ AFD	☐ O1	her:			
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechar	nical	Other:					
7) Asbestos Waste Transpor	ter (if applicable)									Revised?
Transporter #1 Name:										
Address:				Conta	act Person:					
City:			State:				Zip:	-		
Email:			Phone: ()	-		Fax: ()	-	
Transporter #2 Name (if applic	cable):									
Address:				Conta	act Person:	<u> </u>				
City:			State:			0	Zin:	-		
Email:			Phone: ()		0 0	Fax: ()	-	
8) Asbestos Waste Disposal	Site (if applicable)			77	1,0					Revised?
Name:			<u> </u>	\'	allo_					
Address:			<u>_N</u> _	Cont	act Person	9				
City:			State:	.0.	00.		Zip:	-		
Email:		0	Phone: ()	100		Fax: ()	-	
9) Emergency Demolition (c	omplete if you checked	"Emergency" above a	and "Derholitic	n" ler	any project)					Revised?
A copy of the issued order, inc	luding the following info	ormation, it ust be at	ached to this n	otifica	tion.					
Government Official Issuing O	rder:	6:0	Title							
Agency:		, &	Authorit	of Or	der (Citation	of Code):				
Date of Order: / /		.0 ~	Demoliti	on Dat	e: / /					
10) Emergency Renovation/A	batement (complete if	you checked "Emerge	ency" above ar	ıd "Reı	novation/Aba	atement" fo	r any pro	ject)		Revised?
Date of Emergency: / /		11. 42	Time of E	merge	ency: :	☐ a.m.	p.m	ı .		
Description of Sudden, Unexp	ected Event:	the.								
Explanation of how the event	caused unsafe conditio	s or equipment dama	ige:							
11) Attestation										Revised?
In accordance with Ohio Admi the Administrative Code will so is prohibited by law and I certi	upervise the stripping ar	nd removal described	by this notifica	tion. I	acknowledge	•		• ,		
Signature:					Dat	te: / /				
Name:			Title:							
Organization:										



Notification of Demolition and Renovation/Abatement Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only	Project ID #	‡ :							
A. Facility Descri	ption								Revised?
Building Name (if ag	oplicable): ATI	H-TR471-0.01 PID 11746	4	Site L	ocation (specific): Jun	nction of C	R 100		
Address: Township	Road 471 at n	nilepoint 0.01				Co	ounty: Athens		
City: New Marshfiel	d			State:	: ОН	Zi	p: 45766 -		
Building Size (square	e feet): 405				No. of Floors: 1			Age: 86	
Present Use: Towns	ship Road brid	lge			Prior Use: Township	Road brid	dge		
B. Type of Opera	ition (check a	ll that apply)							Revised?
□ Demolition	Reno	ovation/Abatement – Ty	pe: 🗌 Remova		Repair	ulation [Enclosure		
C. Asbestos Pres	ent (check on	e)							Revised?
☐ Yes		No, previously abated	d Year A	bated:	:		×		
D. Approximate	Amount of As	bestos-Containing Mate	erials (complete	table l	below and Section 1	#6 if asbe	stos is present)		Revised?
			Material to	be Rer	moved		V (C) (V	laterial NOT to b	e Removed
			Non-fria	ble Asl	bestos-Contaming Ma	aterial	Non-fria	able Asbestos-Co	ntaining Material
		RACM	Catego	ry I	Catego	ory II	Cate	egory I	Category II
Pipes (linear feet)					n No				
Surface area on oth components (ft ²)	er facility			16	3 × 0	6)			
Volume if length or	area cannot								
be measured (ft³)									
E. Asbestos Aba	tement Sched	ule and Abatement Spe	/ () · · · ·	otifica	ation is required 10 w	vorking da	ays prior to the s	tart of work)	Revised?
Setup Date: /	/	Abater	nent Date: /	/	\sim		Complete Date:	/ /	_
(Shift 1) Time	Monday	, Tuesday	Vennes	day	Thursday	- 1	Friday	Saturday	Sunday
start/end on site			:0) C	<u>ဝ</u> ိ					
Abatement Specialis	st Name:	(i)	\mathcal{O}	Cert	tification #: AS			Expiration Da	te: / /
(Shift 1) Time	Monday	r Tuesday	Wednes	day	Thursday	1	Friday	Saturday	Sunday
start/end on site			<u> </u>						
Abatement Specialis	st Name:	<i>D</i> 3		Cert	tification #: AS			Expiration Da	te: / /
F. Demolition Co	ontractor (if a	pplicable)							Revised?
Name:					<u> </u>				
Address:				1	Contact Per	rson:			
City:				State	:		Zip	=	
Email:				Phon	e: () -		Fax	:()	-
G. Demolition Sc	hedule (origi	nal notification is requir	ed 10 working d	ays pr	ior to the start of wo	rk)			Revised?
Start Date: /	/			Comp	lete Date: / /				
H. Project Hold									Revised?
Hold Begin Date:	/ /			Work	Resume Date: /	/			

OHIO ENVIRONMENTAL PROTECTION AGENCY INSTRUCTIONS FOR COMPLETING NOTIFICATION OF DEMOLITION AND RENOVATION/ABATEMENT FORM

General Information

These directions are for submitting hardcopy notifications to the Ohio EPA. Ohio EPA strongly encourages notifications to be submitted electronically via the Ohio EPA eBusiness Center located at ebiz.epa.ohio.gov.

Who must submit this notification? [OAC 3745-20-03 and OAC 3745-22-04(C)(4)]

- The <u>owner or operator</u> means any person who leases, operates, controls, or supervises the facility being demolished or renovated, or any person who owns, leases, operates, controls or supervises the demolition or renovation (activity), or both.
- Asbestos Abatement Contractor means a contractor who is currently licensed by the Ohio EPA as an Asbestos Hazard
 Abatement Contractor.

The Ohio EPA notification of demolition and renovation form is required for:

- <u>Every demolition</u> of a facility, regardless of whether asbestos is involved. This includes all structures that will be intentionally burned for fire training purposes.
- A <u>renovation</u> when the amount of regulated asbestos-containing material (RACM) stripped, removed, dislodged, cut, drilled, or similarly disturbed exceeds 260 linear feet on pipes or 160 square feet on other facility components or 35 cubic feet off facility components.
- An <u>abatement</u> when the activity involves the removal, renovation, enclosure, repair or encapsulation of friable asbestos-containing material in an amount greater than 50 linear feet on pres or 50 square feet on other facility components.

When must I submit this notification?

ORIGINAL: The original notification must be <u>postmarked</u> or <u>hand delivered</u> to the Ohio EPA Central Office at least 10 working days (Monday-Friday excluding weekends) before operations begin. Please see example table below to help determine when to submit the original notification.

E-mail or FAX is not acceptable for original notification.

July

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 day 1	4 day 2	5 day 3	6
7	8 day 4	9 Lay 5	10 day 6	11 day 7	12 day 8	13
14	15 day 9	16 day 10	17 *	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Post mark date (and Day 1 of 10-day clock): July 3rd.

Note: Holidays are counted when they fall on a working day.

Completion of 10-day prior notification period: July 16th.

<u>REVISIONS</u>: A revised notification must be submitted if there is any change in the notification which renders information in the notification no longer accurate. Examples of changes include but are not limited to: if the amount of RACM changes by at least 20 percent, any changes in work schedules (dates or hours), any change in owner or operator, a change in the asbestos hazard abatement specialist onsite, or any change in the name or location of selected waste disposal site. A revised notification may be initiated by phone, however, must be followed in writing by either email or fax. Revisions shall be submitted as soon as possible but not later than one working day following discovery of the change.

^{*} First day work can commence (day following the 10th working day): July 17th.

EMERGENCY DEMOLITION OR RENOVATIONS: The notification must be submitted as early as possible before, but not later than, the following working day from start of demolition or renovation/abatement activities. The notification must include the supplemental information required in Sections 9 or 10.

Where do I send my notification?

Send the notification to: Ohio EPA Central Office, Division of Air Pollution Control, P.O. Box 1049, Columbus, Ohio 43216-1049.

How does Ohio EPA assess fees? [ORC 3745.11(G) and OAC 3745-22-04(C)]

Per ORC 3745.11(G), an owner or operator who is responsible for an asbestos demolition or renovation/abatement project regulated under OAC Chapter 3745-20, shall pay the fees set forth in the following schedule. This applies when thresholds are greater than or equal to: 260 linear feet; 160 square feet; or 35 cubic feet.

- Each notification \$75 plus,
- Asbestos removal \$3/unit (1 unit = any combination of linear feet or square feet equal to fifty) and/or
- Asbestos cleanup \$4/cubic yard

Per OAC 3745-22-04(C), if the renovation/abatement project involves removal, encapsulation, enclosure or repair of greater than 50 square feet or 50 linear feet of RACM, the Ohio EPA licensed asbestos hazard abatement contractor is responsible for paying the fees set forth in the following schedule.

- If notification is not an installation, \$65 fee, or
- If notification is an installation, \$65 fee for each address where RACM exceeds 50 square feet or 50 linear feet.

The fees shall be submitted with the original notification. Projects may be subject to both regulatory fee requirements above. Please be aware that some local air agencies may have additional fees.

Who can help answer questions about completing this notification?

Contact the Ohio EPA Central Office at 614-466-0061 or by email at asbestos@epasonio.gov.

Line by-line instructions

[Below listed instructions are for hardcopy form submission only]

Section 1: General Information

- 1. Check the type of notification (all that apply):
 - "Original" is the first notification submitted for a project; hardcopy is required to be post-marked or hand-delivered
 working-days prior to start of work.
 - "Revision" is any notification submitted after the original due to any change which renders information on the form no longer accurate. Examples of changes requiring a revision include but are not limited to: if the amount of RACM changes by at least 20 percent, any changes in work schedules (dates or hours), any change in owner or operator, a change in the asbestos hazard abatement specialist onsite, or any change in the name or location of selected waste disposal site. Revisions shall be numbered chronologically with Revision #1 being the first time any items on the notification form were changed. If revision is marked, please include the Revision # and check the "Revised" box for each section where information is revised. A "Revised" box is located near the upper right hand side of each section throughout the form.
 - o "Installation" means any building or structure or any group of buildings or structures at a single demolition or renovation/abatement site that are under the control of the same owner or operator, or owner or operator under common control. This would include projects where multiple addresses are included in a common project, have the same owner, and are being completed in the same county (i.e. land banks, residential cooperatives, highway projects involving multiple facility demolitions, etc.). If the project includes more than one structure or address, be sure to complete a separate "Section 2: Project Address Specific Information" page for each address.
 - "Emergency" includes emergency demolitions and emergency renovation/abatement operations. Emergency
 demolition means any demolition operation conducted under a written order issued by a state or local
 governmental agency because a facility is structurally unsound and in danger of imminent collapse. Emergency

renovation/abatement means a renovation/abatement operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by non-routine failures of equipment, by actions of fire or emergency medical personnel pursuant to duties within their official capacities, or by significantly damaged friable asbestos-containing material causing an environmental health hazard (as assessed by an asbestos hazard evaluation specialist). The notification must be submitted as early as possible before, but not later than, the following working day from start of demolition or renovation/abatement activities. The notification must include the supplemental information required in Sections 9 or 10.

- o "Annual" refers to planned renovation operations over a calendar year involving a series of non-scheduled operations that are collectively greater than the threshold limits; these notifications must be submitted in the month prior to the beginning of the calendar year. See separate guidance document or contact Ohio EPA Central Office to determine if the project will meet Annual notification requirements.
- o "Cancellation" is submitted to indicate a project has been cancelled and work will not be completed.
- o "County" is for listing the County in which the project will occur.
- 2. Provide owner, asbestos abatement contractor, billing, fire department Information (all that apply):
 - o In the "Owner" line, list the property owner [individual(s) who own(s) the property at the time of demolition/renovation (Note, this may be a government or private entity)] or list the coordinating Entity (i.e., land bank, municipality, etc.) if the facility is part of a larger project or installation. Include address, contact person, phone, fax, and email for the listed Owner.
 - Specify the name, address, contact person, phone, fax, email, and Ohio Environmental Protection Agency license number (ACXXXX) for the "Asbestos Abatement Contractor" (in regulated asbestos containing material(s) is being abated).
 - Specify the billing contact for the project of the Demolition Contractor (if project is not an installation).
 - Specify the name, address, connect person, phone, and email, for the "Fire Department" (if demolition of a facility is by intentional burning).
- 3. For any project subject to OAC 3745-20, include the Asbestos Hazard "Evaluation Specialist" Name, "Certification # (ESXXXX)", and "procedure used to detect and include asbestos". Analytical methods could include the collection of samples and sample analyses by polarized light microscopy (PLM) with dispersion staining. For samples that test under 10% asbestos content: An owner or operator may (a) elect to assume material to be greater than 1% asbestos, or, (b) require verification by point counting in which the point counting result will supersede the PLM estimation; Both choice and result should be stated on the notification. Explain any other method(s) used. All owners/operators should have the records of the asbestos assessment and analyses (inspection/survey report) on-site during active operations for reference and inspection. Such records would include a list of materials assessed, locations sampled and the sample results; this information can be found within the asbestos inspection report.
- **4.** Describe the specific procedures to be followed in the event unexpected regulated asbestos-containing material (RACM) is found or non-friable asbestos-containing material becomes friable RACM.

 Examples:
 - A. Stop work, evacuate area, and demarcate the area.
 - B. Wetting of ACM with amended water and using wet cleaning methods.

Should the discovery of unexpected RACM change the original amount of asbestos to be abated by 20 percent or more, you must submit a revised notification pursuant to OAC 3745-20-03. A revised notification must reflect the change in the amount of affected asbestos-containing material. The revised notification must also reflect the new asbestos removal start date, if applicable.

5. Select the appropriate box (*Implosion, Fire Training, Wet Methods, Manual Demolition, Mechanical Demolition or Other*). Underneath the check boxes, write a brief summary of the specific method to be used on this project. In the box *Description*

of affected facility components, include detailed information for each component where RACM is being removed. "Fire Training" refers to the demolition of a facility by intentional burning. All asbestos containing material, including Category I and Category II non-friable ACM, must be removed in accordance with OAC 3745-20 before burning. Additional requirements also apply; please contact the Ohio EPA District Office or Local Air Agency with jurisdiction for additional information (See attached map).

- **6.** For the materials listed in each project, on the line for *Type of ACM to be abated*, check the appropriate box (*Surfacing*, *Mechanical or Other*). If "Other" is selected, specify what the asbestos material is. At least one box must be checked, but if multiple types of asbestos are being removed, multiple boxes may be checked. On the line for *Engineering Controls*, select the appropriate box (*Wet Methods, Glove Bag, NPE, AFD or Other*). If "Other" is selected, specify the method(s) to be used. At least one type of engineering control must be selected, but multiple methods may be selected. On the line for *Work Practices*, select the appropriate box (*Intact Removal, Manual, Mechanical or Other*). If "Other" is selected, specify what the work practice method is. At least one work practice box must be selected but more than one may be selected.
- 7. Please complete the information for this section if asbestos containing material is being removed. On the name line, enter the name of the transporter company (example: *Jones Waste Hauler*) and complete the other fields in accordance to the information relating to this company. If more than one transporter is being used, complete the information for the second transporter in this same manner. NOTE: you must also complete a Waste Shipment Record prior to consigning any asbestos containing waste materials (ACWM).
- 8. Enter the name of the waste disposal site and complete all the other fields based on the physical location of the site. Check the following Ohio EPA website for an updated list of approved asbestos accepting waste disposal sites: www.epa.ohio.gov/dapc/atu/asbestos.aspx
- 9. This section must be completed for emergency demolitions that meet the definitions and requirements of the regulation. If a facility is not in imminent danger of collapse, it is not an emergency demolition even though it may be ordered to be demolished due to hazardous conditions. Provide the name, title and againty of the state or local governmental representative who has ordered the demolition. The Authority of Order is the applicable state or local regulation under which the demolition order has been issued. You must attach a copy of the semolition order to the notification.
- 10. This section shall be completed for emergency renovations a stement that meet criteria described in OAC 3745-20-01 and OAC 3745-22-03(H). You must provide detail or the four items listed in this section, including a description of how the project meets the "emergency" requirements of OAC 3745-22-03(H). A separate sheet may be needed.
- 11. The person signing this notification is attesting to the fact that in accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), they are certifying that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification, and are acknowledging that the submission of false or misleading statements is problemed by law and certifying that facts contained in this notification are true, accurate, and complete.

Section 2: Project Address Specific Information

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

- **A.** Describe the building(s) or structure(s) affected by the operations. Include building size in square feet, specific site location, number of floors, and age in years. Also include the present and prior use (i.e., industrial, commercial, institutional, residential, vacant, etc.) of the building(s).
- **B.** Identify the type of operation. Definitions of these terms can be found in OAC 3745-20-01.
 - o "Demolition" means the wrecking, or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
 - "Renovation" means altering a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos-containing material in an amount greater than 260 linear feet, 160 square feet, or 35 cubic feet from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

- o "Abatement" refers to any Asbestos hazard abatement activity involving the removal, renovation, enclosure, repair, or encapsulation of reasonably related friable asbestos-containing materials in an amount greater than 50 linear feet or 50 square feet. Asbestos hazard abatement activity also includes any such activity involving such asbestos-containing materials in an amount of 50 linear or 50 square feet or less if, when combined with any other reasonably related activity in terms of time and location of the activity, the total amount is in an amount greater than 50 linear or 50 square feet.
- **C.** Declare whether or not asbestos is present in any quantity. This includes assumed asbestos containing materials such as roofing and flooring. Also specify if the facility was previously abated and year when previous asbestos abatement occurred (if applicable).
- D. Specify the amount of regulated asbestos-containing material (RACM) to be removed as follows: linear feet on pipes, square feet (surface area) on facility components, and total cubic feet (volume) on or off all facility components. Asbestos containing demolition debris and related materials shall be quantified in cubic feet (volume) Convert any cubic yardage measurements to cubic feet (1 cubic yard = 27 cubic feet). Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in the affected part of the facility that will be removed before demolition. Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in good condition in the affected part of the facility that will not be removed before demolition.
- E. Specify the scheduled dates for asbestos removal, the hours of operation, and the days of the week that asbestos removal operations will be active onsite. Please note, the setup date must be at least 10 working-days after postmark or hand-deliver date. Also include the name, certification number, and expiration date of the arbestos hazard abatement specialist scheduled to be onsite in charge of the asbestos abatement project. Additional boxes have been provided in the event the project involves more than one shift.
- F. Specify the name, address, contact person, phone, fax, and email on the Demolition Contractor, if applicable.
- G. Specify the starting and ending dates for demolition even when no aspectos-containing materials are present. Should the demolition not begin on the start date listed, a revised notification form shall be submitted prior to the listed start date. Please note the start date must be at least 10 working days after postmant or hand-deliver date.
- **H.** If a project is being placed on hold, specify the dates as follows:
 - o "Hold Begin Date" indicate date that the egularly scheduled demolition or renovation/abatement operations will be put on hold at the facility.
 - "Work Resume Date" indicate date that the regularly scheduled demolition or renovation/abatement operations will resume at the facility. If a project was previously placed "On Hold", the Ohio EPA must receive notification of returning to the project at least one (Dworking day prior to resuming demolition and/or renovation/abatement activities.

Be sure to indicate the correct page numbers across the bottom of the notification once all the pages are complete.

The asbestos regulations, notification forms, guidance, local contacts, and other information can be found on Ohio EPA's asbestos program web site at www.epa.ohio.gov/dapc/atu/asbestos.aspx

Notification Fee Worksheet





Work on projects cannot begin until 10 working days after a COMPLETE original notification form, <u>including payment</u>, is submitted to Ohio EPA. The form and instructions with definitions are available at <u>epa.ohio.gov/asbestos</u>. The form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? <u>asbestos@epa.ohio.gov</u> or 614-466-0061

Licensing Project Notification Fee(s):

A \$65 notification licensing fee is due per project if it involves an abatement\renovation with RACM greater than 50 linear or square feet or greater than or equal to 35 cubic feet. Complete the table below with RACM amounts from each project listed in Section 2.D. of the Notification form. Place \$65 in each row where this criterion is met.

Project [Detail						
Project	Demo	Reno	Linear Ft.	Square Ft.	Cubic Ft.	License Fee	
1							
2							
3							
4					*		
5					3		
6					6 00		
7				13	10. 41.		
8				$O_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_{I_$			
9				7 7.0	S		
10			_	.0,	0,		
		Total:	- 0	The in	(o)	\$	

Applicable NESHAP Project Notification Fees:

The NESHAP notification fees below apoly if one of the following are on the completed notification form:

- The project(s) is part of an installation or
- At least one project is a demolition; or
- At least one project is a renovation/abatement with the total RACM being greater than or equal to 260 linear feet, 160 square feet, or 35 copic feet.

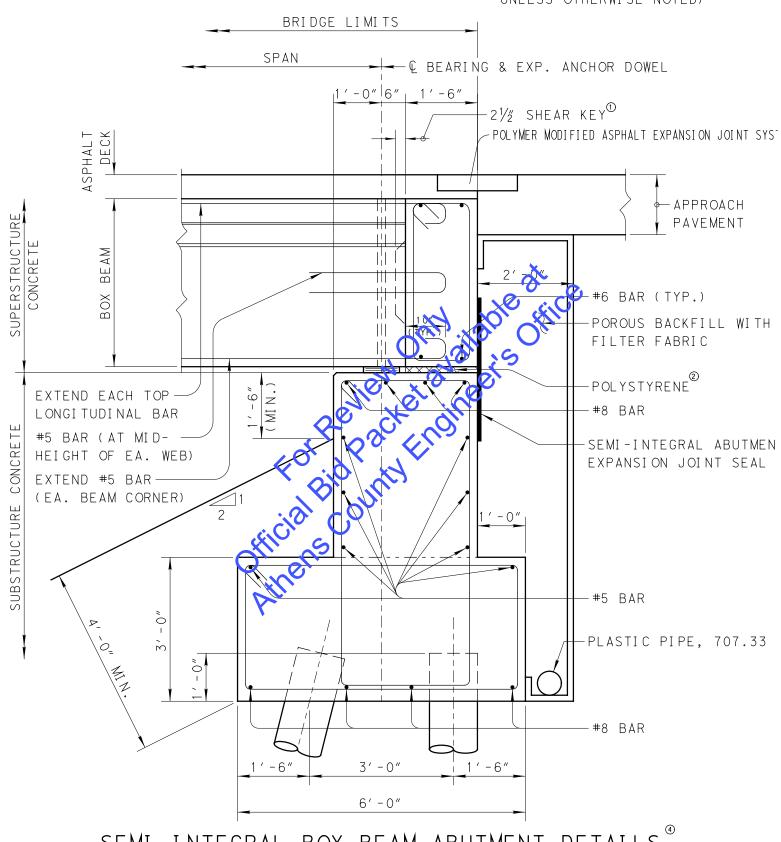
NESHAP Notifi	cation Fee	A fee of 575.		\$	2
RACM Fee	-	charged per unit of the total linear and square feet of RACM. A unit is calculated hat total and dividing by 50. Only whole units are charged.			
	(b) Tota (c) Num	I linear feet + Total sq. ft = I in (a) divided by 50 = ber in (b) rounded down to a who iply the whole unit in (c) by \$3 = _	e unit =	\$	3
Clean-Up Fee	A \$4 fee is charged per cubic yard of RACM. Calculate this by taking the total cubic feet and dividing by 27. Only whole cubic yards are charged.				
	(b) Num	l cubic feet divided by 27 = ber in (a) rounded down to a whol ciply the whole cubic yard in (b) by	· ————	\$	4
			Total Amount Due	\$	

You must include a check or money order, payable to Treasurer State of Ohio, with your project notification form for your notification to be complete.

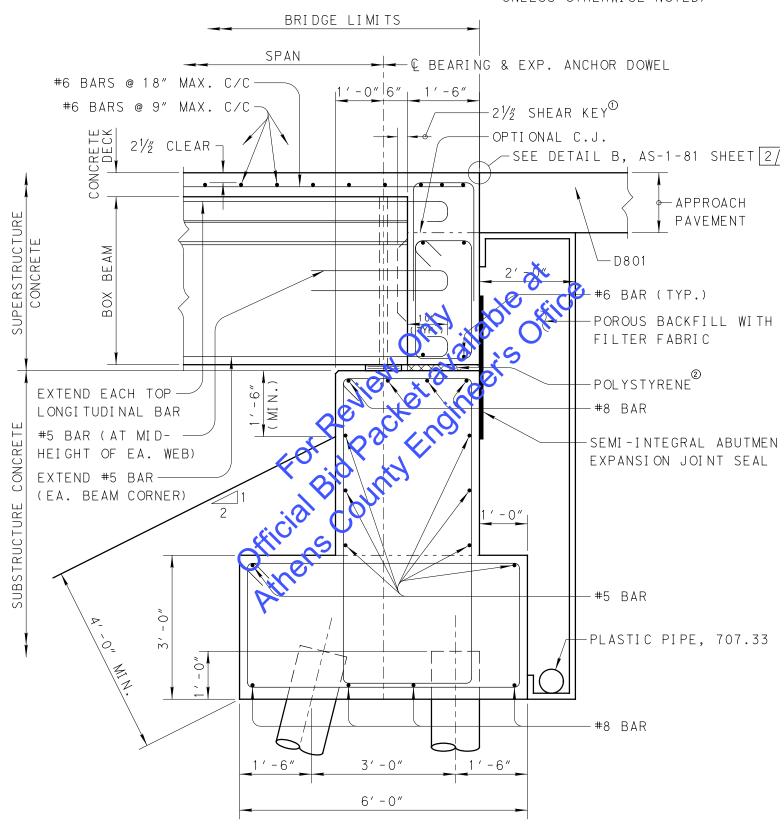
APPENDIX H

Abutheent Details

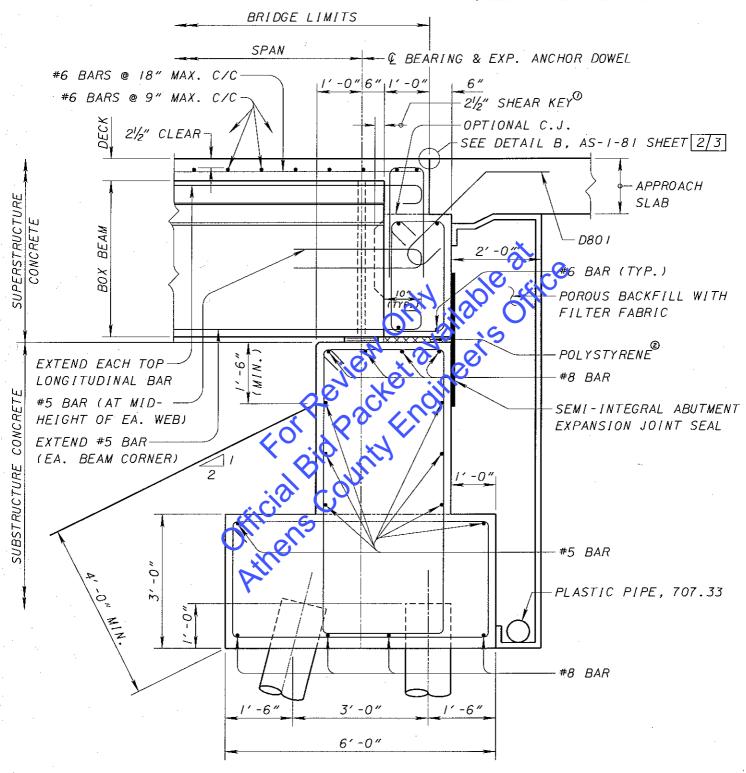
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SEMI-INTEGRAL BOX BEAM ABUTMENT DETAILS (PILE FOUNDATION SHOWN, DRILLED SHAFT AND SPREAD FOOTING FOUNDATION SIMILAR) (PILE FOUNDATION SIMILAR) (PILE FOUNDATION SHOWN, DRILLED SHAFT AND SPREAD FOOTING FOUNDATION SIMILAR)



SEMI-INTEGRAL BOX BEAM ABUTMENT DETAILS (PILE FOUNDATION SHOWN, DRILLED SHAFT AND SPREAD FOOTING FOUNDATION SIMILAR) (PILE FOUNDATION SHOWN, DRILLED SHAFT AND SPREAD FOOTING FOUNDATION SIMILAR)

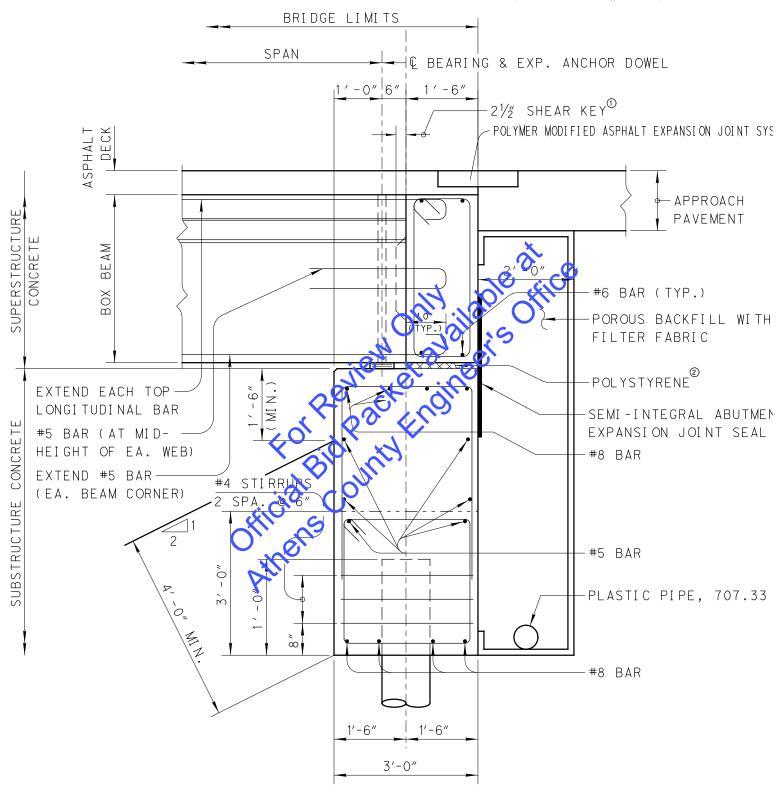


SEMI-INTEGRAL BOX BEAM ABUTMENT DETAILS (PILE FOUNDATION SHOWN, DRILLED SHAFT AND SPREAD FOOTING FOUNDATION SIMILAR)

Notes for Semi-Integral Box-Beam Abutment Details

- 1. Provide a 2½" deep shear key centered in the beam end. The shear key height shall be one-half of the box beam height and the width shall be 26" for 3'-0" boxes and 38" for 4'-0" boxes.
- 2. When dimensioning the total thickness of the polystyrene, Designers should consider that the material is available in the following thickness: 34", 1", 11/2", 2", 21/2" and 3". Polystyrene shall be paid for under Item 511 - Class ___ Concrete, As Per Plan. Include the following note in the Structure General Notes:
 - Item 511 Class Concrete, As Per Plan: Furnish material meeting the requirements of ASTM C578 Type IV. Neatly cut material as necessary to allow for proper installation. Joints at abutting pieces shall be sealed with duct tape. Allowable tolerance for the total thickness of the material shall be -0", +1/2". Do not place more than two layers of polystyrene to achieve total thickness
- 3. This detail shows cast-in-place piles. Semi-Integral abutment details for H-piles shall be similar. H-piles shall be oriented with the tranges parallel to the centerline of abutment bearings.
 - For drilled shaft foundations, the drilled shaft cap chall extend 6" beyond the diameter of the shaft to allow for misalignment during construction. The centerline of the drilled shaft and the centerline of abutment searings shall coincide.
- 4. The assumed orientation of this cross-section is perpendicular to the centerline of 5. Place all vertical bars normal to the centerline of abutment bearings. abutment bearings.

(ALL VERTICAL BARS ARE #5'S, UNLESS OTHERWISE NOTED) (S)



INTEGRAL BOX BEAM ABUTMENT DETAILS (CAST-IN-PLACE FOUNDATION SHOWN, H-PILE SIMILAR)

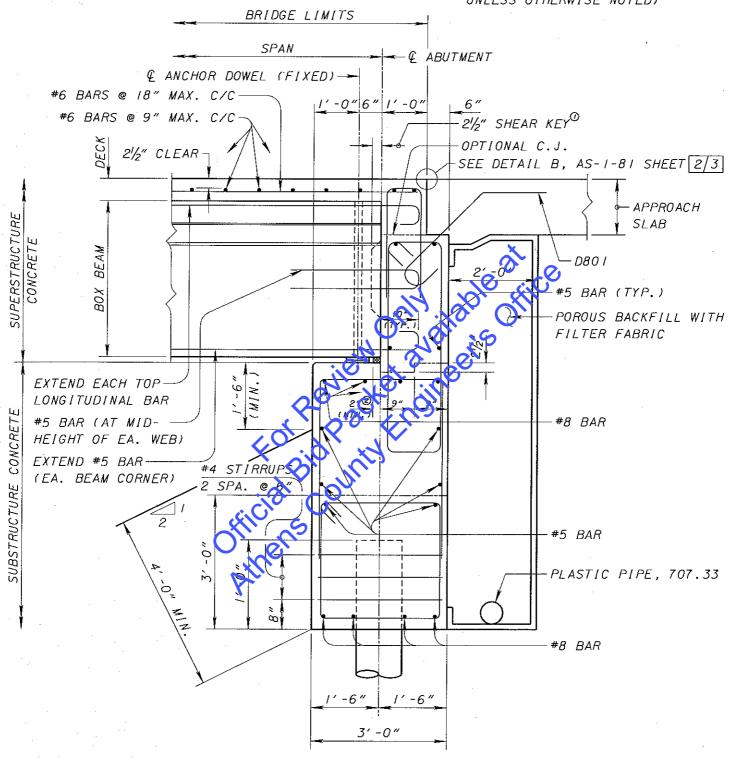
NON-COMPOSITE BOX BEAMS WITHOUT APPROACH SLABS

(ALL VERTICAL BARS ARE #5'S, UNLESS OTHERWISE NOTED) ⁽⁶⁾ BRIDGE LIMITS SPAN - C ABUTMENT C ANCHOR DOWEL (FIXED) #6 BARS @ 18" MAX. C/C-1'-0" 6" #6 BARS @ 9" MAX. C/C 21/2" SHEAR KEY[®] CONCRETE | DECK OPTIONAL C.J. 21/2" CLEAR SEE DETAIL B, AS-1-81 SHEET 2 APPROACH SUPERSTRUCTURE PAVEMENT CONCRETE BEAM #5 BAR (TYP.) BOX POROUS BACKFILL WITH FILTER FABRIC POLYSTYRENE® EXTEND EACH TOP , -6 LONGITUDINAL BAR SEMI-INTEGRAL ABUTMEN CONCRETE #5 BAR (AT MID-EXPANSION JOINT SEAL HEIGHT OF EA. WEB) #8 BAR EXTEND #5 BAR-STIRRURS SPA. © 6" (EA. BEAM CORNER) SUBSTRUCTURE #5 BAR -PLASTIC PIPE, 707.33 #8 BAR 1'-6" 1'-6"

INTEGRAL BOX BEAM ABUTMENT DETAILS (CAST-IN-PLACE FOUNDATION SHOWN, H-PILE SIMILAR) (CONCRETE DECK WITHOUT APPROACH SLABS)

3'-0"

(ALL VERTICAL BARS ARE #5'S, UNLESS OTHERWISE NOTED)[©]



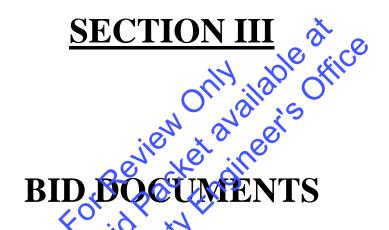
INTEGRAL BOX BEAM ABUTMENT DETAILS

Notes for Integral Box-Beam Abutment Details

- 1. Provide a 2½" deep shear key centered in the beam end. The shear key height shall be one-half of the box beam height and the width shall be 26" for 3'-0" boxes and 38" for 4'-0" boxes.
- 2. Material shall be sponge rubber or polystyrene and shall be paid for under Item 511 Class __ Concrete, As Per Plan. Include the following note in the Structure General Notes:
 - Item 511 Class ____ Concrete, As Per Plan: Furnish material meeting the requirements of sponge rubber, ASTM D1752, Type I or polystyrene, ASTM C578 Type IV. Neatly cut material as necessary to allow for proper installation. Allowable tolerance for the total thickness of the material shall be -0", +1/2". Seal all remaining gaps between beams with caulking before placing concrete at the beam ends.
- 3. This detail shows cast-in-place piles. Integral abutment details for Holles shall be similar. H-piles shall be oriented with the flanges parallel to the centerline of abutment bearings.
- 4. The assumed orientation of this cross-section is perpendicular to the centerline of abutment bearings.
 5. Place all vertical bars normal to the centerline of abutment bearings.

ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT

ATHENS COUNTY, OHIO



THE FOLLOWING PAGES CONTAIN DOCUMENTS THAT MUST BE COMPLETED AND SUBMITTED BY THE BIDDER AT THE TIME OF BID.

ALSO RECUIRED AT THE TIME OF BID ARE:

- Contractor's Crificate of Insurance (ACORD form)
- Contractor's Workers Compensation Certificate

BID PROPOSAL

Proposal of
(hereinafter called "Bidder"), organized and existing under the laws of the State of Ohio, doing business as
(Individual, Partnership or Corporation)
To the Board of County Commissioners of Athens County, Ohio, (hereinafter called "Owner").
In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the construction of the ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT, in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated on the following pages.
By submission of this Bid, each Bidder certifies, and in the case of a Joint Bid, each party thereto certifies as to his own organization, that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.
Bidder hereby agrees to commence work under this contract on of before, date to be specified in the Notice to Proceed and to fully complete the Project by October 31, 2024 . Bidder further agrees to pay as liquidated damages in accordance with Section 108.07 of the State of Onio Department of Transportation's Construction and Materials Specifications, January 1, 2019 version.
Bidder acknowledges receipt of the following Addendum.
No. Date Date Date Date

UTILITY NOTE

The Contractor must exercise caution when working in proximity to the existing and/or relocated utility facilities. Sections 105.07 and 107.16 of the Department of Transportation Construction and Materials Specifications require that the Contractor cooperate with all utilities located within the limits of this construction project and take responsibility for the protection of the utility property and services.

If a utility company directs the Contractor to perform any work not specifically contained in the bidding documents, the Contractor will not be compensated for this work unless approved in writing before the work begins. If the work is not preapproved, the Contractor will be responsible for obtaining reimbursement for its work from the utility company that directed the Contractor to perform the work. In the event that the Contractor requests the additional work, not specifically contained in the bidding documents, be performed by a utility company, the Contractor will be responsible for reimbursing the utility company for the additional work unless the owner has agreed in writing to pay for the additional work before the work begins.

BIDDERS are advised that the following utility facilities may or may not be cleared from the construction area at the time of award of the contract. These utility facilities shall remain in place or be relocated within the construction limits of the project as set out below."

ATH-TR83-1.40

The overhead telephone line (Frontier Communications) is scheduled to be relocated by April 28, 2023.

ATH-TR471-0.01

All utilities have been relocated outside of the anticipated proposed construction limits.

DBE UTILIZATION PLAN (DBE GOAL = 9%)

All Bidders shall submit a DBE Utilization Plan at the time of bid setting forth specific information demonstrating how the Bidder will achieve the DBE goal. By submitting a DBE Utilization Plan, the Bidder is affirming that they will be using the DBE firms identified in the Utilization Plan to meet the DBE contract goal. Any bids received without electronic submission of the DBE Utilization Plan at or before bid time, will be deemed unresponsive. Bidders shall submit their DBE Utilization Plans via: https://odot.formstack.com/forms/dbe copy. This file contains the current list of certified DBEs and is updated regularly. The DBE Utilization Plan must be filled out completely and submitted prior to bid opening.

The DBE Utilization Plan shall include the following information:

- 1) The names and addresses of the certified DBE firm(s) that will be used to meet the DBE goal;
- 2) A description of the work that each DBE will perform. To count toward meeting agoal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
- 3) Whether the DBE firm(s) being used to meet the goal will be utilized as a sulcontractor, regular dealer, manufacturer, consultant or other capacity; and

The dollar amount of the participation of each DBE firm ised to meet the DBE goal.

UNIT PRICES

The blank spaces in the proposal must be filled in correctly, where indicated, and typed or written in ink.

Erasures, strikeovers and/or whiteout shall voice and Erasures, strikeovers and/or whiteout shall voic bid.

The bidder is required to enter a unit price bid in the "Unit Price Bid" column and to multiply the unit price bid times the quantity set forth for the "Reference No." and then to enter the result in the "Total" column. The bidder is further required to enter a lump sum and in the "Total" column for each "Reference No." which requires a "Lump Sum Bid". The bidder shall then add all of the figures in the "Total" column and enter the sum in the three (3) spaces provided for the "TOTAL AMOUNT OF THE BID".

Failure by a bidder to enter a unit price or lump sum price for each item set forth in the bid proposal will render the bid informal.

UNIT PRICE BID FORM

REF #	ITEM	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	ITEM TOTAL
		PART 1: ATH-TR83-1.40				
		ROADWAY (Part 1)				
1	690E20240	SPECIAL - ROADWAY	1	LS	\$	\$
		EROSION CONTROL (Part 1)				
2	659E99000	SPECIAL - PERMANENT EROSION	1	LS	\$	ć
		CONTROL			Ş.	\$
3	832E99100	SPECIAL - CONSTRUCTION EROSION	5000	EACH	\$	\$
		CONTROL			Ψ	Y
		PAVEMENT (Part 1)				
4	690E20250	SPECIAL - MISC. PAVEMENT	1	LS	\$	\$
		TRAFFIC CONTROL (Part 1)				
5	626E99000	SPECIAL - BARRIER REFLECTORS	1	LS	\$	\$
6	630E99000	SPECIAL - SIGNS AND SUPPORTS	1	LS	\$	\$
		MAINTENANCE OF TRAFFIC (Part 1)			0.	
7	614E99000	SPECIAL - MAINTAINING TRAFFIC	1	LS	\$00	\$
		STRUCTURE OVER 20 FOOT SPAN (Part 1)	14/2	130	2,0	
8	530E99040	SPECIAL - STRUCTURES	1/2	LS S	\$	\$
		ENGINEERING AND SURVEYING SERVICES (Part 1)	0	SO		
9	107E99000	SPECIAL - UTILITY COORDINATION	1	LS	\$	\$
10	690E20010	SPECIAL - AS-BUILT CONSTRUCTION PLANS	(A)	LS	\$	\$
11	690E20020	SPECIAL - FIELD SURVEYS	1	LS	\$	\$
12	690E20200	SPECIAL - PRELIMINARY PLANS FOR DESIGN-BUILD	1	LS	\$	\$
13	690E20220	SPECIAL - CONSTRUCTION PLANS	1	LS	\$	\$
		011,02				
		PART 2 - ATTOTR471-0.01				
		ROADWAY (Part 2)				
14	690E20240	SPECIAL - ROADWAY	1	LS	\$	\$
		EROSION CONTROL (Part 2)				
15	659E99000	SPECIAL - PERMANENT EROSION	1	LS	\$	\$
		CONTROL				
16	832E99100	SPECIAL - CONSTRUCTION EROSION	5000	EACH	\$	\$
		CONTROL				
		PAVEMENT (Part 2)				1.
17	690E20250	SPECIAL - MISC. PAVEMENT	1	LS	\$	\$
		TRAFFIC CONTROL (Part 2)				
18	626E99000	SPECIAL - BARRIER REFLECTORS	1	LS	\$	\$
19	630E99000	SPECIAL - SIGNS AND SUPPORTS	1	LS	\$	\$
		MAINTENANCE OF TRAFFIC (Part 2)				
20	614E99000	SPECIAL - MAINTAINING TRAFFIC	1	LS	\$	\$

REF #	ITEM	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	ITEM TOTAL
		STRUCTURE OVER 20 FOOT SPAN (Part 2)				
21	530E99040	SPECIAL - STRUCTURES	1	LS	\$	\$
		ENGINEERING AND SURVEYING SERVICES (Part 2)				
22	107E99000	SPECIAL - UTILITY COORDINATION	1	LS	\$	\$
23	690E20010	SPECIAL - AS-BUILT CONSTRUCTION PLANS	1	LS	\$	\$
24	690E20020	SPECIAL - FIELD SURVEYS	1	LS	\$	\$
25	690E20200	SPECIAL - PRELIMINARY PLANS FOR DESIGN-BUILD	1	LS	\$	\$
26	690E20220	SPECIAL - CONSTRUCTION PLANS	1	LS	\$	\$
		INCIDENTALS				
27	100E99010	SPECIAL - PROFESSIONAL LIABILITY INSURANCE (PART 1 AND 2)	1	LS	\$	\$
28	103E99010	SPECIAL - PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND (PART 1 AND 2)	1	LS	& CO	\$
29	623E99000	SPECIAL - CONSTRUCTION LAYOUT STAKES AND SURVEYING (PART 1 AND 2)	01/13	130	Silv	\$
30	624E99000	SPECIAL – MOBILIZATION (PART AND 2)	3	S _G	\$	\$

		IUIAL	⊅	
	PX Ois Y			
Grand Total Project in Words				
	<u> </u>	_	· ·	

UNIT PRICE shall govern over TOTAL in case of discrepancy. If the plans or other quantity estimates shown herein differ from this unit price bid form, bid as shown on this sheet. Final payment will be based on actual quantities at the bid unit price. The above unit prices for the Base Bid and Alternates shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for within the drawings and specifications.

Bidder understands that the owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, bidder will execute the formal contract attached within 10 days and deliver a Surety Bond or Bonds as required by the Contract Documents. The bid security attached is to become the property of the owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the owner caused thereby.

Respectfully Submitted by:

Signature:
Printed Name:
Title:
Date:
Company Name:
Address:
Federal Tax I.D. Number: Email address: Phone: Official County Linding County Longing County Linding County
Email address:
Phone:
Onigilaro
ien target
ser ckerdine
COLY S. W. Ellis
Bicunity
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Othens

BID GUARANTY AND CONTRACT BOND

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned,
as Principal and
as Surety, are hereby held and firmly bound unto
hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the obligee on to undertake the project known as:
The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of
If this item is left blank, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternatives in dollars and cents. A percentage is not acceptable.
For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.
our heirs, executors, administrators, successors, and assigns. THE CONDITION OF THE ABOVE OBLIGATION IS SNEH, that whereas the above named Principal has submitted a bid on the above referred to project. NOW, THEREFORE, if the obligee accepts the bid of the Principal and the Principal fails to enter into a
NOW, THEREFORE, if the obligee accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid, plans details, specifications, and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereto between the amount specified in the bid and such larger amount for which the obligee may in good faith contract with the next lower bidder to perform the work covered by the bid; or in the event the Obligee does not award the contract to the next lower bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference, not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission of printing new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is less, then this obligation
Here insert full name or legal title of Contractor and address
Here insert full name or legal title of Surety
Here insert full name or legal title of Owner

shall be null and void, otherwise to remain in full force and effect. If the obligee accepts the bid of the Principal and the Principal within ten days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such contract; and indemnify the Obligee against all damage suffered by failure to perform such contract .according to the provisions thereof and in accordance with the plans, details, specifications, and bills of materials therefore; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract: we agreeing and assenting that this undertaking shall be for benefit of any materialman or laborer having a just claim, as well as for .the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of said contract or in or to the plans and specifications therefore shall in any way affect the obligations of said Surety on this bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

SIGNED AND SEALED This	day of _	, 20		le sich
			18.18), Office
		Principa	1011	S
		NS:	a a local	
	Ву:	Principa	30 jine	
	Title:	1, 6,00 ×		
		Surety	,	-
	By:	Attorney-in-Fact		
	0,0	ttorney-in-Fact		
	Mil		_	
Surety Company Address				
Surety Agent's Name and Addre	ess		_	

Instructions for Completion of the Bid Guaranty & Contract Bond

The Bid Guaranty and Contract Bond, meeting the requirements of Section 153.54 (B) of the Ohio Revised Code, as furnished by Athens County, shall be used and submitted by the bidder without change of wording.

The amount of the Bid Guaranty and Contract Bond must be for the full amount of the bid.

The Bid Guaranty and Contract Bond must be signed by an Authorized Agent of an acceptable Surety Bonding Company, and by the Bidder. The Bid Guaranty and Contract Bond must be countersigned by a Resident Agent of the Bonding Company as required by Section 3905.41 of the Ohio Revised Code. The Corporate Sealed to be affixed to all A power of attorney of the Agent shall be attached to and salmitted with the Bid Guaranty and Contract Bond. copies. The name and address of both the Surety and the Specty Agent must appear on the

BID AFFIDAVIT

(To be filled in and executed if Contractor is a Corporation)

STATE OF))ss				
COUNTY OF)				
	/				
	beir	ng duly swoi	rn, deposes and says	s that he is Se	ecretary of
	a corporati	on organize	d and existing unde	er and by virt	ue of the law
he State of		8	and having its princ	ipal Office at	
	Number and	d Street	<u>~</u>		
Co	unty,Nan		State	CO	
				State	
Affiant further says that h	ne is familiar wit	h the record	s, minute books and	l by-laws of	
	Name of Copo	ration	dille		<u> </u>
Affiant further says that		08°C	<i>10</i> .		of the
	Marne of Office	er	Title		01 the
corporation is duly authorized to	sign the contrac	t for			for
aid corporation by virtue of	whether a provision of by-l	laws or a resolution c	f the Board of Directors. If by a r	resolution, give date of	f adoption.
	Jilli o'Us				
	Kille				
	Y		ignature of Officer		
Sworn to before me and s	ubscribed in my	presence th	is		day of
,2					
, –	·				
		\overline{N}	Notary Public in and	for	
				Co	unty, Ohio
			Ay Commission exp		. .
		IV.	av Commission ext	711 CS	

NON-COLLUSION AFFIDAVIT

STATE OF)
)SS.
COUNTY OF)
	, being first duly sworn,
deposes and says that he is	sole owner, partner, president, etc.
•	sole owner, partner, president, etc.
genuine and not collusive of sham; the or indirectly, with any bidder or per bidding, and has not in any manner, dor conference, with any person, to fix or cost element of said bid price, or of	the party making the foregoing proposal or bid; that such bid is not said bidder has not colluded, conspired, connived, or agreed, directly son, to put in a sham bid, or that such other person shall refrain from directly or indirectly sought by agreement or collusion, or communication the bid price of affiant or any other bidder, of to fix any overhead, profit, if that of any other bidder, or to secure any advantage against
proposed contract; and that all stater bidder has not, directly or indirectly s relative thereto to any association or t	Affiant Sworn to and subscribed before me this day of Notary Public in and for
Offic	Notary Public in and for County, Ohio
	My commission expires

NO FINDINGS FOR RECOVERY AFFIDAVIT

(O.R.C. Section 9.24)

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND NOTARIZED

Ι,		,		
(NAME)	(TITLE)	(NAME (OF COMPANY)	
affirm that at the time that I sul	omitted the bid for			
		(BID TITLE)		
to the Board of Athens County	Commissioners on	(DATE)	that	
		unresolved finding	ng for recovery from	
(NAME OF COMPANY)	(CIRCLE ONE)			
the State Auditor per Ohio Rev	ised Code 9.24.		2000	
(If there is a unresolved find	ing for recovery from t	the State Auditor	, please complete th	e following
section)		Or, Sillo		
The amount of unresolved find interest are	ing for recovery duche	State Auditors	and unpaid MOUNT)	penalties and
(AMOUNT)	Che so	ENGIII.		
	FORIDINA	4	(SIGNATURE)	
	icial col		(COMPANY)	
	Officers		(DATE)	
The amount of unresolved find interest are (AMOUNT) Sworn to and subscribed	before me this	day of,	20	(SEAL)
			(NOTARY)	
		Му Сог	mmission Expires:	
			(DATE)	

AFFIDAVIT OF CONTRACTOR OR SUPPLIER OF NON-DELINQUENCY OF PERSONAL PROPERTY TAXES

ORC 5719.042

STATE OF)
)ss.
COUNTY OF)
I,	individually or as agent or representative for
, having be	en awarded a contract let by competitive bid for the purpose of
	hereby state that neither I, nor the above-listed contractor or supplier
were charged with any delinquer	nt personal property taxes on the general tax list of personal property in
Athens County at the time the bio	d for this project was submitted, under the above listed names or under any
other names.	ONLY WADING FINE
Sworn to before me and su	bscribed in my presence this day 60
	Northy Public
In consideration of the award of th	le contract designated above, the above statement is incorporated into
the contract as a covenant of the u	ndersigned.
	For the contractor or supplier
NOTICE TO CONTRACTORS	

NOTICE TO CONTRACTORS: PERSONAL PROPERTY TAXES ON THE GENERAL TAX LIST OF PERSONAL PROPERTY IN ATHENS COUNTY, REQUEST THAT THIS FORM BE REPLACED WITH **AFFIDAVIT** OF DELINQUENCY OF PERSONAL PROPERTY TAXES.

CONTRACTORS ARE REQUIRED TO STATE IN THE SPACES PROVIDED BELOW, THEIR EXPERIENCE IN CONSTRUCTING PROJECTS OF THIS TYPE OR SIMILIAR IN NATURE. FAILURE TO FILL IN THIS FORM MAY DISQUALIFY YOUR BID.

PROJECT NAME:	CONTACT:
ADDRESS	
	FAX:
	EMAIL:
	DATE OF PROJECT:
DESCRIPTION OF WORK:	
DDO IECT NAME.	CONTACT.
PROJECT NAME:ADDRESS	CONTACT:
	FAX:
	EMAIL:
	DATE OF PROJECT:
DESCRIPTION OF WORK:	
DESCRIPTION OF WORK	
	14 00 All
	OUT IISDIE OFFICE
PROJECT NAME:	CONTACT:
PROJECT NAME:	PHONE:
ADDRESS	E A V
	KMAIL:
	ØATE OF PROJECT:
DESCRIPTION OF WORK:	
DESCRIPTION OF WORK.	//
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· cia Co	
- Kilos	
PROJECT NAME:	CONTACT:
ADDRESS	PHONE:
TIDDRESS	FAX:
	EMAIL:
	DATE OF PROJECT:
DESCRIPTION OF WORK:	

SUBCONTRACTORS LIST

The attention of bidders is directed, particularly to the General Provision relative, respectively, to the requirements of sub-letting or assigning all or any portion of the work under this Contract. The bidder is

	tail, in the space provided below, the name, address, experience and the work to tractors in this Contract.
_	
_	- Olivina O.
	70,70,50
	:0 × 0 0
	- Verine
	Paid all
	offices of
	O' o'll
	Official Bid Durity Official Bid Country Athens

ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT

ATHENS COUNTY, OHIO

SECTION IV

Only allable office

CONTRACT DOCUMENTS

Official Scounty

Official Scounty

CONTRACT

THIS AGRE	EMENT, made and e	ntered into this	day of	, 2023, by
and between the Boa	ard of County Comm	issioners of Athens C	ounty, Ohio acting by	y and through Lenny
Eliason, President, he	ereinafter designated	the Owner, and		of the City of
, Co	unty of	and State of	_, hereinafter designa	ted the Contractor:
WITNESSET	TH: That the parties to	these present, each in	consideration of the un	ndertakings, promises
and agreements on the	e part of the other here	in contained, have und	ertaken, promised and	agreed and do hereby
undertake, promise ar	nd agree, the owner fo	r itself, its successors a	and assigns, and the co	ontractor for itself and
		ors and assigns, as follo		
		of the sums of money		
		t and expense furnish a		
		-1.40/0.01 BRIDGE F		
Proposal submitted o	n a	nd in accordance with	the Specifications, Go	eneral Provisions and
		ein mentioned which		
Provisions and Draw	ings, together with	alvertisement, Informa	ation for Bidders, Pro	posal and Bonds are
hereby made a part of	of this Agreement ar	nd incorporated by reference	erence herein, all of s	said work to be fully
completed to the satis	sfaction of the Engine	and to the acceptan	ce of the Board of Co	ounty Commissioners
Athens County, Ohio	Athe			
Attest: Contractor:		Board of Con	nmissioners, Athens C	County, Ohio
	Date	Lenny Eliaso	n	Date
Printed Name	Title	Charlie Adkii	ns	Date
Witness		Chris Chmiel		Date

CERTIFICATE OF PROSECUTING ATTORNEY

The above contract has been approved by me	as to form this day of, 2023.
- I	Prosecuting Attorney, Athens County, Ohio
·	
CERTIFICATE OF	COUNTY AUDITOR
CERTIFICATE OF	COUNTIADDIOR
I,	
Ohio do hereby certify that there is in the Treasury of	r in the process of collection, the sum of: 100
pay for the contract between	and the Athens County Commissioners
Athens County, Ohio and that said funds are up appropriately appropriately and the said funds are up appropriately	opriated for any other purpose.
officens -	Athens County Auditor
Purchase Order No	
Account No.	

CERTIFICATE OF BOARD OF COMMISSIONERS

We, the Board of Commissioners of Athens County, in formal session, hereby approve these plans and specifications and certify that the right of way necessary for this improvement is available and declare that the making of this improvement is necessary and in the public interest.

	Board of County Commissioners
	Ne di ce
Date:	Asilab, Ohi
<u>cejien</u>	Ladine R.
CERTIFICATE OF COU	YFY ENGINEER
I hereby approve these plans and specifications and	declare that the making of this improvement will
require the closing of traffic of the highway and that provisi	ons for the maintenance and safety of traffic have
been provided for.	
Ptt.	

R. Jeff Maiden, P.E., P.S. Athens County Engineer

NOTICE OF AWARD

D:
ROJECT DESCRIPTION:
ne OWNER has considered the BID submitted by you on
ou are required by the Information for BIDDERS to execute the Agreement and furnish the required ONTRACTOR's Contract BOND, if applicable, and Certificates of Insurance within 10 calendar days from the date of this notice to you. you fail to execute said Agreement and to furnish said BOND within 10 days from the date of this notice, id OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID abandoned and as a forfeiture of your BID guaranty subject to the liability as set forth in Section 153.54 of the Ohio Revised Code. The OWNER will be entitled to such other rights as may be granted by law. Out are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.
ou are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER. ated this day of, 20 wner: tile: ACCEPTANCE OF NOTICE
eceipt of the above NOTICE OF AWARD is hereby acknowledged by on th
day of,20
ame and Title:
: CONTRACTOR'S Surety Agent

NOTICE TO PROCEED

Owner: By: Name: Title: ACCEPTANCE OF POTICES			, 20
		-	
By: Name: Title: ACCEPTANCE OF POTICES	, 20 on or before _	, 20	
By:	ner:		
Name: Title: ACCEPTANCE OF NOTICE Receipt of the above NOTICE TO PROCEED & hereby acknowledged by on this day of, 20			X
ACCEPTANCE OF NOTICE Receipt of the above NOTICE TO PROCEED & hereby acknowledged by	ne:	, (e	
ACCEPTANCE OF NOTICE Receipt of the above NOTICE TO PROCEED & hereby acknowledged by	e:	Orly ilabi	Offic
Receipt of the above NOTICE TO PROCEED is hereby acknowledged by on this day of, 20	ACC	EPTANCE OF NOTICE	
$\mathcal{L}(\mathcal{O}^*)$, \mathcal{A}	eipt of the above NOTICE TO PROCEE	D is hereby acknowledged by on this day of	
By:		the bis	
Name:	ne:		
Title:	e: Officie		

NOTICE OF COMMENCEMENT OF PUBLIC IMPROVEMENT SECTION 1311.252 OHIO REVISED CODE

	SECTION 1311.232 Offic REVISED CODE	
State of Ohio,		
C 4 C 4 d) ss:	
County of Ath	nens)	
	Lenny Eliasonbeing first duly sworn, says that:	
1. Athens, Ohio,	Affiant is the President of the Athens County Board of Commissioners, 15 S. Court Stree 45701.	t,
2.	The Public Authority will be commencing a public improvement identified as follows:	
3. on this public	The following lists the name, address and trade of each of the principle contractors worki improvement:	ng
<u>NAME</u> 4.	The following lists the names and addresses of the sureties for all of those principle	
contractors: PRINCIPLE	Folid Party E	
CONTRACT	OR NAME OF GURETY ADDRESS OF SURETY	
5. made upon the	For the purpose of serving an affidavit pursuant to Revised Code 1311.26, service may be e following representative of the Public Authority:	<u>,</u>
•	n, President of Athens County Board of Commissioners treet, Athens, Ohio, 45701.	
SWOF	RN TO before me and subscribed in my presence this Day of, 20	
	Notary Public	

CHANGE ORDER

			Order No.: _		
			Date:		
			Agreement D	Oate:	
Name of Project:					
Owner:	Athens Coun	nty Commissione	rs		
Contractor:					
The following chan	ges are hereby r	made to the Cont	ract Documen	its:	
Original contract process of the contract process of the contract price of the contract process of the contract process of the contract process of the contract time with the contract				ð	.01
			Klas	isologies.	iico
			NO.	diris	
		i		S	
Original contract pr	ice:	00		\$	
The contract price of	ice aujusieu by p	order	order:	Φ	
will be increased/d	lue to this chang lecreased by:	ge of the second	M	\$	
The new contract p	rice including	, B1	U_{c} ,	Ψ	
this change order w	ill be:	idal co	J	\$	
Change to contract	time:	illens			
The contract time w	vill be increased	calendar o	lays.		
The date for substan	ntial completion	of work will be		·	
The date for comple	etion of all work	will be		·	
Approved by:					
	ntractor)				
Approved by:			_		
(Pro	ject Manager)				
Approved by:			_		
	ner)				

WAIVER OF LIENS AFFIDAVIT

State of		
County of		
TO WHOM IT MAY CONCERN:		
The undersigned on behalf of		
of the City of	State of	, the Contractor
having a contract dated	with the	
or equipment as set forth in said cor		r, materials, appliances, tools, utilities, fuel onstruction of
located at	▲	
or in connection with the aforement laborers or material men for which	ioned tract, have been paid if a lien or liens can be filed or contractor. CONTRACTOR: Name: Plate:	
Sworn to before me and subscribed	in my presence at	
this day of	,20	
	Notary Public	(s)
My commission expires	•	

OHIO LABOR STANDARDS AFFIDAVIT

State of	_	
County of		
The undersigned on behalf of		
of the City of	, State of	, the Contractor having a
contract dated	with the	
to perform and/or furnish labor, ma	terials, appliances, tool	s, utilities, fuel or equipment as set
forth in said contract, for the install	ation or construction of	f
located at		- 1000 CO
hereby makes oath and says that he	and all of his subcontr	actors have complied fully with all
hereby makes oath and says that he requirements of Chapter 4115 of th	e Ohio Revised Code.	a rocks
	CONTRACTOR	dill.
	ANO BIO WITH	(s)
, c	Name:	
O	Date:	
Sworn to before me and subscribed	in my presence at	
this day of	, 20	(s)
	Notary Public	(5)
My commission expires		, 20

ATH-TR83/TR471-1.40/0.01 **BRIDGE REPLACEMENTS PROJECT**

ATHENS COUNTY, OHIO

SECTION Volled Rich 2018 Series 2022 Federal Bid Document Template

ODOT's LPA Template (ODOT Spec Book and LPA Spec Book) Required Contract Provisions.

1. ODOT'S 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND ITS SUPPLEMENTS

With the exception of Section 100 "General Provisions" included in the matrix below, ODOT's Construction and Material Specifications (CM&S) and its supplements are hereby incorporated by reference, in their entirety, as if rewritten herein. The incorporation of this document by reference does not interfere with the order of precedence set forth in Section 105.04 of the CMS Manual.

In accordance with the Locally Administrated Transportation Projects Manual of Procedures (LATPM), when bidding this project, the Contractor should replace the terms "the Department", "the Engineer", "the DCE" and "the DCA" with the term "the Local Public Agency (LPA)." Furthermore, nothing in this document is intended to alter the LPA's adherence to Ohio Revised Code, local ordinance or other applicable requirements which are properly established.

Excluded 2019	Specifications	10.11	-KiO
Section102.01	Section 103.01	Section 105:19	O ,
Section 102.03	Section 103.02	Section 107.04	
Section 102.06	Section 103.04	Section 107.13	
Section 102.09	Section 103.05	Section 108.00	
Section 102.10	Section 103.06	Section 108.02(B)	
Section 102.11	Section 163.07	Section 198.02(E)	
Section 102.13	Section 104.02(A)	Section 108.02(G)	
Section 102.14	Section 105.05	Section 108.08	
Section 102.17	0	()	

2. STEEL AND IRON PRODUCTS MADE IN THE UNITED STATES

Furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States. Both the State and Federal requirements contained in (A.) and (B.) of this section apply to this contract.

A. Federal Requirements. All steel or iron products incorporated permanently into the Work must be made of steel or iron produced in the United States and all subsequent manufacturing must be performed in the United States. Manufacturing is any process that modifies the chemical content; physical shape or size; or final finish of a product. Manufacturing begins with the initial melting and mixing and continues through the bending and coating stages. If a domestic product is taken out of the United States for any process, it becomes a foreign source material.

Not all manufactured products (i.e., traffic signal heads, bridge bearing pads, pre-cast concrete items, etc.) used in the project are required to be produced in the United States.

All "construction materials" <u>are</u> to be manufactured in the United States - meaning that all manufacturing processes for the construction materials must have occurred in the United States.

"Construction materials" includes an article, material, or supply other than an item primarily comprised of iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives, and materials that consist primarily of:

- non-ferrous metals; (i.e., aluminum, copper, brass, etc.)
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

Items that consist of two or more of the listed materials that have been combined through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

- **B. State Requirements.** All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements to not apply to iron.
- **C. Exceptions.** ODOT may grant specific written permission to the foreign steel or iron products in bridge construction and foreign iron products in any type of construction. ODOT may grant such exceptions under either of the following conditions:
 - 1. The cost of products to be used does not exceed 0.1 percent of the total Contract cost, or \$2,500, whichever is greater. The cost is the value of the product as delivered to the project.
 - 2. The specified products are not produced in the United States in sufficient quantity or otherwise are not reasonably available to most the requirements of the Contract Documents. ODOT may require the Contractor to obtain letters from three different suppliers documenting the unavailability of a product from a domestic source if the shortage is not previously established.
- **D. Proof of Domestic Origin** Furnish documentation to the Engineer showing the domestic origin of all steel and iron products covered by this section before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

3. CERTIFICATION AGAINST DEBARMENT AND SUSPENSION

The bidder hereby certifies by signing this proposal that, except as noted below, under penalty of perjury and under other such penalties is the laws of this state and the United States of America provide, that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds is **not** currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency; that the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds has **not** been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three (3) years; that the company or any person associated therewith in the capacity of owner, partner, director, manager, auditor, or any position involving the administration of federal funds does **not** have a proposed debarment pending; that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator has **not** been indicted, convicted, or had a civil judgment rendered against the company, or themselves by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

If there are exceptions to any of the above clauses, please include a statement with the bid package detailing these exceptions.

Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, initiating agency and dates of action. Providing false information may result in criminal prosecution or administrative sanctions. Execution of this proposal on the signature portion thereof shall also constitute signature of this certification as permitted by Title 28 United States Code, Section 1746.

4. PREQUALIFICATION

Only pre-qualified contractors are eligible to submit bids for this PROJECT. Pre-qualification status must be in force **at the time of bid, at the time of award, and through the life of the construction contract.** For work types that ODOT does not pre-qualify, the LPA must still select a qualified contractor. Subcontractors are not subject to the pre-qualification requirement. The "prime" contractor must perform no less than 30 percent of the total original contract price.

5. PN 033 - 4/18/2008- AS PER PLAN DESIGNATION

(Not required by FHWA, but strongly suggested if As Per Plan is used by the LPA)

For the last several years the "As Per Plan" designation has been added to some them descriptions in the proposal to assist the Contractors to easily identify standard items that have been altered by plan notes.

The "As Per Plan" designation has proven to be a very useful tool for the Contractors. However, its use was <u>never</u> intended to relieve the Contractors of their responsibility to read, bid and construct all items in accordance with all governing plan notes. Therefore, the absence of an "As Per Plan" designation on some item descriptions in the proposal for which there are clear and controlling plan notes does not relieve the Contractors of the responsibility to read bid and construct these particular items in accordance with the governing plan notes.

Be advised that the item descriptions in the bidding proposal must be read or interpreted with the governing plan notes and the Construction and Material Specification Manual. A claim based upon an "order of precedence" basis will be denied. In the event that a conflict, either real or perceived, exists between the item description and the governing plan note, the Contractors are to request clarification through the prebid process.

6. FEDERALLY REQUIRED SEO CERTIFICATION FORM

The bidder hereby certifies that he **has**, **has not**, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he **has**, **has not**, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements. *The Bidder must circle the appropriate "has or has not" above.*

7. PN 017 - 10/15/2004 - FEDERALLY REQUIRED EEO CERTIFICATION CLAUSE

The Federally Required EEO Certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontractors which are subject to the equal

opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

8. PN 026 - 10/15/2004 - CERTIFICATION OF NONSEGREGATED FACILITIES

- (a) Certification of Non-segregated Facilities, as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities (for a Federal-aid highway construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause).
- (b) Bidders are cautioned as follows: By signing this bid, the bidder has agreed to the provisions of the "Certification of Non-segregated Facilities" in this proposal. This certification provides that the bidder does not maintain or provide for his employees' facilities which are segregated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the bidder will not maintain such segregated facilities.
- (c) Bidders receiving Federal-aid highway construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, will be required to provide for the forwarding of the following notice to prospective incontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause.

"Notice to Prospective Subcontractors and Material Suppliers of Requirement for Certification of Non-segregated Facilities" -

- (a) A Certification of Non-segregated Facilities as required by the May 9, 1967, Order of the Secretary of Lator (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, which is included in the proposal or attached hereto, must be submitted by each subcontractor and material supplier prior to the award of the subcontract or consummation of a material supply agreement if such subcontract or agreement exceeds \$10,000 and is not exempt from the provisions of the Equal Opportunity clause.
- (b) Subcontractors and material suppliers are cautioned as follows: By signing the subcontract or entering into a material supply agreement, the subcontractor or material supplier will be deemed to have signed and agreed to the provisions of the "Certification of Non-segregated Facilities" in the subcontract or material supply agreement. This certification provides that the subcontractor or material supplier does not maintain or provide for his employees' facilities which are segregated on the basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the subcontractor or material supplier will not maintain such segregated facilities.
- (c) Subcontractors or material suppliers receiving subcontract awards or material supply agreements exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause will be required to provide for the forwarding of this notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply

agreements exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause.

9. PN 003 - 10/15/2004 - TITLE VI RELATED STATUTES NON-DISCRIMINATION STATEMENT

The LPA, under Title VI of the Civil Rights Act and related statutes, ensures that no person in the LPA, shall on the grounds of race, color, national origin, sex, disability or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

10. CERTIFICATION OF COMPLIANCE WITH AFFIRMATIVE ACTION PROGRAMS

In accordance with Ohio Administrative Code §9.47, before any Contract is awarded, the LPA will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator dated prior to the date fixed for the opening of bids.

11. PN 020 – 11/21/2011 - NOTICE OF REQUIREMENT OF AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

The Bidder's attention is called to the affirmative action obligations required by the specifications set forth in 23 CFR Part 230, 41 CFR Part 60. Executive order 11246, Section 503, and the affirmative action provisions of Vietnam Era Veterans' Readjustment Assistance Act (VEVRAA) of 1974.

Utilization goals applicable to the project, expressed to percentages, for minority and female participation for each construction craft can be found on ODOT's website at Contracts | Ohio Department of Transportation. These goals are based on 2000 census data and represent the area, per craft, minority, and female availability pool.

Minority and female utilization obligations by craft per county (applicable to project): http://www.dot.state.ob.os/Divisions/ContractAdmin/Contracts/Construction/CountyAvailability-ByTrade.pdf

Statewide utilization obligations by craft (applicable to the Contractor's statewide workforce): http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/StatewideAverages-ByTrade.pdf

Effective 11/21/2011 the New Hire Definition will be as follows:

An individual who has a break in service (not on an employer's payroll) for a period of 12 months or longer and the person affected is not a salaried employee but belongs to a union craft. Individuals compensated for training or incidental work which does not cause a break in unemployment compensation, i.e., paid by voucher check or petty cash, are considered new hires if the individual's break in service is 12 months or longer.

The time frame for a new hire shall be associated with the first project worked for that contractor regardless of whether it is public or private. When reporting new hires, the contractor shall identify that employee as a new hire on that specific project only. Subsequent work, barring a break in service of 12 months or more, would not qualify the employee as a new hire for that contractor.

The Contractor's compliance shall be based on the implementation of affirmative action obligations required by the specifications set forth in 23 CFR Part 230, and its good faith efforts to meet these obligations. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and females on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the affirmative action obligations shall be a violation of the contract and regulations in 23 CFR Part 230. The good faith efforts put forth by the contractor will be measured against the total work hours performed. Under FHWA, ODOT is the authority tasked with ensuring that the contractor adheres to the aforementioned regulations. In addition to complying with the Required Contract Provisions as outlined in the attached subcontract agreement the Contractor shall provide immediate written notification to the ODOT and the Prime Contractor when referral practices of the union or unions with which the Contractor has a collective bargaining agreement impede the company's efforts to meet its equal opportunity obligations.

The Office of Federal Contract Compliance Programs (OFCCP) administers and enforces equal employment opportunity laws that apply to Federal government contractors and subcontractors supplying goods and services, including construction, to the Federal Government under 41 CFR Part 60, Executive Order 11246, Section 503, and the affirmative action provisions of VEXRAA. The OFCCP monitors compliance with these laws primarily through compliance evaluations, during which a compliance officer examines the contractor's affirmative action efforts and employment practices. Under Executive Order 11246, the OFCCP may perform contract compliance reviews in contractors involved with federally funded ODOT projects.

Requirements for affirmative action obligations governing OFCCP contract compliance reviews are those listed in the Construction Contractors Technical Assistance Guide. https://www.dol.gov/sites/dolgov/files/QFCCP/Construction/ OS cctag 12032020.pdf

The Department of Administrative Services (DAS), Equal Opportunity Division, is responsible for ensuring state contractors implement and adhere to be State of Ohio's affirmative action program pursuant to Ohio Administrative Code (OAC) (23:2-3-(2). Specifically, this unit's responsibilities include the issuance of certificates of compliance under ORC 9.47 and 153.08, conducting project site visits and compliance reviews (desk audits) to ensure contractors at tize minorities and women in the construction trades, as well as maintaining a working environment free of discrimination, harassment and intimidation. The DAS may perform contract compliance reviews on contractors involved with state funded ODOT projects. Requirements for affirmative action obligations governing DAS contract compliance reviews are those listed in the O.A.C.) for the Metropolitan Statistical Area in which a project is located. http://das.ohio.gov/Divisions/EqualOpportunity/ConstructionCompliance.aspx

All prime and subcontractors regardless on the number of employees or the state contract amount are required to submit monthly utilization reports (Input Form 29) to Ohio Department of Administrative Services covering the contractor's total workforce within the state of Ohio. The reports must be filed electronically by the 10th of each month, beginning with the contract award and continuing until the contractor or subcontractor completes performance of the state contract. http://das.ohio.gov/Divisions/EqualOpportunity/InputForm29.aspx

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs, 200 N. High Street, Room 409, Columbus, Ohio 43215, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the subcontract is to be performed.

12. PN 029 - 10/15/2004 - ON-THE JOB TRAINING (OJT) PILOT PROGRAM

The requirements of this Training Special Provision supersede subparagraph 7b of the Special Provision entitled Special Employment Opportunity Responsibilities and implements 23 U.S.C. 140(a).

The following must be included as part of the Contractor's equal employment opportunity affirmative action training program:

The Contractor must provide on-the-job training aimed at developing full journey persons in the type or job classification in which they work.

The contractor is not required to have a specific number of trainees assigned to this project. The number of trainees will be distributed among the work classifications on the basis of the Contractor's needs and the availability of the journey persons in the various classifications. The Contractor will be credited for each trainee employed by him or her who is currently enrolled or becomes enrolled in an approved program.

Training and upgrading of minorities and women toward journey person status is a primary objective of this Training Special Provision. Accordingly, the Contractor must make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruiment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. This training comnitment is portuteded, and will not be used, to discriminate against any applicant for training, regardless of whether the applicant is a member of a minority group or not.

No employee will be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journey person status or in which he or she has been employed as a journey person. The Contractor must satisfy the requirement by including appropriate questions in the employee's application or by other suitable means. Regardless of the method used, the Contractor's records must document the findings in each case.

The minimum length and type of training for each classification will be established in the training program selected by the Contractor.

No payment by the LPA will be made to the Contractor for providing this training. However, if the Contractor fails to provide adequate training and cannot show good faith efforts on its part to provide adequate training, it will be subject to a formal compliance review to determine the Contractor's efforts in meeting the EEO laws and regulations.

The Contractor must provide the following reports:

- 1. CR1 Report Click Here for copy of CR1 Report
 - A. To be completed on each trainee
 - B. To be filled out at the start of training and finish of training or at the end of the year, whichever comes first
 - C. To be submitted to the ODOT District in which the Contractor's home office is located.
- Tracking will be on an annual basis. The Contractor must submit the subsequent CR1 to the ODOT District in which the Contractors home office is located.

The prime or subcontractor conducting the training must be involved in at least one Federal project per calendar year in order to get FHWA training credit. Participation in the OJT Program is not project or contract specific.

All Contractors are encouraged to participate in the OJT program. Such a program will be considered when examining the contractor's Good Faith Efforts toward meeting its contractual affirmative action obligations.

All Contractors shall submit their own Training Program or Apprenticeship Certificate, for approval, to the ODOT District in which the company's home office is located.

All OJT Trainees must have the appropriate certification. Apprenticeship Certificates can be obtained from the State of Ohio, Bureau of Apprenticeship and Training. The union apprenticeship agreement is not acceptable verification of an apprentice's enrollment in a union sponsored training program. A copy of the Apprenticeship Certificate along with a statement indicating the number of months/years the employee has been in the apprenticeship program must be submitted to the ODOT EEO Coordinator in the company's home district and to the prevailing wage coordinator in the district responsible for the project within 90 days of the apprentice beginning work on the project.

13. PN 059 - 10/15/2004 - WAGE DETERMINATION APPEALS PROCES

- 1.) Has there been an initial decision in the matter? This can be:
 - * An existing published wage determination
 - * A survey underlying a wage determination
 - * A Wage and Hour Division letter setting forth a position on a wage determination matter
 - * A conformance (additional classification and rate) ruling

On survey related matters, initial contact including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the argain which the survey was conducted because those Regional Offices have responsibility for the Davis-Baron survey program. If the response for this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determination Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (see 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator U. S Department of Labor 200 Constitution Avenue, N.W. Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requester considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U. S. Department of Labor 200 Constitution Avenue, N. W. Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

14. PN 061 -10/22/2012- WAGE SCALE ON ALL FEDERAL-AID PROJECTS

The wage rates for this project were determined by the Secretary of Labor in accordance with Federal-Aid requirements. LPA must formally incorporate into contract documents.

Contractors shall use only the classifications and wage rates set forth in the United States Department of Labor (USDOL) wage decision found at website noted below on payrolls submitted to the District Office. Additionally, please note that the wage modification in effect at the time of the project sale date, shall be used by all contractors.

This USDOL wage decision may be viewed, by accessing the United States Department of Labor (USDOL) website at:

beta.SAM.gov

This contract requires the payment of the total of the basic hourly rates plus the fringe benefits payments for each classification in accordance with the following regulations which by reference are made part of this contract:

- 1) The U.S. Department of Labor Regulations, Title 29, Subtitle A, Part 5, Sections 5.5, 5.31, and 5.32, most recent revision at contract execution.
- 2) Form FHWA-1273 (most recon-revision at contract execution) Part IV. Payment of Predetermined Minimum Wage and Part V. Statements and Payrolls.

The failure to pay prevailing wages to all laborers and mechanics employed on this project, shall be considered a breach of contract. Such a failure may result in the termination of the contract and debarment.

The Contractor and all subcontractors shall pay all wages and fringe benefits by company check. All payroll records and canceled pay checks shall be maintained for at least three years after final acceptance as defined in Section 109 12 of the Ohio Department of Transportation Construction and Materials Specifications. The Contractor's and all subcontractor's payroll records and canceled pay checks shall be made available for inspection by the Department and the U.S. Department of Labor, upon request, anytime during the life of the contract, and for three years thereafter by the U.S. Department of Labor. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

The wage and fringe rates determined for this project shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers.

The Contractor and all subcontractors shall submit to the District Construction Office, certified payrolls each week beginning three weeks after the start of work. These payrolls shall be on a Form A-87 or equivalent and shall show the following:

1) Employee name, address, classification, and hours worked.

- 2) The basic hourly and overtime rate paid, total pay, and the manner in which fringe benefit payments have been irrevocably made.
- 3) The project number and pay week dates.
- 4) Original signature of a company officer on the certification statement.

<u>Click for Form A-87</u> then scroll down page to Pre-Uniform Guidance and click "Timecard Example A-87 Compliant".

Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted for all apprentices working on this project.

Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in the USDOL Regulations, Title 29, parts 1 and 5, are strictly adhered to by all subcontractors on the project.

If the Contractor or any subcontractor fails to comply with any of the provisions contained in this proposal note, the Department may terminate the contract, debar the Contractor or Subcontractor and/or withhold or suspend pay estimates after written notice and a reasonable opportunity to comply has been provided.

The applicable wage and fringe rates for this project are to be incorporated in their entirety as an attachment to the executed contract.

15. LIMITATION ON USE OF CONTRACT FUNDS FOR LOBBYING

- 1. The prospective bidder certifies, by signing and submitting this bid proposal, to the best of his or her knowledge and belief, that
 - (a.) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any perion for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the plaking of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - (b.) If any funds other than Federal appropriated funds have been paid or will be paid to any person or influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. This certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective bidder also agrees by submitting his or her bid proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

16. PN 045 - 10/15/2004 - NON -COLLUSION AFFIDAVIT

In accordance with Title 23 United States Code, Section 112 and Ohio Revised Code, Chapter 1331 et. seq: and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and under other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall also constitute signature of this Non-Collusion Affidavit as permitted by title 28 United States Code, Section 1746.

REPORTING BID RIGGING

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "totline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and extract highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially, and caller anonymity will be respected.

17. PN 014 - 10/15/2004 - DRUG-FRFE WORKPLACE

The prime contractor agrees to comply with all applicable state and federal laws regarding drug-free workplace. The prime contractor shall make a good faith effort to ensure that all its employees, while working on this project, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

The prime contractor shall also require that this contractual obligation be placed in all subcontractor and materialman contracts that it enters two and further requires that all subcontractors and materialmen place the same contractual obligations in each of their lower tier contracts.

18. PN 034 - 05/25/2011 – DRUG FREE SAFETY PROGRAM

During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable Drug Free Workplace Program ("DFWP") approved by the OBWC, the LPA requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the on-site supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the LPA.

Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to a lower-tier Subcontractor providing labor at the Site.

The LPA will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's DFSP Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the LPA will deny all requests to sublet when the subcontractor does not comply with the provisions of this proposal note.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and that breach shall be used in the responsibility analysis of that Contractor or the Subcontractor who was not enrolled in a program for future contracts with the State for five years after the date of the breach.

19. OHIO WORKERS'COMPENSATION COVERAGE

The Contractor must secure and maintain valid Ohio workers' compensation coverage until the project has been finally accepted by the Ohio Department of Transportation. A certificate of coverage evidencing valid workers' compensation coverage must be submitted to the LPA before the contract will be executed by the LPA.

The Contractor must immediately notify the LPA, in writing, if it or any subcontractor fails or refuses to renew their workers' compensation coverage. Furthermore, the Contractor must notify the LPA, in writing, if it's or any of its subcontractor's workers' compensation policies are canceled, terminated or lapse.

The failure to maintain valid workers' compensation coverage shalf be considered a breach of contract which may result in the Contractor or subcontractor being removed from the project, withholding of pay estimates and/or termination of the contract.

20. PN 038 - 10/15/2004 - UNRESOLVED FINDING FOR RECOVERY

The Contractor affirmatively represents to the PA that it is not subject to a finding for recovery under Ohio Revised Code §9.24, or that it has taken the appropriate remedial steps required under §9.24 or otherwise qualifies under that section. The Contractor agrees that if this representation is deemed to be false, the contract shall be void ab intrio as between the parties to this contract, and any funds paid by the state hereunder shall be immediately repaid to the LPA, or an action for recovery may be immediately commenced by the LPA and/or for recovery of said funds.

21. PN 039 - 10/15/2004 - AŠSIGNMENT OF ANTITRUST CLAIMS IN STATE CONTRACT LANGUAGE

The Contractor should recognize that in actual economic practice, overcharges resulting from antitrust violations are usually borne by ODOT and/or the LPA. As consideration for the Award of the Contract and intent to be legally bound, the Contractor acting herein by and through the person signing this contract on behalf of the Contractor as a duly authorized agent, hereby assigns, sells, conveys, and transfers to ODOT and/or the LPA any and all right, title and interest to any and all claims and causes of action the Contractor now has or hereafter requires under state or federal antitrust laws provided that the claims or causes of action related to the goods or services that are the subject to the contract. In addition, the Contractor warrants and represents that it will require any and all of its subcontractors and first tier suppliers to assign any and all federal and state antitrust claims and causes of action to ODOT and/or the LPA. The provisions of this article shall become effective at the time the LPA executes this contract without further acknowledgment by any of the parties.

All contracting entities shall assign their rights and responsibilities to ODOT and/or the LPA for all antitrust claims and causes of action regarding subcontractors.

22. PN 024 - 04/21/2006 - US ARMY CORPS OF ENGINEERS AND OHIO ENVIRONMENTAL PROTECTION AGENCY PERMITS

The above referenced permits are incorporated and made a part of this contract as special provisions incorporated herein. Therefore, in the event that the Contractor or its agents refuse or fail to adhere to the requirements of the US Army Corps of Engineers 404 Permit, and/or the Ohio Environmental Protection Agency's 401 Water Quality Certification and an assessment or fine, is made or levied against the Ohio Department of Transportation, the Contractor shall reimburse the Department within thirty (30) calendar days of the notice of assessment or fine or the Department may withhold the amount of the fine from the Contractor's next pay estimate. All money collected or withheld from the Contractor shall be delivered to the permitting agencies issuing the assessment or fine.

These fines are not to be construed as a penalty but are liquidated damages to recover costs assessed against the Department due to the Contractor's refusal or failure to comply with the permits.

23. PN 007 – 1/31/2021- DBE TRUCKING

The Code of Federal Regulations Title 49, Section 16.55(d)(4)(5)(6) governs trucking operations.

The Disadvantaged Business Enterprise (DBE) rucking from must be able to quote and negotiate its own prices. The DBE trucking firm must also provide a quote for each project that the firm is to be utilized toward the project DBE goal.

The DBE will be responsible for the management and supervision of their trucking operation on each contract. A DBE is not performing a CUP if the contract exists for the purpose of creating the appearance of DBE participation.

The DBE must own and operate at least one fully licensed, insured, and operational truck used on the contract.

The DBE receives credit for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, distres, and operates using drivers it employs (not 1099/independent contractors).

The DBE may lease trucks on a long-term basis (a year or more) and receive full DBE credit as long as employees of the DBE operate the truck.

A lease must indicate that the DBE has exclusive use of and control over the truck, including responsibility of maintenance and insurance. This does not preclude the leased truck from working for others during the term of the lease with the DBEs consent, as long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the DBEs name and identification number as well.

The DBE must carry a copy of the lease agreement in the leased truck when working onsite. Truck Monitoring:

Credit for expenditures with DBEs for materials or supplies toward the DBE goal is described as follows:

1. A DBE firm may be a regular dealer in bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the firm both owns

and operates distribution equipment for the products. Any supplementing of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

- 2. When the materials or supplies are obtained from a DBE MSV (Materials and Supplies Vendor) manufacturer the prime contractor may receive credit for 100 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- 3. When the materials or supplies are purchased from a DBE MSV regular dealer or supplier the prime contractor may receive credit for up to 60 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a regular dealer or supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

In the past, 60% of the cost of materials and supplies purchased from a DBF MSV (100% from a DBE MSV manufacturer) would usually be counted toward DBE goals Effective September 1, 2018:

- o Prime contractors must obtain information about the method of procurement for each item to be procured from a DBE MSV. The DRE Affirmation form has been modified to accommodate this information.
- o To be eligible to receive 100% credit toward DBE goals for a materials and supplies subcontract:
 - The DBE MSV must be certified with the correct (manufacturer) NAICS code for
 - the item
 - The DBE MSV must be certified with the correct descriptor for the item
 - The role the DBE MSV will play on the specific procurement in question must be
 - consistent with the manufacture of the item, as indicated by the information
 - o provided by the DBF MSV
- o To be eligible to receive 60% credit toward DBE goals for a materials and supplies subcontract:
 - The DBE MS must be certified with the correct (wholesale or retail) NAICS code for the item
 - The DBE MSV must be certified with the correct descriptor for the item
 - The role the DBE MSV will play on the specific procurement in question must be consistent with the regular sale or lease of the item, as indicated by the information provided by the DBE MSV
 - The item must not be drop-shipped
- The above scenario applies to both bulk items (petroleum products, steel, cement, gravel, stone, asphalt, and others that ODOT may consider to be bulk items) and non-bulk items. For bulk items, there is an additional scenario whereby a contract with a DBE MSV could receive 60% credit. To be eligible to receive 60% credit toward DBE goals for a bulk item materials and supplies subcontract:
 - The DBE MSV must be certified with the correct (wholesale or retail and o trucking) NAICS codes for the item
 - The DBE MSV must be certified with the correct descriptor for the item
 - The role the DBE MSV will play on the specific procurement in question must be
 - o consistent with the regular sale or lease of the item, as indicated by the

- information provided by the DBE MSV
- The DBE MSV must deliver the bulk item from a non-DBE vendor to the prime contractor using distribution equipment that it both owns (or for which it has a long-term (1 year or more) lease) and operates with its regular (not ad hoc) employees.
- o If not eligible for 100% or 60% credit, an item may still be eligible for credit toward DBE goals, but only for the fee or commission the DBE MSV receives for its services, and only if the following additional criteria are met:
 - The DBE MSV must be certified with NAICS code 425120 Wholesale Trade Agents
 and Brokers
 - The DBE MSV must convincingly explain how the prime contractor benefits by transacting business with it rather than directly with the non-DBE vendor from which the DBE MSV is re-selling.
- o The usual good faith efforts process applies.
- All credit toward DBE goals is conditional. Actual credit will be determined based upon invoices, receipts, and/or transportation documents/bills of lading, which must be submitted to ODOT as they are received throughout the course of the project.

DBE TRUCKING DISCLOSURE AFFIDAVIT

In order to ensure that Prime Contractors are monitoring DBE trucking/hauling operations on projects with federal funding, prime contractors must complete the DBE Trucking Disclosure Affidavits Section ("Affidavit") when completing and submitting the Prompt Payment Spreadsheet for reimbursement. The Affidavit will be completed by the Prime on the Prompt Payment Spreadsheet and once submitted will be routed to the project's SharePoint site. This information will be used to affirm DBE and non-DBE trucking utilized by each DBE firm performing those duties during the previous month. The LPA/ODOT will monitor trucking with the following requirements for all Local-let projects:

- Prime Contractors will be required to provide a master list of all anticipated DBE trucking firms to the District Construction Montor (DCM) at the time of the Pre-Construction Meeting.
- If no DBE trucking is a vicipated or a project, the Prime will check the box "No Anticipated DBE Trucking Affidavit" on the first submittal of the Prompt Payment Spreadsheet. If DBE trucking/hauling does occur, the Prime must notify the LPA within seven (7) days of the DBE trucking activity. The Prime will then complete the Affidavits as required below on each Prompt Payment Spreadsheet.
- Prime Contracters will be required to complete the Affidavit disclosing the DBE trucking
 operations when completing the new Prompt Payment Spreadsheet, the previous month. The
 Prime will Complete the Trucking Affidavit section on the Prompt Payment Spreadsheet on each
 reimbursement submittal. The Prime Contractor will select one of the following options on the
 Trucking Affidavit section of the form.

The DBE firm performed trucking by utilizing their own equipment and workforce and/or
work was subcontracted to another DBE (i.e., only trucking that can be counted for DBE
participation was utilized).
- No other information is required. The Prime will sign and submit the Affidavit.
The DBE firm utilized DBE & Non-DBE trucking.
- If selected, the Prime will provide a list of non-DBE trucking that was utilized
(i.e., not all trucking will earn DBE credit).
No trucking was performed.
- No other information is required. The Prime will sign and submit the Affidavit.

- The DCM will perform a check of the Affidavit when reviewing the Prompt Payment Spreadsheet when submitted for reimbursement. The LPA and/or Compliance Managers will follow up on any red flags. For example, if the LPA compares information collected during the CUF process with the affidavit and sees any discrepancies.
- Trucking will continue to be monitored at project sites by construction field staff and the LPAs.

SANCTIONS AND ADMINISTRATIVE REMEDIES

Failure by the prime contractor to follow the DBE Trucking Disclosure Affidavit requirements may result in the issuance of sanctions as follows:

- 1st Level Occurrence: The Department will issue a Letter of Reprimand to the contractor (applies if there is a failure to submit the Affidavits and/or the Affidavits are not submitted timely; if the prime completes the No Anticipated DBE Trucking Affidavit, utilizes DBE trocking, and does not notify the LPA within seven days of the activity).
- 2nd Level Occurrence: The Department may withhold an extinate in the amount due to the DBE trucking firm that the Affidavit was not submitted for (applies if there is a failure to submit the Affidavits and/or the Affidavits are not submitted timely, if the prime completes the No Anticipated DBE Trucking Affidavit, utilizes DBE trucking, and does not notify the LPA within seven days of the activity).
- 3rd Level Occurrence: If a pattern of not submitting the Affidavit(s) persists or the Contractor has falsified, misrepresented, or withheld information, ODOT can pursue other remedies available by law including suspension, revocation and/or dybarment

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- The Contractor's past project practices
- The magnitude and the type of offense
- The degree of the Contractor's culpability
- Any steps taken to rectify
- The Contractor's record of performance on other projects; and
- The number of times the Contractor has been previously sanctioned by ODOT.

DBE MSV DIRECTORY <u>- http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/DBE-Directory.aspx</u> (select MSV only)

DBE AFFIRMATION FORM - The new DBE Affirmation Form is now available at http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/Resources.aspx.

Opening Prompt Payment (PP) Spreadsheet (Trucking Affidavit Section on PP Spreadsheet) through GoFormz:

- 1. Obtain a MyODOT account
 - a. Click Link

- b. Click "Launch MyODOT"
- c. Click: "Click Here"
- d. Complete Account Application under "Request an Account"
- 2. Getting GoFormz Access
 - a. Email GoFormz.Help@dot.ohio.gov put Create GoFormz Account in the subject line
 - b. Login for GoFormz will be emailed back
 - c. Click www.goformz.com

Addition guidance can be found by Click Here

24. PN 013 – 03/15/2019 - DISADVANTAGED BUSINESS ENTERPRISE DBE) LTILIZATION PLAN AND GOOD FAITH EFFORTS

Guidance for Bidders – Federally Funded Projects with a DBF Goal, to ensure compliance with the requirements outlined in PN 013 Click Link LPA DBE+Prescoure.pdf tonio.gov)

DBE UTILIZATION PLAN

opening.

All Bidders shall submit a DBE Utilization Plan at the time of bid setting forth specific information demonstrating how the Bidder will achieve the DBE goal. By submitting a DBE Utilization Plan, the Bidder is affirming that they will be using the DBE filters identified in the Utilization Plan to meet the DBE contract goal. The DBE Utilization Plan shall be submitted with Formstack at time of bid submission. Any bids received without electronic submission of the DBE Utilization Plan at or before bid time, will be deemed unresponsive. Bidders shall submit their DBE Utilization Plans via:

https://odot.formstack.com/forms/dbe_coby. This file contains the current list of certified DBEs and is updated regularly. The DBE Utilization Plan must be filled out completely and submitted prior to bid

The DBE Utilization Plan shall include the following information:

- 1) The names and addresses of the certified DBE firm(s) that will be used to meet the DBE goal
- 2) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract
- 3) Whether the DBE firm(s) being used to meet the goal will be utilized as a subcontractor, regular dealer, manufacturer, consultant, or other capacity
- 4) The dollar amount of the participation of each DBE firm used to meet the DBE goal.

PROJECTS AWARDED ON ALTERNATES

In the event the project is awarded on alternates which increases or decreases the total dollar amount of the bid, a revision to the DBE Utilization Plan and DBE Affirmation Form(s) shall be submitted and approved by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days after the notification of the alternates.

DBE AFFIRMATION

The Apparent Low Bidder shall ensure the DBE firms being utilized to meet the DBE goal affirm their participation in the bid within five (5) calendar days after the bid opening to ODOT. The contract dollar amount(s) and/or DBE firm(s) included in the Apparent Low Bidder's DBE Utilization Plan must match the contract dollar amount(s) and/or DBE firm(s) included on the DBE Affirmation Form(s). If the contract dollar amount(s) and/or DBE firm(s) do not match, the Apparent Low Bidder shall utilize the Request to Terminate/Substitute DBE Form located at

https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources (form name is DBE Termination Form) and submit for review and approval by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall utilize the DBE Affirmation Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources. You will then need to click the link of the webpage "DBE Affirmation Form (PN 013) – Projects sold after September 1, 2018, or thereafter. The DBE Affirmation Form will be utilized as written confirmation from each listed DBE firm that it is participating in the contract in the type and amount of work provided in the Bidder's DBE Utilization Plan. The Apparent Low Bidder shall submit a separate DBE Affirmation Form for each DBE it is utilizing for the DBE goal and their Good Faith Efforts package it they were not able to attain the DBE Goal via DBE participation.

All other Bidders shall submit a DBE Affirmation Form(s) it notified that the information is required in order for ODOT to complete its assessment. Bidders shall have live (5) calendar days from the date of notification to submit all required DBE Affirmation Forms to ODOT. Notification will be a small.

In the event a DBE firm fails to confirm the information contained in the DBE Affirmation Form within five (5) calendar days of bid opening, the Apparent Low Bidder shall sugmit a Request to Terminate/Substitute DBE Form, as set forth herein. The Request to Terminate/Substitute DBE Form shall be submitted within five (5) calendar days after bid opening in order for the Apparent Low Bidder to still be considered for contract award. The Apparent Low Bidder shall include as its reason for termination the DBE firm's failure to provide a timely affirmation and should include all efforts the Apparent Low Bidder made to obtain the affirmation from the DBE firm and shall attach proof of these efforts, if available. If the Apparent Low Bidder intends to replace the DBE Firm, it shall include the replacement firm information on the form. In the event the Apparent Low Bidder is unable to affirm a DBE firm included in its original DBE Utilization Plan at bid submission and it results in a goal shortfall, Good Faith Efforts (GFE's) must be submitted by the fifth calendar day after bid opening. All GFE documentation submitted for consideration should demonstrate the efforts the Bidder made prior to the time of bid submission to secure sufficient DBE participation on the project to meet the DBE goal although the Bidder was unable to do so. A DBE firm's failure to timely confirm information contained in the DBE Affirmation Form will be considered as good cause to terminate the DBE firm and will also be considered a part of the Apparent Low Bidder's Good Faith Efforts in meeting the goal.

DBE BIDDERS

In the event that the Bidder is also a certified DBE firm, the Bidder is required to complete a DBE Utilization Plan as set forth above. In this instance, however, the certified DBE Bidder would not need to submit a DBE Affirmation Form for the work it is planning to self-perform in order to meet the goal. ODOT will consider the submission of the bid as the certified DBE Bidder's written confirmation that it is participating in the contract. However, a DBE Affirmation Form must be submitted for all other DBE firms that are being utilized toward the DBE goal.

JOINT VENTURES

In the event that the Bidder is a Joint Venture, the Joint Venture will only be considered a Certified DBE firm if the Joint Venture itself has been certified. The Joint Venture may, however, utilize a Certified DBE firm that is also a partner in the Joint Venture as part of its DBE Utilization Plan. The Certified DBE Firm/Joint Venture Partner, however, does not need to submit a DBE Affirmation Form for any work that the Certified DBE Firm/Joint Venture Partner is going to perform to meet the goal. ODOT will consider submission of the Joint Venture's bid as the Certified DBE Firm/Joint Venture Partner's confirmation that it is participating in the contract.

GOOD FAITH EFFORTS

In the event that the DBE contract goal established by ODOT is not met, the Apparent Low Bidder shall demonstrate that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so.

If the Apparent Low Bidder does not meet the goal at bid time, the Apparent Low Bidder shall submit its Good Faith Efforts (GFE's) documentation within five (5) calendar days of the bid opening. Submission of DBE affirmation(s) with additional participation sufficient to the meet the DBE contract goal does not cure the Apparent Low Bidder's failure to meet the goal at bid time or eliminate the Apparent Low Bidder's responsibility of submitting GFE's within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall demonstrate its GFE's by submitting the following information within five (5) calendar days after the bid opening:

- (1) All written quotes received from certified DBE firms
- (2) All written (including email) communications between the Apparent Low Bidder and DBE firms
- (3) All written solicitations to DBE firms, even if unsuccessful
- (4) Copies of each non-DBE quote when a non-DBE was selected over a DBE for work on the contract
- (5) Phone logs of communications with DBF arms.

The Apparent Low Bidder shall utilize the Pre-Bid GFE Template to document their GFE's. This template and supporting documentation shall be sent along with any DBE Affrontion Forms within five (5) calendar days of bid opening. ODOT has provided Good Faith Efforts Guidance located at https://www.transportation.ohio.gov/vp.yportal/gov/odot/pre-grams/business-economic-opportunity/dbe/dbe-resources

All other Bidders shall submit documentation of GFE's if notified that the information is required in order for ODOT to complete its bid assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required GFE documentation. Notification will be by phone or email.

ODOT shall utilize the guidance set forth in 49 CFR §26.53 Appendix A in determining whether the Bidder has made adequate good faith efforts to meet the goal.

ADMINISTRATIVE RECONSIDERATION

ODOT will review the GFE documentation and issue a written determination on whether adequate GFE's have been demonstrated prior to contract award. If ODOT determines that the Apparent Low Bidder has failed to demonstrate adequate GFE's to meet the goal, the Apparent Low Bidder will have an opportunity for administrative reconsideration prior to the contract being awarded.

As part of this reconsideration, the Apparent Low Bidder may provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. Such written documentation or argument must be provided to ODOT, attention to the Office of Chief Legal Counsel, 1980 West Broad Street, MS 1500, Columbus, Ohio 43223 (with copy to the Office of Contract Sales, MS 4110), within two (2) business days of ODOT's written determination that GFE's were not adequately demonstrated. The Apparent Low Bidder may also include in their written documentation a request for an in-person meeting to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT's Office of Chief

Legal Counsel will respond to the Apparent Low Bidder within five (5) business days of receiving written documentation or holding the in-person meeting.

ODOT will send the Apparent Low Bidder a written decision on reconsideration explaining the basis for finding that the Apparent Low Bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the United States Department of Transportation.

TERMINATION OR REPLACEMENT OF A DBE

By submitting a DBE Utilization Plan, the Bidder is committing to use the DBE firms identified in the plan. The Apparent Low Bidder/Awarded Contractor shall utilize the specific DBEs listed in the DBE Utilization Plan to perform the work and supply the materials for which each is listed unless the Apparent Low Bidder/Awarded Contractor obtains written consent as provided in this paragraph. In order to request termination or substitution of a DBE firm, the Apparent Low Bidder/Awarded Contractor shall utilize the Request to Terminate/Substitute DBE Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources. Once on the webpage, scroll down to the form named "DBE Termination Form (PN013)

This termination/replacement procedure applies only to DBE firms, or the amount of work being utilized to meet the goal.

Without ODOT's written consent to terminate/replace a DBE firm being utilized to meet the goal, the Awarded Contractor shall not be entitled to any payment for DBE listed work or material unless it is performed or supplied by the listed DBE.

GOOD CAUSE

ODOT may provide written consent to terminate a DBE only if it agrees, for reasons stated in a concurrence document, that the Apparent Low Bidder Awarded Conractor has good cause to terminate the DBE firm.

For purposes of this paragraph, good cause to terminate a DBE includes the following circumstances:

- 1) The listed DBE firm fails or refuses to provide the required DBE Affirmation Form or to execute a written contract
- 2) The listed DBE firm fails or refuses to perform the work of its subcontract in a manner consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE firm to perform its work on the subcontract results from the bad faith or discriminatory action of the awarded contractor
- 3) The listed DBE firm fails or refuses to meet the awarded contractor's reasonable, nondiscriminatory bond requirements.
- 4) The listed DBE firm becomes bankrupt, insolvent, or exhibits credit unworthiness
- 5) The listed DBE firm is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law
- 6) ODOT has determined that the listed DBE firm is not a responsible contractor
- 7) The listed DBE firm voluntarily withdraws from the project and provides to you written notice of its withdrawal
- 8) The listed DBE is ineligible to receive DBE credit for the type of work required
- 9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
- 10) Other documented good cause that ODOT determines compels the termination of the DBE firm. Provided, that good cause does not exist if the awarded contractor seeks to terminate a DBE it relied upon to obtain the contract so that the awarded contractor can self-perform the work for which the DBE contractor was

engaged or so that the awarded contractor can substitute another DBE or non-DBE contractor after contract award.

REPLACEMENT

When a DBE firm is terminated or fails to complete its work on the contract for any reason the Awarded Contractor must make GFEs to find another DBE firm to replace the original DBE. These GFEs shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. The GFEs shall be documented by the Awarded Contractor. If ODOT requests documentation under this provision, the Awarded Contractor shall submit the documentation within seven (7) calendar days, which may be extended for an additional seven (7) calendar days if necessary, at the request of the contractor, and ODOT shall provide a written determination to the contractor stating whether or not GFEs have been demonstrated.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions and substitutions of DBE firms put forward by Bidders in the DBE Utilization Plan.

ADDITION

In the event additional DBE participation is required for the project, the Awarded Contractor shall utilize the DBE Affirmation Form located at https://www.transportation.objogov/wps/bortal/sox/odot/programs/business-economic-opportunity/dbe/dbe-resources. The DBE Affirmation Form, DBE Affirmation Form (PN013) – Projects sold on September 1, 2018, or thereafter", will be utilized as written confirmation from each DBE firm that it is participating in the contract in the kind and amount of work on the project.

WRITTEN NOTICE TO DBE

Before transmitting to ODOT its recipest to terminate and/or substitute a DBE firm, the Apparent Low Bidder/Awarded Contractor must give notice in writing to the DBE firm, with a copy to ODOT, of its intent to request to terminate and/or substitute; and the reason(s) for the request.

The Apparent Low Bidder/Awarded Contractor must give the DBE five (5) calendar days to respond to the notice, advising ODOT and the Apparent Low Bidder/Awarded Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why ODOT should not approve the Apparent Low Bidder/Awarded Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), ODOT may provide a response period shorter than five (5) days.

GOAL ATTAINMENT POST WWARD

The Awarded Contractor shall make available upon request a copy of all DBE subcontracts. The Awarded Contractor shall ensure that all subcontracts or agreements with DBEs require that the subcontract and all lower tier subcontractors be performed in accordance with this Proposal Note.

Approval of a DBE Utilization Plan does not ensure approval of C-92 Requests to Sublet, nor does approval of a DBE Utilization Plan indicate that the DBE goal has been met. ODOT will monitor goal attainment throughout the life of the project. It is the responsibility of the Awarded Contractor to advise ODOT of any changes to the DBE Utilization plan throughout the life of the project. The DBE goal of a project is stated as a percentage of the contract. In the event the contract amount increases or decreases, the actual dollar amount of the DBE goal for the project may increase or decrease accordingly.

SANCTIONS AND ADMINISTRATIVE REMEDIES

PRE-BID

Failure by the Apparent Low Bidder to do any of the following shall result in the bid being rejected in accordance with ORC §5525.08:

- 1) Failure to submit a complete DBE Utilization Plan at the time of bid
- 2) Failure to submit DBE Affirmation Form(s) and/or failure to submit Request to Terminate/Substitute DBE Form(s) as required by this Proposal Note; and Failure to meet the goal and/or failure to demonstrate GFEs to meet the goal as required by this Proposal Note.

POST-BID Failure by the Awarded Contractor to carry out the requirements of this Proposal Note, including the submission of adequate good faith efforts to meet the goal for a project, is a material breach of the contract and may result in the issuance of sanctions as follows:

1st Tier: Letter of Reprimand

2nd Tier: Damages equivalent to the DBE shortfall

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or

withheld information, ODOT can pursua other remedies available by law including

suspension, revocation, and/or lebarment.

Factors to be considered in issuing sanctions may include, out are not limited to the following:

o the magnitude and the type of offense

- the degree of the Contractor's culpability
- o any steps taken to rectify
- o the Contractor's record of performinge on other projects including, but not limited to:
 - annual DBE participation
 - annual DBE participation on projects without goals
 - the number of complaints ODOT has received regarding the Contractor
 - the number of times the Contractor has been previously sanctioned by ODOT

25. PN - 031 - 9/1/2020 - Locardo Construction Projects

The U.S. Department of Transportation's (DOT's) rules related to Disadvantaged Business Enterprises are published in the Code of Federal Regulations (CFR), 49 CFR Part 26. Within 49 CFR Part 26, 49 CFR 26.29 lays out the prompt payment requirements that apply to ODOT (the Department), it's subrecipients (LPA's), and, by extension, both Prime Contractors and Subcontractors (including non-DBEs). The 49 CFR 26.29 requirements apply only to federally funded contracts (i.e., contracts with DOT financial assistance). The Prime Contractor must comply with this Proposal Note and the Department's prompt payment requirements as published in 107.21 of the Construction and Materials Specifications (C&MS).

The Department will monitor payments made by Prime Contractors and Subcontractors for compliance with this Proposal Note, C&MS 107.21 and, where applicable, 49 CFR 26.29. To facilitate this monitoring, the Department requires prime contractors to report their payments to all subcontractors with the submission of each invoice. The payment data reported must include any retainage withheld and any previously withheld retainage released. All such reporting must take place through a web-based submission

on GoFormz. Invoices will not be approved and processed for payment unless this reporting form has been submitted and received by the Department.

The Prime Contractor must report the following information:

- 1.) The name of the payee
- 2.) The dollar amount of the payment to the payee
- 3.) The date the payee was paid
- 4.) The amount of retainage withheld (if any).

The Prime Contractor must sign each reported payment and submit to ODOT via the GoFormz website.

If the Prime Contractor fails to submit the aforementioned documentation with each invoice, they will be determined to be non-compliant, and invoices will not be processed for payment.

Payees must verify each payment reported by the payer within 30 days of the payment being signed by the payer. This verification must include:

- 1.) Whether the payment was received, and if so, whether it was as expected or not
- 2.) The dollar amount of the payment received
- 3.) The date the payment was received

SANCTIONS AND ADMINISTRATIVE REMEDI

symen requirements may result in the issuance of Failure by the prime contractor to follow Prompt sanctions as follows:

1st Tier: Letter of Reprimand

quidated camages amount found in section 108.07 for each 2nd Tier: Damages equivalent incident of non-compliance

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.

ing sanctions may include, but are not limited to the following: Factors to be considered in

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects
- the number of times the Contractor has been previously sanctioned by ODOT.

26. WAIVER OF CM&S 614.03

ODOT's 2019 Construction and Material Specifications section 614.03, third paragraph, does not apply to any project which is not physically located on the National Highway System (NHS), and/or does not impact NHS traffic in any way.

27. ODOT AS OBLIGEE ON BOND

The contractor shall furnish a performance and payment bond in an amount at least equal to 100 percent of the estimate as security for the faithful performance of its contract. In addition to the project Owner, ODOT shall be named as an oblige.

28. NON-DISCRIMINATION PROVISIONS

1) **Compliance with Regulations:** The CONTRACTOR will comply with the regulations relative to nondiscrimination in Federally-assisted programs of the United States Department of Transportation (hereinafter "U.S. DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

In addition, the CONTRACTOR will comply with the provisions of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, FHWA Guidance, and any other Federal, State, and/or local laws, rules and/or regulations (hereinafter referred to as "ADA/504").

- Nondiscrimination: The CONTRACTOR, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, or disability, in the selection and retention of subcontractors, including procurements of matchials and leases of equipment. The CONTRACTOR will not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices with the contract covers a program set forth in Appendix B of the Regulations, as well as the ADA/304 regulations.
- (3) Solicitations for Contractors or Subcontractors, including Procurement of Materials and Equipment: In all solicitations either by compositive biting or regotiation made by the CONTRACTOR for work to be performed under a contract or subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier will be notified by the CONTRACTOR of the CONTRACTOR's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex. egg, or disability.
- (4) **Information and Reports:** The CONTRACTOR will provide all information and reports required by the Regulations or directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the STATE or the Federal Highway Administration (receipafter "FHWA") to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the CONTRACTOR is in the exclusive possession of intolher who fails or refuses to furnish this information, the CONTRACTOR will so certify to the STATE or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
- (5) **Sanctions for Noncompliance:** In the event of the CONTRACTOR's noncompliance with the nondiscrimination provisions of this contract, the LPA will impose such contract sanctions as it or STATE / FHWA may determine to be appropriate, including, but not limited to:
 - (a) Withholding of payments to the CONTRACTOR under the contract until the CONTRACTOR complies, and/or
 - (b) Cancellation, termination, or suspension of the contract, in whole or in part.
- (6) **Incorporation of Provisions:** The CONTRACTOR will include the provisions of paragraphs (1) through (5) above in every contract or subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The CONTRACTOR will take such action with respect to any subcontractor procurement as the LPA or STATE / FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor, or supplier as a result of such direction, the CONTRACTOR may request the LPA / STATE

to enter into such litigation to protect the interests of the LPA and the STATE, and, in addition, the LPA / STATE may request the United States to enter into such litigation to protect the interests of the United States.

29. PN 095 – 03/30/2020 Potential Impacts and Delays Due to COVID-19

In an effort to anticipate the potential impacts to the Project caused by the COVID-19 threat and in following direction from the Governor and other authorities, the Contractor is on notice of the need to comply with all federal, state, and local orders generated to prevent the spread of contagious or infectious diseases, including the Stay-at-Home Order from the Ohio Director of Health dated March 22, 2020, and subsequent orders, located through the following website:

https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home

Contractor is on notice that the Project is considered essential, and that the contractor and his employees, subcontractors and suppliers are considered essential businesses and performing essential functions as defined under the Stay-at-Home Order.

Notwithstanding any other provisions of the contract documents, in the event of project delay or impacts to performance due to a voluntary or mandatory COVID-19 virus Directives, Orders, quarantine or closure directed by government authorities, either party may, by providing notice to the other party as required under CMS 108.02(F), extend the Completion Date for a period of up to thirty (30) days. Extensions under this paragraph shall be considered an excusable, non-compensable delay in accordance with CMS 108.06(B). If any portion of the Work is still not able to be performed upon the expiration of the extension, either party may provide notice to the other party requesting a termination for convenience under 108.09. The termination for convenience remains at the sole discretion of the LPA's Person in Responsible Charge in conjunction with the Office of Local Programs.

The Contractor and LPA will exercise best efforts to efflize remote services to perform Work that otherwise cannot be performed in person due to a pountary of mandatory COVID19 virus quarantine, closure, or impact as directed by Stay-at-Home Oder.

Impacts to the Project generated by the Stay at-Home Order shall not be considered an "issue" under 108.02 (F) for Projects sold after the date of this Note. Contractors are on notice that their bids should include any impacts they foresee of smuld have reasonably foreseen due to the Stay-at-Home Order or existing or reasonably foreseeable orders by any other federal, state or local official.

If any emergency order or declaration of any government official is lifted at any time, the LPA will provide written notice to the Contractor that this Note shall be considered void thirty (30) days after receipt of the written notice. If the Stay-at-Home Order from the Ohio Director of Health dated March 22, 2020, is lifted at any time, this Note shall be considered null and void thirty (30) days after the lifting of those orders.

30. PN 015 – 04/17/2020 - CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

The required contract provisions for federal-aid construction contracts are hereby incorporated by reference as if rewritten herein. The current version of Form FHWA-1273 (available at https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf) shall be physically incorporated in all contracts, subcontracts, and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreement for supplies or services related to a construction contract). The prime contractor shall be responsible for ensuring that the FHWA-1273 is physically incorporated into all lower-tier subcontracts.

SANCTIONS AND ADMINISTRATIVE REMEDIES

Failure by the prime contractor to include the provisions of FHWA-1273 in their contract or in their lower-tier subcontracts may result in the issuance of sanctions as follows:

1st Tier: Letter of Reprimand

2nd Tier: Damages equivalent to the daily liquidated damages amount found in section 108.07 for each incident of non-compliance

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or withheld information, the LPA can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects; and
- the number of times the Contractor has been previously sanctioned by the LPA.

31. PN 032 - 01/31/2021 - C92s Required on - Local-let Construction Projects

State and Federal law requires that all contractors and subcontractors participating on state or federally funded projects be evidenced in writing and in conformity with all applicablestate and federal laws and regulations.

Effective immediately, all projects advertising after 2/1/2021, will require that a Request to Sublet (C92) form is completed for each subcontractor working on the project prior to the start of work.

A template for this form may be found and submit via the Got ormz website located at www.goformz.com.

ISIONS FOR FA REQUIRED CONTRACT PROVISION 32. AID CONSTRUCTION CONTRACTS (Electronic Form FHWA 1273 –

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower ties subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services) 23 CFR 633.102(e).

The applicable requirements of Form FHWA1273 are incorporated by reference for work done under any purchase order, rental agreement, or agreement to other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor, or so wice provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid designbuild contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The designbuilder shall be responsible for compliance by any subcontractor, lower-tier subcontractor, or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts, and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

- 3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
- 4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a)

ii. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subnari A, Appendix A; EO 11246)

The provisions whis section related to 23 CFR Part 230, Suppart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

- 1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
- a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).
- b. The contractor will accept as its operating policy the following statement:
- "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."
- 2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of electively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.
- 3. Dissemination of Policy: All members of the contractors staff who are authorized to hire, supervise promote, and discharge employees, or who recommend such action or are substantially involved in such action, whose made unity cognizant of and will implement the contractors FEO policy and contractual responsibilities to provide FEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women

- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- 4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.
- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.
- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement of the extend hat the system meets the contractor's compliance with EEQ contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal mondiscrimination provisions.
 - reit minorities and women as applicants for employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.
 - **5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:
 - a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.
- 7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions of increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly of through a contractor's association acting as agent, will include the procedures set forth below:
- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs ai ned toward qualifying more minorities and won en for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refix applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

- 8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EFO obligations under this contract.
- b The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

Assurances Required:

- a. The requirements of 49 CFR Part 26 and the State DOT'S FHWA-approved Disadvantaged Business Enterprise DEE program are incorporated by reference.
- b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
 - (1) Withholding monthly progress payments
 - (2) Assessing sanctions
 - (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.
- c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.
- 11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
- a. The records kept by the contractor shall document the following:

- (1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.
- b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the trackities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains recreation or entertainment areas, transportation, and nousing provided for employees. The contractor shall proving separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe denefits under section 1(b)(2) of the Davis-Bacon Act of behalf of aborers of mechanics are considered wages paid to such abore or mechanics, subject to the provisions of paragraph 1.4 of this section; also, regular contributions made or costs incurred for nore than a weekly period (but not less often than quarter), under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such labore's and mechanics shall be paid the appropriate wage at and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics rforming work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided. That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination, and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (ii) The classification is utilized in the area by the construction industry; and

- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) at 1.b.(3) of this section, shall be paid to all workers perferring work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe penefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona yel fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed, or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has gound under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or nechanic include the amount of any costs reasonably anticipated in providing benefits under a plat or program described in section 1(b)(2)(B) of the Davis-Balon Act, the contractor snall maintain records which show that the commitment to provide such benefits is enforceable, that the oran or program is financially responsible, and that the plan of program is seen communicated in writing to the laborers or me thanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the egistration of apprenticeship programs and certification of tramee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
 - (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;
- (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;
- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DON, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during verying hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the convacting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advancy, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage date mination.

Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid he full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event he Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
 - d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of applentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

- 5. Compliance with Copeland Act requirements The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.
- **6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- **7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.
- **9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor

set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HORS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal and construction contract in an amount in excess of \$100 000 and subject to the evertime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- 1. Overtine requirements. No contractor or subcontractor contracting for any part of the contract work which may require or myolive the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.
 - 2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.
 - * \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.
- 4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635,116.

- The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, to the total original contract price, excluding any specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total contract price before. original contract price before computing the mount of vok required to be performed by the contractor's own organization
- a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, a feats of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)
- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
 - (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

- equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.
- 2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
- 3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.
- 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall no be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is a will arread in written and that it contains all partitions are size. evidenced in writing and hat it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.
- 2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.
- 3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the summission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement of false representation as to material fact in any state ment, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification - First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

- b. The inability of a person to provide the certification set out below will not be essarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set on below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as yell as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Sys em for Award Management website (https://www.sam.gcv/). 2 CFR 180.300, 180.320, and 180.325.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business Gealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a cove ed transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, in aligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.
- 2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion First Tier Participants:
- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).
- (5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USOOT Order 4200.6 implementing appropriations act requirements); and
- (6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability DSDOT Order 4200.6 implementing appropriations act requirements).
- Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

- a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/) which is compiled by the General Services Administration. 2 OFR 180.300, 180.320, 180.330, and 180.335.
- h. Nothing contained in the foregoing shall be constitued to require establishment of a system of records in order to render in good faith the certification required by this claims. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

- (a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355:
- (b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and
- (c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)
- Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 49 CFR Part 20, App. A.

- The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - at. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
 - 3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

- 1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage

... and reasonable rates
...ericial vessels. 46 CFR 381.7.

... ournish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this sessition to both the Contracting Officer (through the prime contraster in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Markithoe Administration, Washington, DC 20590. (MAR D requires copies of the ocean carrier's (master) bills of lading, cettified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Tansportation Intermediary on behalf of the contractor). 46 OFR 381,7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

- 1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:
- a. To the extent that qualified persons regularly residing in the area are not available.
- b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
- c. For the obligation of the contractor to offer employment to
- 2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original ion order is substantially modified, the participant shall promptly notify the State Employment Service.

 3. The contractor shall give full consideration in the contractor in the co
 - Service. The contractor is not required to grant employment to any job applicants who, in his opinion are not qualified to perform the classification of work required.
 - 4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.
 - 5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian
 - 6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

ATH-TR83/TR471-1.40/0.01 **BRIDGE REPLACEMENTS PROJECT**

SECTION V De at los Offices Offices County General Conditions

Official Ecounty General Conditions

SECTION V – ATHENS COUNTY GENERAL CONDITIONS

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1. **DEFINITIONS**

Whenever the words defined in this paragraph, or pronouns used in their stead, occur in this contract they shall have the meaning given:

- (a) County or Owner shall mean the County of Athens acting through its authorized representative, the Board of County Commissioners.
- (b) Contractor or bidder shall mean any person, firm or corporation entering into the Contract or Contracts covered under these specifications for the performance of the work required by it or agent appointed to act for said party in the performance of the work.
- (c) Engineer shall mean the duly elected, qualified and acting Engineer of Athens County, Ohio, or such assistants as he may appoint, authorize and assign to administer the contract.
- Or Equal. Wherever a particular brand, make of material device or equipment is (d) specified, it is to be regarded as a standard. The contractor may proffer for acceptance other makes, brands, devices or equipment in place of these specified. If in the opinion and judgment of the Owner, the items offered and the work proposed is considered to be a satisfactory equal to that called for in the specifications the Owner may approve of the use of the substitute offered, and it will be accepted for the work provided; further, that all materials, methods and workmarship shall be appropriate and in accordance with best modern practice as determined by wher, who shall be the sole judge.
- Wherever in the specifications of upon the drawings the word "direction, required, (e) permitted, ordered, designated; prescribed or words of like import are used, it shall be understood that the direction, requirements, permission, order, designation, or prescription of the Owner intended and similarly the words approved, acceptable, or satisfactory to the Owner anless otherwise expressly stated.

2. **INTENT**

INTENT

It is the intent of the General Specifications to cover the governing conditions of work, labor, materials, detailed drawings, methods, measures, safety rules and factors applicable in whole or in part to this contract or contracts.

3. CONTRACT DOCUMENTS

The following shall constitute the Contract Documents and shall be deemed the Contract made pursuant to this invitation to bid:

- The bid advertisement, Notice and Information to Bidder to bid, General (a) Conditions, detail specifications. Drawings, and Special Provisions, as are included in the bid package.
- Affidavit of non-collusion (b)
- (c) The Bid or Proposal

- (d) All required bonds and certificates of insurance
- (e) All provisions required by law to be inserted in the contract, whether actually inserted or not
- (f) Contract
- (g) Affidavit for corporate bidders

4. INTERPRETATION OF CONTRACT DOCUMENTS

- a) If any person, firm or corporation contemplating submitting a bid for this Contract is in doubt as to the true meaning of any part of the Drawings, Specifications or other Contract Documents, he may submit to the County Engineer a written request for an interpretation thereof. The person, firm or corporation submitting the request shall be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by an Addendum duly issued by the Engineer and a copy of such Addendum will be mailed or delivered to each person securing a set of the Contract Documents, provided that a sufficient period of time is available for the issuance of such Addendum prior to the receipt of bids.
- b) The specifications are duplicates of those on file in the office of the County Commissioners and County Engineer
- c) Any doubts which may arise after letting the compact shall be referred to the Engineer and County who shall decide the question at issue, and their decision shall be final and binding upon the parties to the contract.
- d) The drawings and specifications are complementary and what is called for by either one shall be as binding as if called for by both.
- e) In unit price contracts the quantities listed in the Proposal are to be considered as approximate and are to be used for the comparison of bids only. The unit prices to be tendered by the Bidders are to be tendered expressly for the scheduled quantities at they may be increased or decreased as hereinafter provided. Payments, except for tump sum items in unit price contracts, will be made to the Contractor for the actual quantities only of work performed or materials furnished in accordance with the plans and specifications and it is understood that scheduled quantities for work to be done and materials to be furnished may each be increased or diminished as hereinafter provided without in any way invalidating the unit bid prices. Where there is a conflict between the unit bid price and the extension thereof made by the Bidder, the unit price shall govern and the County shall be authorized to make a correct extension in comparing bids.
- f) If the work is let on the basis of a lump sum contract, the estimated quantities are only approximate, although the result of calculations may be in error and the Bidder must obtain and be responsible for the data upon which he bases his bid. He shall not be entitled to any additional compensation in case the quantities of work actually done to fulfill the contract and complete the project are greater than said estimated quantities.

5. FEDERAL-AID PROVISIONS

When the United States Government pays for all or any portion of the Project's cost, the Work is subject to the inspection of the appropriate Federal agency.

Such inspections will not make the Federal Government a party to this Contract. The inspections will in no way interfere with the rights of either party to the Contract.

Federal Highway Language, requirements, and prohibitions overrides or trumps that of any other Federal or state agency (e.g. HUB, Public Works).

6. OBLIGATIONS OF THE CONTRACTOR

The Contractor shall do all work and shall furnish all the labor, materials, tools, appliances and equipment except as herein otherwise specified, necessary or proper for performing and completing the work required by this contract, in the manner and within the time hereinafter specified.

If, at any time before the commencement or during the progress of the work or any part of it, the Contractor's methods or appliances appear to the Engine 2 to be unsafe, insufficient or inadequate for securing the safety of the workmen, the quality of the work or the progress required, he may order the Contractor to increase their safety and efficiency or to improve their character, and the Contractor shall comply with such order; but the failure of the Engineer to make such demand shall not relieve the Contractor of his obligations to secure the safe conduct, the quality of the work and the progress required by the contract, and the Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances and methods.

All the work to be done and the labor and materials to be furnished under this contract shall be done and furnished strictly pursuant to and in conformity with the specifications and the drawings therein referred to under the direction of the Engineer as given by him from time to time during the progress of the work, and under the terms of this contract, and the Contractor shall complete the entire work to the satisfaction of the Owner and at the prices and time herein agreed upon and fixed therefore.

7. PERMITS, LAWS, AND REGULATIONS

The contractor shall comply with all applicable laws of the federal government, the State of Ohio, and Municipal Corporations pertaining to wages, public liability and property damage. Workmen's Compensation and insurance of employees, current wage scales, payment for material, subcontract relations, and any other local, state or federal laws or ordinances concerned with contracts of this nature. Ignorance of legislation as described will in no way excuse the Contractor from full compliance with all statutes and regulations. Attention is directed to Section 1311.28 thru 1311.33 Revised Code of Ohio, which provides for retention by the Owner of additional payments due the Contractor in the event the Contractor fails to pay legal labor, materials and equipment bills out of monies previously received from the Owner. Claims against the Contractor must be properly authenticated and supported by the claimant before the Owner can take action.

The Contractor shall keep himself fully informed of all Federal State and Municipal laws and ordinances and regulations in any manner affecting those engaged or employed in the work or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If

any discrepancy or inconsistency should be discovered in this contract, or in the drawings or specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the Engineer. He shall at all times himself observe and comply with, and shall cause all his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees, and shall protect and indemnify the Owner and its officers and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by themselves or by their employees.

The contractor shall be responsible for securing at his own expense any and all licenses, permits and certificates of inspection required by law, or by the contract documents.

8. STRUCTURES ENCOUNTERED AND PROTECTION OF PROPERTY

a) The contractor shall, at his own expense, support and protect all buildings, bridges, conduits, wires, water pipes, gas pipes, sewers, pavements, curbing, sidewalks, equipment and fixtures of all kinds and all other public or private property, whether of this or another contract that may be encountered or endangered in the prosecution of the work herein companylated and that are not otherwise provided for. He shall repair and make good an damage caused to

such property by reason of his operations leaving all work in approved condition at the completion of the contract.

9. TIME OF ESSENCE

Since this contract is for a needed improvement, the provisions relating to the time of performance and time of completion of the work included in this contract are of the essence of this contract. The Contractor shall begin work promptly and complete the work by the day specified in the "Information for Bidders" and shall prosecute the work diligently so as to assure completion of the work not later than the time specified therefore.

10. CONTRACT

The bidder to whom the award is made will be required to execute a written Contract with the Owner, and to furnise and maintain good and approved surety bonds, as herein specified, within ten (10) days after notification of the acceptance of his bid. The Contract shall be in the form hereto attached. If the bidder to whom an award is made fails to enter into a contract as herein provided, the award may be annulled and the Contract let to the next lowest and best bidder in the opinion of the Owner; and such bidder shall fulfill every stipulation embraced herein, as if he were the original party to whom the award was made.

If the bidder to whom the award is made is a corporation, the Secretary of said corporation shall execute an affidavit, in the form hereto attached, stating that the officer or agent of said corporation signing the Contract for said corporation was authorized to do so, by either a provision of the corporation By-laws or by the adoption of a resolution of the Board of Directors of the corporation, whichever the case may be.

Contracts shall be let upon the basis of lump sum bids or upon the basis of unit price bids as set forth in the Proposal, at the discretion of the County.

The Engineer may cancel a Contract award at any time before all parties sign the Contract without liability to the Engineer.

11. **EXAMINATION OF SITE**

Prior to submitting a bid, bidders are required to satisfy themselves by personal examination at the site of the work and by an examination and study of the contract documents as to the conditions existing and the difficulties likely to be encountered in the construction of the work.

12. **ESTIMATED QUANTITIES**

The Contractor agrees that the estimated quantities are only for the purpose of comparing, on a uniform basis, the bids offered for the work under this Contract, and he further agrees that he is satisfied with and will at no time dispute the said estimated quantities as a means of comparing the bids aforesaid; that he will make no claim for anticipated profits or loss of profits because of a difference between the quantities of the various classes of work actually furnished and the said estimated quantities; and he agrees that the Owner shall not be held responsible if, in the construction of the work, any of the said estimated quantities should be found to vary from the quantities shown, or the Engineer without alteration or modification of this contract increases, decreases, or omits the amount of any class or portion of work as may be deemed necessary.

13. PROGRESS SCHEDULE

The Contractor shall furnish a bar shart progress schedule to the Engineer for review at or before the pre-construction conference. The Engineer will review the schedule and within 14

calendar days of receipt, will either accept the schedule or provide the Contractor with comments. Acceptance of the schedule does not revise the Contract Documents. Provide clarification or any needed additional information within 10 days of a written request by the Engineer. The County will withhold Estimates until the Engineer accepts the schedule. The Engineer will not measure or pay for the preparation of the schedule and schedule updates directly, but the cost of preparing and updating the schedule is incidental to all Contract Items.

Provide a working day seedule that shows the various activities of Work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Completion Date. Show the order and the sequence for accomplishing the Work. Describe all activities in sufficient detail so that the Engineer can readily identify the Work and measure the progress of each activity. The bar chart schedule must reflect the scope of work, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the Contract Documents. Include activities for submittals, working and shop drawing preparation, submittal review time for the County, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities. The schedule must be detailed on letter or legal sized paper.

14. **CHANGE ORDERS**

a) The County may, by written instructions to the Contractor, make alterations in the plans involving increases or decreases in the quantities of work as may be necessary or desirable, in either unit price or lump sum contracts. Such

- alterations shall not be considered as a waiver to any of the conditions of the contract, nor invalidate any of the provisions thereof.
- b) The cost of increases or decreases in quantities of items shall be computed at the unit price bid and shall be added or deducted from the original contract, only upon written change order by the County.
- c) In the event the desired alterations in the plans or specifications involve items for which a unit price has not been established, the County shall request the Contractor to furnish a proposal for such items. If said proposal is acceptable, the County shall issue a written change order covering same. In the event that no agreement as to price can be arranged between the parties to the contract, the County shall determine and set up a fair price for the work and materials at issue and their decision shall be final and binding upon all parties concerned. No claims shall be made for extra work, unless the same shall have been done in pursuance of a written change order by the County and at a price previously agreed upon and approved by the County Commissioners.

15. EXTRA WORK NOT COMTEMPLATED BY CONTRACT

Wherever extra work due to unforeseen condition not contemplated by Contract becomes necessary for the construction of the project, a change order in writing for such extra work shall be first entered into before such work is performed. Such extra work shall be performed in accordance with the contract prices and if the items berein to not cover such work, a price mutually agreed upon shall prevail.

16. SIGNIFICANT CHANGES IN THE CHARACTER OF WORK

- a) The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.
- b) If the alterations of changes in quantities significantly change the character of the work under the contract whether such alterations or changes are in themselves significant changes to be character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the Engineer may determine to be fair and equitable.
- c) If the alterations or changes in quantifies do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
- d) The term "significant change" shall be construed to apply only to the following circumstances:
 - 1. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - 2. When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract

quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

17. COMPETENT MEN TO BE EMPLOYED

The Contractor shall employ competent, skillful men to do The Work, and whenever the Engineer shall notify the Contractor in writing, that any man on The Work, is in his opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, or refuses to carry out the provisions of this contract, or to stop doing bad work when so ordered, or uses threatening or abusive language to any official having supervision of the work, such man shall be discharged from the work, and shall not again be employed on it, except with the written consent of the Engineer.

18. ANTI-DISCRIMINATION [R.C. 153.59]

The Contractor hereby agrees that in the hiring of employees for the performance of work under this contract or any subcontract, the Contractor, nor any subcontractor, nor any person acting on his behalf, shall by reason of race, creed, sex, disability, as defined in Section 4112.01 of the Revised Code, or color, discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform the work to which the employment relates.

The Contractor also agrees that the Contractor, nor any subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intipidate any employee hired for the performance of work under this contract on account of race, creed, sex, disability, as defined in Section 411.01 of the Revised Code, are color.

19. FORFEITURE FOR PROHIBITED DISCRIMINATION [R.C. 153.60]

If the Contractor breaches any of the above provisions against discrimination, there shall be deducted from the amount payable to the Contractor under this contract, a forfeiture of twenty-five dollars for each person who is discriminated against or in violation of this contract. If there is a second violation of breach of the provisions against discrimination, the contract shall be cancelled or terminated by the County and all of the money due for such subsequent violations of this discrimination clause may be forfeited.

20. MINIMUM WAGE RATES

The minimum wage to be paid to all skilled labor, intermediate grade labor, and unskilled and common labor employed on this contract shall be in accordance with the schedule of the "Davis-Bacon Wage Decision" as ascertained and determined by the US Housing and Urban Development Department, Office of Labor Relations as applicable.

21. PAYROLL RECORDS

Keep payroll records as specified in ORC 4115.07 or as required by Federal law. Authorized representatives of the Engineer may inspect the certified payroll and other payroll records. Upon completion of the Work and before receiving the final estimate and when required

by ORC 4115.07, submit an affidavit stating that wages have been paid according to the minimum rates specified in the Contract Documents.

22. MATERIALS AND WORKMANSHIP

The materials shall be of the best quality and especially adapted to the service required, and wherever the characteristics of any materials are not particularly specified, such material shall be used as is customary in first class work of a nature for which the material is employed. All materials shall, if required, be tested and shall fulfill the requirements specified. The Owner shall make physical test, but the Contractor shall furnish test pieces and samples, in the number, shape, size, and finish and required by the Engineer. The failure of test specimens to fully conform to the requirements of the specifications shall be sufficient cause for the rejection of the whole melt, pour, or stock from which the samples were obtained. The workmanship shall be of the highest class throughout.

23. DEFECTIVE WORK AND MATERIALS

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contract as herein prescribed, and defective work shall be made good and unsuitable material shall be rejected, not withstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work, or any part thereof, shall be found defective before the final acceptance of the whole work, the Contractor shall forthwith make good such defects without compensation in a manner satisfactory to the Engineer, and if any of the material brought from the ground for use in the work, or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications; the Contractor shall forthwith discard such materials and remove them to a satisfactory distance from the vicinity of the work, and shall not again submit the same. If the Contractor shall fail to replace any defective work or materials after reasonable notice, the Engineer may cause such defective work or materials to be replaced and the expense thereof shall be deducted from the amount to be paid to the Contractor.

24. OWNERS RIGHT TO SUSPEND OR TERMINATE CONTRACT

- a) The Engineer may cause the work to be suspended whenever in his opinion the weather is not suitable for doing the work or for any other just or reasonable cause. Upon any suspension of the work, the Contractor shall snugly pile all material and he shall immediately thereafter remove all rubbish and surplus material from the place of work. In case of such suspension, the time within which the Contractor shall finish the work may be extended by as many days as he may have thus been delayed.
- b) If the Contractor shall at any time abandon the work, or if at any time the Engineer shall be of the opinion, and shall so certify to the Contractor and the County, that the work or any portion of it is unnecessarily delayed, or that the Contractor is willingly or knowingly violating any portion of his contract or executing it in bad faith, as far as claims of the Contractors are concerned, and the materials delivered at the site, and/or incorporated into the work shall become the property of Athens County.

25. FAILURE TO COMPLETE WORK ON TIME

If the Contractor fails to complete the work within the time allowed by the Contract, or extension thereof, the County Engineer shall keep accurate account of all expenditures for inspection, supervision, and all other similar engineering services in connection with the improvement and same shall be charged to the contractor. The amount of such expenditures shall be retained out of any estimates due or to become due to such Contractor.

26. EXTENSION OF TIME

If the Contractor is obstructed or delayed in the prosecution or completion of the work by neglect, delay, or default of any other contractor for adjoining contiguous work, or by any damage that may happen thereto by the unusual action of the elements, or by the abandonment of the work by the employees in general strike, or by any delay on the part of the Owner in doing the work, or furnishing the material to be done and furnished by it, the Contractor shall have no claim for damage for any such cause or delay, but, he shall in such case be entitled to such extension of time specified herein for the completion of work as the Engineer shall, in writing, certify to be just and proper, provided, however; that claim for such extension of time is made by the Contractor, in writing, within one (1) week from the time when such alleged cause for delay shall occur.

When a delay occurs due to unforeseen causes beyond the control and without fault, or negligence of the Contractor, including but not restricted to: acts of God, acts of the public enemy, acts of Government, acts of the State, or any political subdivision thereof; fires, floods, epidemics, strikes except those caused by improper acts or omissions of the Contractor, extraordinary delays in delivery of materials caused by strikes, lockouts, wrecks, freight embargoes, (acts of governments), or acts of God, the time of completion shall be extended in whatever amount is determined by the County to be equitable.

An act of God is construed to mean an earthquake, flood, cloudburst, cyclone, or other cataclysmic phenomenon of nature beyond the power of the Contractor to foresee or to make preparation in defense of: A rain, windstorm, or other natural phenomenon of normal intensity, based on U.S. Weather Bureau reports; for the particular locality and for the particular season of the year in which The Work is being prosecuted shall not be construed as an "act of God", and no extension of time will be granted for the delay's resulting there from.

27. WORK ON SUNDAYS AND HOLIDAYS

No Work shall be permitted on Sundays or legal Holidays except to save property or life, or in case of extraordinary emergency and then only as authorized or directed by the Engineer.

28. WORK TO BE SUBLET

In the event that the Contractor elects to sublet a part, or a portion of this contract, he shall first give written notice to the Owner. No part of the Contract shall be sublet without the written approval of the Owner.

Make payment to each subcontractor and supplier within 10 Calendar Days after receipt of payment from the County for Work performed or materials delivered or incorporated into the Project, according to ORC 4113.61, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the subcontractor or supplier.

Also require that this contractual obligation be placed in all subcontractor and supplier contracts that it enters into and further require that all subcontractor and suppliers place the same payment obligation in each of their lower tier contracts. If the Contractor, subcontractors, or supplier subject to this provision fail to comply with the 10 Calendar Day requirement, the offending party shall pay, in addition to the payment due, interest in the amount of 18 percent per annum of the payment due, beginning on the eleventh Calendar Day following the receipt of payment from the County and ending on the date of full payment of the payment due plus interest.

Repeated failures to pay subcontractors and suppliers timely pursuant to this subsection will result in a finding by the County that the Contractor is in breach of Contract and subject to all legal consequences that such a finding entails. Further, repeated failures to pay timely pursuant to this subsection will result in a lower evaluation score for the Contractor and those subcontractors who are subject to evaluation by the County.

29. TRAFFIC TO BE MAINTAINED

Unless authorized by the Contract Documents for the Specific Contract, the Contractor shall not close to traffic any bridge, or culvert, or any portion of the highway during the progress of the work. To facilitate the maintaining of traffic, temporary site detours, spasses, bridges, or culverts may be constructed when provided for by the Contract or authorized by the Engineer. The Engineer must approve any such construction before being put into service. The Contractor shall maintain such temporary construction in the manner necessary to facilitate safe and expeditious flow of traffic, and the Engineer stall be the final judge as to whether or not such temporary construction meets these condition ENVIRONMENTAL PROTECTION

30.

Comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Avoid polluting streams, takes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, sediments, or other harmful materials, and avoid polluting the atmosphere with particulate and gaseous matter.

Fording of streams is prehibited. Causeways for stream and river crossings or for Work below a bridge are permitted provided.

- a) The causeway is constructed according to 207.03.B.8.b.
- b) The causeway complies with the requirements of the 404 Permit the Department obtained for the Project.
- c) The Contractor obtains a 404 Permit from the U.S. Army Corps of Engineers if the Department has not obtained such a permit. Obtain the 404 Permit prior to beginning construction of the causeway. The Department does not guarantee that the Contractor will be able to obtain a 404 Permit.

Comply with all current provisions of the Ohio Water Pollution Control Act, (OWPCA), (ORC Chapter 6111). The County will obtain a storm water permit under the OWPCA provisions when the plan work acreage requires a permit. The storm water permit will not cover the Contractor's work outside the Project limits shown on the Plans. Apply for a permit to cover operations outside the Project limits shown on the plans as required by the OWPCA provisions.

When the County has not applied for a permit on the Project and a permit is required under the provisions of the OWPCA because of the total area of the Contractor's work, apply for, obtain, and comply with the required permit for both the Work within Project limits and the Contractor's work.

The County has obtained the required permits from the U.S. Army Corps of Engineers and Ohio EPA for Work in the "Waters of the United States" and isolated wetlands under ORC Chapter 6111. Comply with the requirements of these permits.

When equipment is working next to a stream, lake, pond, or reservoir, spill response equipment is required in the event of a hydraulic leak. Do not stockpile fine material next to a stream, lake, pond, or reservoir.

Take precautions to avoid demolition debris and discharges associated with the excavation and hauling of material from entering the stream. Remove any material that does fall into the stream as soon as possible.

When excavating in or adjacent to streams, separate such areas from the main stream by a dike or barrier to keep sediment from entering the stream. Take care during the construction and removal of such barriers to minimize sediment entering the stream.

Accomplish control of ground water and water in excavations in a manner that prevents the degradation of the water quality of any surface water. Install wells and well points with suitable screens and filters where necessary to prevent the continuous pumping of fines. Pump sediment-laden water in a manner to prevent degradation of streums, lakes, ponds, or other areas of water impoundment. Such prevention may involve but is not limited to the means and methods described in Item 207. Use the current version of the Sediment and Erosion Control Handbook to plan this work. Use the methods necessary to prevent adverse effects to surface waters as provided in OAC-3745-1-04. The cost of constructing and maintaining these measures is incidental to the Contract.

Contain, collect, characterize and legally dispose of all waste water and sludge generated during the work. Do not mix waste water with storm water. Do not discharge any waste water without the appropriate regulatory permits. Manage waste water and sludge in accordance with ORC Chapter 6111 and all other laws, regulations, permits and local ordinances relating to this waste. Waste water management is incidentally the Work unless otherwise specified in the contract.

Control the fugitive dist generated by the Work according to OAC-3745-17-07(B), OAC-3745-17-08, OAC-3745-15-07, and OAC-3745-17-03 and local ordinances and regulations. In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this work without additional compensation except for Item 616.

Perform open burning according to 105.16.

31. BARRICADES, LIGHTING AND WATCHMEN

The Contractor at his own expense shall place proper Barricades and other proper Traffic Control Devices along and around all construction where hazards and danger to traffic exists, and shall take such other precautions as are necessary to protect life and property, and shall place and maintain sufficient Lights at night for protection of the public. Watchmen shall be provided where safety requirements indicate.

32. ALTERNATE PLANS

In the event the County Commissioners elect to advertise for and receive Alternate Plans for the construction or erection of a bridge or structure, the bidder may at his option submit an alternate plan or plans for a different type of structure, or structures than that submitted by the County Engineer. Such plan or plans together with specifications shall be filed in the office of the County Engineer for a period of fifteen (15) days, prior to the date for receiving bids. Such plans and specifications shall show the number of spans, the length of each, the nature, quantity, quality, and size of materials to be used, the length of the structure when completed, and whether there is any patent on the proposed plan, or any part thereof, and if so, on what part thereof.

33. REMOVED MATERIALS

Unless otherwise provided for in the Contract, all existing road or bridge materials taken from the work shall be the property of Athens County. These materials shall be placed by the Contractor at his expense, at or on an area along the side of the road designated by the Engineer, for removal by the County.

34. PATENTS

The Contractor shall indemnify, keep and save harriess the Owner from all liabilities, judgments, costs, damages, and expenses which may in any wise come against the Owner by devices, equipment, or processes furnished, or used in the performance of the work under this Contract, by reason of the use of Patented designs furnished by the Contractor and accepted by the Owner.

In the event that any claim, suit or action at law, or in equity of any kind whatsoever, is made or brought against the Owner involving any such Patents, then the Owner shall have the right to retain from the money due and to become due the Contractor, a sufficient amount of money as shall be considered necessary by the Owner, to protect itself against loss until such claim, suit, or action shall have been settled and evidence to that effect shall have been furnished to the satisfaction of the Owner.

35. PREVENTION OF AND INDEMNIFICATION FOR, ACCIDENTS

The Contractor, during the performance of the work, shall take all necessary precautions and place proper guards, or signs for the prevention of accidents, and shall put up and keep suitable and sufficient lights and other signals; and shall Indemnify and save harmless the County and its officers, agents and employees from all damages and costs, to which they may be put by reason of injury to person or property of another resulting from his negligence, or carelessness in the performances of the work, or in guarding the same, or from any improper materials, implements, or appliances used in its construction, or by, or on account of any act, or omission of the Contractor or his agents. The whole or so much of the moneys due under and by virtue of this Contract as shall be considered necessary by the Owner may, at his option, be retained by the Owner until all suits, or claims for damages as, aforesaid, shall have been settled, and evidences to that effect furnished to the satisfaction of the Owner.

36. INSURANCE AND WORKERS' COMPENSATION

Contractor shall indemnify and save harmless the State and all of its representatives, municipalities, counties, public utilities, any affected railroad or railway company, and any fee owner from whom a temporary Right-of-Way was acquired for the Project from all suits, actions, claims, damages, or costs of any character brought on account of any injuries or damages sustained by any person or property on account of any negligent act or omission by the Contractor or its subcontractors or agents in the prosecution or safeguarding of the Work. The Contractor shall procure and maintain insurance for liability for damages imposed by law and assumed under this Contract, of the kinds and in the amounts hereinafter provided from insurance companies authorized to do business in the State by the Ohio Department of Insurance. The cost of insurance is incidental to all contract items. Before the execution of the Contract by the Engineer, furnish to the County a certificate or certificates of insurance in the form satisfactory to the Department demonstrating compliance with this subsection. Provide an insurance certificate or certificates that show that the Contractor's liability and auto policies coverage are not reduced, restricted, or canceled until 30 days written notice has been given to the Department by the insurer.

Mail all certificates and notices to: Athens County Engineer, 16000 Capanville Rd, Athens Ohio, 45701. Upon request, the Contractor shall furnish the County with a certified copy of each policy, including the provisions establishing premiums

The types and minimum limits of insurance are as colows:

A. Workers' Compensation Insurance. Compensation covering all operations under contract with the Department whether performed by it or its subcontractors. In addition, if a portion of the Work is performed from a barge or ship or requires unloading material from a barge or ship on a navigable waterway of the United States, it is the responsibility of the Contractor to arrange coverage for that portion of the Work under the Longshore and Harborworkers' Compensation Act [33 USC Section 901 *et seq.*] and the Jones Act [5 USC Section 751 *et seq.*] and provide proof of coverage to the Department.

B. Commercial Ceneral Liability Insurance. The minimum limits for liability insurance are as follows:

General Aggregate Limit - \$2,000,000 Products - Completed Operations Aggregate Limit \$2,000,000 Personal and Advertising Injury Limit \$1,000,000 Each Occurrence Limit \$1,000,000

Obtain the above minimum coverages through primary insurance or any combination of primary and umbrella insurance. In addition, the Department will require the General Aggregate Limit on a per project basis.

Ensure that the Commercial General Liability Insurance policy names the County of Athens, Engineer, its officers, agents, and employees as additional insureds with all rights to due notices in the manner set out above. Obtain Explosion, Collapse, and Underground (XCU) coverage at the same limits as the commercial general liability insurance policy. In addition, if blasting is to be performed, obtain XCU coverage providing a minimum

Aggregate Limit of \$5,000,000 and Each Occurrence Limit of \$1,000,000. Submit proof of insurance, endorsements, and attachments to the Engineer prior to starting the Work.

C. Comprehensive Automobile Liability Insurance. The Comprehensive Automobile Liability policy shall cover owned, non-owned, and hired vehicles with minimum limits as follows:

Bodily Injury and Property Damage Liability Limit Each Occurrence \$1,000,000

Insurance coverage in the minimum amounts set forth neither relieves the Contractor from liability in excess of such coverage, nor precludes the County from taking such other actions as are available to it under any other provisions of this Contract or otherwise in law.

Clearly set forth all exclusions and deductible clauses in all proof of insurance submitted to the County. The Contractor is responsible for the deductible limit of the policy and all exclusions consistent with the risks it assumes under this Contract and as imposed by law.

If the Contractor provides evidence of insurance in the form of certificates of insurance, valid for a period of time less than the period during which the Contractor is required by terms of this Contract, then the County will accept the certificates, but the Contractor is obligated to renew its insurance policies as necessary. Provide new certificates of insurance from time to time, so that the County is continuously in possession of collence that the Contractor's insurance is according to the foregoing provisions.

If the Contractor fails or refuses to renew its insurance policies or the policies are canceled or terminated, or if aggregate limits have been impaired by claims so that the amount available is under the minimum aggregate required, or modified so that the insurance does not meet the requirements of 107.12.C, the County may refuse to make payment of any further monies due under this Contract or refuse to make payment of monies due or coming due under other contracts between the Contractor and the County. The County in its sole discretion may use monies retained pursuant to this subsection to renew or increase the Contractor's insurance as necessary for the periods and amounts referred to above. Alternatively, should the Contractor fail to comply with these requirement, the County may default the Contractor and call upon the Contractor's Surety to remedy any deficiencies. During any period when the required insurance is not in effect, the Engineer may suspend performance of the Contract. If the Contract is so suspended, the Contractor is not entitled to additional compensation or an extension of time on account thereof.

Nothing in the Contract Documents and insurance requirements is intended to create in the public or any member thereof a third party beneficiary hereunder, nor is any term and condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

37. CLEANING UP

Upon completion of the work all surfaces disturbed during the work shall be restored in a satisfactory manner, and all tools, plant and equipment, and other property belonging to the Contractor, shall be removed and the site of the wok left clear, and in a condition equal to that existing prior to the beginning of work under the Contract.

38. **LUMP SUM PRICES**

Where work is to be paid for by the Lump Sum, it is hereby, expressly agreed that in said Lump Sum shall be included all materials, labor, tools, and equipment required to fully complete the work, notwithstanding, that while the work may be fully shown on the Drawings, it may be partially described in other parts of the Contract Documents and vice versa.

39. PARTIAL PAYMENTS

The Contractor will be paid in accordance with Ohio Revised Code Sections 153.12, 153.13, and 153.14

40. **FINAL ESTIMATE**

The Engineer shall, as soon as practicable after the final acceptance of the work done under this Contract, make a Final Estimate of the amount of the work done, and the value thereof. Such Final Estimate shall be approved by the Owner, after which, the Owner, shall pay the sum so found to be due hereunder, after deducting there from, of previous payments, and all amount to be withheld under the Contract. All prior partial Estimates may be subjected to correction in the Final Estimate and payment.

41. UNDERGROUND UTILITIES

If the construction area may involve underground utility facilities, the Contractor, at least two working days prior to common constructions of the construction and the construction of the construction

two working days prior to commencing construction operations in the construction area, shall cause notice to be given to the registered underground utility protection services and the owners of any underground utility facilities shown on the plans. The notice shall be in writing, by telephone, or in person. If the contractor gives written notice, it shall be by certified mail, return receipt requested. Identity and Location of Utilities are specified in the plans.

ADDITIONAL SPECIFICATIONS INCORPORATED HEREIN BY REFERENCE 42.

Construction and Material Specifications as set forth in the latest issue of the "State of Ohio, Department of Transportation, Construction and Materials Specifications" (ODOT CMS) and all supplemental specifications thereto, not otherwise provided for in these General Specifications, are incorporated herein by reference, and made a part of these General Specifications. Where a conflict exists between these specifications and the ODOT CMS, these specifications and the project plans shall govern.

The terms "engineer" or "county" shall be substituted as appropriate where the ODOT CMS refers to the "department".

43. **GUARANTEE**

The Contractor shall guaranty that all materials and equipment furnished and work performed under this contract are free from all defects for a period of one (1) year from the date of final payment. The provisions of Paragraphs 18 and 19 shall apply to any defect in the work, materials, apparatus or workmanship of the project or failure in the operation or performance of any part thereof or guarantees required hereunder determined by the Engineer to have occurred,

developed or appeared during the guaranty period. Ten percent (10%) of the Performance Bond shall remain in full force and effect through the guaranty period and until all defects detected during the guaranty period have been corrected to the satisfaction of the Owner. The Owner shall evidence release of the Performance Bond in writing and the Bond shall be in effect until said release has been obtained from the Owner.

The Contractor shall be required to show proof of insurance coverage meeting the requirements of Paragraph 31 prior to performing any work on the project during the guaranty period.

44. **RELEASE OF OWNER**

The end of the guaranty period shall be and shall operate as a release by the Contractor of all claims against and all liability of the Owner by reason of this Contract, and all things done or performed by the Contractor there under.

45. UNBALANCED BIDDING

Bid all items correctly and price each quantity as indicated in the Bid Documents. The County will reject a mathematically unbalanced bid if the bid is also materally unbalanced. A mathematically unbalanced bid is one that contains lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus areasonable proportionate share of the bidder's overhead costs, other indirect costs, and appropriated profit. A bid is materially unbalanced when the County determines that an award to the bigher submitting a mathematically unbalanced bid will not result in the lowest at mate cost to the county.

46.

DISPUTES AND CLAIMS

When a contractor (sub-contractors must pursue dispute through the contractor) feels there is additional work beyond the some of the project due to changing site conditions or other unforeseen cause, he shall address his concern to the on site project representative who will contact the project engineer for a site dispute resolution. If an on site resolution cannot be reached, the contractor shall submit the issue in writing to the County Engineer who will investigate and meet with the contractor to try to resolve the issue. The Engineer will notify the contractor in writing of his decision and the contractor may accept the decision or he may file a claim with the appropriate Court.

ATH-TR83/TR471-1.40/0.01 **BRIDGE REPLACEMENTS PROJECT**

ATHENS COUNTY, OHIO

Supplemental General Conditions

Official Education

Official Education

Athens

SUPPLEMENTAL GENERAL CONDITIONS

- 1. ODOT CMS -- January 1, 2019 Specifications
- 2. Unit Prices/ Lump Sum Prices
- 3. Pre-Bid Questions
- 4. Meetings
- 5. Safety
- 6. Work On Sundays And Holidays
- 7. Restoration
- 8. Dust Control

- 9. Sanitary Convenience Facilities
- 10. Access To Adjoining Properties
- 11. Violating Facilities
- 12. Shop Drawings
- 13. Relationship Bar Chart Schedule

(1) ODOT – CMS -- JANUARY 1, 2019 SPECIFICATIONS:

- The ODOT Construction and Materials Specifications are to be considered as a complete supplement of this Contract, and as such are to be complied with in their entirety. The ODOT STANDARD DRAWINGS are also to be considered a complete supplement as well.
- Bidders are required to be familiar with these publications and be prepared to comply with the various requirements of these documents. These documents can be purchased from the Contract Sales Office of the Ohio Department of Transportation, Columbus, Ohio (Phone # 614-466-3200).
- If the ODOT CMS Specifications (1/01/2019) conflict with other contract requirements including the contract specifications, general conditions, etc., then the more stringent or costly specification shall apply. The contractor shall fotify the Engineer of any known discrepancies prior to the Bid Date it possible

(2) UNIT PRICES/ LUMP SUM PRICES:

• The Engineer has attempted to list and itemize all pertinent items in the proposal documents. Any items of work that are clearly shown on the drawings but not specifically included as a unit price item are to be included in the various "Lump Sum Items" for payment. Quantities for unit price items will be adjusted to reflect the actual amount installed of the various items.

(3) PRE-BID QUESTIONS:

 Any questions related to the Contract Documents, or any errors or omissions discovered during the drawing review during the pre-bid review process, can be directly addressed to:

> Donnie Stevens II, PE, PS Athens County Assistant Engineer 16000 Canaanville Rd Athens, Ohio 45701 Phone: (740) 593-5514

Email: dstevens@athensoh.org

(4) MEETINGS:

• A preconstruction meeting will be held at the Athens County Engineer's Office, 16000 Canaanville Rd, Athens, Ohio 45701. The Prime Contractor, his Superintendant, and any

proposed subcontractors should attend this meeting. The Contractor shall provide the following items at this meeting:

- a. Project Schedule See Condition No. 13 below
- b. List of Subcontractors and Material Suppliers.
- c. Shop Drawing Submittals See Condition No. 12 Below

(5) SAFETY:

 All OSHA Regulations and Safety Requirements are to be strictly complied with during the construction of this Contract Work. If there are any questions regarding these regulations, the Bidders are encouraged to contact the respective agencies in order to familiarize themselves completely with the content involved.

(6) WORK ON SUNDAYS AND HOLIDAYS:

• No work shall be performed on Sundays and on holidays unless approved by Jeff Maiden, PE, PS, Athens County Engineer.

(7) **RESTORATION**:

- The contractor shall clean-up all debris and materials resulting from his operation and restore all surfaces, structures, ditches, and property to its original or better condition to the satisfaction of the engineer.
- Contractor shall remove all mailboxes, wreet signs, etc. Dat need to be removed, and work with property owners and the owner in a timely banner to determine where they will need to be replaced.

(8) DUST CONTROL:

• Dust control operations shall be performed by the contractor during construction according to item 616 as needed or at the request and satisfaction of the engineer.

(9) SANITARY CONVENIENCE FACILITIES:

• The contractor shall turnish and maintain sanitary convenience facilities for the workers and inspectors for the duration of the work.

(10) ACCESS TO ADJOINING PROPERTIES:

• Access to adjoining properties shall be maintained at all times.

(11) VIOLATING FACILITIES:

• The Contractor agrees to comply with all applicable standards, orders or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

(12) SHOP DRAWINGS:

The Contractor shall, at his own expense prior to the manufacture or fabrication of any materials which he is to furnish and which are not built from detailed designs furnished by the Engineer, submit for approval of the Engineer, four (4) complete sets of detailed Shop Drawings of such

materials. These Shop Drawings shall be accurate and distinct and shall give all working dimensions, kinds of materials to be used, kinds of machine work and finish to be applied, and These Shop Drawings shall, in general, pertain to such items as steel like information. reinforcement, piping, electrical installations, valves, pumps, heating equipment, structural steel work, miscellaneous metal and wood work, and any other work similar to the above-mentioned items.

One (1) set of Shop Drawings furnished by the Contractor will be returned after approval, the other three (3) sets being retained by the Engineer. If required by the Engineer, the Shop Drawings shall be revised and four (4) sets of revised Shop Drawings shall be furnished until the approval of the Engineer has been obtained.

No work upon the manufacture or the fabrication of any materials shall be done until such approval by the Engineer has been obtained. Furthermore, the approval of the Shop Drawings shall not be interpreted in any way to classify for payment for any particular work.

(13) RELATIONSHIP BAR CHART SCHEDULE:

The Contractor shall prepare and submit a bar chart calendar by progress schedule at the preconstruction meeting for review by the Construction Engineer. The schedule may be preconstruction meeting for review by the Construction Engineer. The schedule may be prepared either by hand or computer generated, at the Contractor's option. All schedules must include the following Administrative Identifier Information.

1. Project Name
2. County
3. Route Number
4. FHWA Number
5. PID Number
6. Contract Number
7. Date of Contract
8. Completion Date
9. Contractor's Name
10. Contractor's Storagure (apost be dated)

- 10. Contractor's Signature (thust be dated)

It is the Contractor's responsibility to select the items to be scheduled and the sequence in which they are to be performed consistent with contract requirements. As a minimum, the relationship bar chart progress schedule shall provide a listing of project activities that will indicate the following information:

- 1. Scope of Work
- 2. Anticipated Activity State Date
- 3. Anticipated Activity Finish Date
- 4. Work Item Duration
- 5. Work Item Relationships
- 6. Maintenance of Traffic
- 7. Interim Completion Dates and Project Milestones (if any) defined in the Contract Documents.

The progress schedule requirements are discussed in further detail as follows:

- <u>A. Scope of Work:</u> The Contractor shall list all major items of work required to complete the scope of the project. The major items of work shall be broken down into components to give further details to the scope of work included in each major item. Work items shall be sequenced relative to phasing requirements and the traffic control plan in effect during the prosecution of the work.
- <u>B. Anticipated Activity Start Date:</u> The date the Contractor intends to start a particular work item.
- <u>C. Anticipated Activity Finish Date:</u> The date the Contractor expects to fully complete a work item.
- <u>D. Work Item Duration:</u> The total time from the start date to the finish date of the work item.
- <u>E. Work Item Relationship:</u> The Contractor shall indicate the relationship between each work item on the project bar chart to indicate the interdependence of work items. The Contractor shall utilize arrow diagrams to indicate those work items that can commence prior to completion of the preceding work item, as well as to indicate work items which must be completed prior to the start of a successor work item.
- F. <u>Critical path to Completion</u>: The contractor shall clearly identity the critical path for the project on the relationship bar chart progress conedule.
- II. This paragraph takes precedence over Section 108.03 of the Construction and Material Specification.

The contractor shall submit an updated elationship bar chart schedule on the first day of each month during the life of the project. Each updated project progress schedule shall indicate the actual start/finish dates for all completed activities, the actual start date and remaining duration for all activities in progress and the proposed start date and duration for all remaining activities. The updated project progress schedule shall also include actual/planned start dates, durations and the relationship to other activities for work that has been added to the project. If the Engineer determines that work has fallen behind schedule more than fifteen (15) calendar days, the Contractor shall submit a revised schedule within seven (7) calendar days of written request by the Engineer indicating how the Contractor proposes to recover the project to meet the original completion dates. No payments will be made to the Contractor during those periods where the Contractor is delinquent in the submission of a revised progress schedule. If for any reason the prosecution of the work is suspended, the Contractor shall notify the Engineer a minimum of 24 hours in advance of resuming operations. The project progress schedule will be utilized by the Engineer to make determinations of project time extensions and evaluate claims for adjustments in compensation which may be submitted by the Contractor.

ATH-TR83/TR471-1.40/0.01 BRIDGE REPLACEMENTS PROJECT

ATHENS COUNTY, OHIO

SECTION VIII

SECTION VIII

ORIGINATION

Davis-Bacon Wage Rates

Original County

Athers

"General Decision Number: OH20230001 04/14/2023

Superseded General Decision Number: OH20220001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

vallable office If the contract is entered Executive Order 14026 into on or after January 30, generally applies to the 2022, or the contract is contract. renewed or extended (e.g., an | The contractor must pay option is exercised) on or all covered workers at after January 30, 2022: least \$16.20 per hour the applicable wage ra listed on this wage determination, it it higher for an hour spent performing on the contract in 2023. Executive Order 13658 If the contract was awarded on generally applies to the or between January 1, 2015 and January 29, 2022, and the contract.) contract is not renewed or The contractor must pay all extended on or after January covered workers at least 30, 2022: \$12)15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all

hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0	01/06/2023
1	02/03/2023
2	03/03/2023
3	04/14/2023

* BROH0001-001 06/01/2022

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

		Rates	Fringes
Bricklayer,	Stonemason\$	31.40	18.55

^{*} BROH0001-004 06/01/2022

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	\$ 31.40	18.55

(Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Wenry, Washington, Milton, Jackson & Grand Rapids)

Bricklayer, Stonemason......

BROH0005-003 06/01/2020

CUYAHOGA, LORAIN & MEDINA (Hinckley, tranger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes	
BRICKLAYER			
BRICKLAYERS; CAULKERS;			
CLEANERS; POINTERS; &			
STONEMASONS	\$ 36.64	17.13	
SANDBLASTERS	\$ 36.39	17.13	
SEWER BRICKLAYERS & STAG	CK		
BUILDERS	\$ 36.64	17.13	
SWING SCAFFOLDS	\$ 37.14	17.13	

^{*} BROH0006-005 06/01/2022

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes	
Bricklayer, Stonemason	\$ 31.40	18.55	
* BROH0007-002 06/01/2022			
LAWRENCE			
	Rates	Fringes	
Bricklayer, Stonemason	\$ 31.40	18.55	
* BROH0007-005 06/01/2022			
PORTAGE & SUMMIT			
	Rates	Fringes	
BRICKLAYER	\$ 31.40	18.55	
BROH0007-010 06/01/2017			
PORTAGE & SUMMIT			or a
	Rates	Fringes	le relice
MASON - STONE		14:55	$O_{\ell_{\ell_{\ell}}}$
* BROH0008-001 06/01/2022		on wo	
COLUMBIANA (Salem, Perry, Fair Middleton, & Unity Townships a MAHONING & TRUMBULL			
BRICKLAYER	\$.31)40	18.55	
* BROH0009-002 06/01/2022	KIN OS		
BELMONT & MONROE COUNTIES and Pleasant and the Village of D		of Warren & Mt. EFFERSON COUNTY	
	Rates	Fringes	
Bricklayer, Stonemason Refractory		18.55 19.01	
* BROH0010-002 06/01/2022			
COLUMBIANA (St. Clair, Madison Yellow Creek & Liverpool Towns Saline Townships)			
	Rates	Fringes	
Bricklayer, Stonemason	\$ 31.40	18.55	
Bricklayer, Stonemason	\$ 31.40	18.55	

* BROH0014-002 06/01/2022

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0016-002 06/01/2022		
ASHTABULA, GEAUGA, and LAKE COUN	TIES	
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0018-002 06/01/2022		
BROWN, BUTLER, CLERMONT, HAMILTON Israel, Lanier, Somers & Gratis		
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55 1 10 Offi
* BROH0022-004 06/01/2022		7 721.15
CHAMPAIGN, CLARK, CLINTON, DARKE MIAMI, MONTGOMERY, PREBLE (Jackson Jefferson & Washington Townships)	on, Monro) and SHE Rates	DE HIPTISON TWING LEV COUNTLES Fringes
Bricklayer, Stonemason	.\$ 31.46	18.55
* BROH0032-001 06/01/2022	.\$ 31.40	O
GALLIA & MEIGS	el	
\(\rightarrow\)	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0035-002 06/01/2022		
ALLEN, AUGLAIZE, MERCER and VAN I	WERT COUN	ITIES
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0039-002 06/01/2022		
ADAMS & SCIOTO		
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55

* BROH0040-003 06/01/2022

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

Rates Fringes

Bricklayer, Stonemason.....\$ 32.49 23.43

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.

Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.

""Hot"" work: \$2.50 above journeyman rate.

* BROH0044-002 06/01/2022

Rates Fringes

Bricklayer, Stonemason
COSHOCTON, FAIRFIELD,
GUERNSEY, HOCKING, KNOX,
KICKING, MORGAN,
MUSKINGUM, NOBLE (Beaver,
Buffalo, Seneca & Wayne
Townships) & PERRY

COUNTIES:.....\$ 31.40 18.55

BROH0045-002 06/01/2021

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

Rates Fringes

* BROH0046-002 06/01/2022

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

Rates Fringes

Bricklayer, Stonemason.....\$ 31.40

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.

Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.

""Hot"" work: \$2.50 above journeyman rate.

* BROH0052-001 06/01/2022

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0052-003 06/01/2022		
NOBLE (Brookfield, Noble, Center Jackson, Jefferson & Elk Townshi		
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18.55
* BROH0055-003 06/01/2022		
DELAWARE, FRANKLIN, MADISON, PIC	KAWAY and UNION	COUNTIES
	Rates	Fringes
Bricklayer, Stonemason	.\$ 31.40	18,55
CARP0003-004 05/01/2017		Olyvalla, CO.
MAHONING & TRUMBULL	• 6	y avol
	Rates	Fringes
CARPENTER	.\$ 26.20	17,42
CARP0069-003 05/01/2017	KO.'91	COUNTIES Fringes 18.55 Fringes 17.42
CARROLL, STARK, TUSCARAWAS & WAY	NE O	
, s	Rates	Fringes
CARPENTER	.\$ 25.98	15.98
CARP0069-006 05/01/2017	The	
COSHOCTON, HOLMES, KNOX & MORROW		
	Rates	Fringes
CARPENTER	.\$ 24.04	15.29
CARP0171-002 05/01/2019		
BELMONT, COLUMBIANA, HARRISON, J	EFFERSON & MONRO	DE
	Rates	Fringes
CARPENTER	.\$ 27.37	20.02
CARP0200-002 05/01/2021		
ADAMS, ATHENS, DELAWARE, FAIRFIE GUERNSEY, HIGHLAND, HOCKING, JAC		

6

MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER Diver PILEDRIVERMAN	\$ 39.41	20.08 10.40 20.08
CARP0248-005 07/01/2008		
LUCAS & WOOD		
	Rates	Fringes
CARPENTER	\$ 27.27	14.58
CARP0248-008 07/01/2008		
	Rates	Fringes
CARPENTER DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES	\$ 23.71	Fringes 13.28 16.97
CARP0254-002 05/01/2017	•.0	n 27 001
ASHTABULA, CUYAHOGA, GEAUGA & LAK	Rates	Fringes
CARPENTER	\$32.40.	16.97
CARP0372-002 05/01/2016	NO CO	
ALLEN, AUGLAIZE, HARDIN, MERCER	PU NAM & VAN WE	RT
O _X	Ratus	Fringes
CARPENTER	\$ 24.54	18.21
CARP0639-003 05/01/2017		
MEDINA, PORTAGE & SUMMIT		
	Rates	Fringes
CARPENTER	\$ 30.42	16.99
CARP0735-002 05/01/2019		
ASHLAND, ERIE, HURON, LORAIN & RI	CHLAND	
	Rates	Fringes
CARPENTER		17.91
CARP1311-001 05/01/2017		

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN

	Rates	Fringes
Carpenter & Piledrivermen		15.95 9.69
CARP1393-002 07/01/2008		
CRAWFORD, DEFIANCE, FULTON, HAPAULDING, SANDUSKY, SENECA, W		UCAS, OTTAWA,
	Rates	Fringes
Piledrivermen & Diver's Tende	r\$ 27.30	16.05
DIVERS - \$250.00 per day		
CARP1393-003 07/01/2008		
ALLEN, AUGLAIZE, HARDIN, MERC	ER, PUTNAM, VAN	WERT & WYANDOT Fringes 15.02
	Rates	Fringes
Piledrivermen & Diver's Tende	r\$ 25.15	15.62
DIVERS - \$250.00 per day	-01	ne ret ine
CARP1871-006 05/01/2017		18 15.82 TO 11.00
BELMONT, HARRISON, & MONROE	60,9	M
	Rates	Fringes
Diver, Wet		17.33 17.33
Piledrivermen; Diver, Dry	32.00	17.33
CARP1871-008 05/01/2017	rille	
ASHLAND, ASHTABULA, CUYAHOGA, LORAIN, MEDINA, PORTAGE, RICH		URON, LAKE,
	Rates	Fringes
Diver, Wet Piledrivermen; Diver, Dry	\$ 30.53	18.84 18.84
CARP1871-014 05/01/2017		
CARROLL, STARK, TUSCARAWAS & I	WAYNE	
	Rates	Fringes
Diver, Wet Piledrivermen; Diver, Dry		16.95 16.95

CARP1871-015 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
Diver, Wet		16.07 16.07
CARP1871-017 05/01/2017		
MAHONING & TRUMBULL		
	Rates	Fringes
Diver, Wet		17.62 17.62
CARP2235-012 01/01/2014		
COLUMBIANA & JEFFERSON		
	Rates	Fringes
PILEDRIVERMAN	31.74	Fringes 16.41 Fringes Fringes
CARP2239-001 07/01/2008		0/1/2/D, Offi
CRAWFORD, OTTAWA, SANDUSKY, SENECA	A & WYANDOT	NO 1811, 18
	Rates	Fringes
CARPENTER	23.71	13.25
ELEC0008-002 05/23/2022	101 R'C	
DEFIANCE, FULTON, HANCOCK, HENRY, PUTNAM, SANDUSKY, SENECA, WILLIAMS		PAULDING,
	Rates	Fringes
CABLE SPLICER	3.98 3.44.79 4	18.96 .5%+21.61
ELEC0032-003 12/05/2022		
ALLEN, AUGLAIZE, HARDIN, LOGAN, ME WYANDOT (Crawford, Jackson, Marsei Ridge & Salem Townships)		
	Rates	Fringes
ELECTRICIAN		21.48
ELEC0038-002 04/25/2022		
CUYAHOGA, GEAUGA (Bainbridge, Ches LORAIN (Columbia Township)	ster & Russell	Townships) &

Fringes

Rates

9

ELECTRICIAN

Excluding Sound &

Communications Work.....\$ 40.88

22.75

FOOTNOTES;

a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day b. 1 week's paid vacation for 1 year's service; 2 weeks' paid

vacation for 2 or more years' service

ELEC0038-008 04/25/2022

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

> Rates Fringes

Sound & Communication

Technician

Communications Technician...\$ 29.30 Installer Technician.....\$ 28.05

FOOTNOTES;

a. 6 Paid Holidays: New Year's Day; Memorial Day

Labor Day; Thanksgiving Day; & Christmas Day

b. 1 week's paid vacation for 1 year's servi vacation for 2 or more years' service

ELEC0064-003 11/28/2022

COLUMBIANA (Butler, Fairfield, Percy) Unity Townships) MAHONING (Austintown, Beaver, Berlin, Poliman, Canfield, Ellsworth, Coitsville, Goshen, Green, Jackson, Poland, 🎇 TRUMBUDL (Hubbard & Springfield & Youngstown Townships Liberty Townships)

Fringes

ELECTRICIAN..... 18.91

______ ELEC0071-001 01/01/2019

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

Rates

Fringes

Equipment Operators\$ 33.	62 13.40
Groundmen\$ 24. Linemen & Cable Splicers\$ 38.	17 11.32
ELEC0071-004 01/01/2019	
UGLAIZE, CLINTON, DARKE, GREENE, LOGA ONTGOMERY, PREBLE, and SHELBY COUNTIE	
Rate	s Fringes
<pre>ine Construction Equipment Operator\$ 33.</pre>	62 13.40
Groundman\$ 24. Lineman & Cable Splicers\$ 38.	
ELEC0071-005 12/31/2018	
SHTABULA, CUYAHOGA, GEAUGA, LAKE & LO	RAIN
Rate	s Fringes
INE CONSTRUCTION: Equipment perator DOT/Traffic Signal &	RAIN s Fringes 44 14.10 10 16.42 19 14.11
Highway Lighting Projects\$ 32. Municipal Power/Transit	44
Projects\$ 40. INE CONSTRUCTION: Groundman DOT/Traffic Signal &	10 16.42 16.42
Highway Lighting Projects\$ 25. Municipal Power/Transit	062 (12.20)
Projects\$31. INE CONSTRUCTION: inemen/Cable Splicer	19 42.11
DOT/Traffic Signal & Highway Lighting Projects\$.36	15.03
Municipal Power/Transit Projects44.	17.58
ELEC0071-008 01/01/2019	
OLUMBIANA, MAHONING, and TRUMPULL CO	UNTIES
Rate	s Fringes
<pre>ine Construction Equipment Operator\$ 33.</pre>	62 13.40
Groundman\$ 24. Lineman & Cable Splicers\$ 38.	17 11.32
ELEC0071-010 01/01/2019	
ELMONT, CARROLL, HARRISON, HOLMES, JE	FEERSON, MEDINA, PORTAGE.

Rates Fringes
Line Construction
Equipment Operator......\$ 33.62 13.40

GroundmanLineman & Cable Splicers		11.32 14.42
ELEC0071-013 01/01/2019		
BROWN, BUTLER, CLERMONT, HAMILTON	N, and WARR	EN COUNTIES
	Rates	Fringes
Line Construction Equipment Operator Groundman Lineman & Cable Splicers	.\$ 24.17	13.40 11.32 14.42
ELEC0071-014 01/01/2019		
ADAMS, ATHENS, GALLIA, JACKSON (ELick, Jefferson, Scioto & Madisor PIKE (Camp Creek, Marion, Newton, Townships), SCIOTO & VINTON (Brow Wilkesville Townships)	n Townships , Scioto, S), LAWRENCE, MEIGS, unfish & Union adison, Vinton &
	Rates	Fringes
Line Construction Equipment Operator Groundman Lineman & Cable Splicers	.\$ 24.17	Fringes 13.40 11.32 14.43 14.43
ELEC0082-002 12/05/2022		Wet in
CLINTON, DARKE, GREENE, MIAMI, MC (Wayne, Clear Creek & Franklin To	ownships) Rates	PREEDE & WARREN
ELECTRICIAN	.\$ 34.25	21.26
* ELECO082-006 11/28/2022 CLINTON, DARKE, GREENE, MIAMI, Moderation (Wayne, Clear Creek & Franklin	NIGOMERY, Ownships)	PREBLE & WARREN
	Rates	Fringes
Sound & Communication Technician Cable Puller Installer/Technician		4.76 13.89
ELEC0129-003 02/27/2023		
LORAIN (Except Columbia Township) Liverpool Townships)) & MEDINA	(Litchfield &
	Rates	Fringes
	4 20 20	40.00

18.30

ELECTRICIAN.....\$ 39.30

ELEC0129-004 02/27/2023

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman, Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich, Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN	\$ 39.30	18.30
ELEC0141-003 09/01/2019		

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER	•	25.87 25.87

ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes AD OFFI
Sound & Communication Technician	\$ 24.35	N 10.03 70 61 5
ELEC0212-005 06/06/2022	Seyle	Ket dille
BROWN, CLERMONT, and HAMILTON COU	NTIES	0,770

ELECTRICIAN......\$ 33.29 21

ELEC0245-001 08/29/2022

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator	\$ 32.37	26.5%+7.25
Groundman Truck Driver	\$ 19.35	7.00+27.25%
Lineman	\$ 44.22	7.00+27.25%

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

ELEC0245-003 08/29/2022

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

Rates

Fringes

Line Construction		
Cable Splicer\$	50.85	7.00+27.25%
Groundman/Truck Driver\$	19.35	7.00+27.25%
Heli-arc Welding\$	40.76	7.00+27.25%
Lineman\$	44.22	7.00+27.25%
Operator - Class 1\$	35.38	7.00+27.25%
Operator - Class 2\$	28.32	7.00+27.25%
Traffic Signal & Lighting		
Technician\$	39.80	7.00+27.25%

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0245-004 08/29/2022

ERIE COUNTY

	Rates	Fringes	200
Line Construction Cable Splicer Cablesplicer Groundman/Truck Driver Lineman	\$ 50.85 \$ 19.35 \$ 44.22	26.75%+6.75 7.00+27.25% 7.00+27.25% 7.00+27.25%	iable office
Operator - Class 1 Operator - Class 2 FOOTNOTE: a. 6 Observed Holida Day; Independence Day; Labor Da	\$ 28.32 ys: New Year		

Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-001 10/31/2022

ELECTRICIAN.....

Paces Fringes

84%+36.47

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

ELEC0306-005 05/28/2018

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

Rates Fringes

CABLE SPLICER\$ 36.87	16.56
ELECTRICIAN\$ 34.54	5%+18.06
FL FC0217 002 0F /20 /2022	

ELEC0317-002 05/30/2022

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER	•	18.13 28.25

ELEC0540-005 12/27/2021

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townhships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN		22.63

ELEC0573-003 11/28/2022

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windson Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy)
Townships), MAHONING (Milton Township), PORTAGE (Charlestown Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

Rates Fringes
ELECTRICIAN.....\$ 38.70 20.9

ELEC0575-001 11/21/2022

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Solt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN	.\$ 36.00	21.14

ELEC0648-001 08/29/2022

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

Rates Fringes

CABLE SPLICER	\$ 30.50	18.23
ELECTRICIAN	\$ 33.00	21.44

ELEC0673-004 01/01/2023

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

	Rates	Fringes	
CABLE SPLICER	· · · · · • · ·	21.47 23.41	

ELEC0683-002 05/30/2022

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and UNION COUNTIES

	Rates	Fringes	able office
CABLE SPLICER	· · · · · · · · · · · · · · · · · · ·	23.15 23.15	ila O
FLEC0688-003 05/30/2022		.07	<u>.</u> 6,

ASHLAND, CRAWFORD, HURON (Richmond, New Ashland, Ripley Greenwich Townships), KNOX (Liberty, Clinton, Union, Heward, Monroe, Middleberry, Morris, Wayne, Perlin, Pike, Brown & Jefferson Townships), MARION, MORROW, RICHAND and WYANDOT (Sycamore, Crane, Eden, Pitt, Antrim & Tymochter Townships) COUNTIES

Fringes ELECTRICIAN... 21.83 ELEC0972-002 06/01/2021

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships), and WASHINGTON COUNITES

	Rates	Fringes
CABLE SPLICER	-	27.81 27.62

ELEC1105-001 05/30/2022

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller, Milford, Hilliar, Butler, Harrison, Pleasant & College Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn, York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry & Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	\$ 35.25	22.18
ENGI0018-003 05/01/2019		

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1\$	38.63	15.20
GROUP 2\$	38.53	15.20
GROUP 3\$	37.49	15.20
GROUP 4\$	36.27	15.20
GROUP 5\$	30.98	15.20
GROUP 6\$	38.88	15.20
GROUP 7\$	39.13	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete rump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track W Truck (All Configurations); Derrick; Dragline; Drage (Droper, Clam or Suction); Elevating Grader or Euclid Loader, Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (1)8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24"" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48""; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types;

Trench Machine (24"" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4"" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48"" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect mascnary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post priver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencker; Roller (Brick, Grade & Macadam); Self-Propelled Power Spleader; Self-Propelled Power Subgrader; Steam Fileperson, Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Righway); Drum Fireperson (Asphalt Plant); Generator, Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Dil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4"" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Crines - Compact, track or rubber under 4,000 pound capacity; Tueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0018-004 05/01/2019

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	\$ 37.14	15.20
GROUP 2	\$ 37.02	15.20
GROUP 3	\$ 35.98	15.20
GROUP 4	\$ 34.80	15.20
GROUP 5	\$ 29.34	15.20
GROUP 6	\$ 37.39	15.20
GROUP 7	\$ 37.64	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Bover (D8) or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel) Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Perrain Fork Lift with Winch/Hoist; Side-Boom, Slipe Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24"" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine, and Whoel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48""; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24"" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4"" & over discharge); Railroad

Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Artiaculating/straight bed end dumps if assigned (minus \$4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48"" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 6 - Master Mechanic & Boom from 150 & 180

GROUP 7 - Boom from 180 and over.

ENGI0066-023 06/01/2017

DLUMBIANA, MAHONING & TRUMBULL COUNTIES

VER EQUIPMENT Operations in the state of the state

POWER EQUIPMENT OPERATOR ASRESTOS: HAZARDOUS/TOXIC	Fringes
POWER EQUIPMENT OPERATOR	
ASBESTOS; HAZARDOUS/TOXIC	
WASTE PROJECTS	
GROUP 1 - A & B\$ 39.23	19.66
ASBESTOS; HAZARDOUS/TOXIC	
WASTE PROJECTS	
GROUP 2 - A & B\$ 38.90	19.66
ASBESTOS; HAZARDOUS/TOXIC	
WASTE PROJECTS	
GROUP 3 - A & B\$ 34.64	19.66
ASBESTOS; HAZARDOUS/TOXIC	
WASTE PROJECTS	
GROUP 4 - A & B\$ 30.70	19.66
ASBESTOS; HAZARDOUS/TOXIC	
WASTE PROJECTS	
GROUP 5 - A & B\$ 27.30	19.66
HAZARDOUS/TOXIC WASTE	
PROJECTS	
GROUP 1 - C & D\$ 35.96	19.66
HAZARDOUS/TOXIC WASTE	

PROJECTS	
GROUP 2 - C & D\$ 35.66	19.66
HAZARDOUS/TOXIC WASTE	
PROJECTS	
GROUP 3 - C & D\$ 31.76	19.66
HAZARDOUS/TOXIC WASTE	
PROJECTS	
GROUP 4 - C & D\$ 28.14	19.66
HAZARDOUS/TOXIC WASTE	
PROJECTS	
GROUP 5 - C & D\$ 25.03	19.66
ALL OTHER WORK	
GROUP 1\$ 32.69	19.66
ALL OTHER WORK	
GROUP 2\$ 32.42	19.66
ALL OTHER WORK	
GROUP 3\$ 28.87	19.66
ALL OTHER WORK	
GROUP 4\$ 25.58	19.66
ALL OTHER WORK	
GROUP 5\$ 22.75	19.66

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derriks; Boat-Tug; Boring Machine Attached to Tractor; Bullchm; Buldozer; C.M.I. Road Builder & Similar Type; Caol Placer & Layer Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Copy ete Saw (Vermeer or similar type); Concrete Spreader Finisher, Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine Drag Line; Dredge; Drill-Kenny or Similar Type; Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Provelled; Heavy Equipment Robotics Operator/Mechanic; Horst-Monorail; Hoist-Stationary & Mobile Tryctor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Operator; Mixer-Concrete; Mulching Machine; Pin Puller;
Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull
Type); Saw-Concrete-Self-Propelled (Highway Work); Signal
Person; Spray Cure Machine-Motor Powered; Stump Cutter;
Tractor; Trencher Form; Water Blaster; Steam Jenny;
Syphon; Vibrator-Gasoline; & Welding Machine
RON0017-002 05/01/2022

HTABULA (North of Route 6, starting re, proceeding controlled) Generator-Steam; Heater-Portable Power; Hydraulic

GROUP 5 - Brakeperson; Fireperson; & Oiler

ASHTABULA (North of Route 6, starting at the Genuga County Line, proceeding east to State Route (15), CUYHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #2/4), PORTIGE (West of a line from Middle Gield to Chalonoville) Middlefield to Shalersville to Deer (1), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

> Rates Fringes

IRONWORKER

Ornamental, Reinforcing, & Structural.....\$ 34.33

27.51

IRON0017-010 05/01/2022

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

> Rates Fringes

Struct	tural, including	
metal	building erection 8	k
Reinfo	orcing	

27.51 ..\$ 34.33

IRON0044-001 06/01/2022

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

R	lates	Fringes
IRONWORKER, REINFORCING\$ Beyond 30-mile radius of	32.37	22.30
Hamilton County Courthouse\$ Up to & including 30-mile radius of Hamilton County	28.67	21.20
Courthouse\$	27.60	20.70

CLINTON (South of a line drawn from Blanchester to Lynchburg).
HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) & WARREN (South of a line drawn from Blanchester through Morrow to the west county line)

IRONWORKER

Fence Erector	\$.30,28	22.30
Fence Erector Ornamental; Structural	\$ 31.87	22.30
,		

^{*} IRON0055-003 07/01/2022

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30 meet through N. Liberty to the forthern border & from said Hwy junction point due west to the border), DEFIANCE (S. of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), ERIE (Western 1/3), FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville to a point 4 miles south of the northern line on the eastern line), HENRY, HURON (West of a line drawn from the northern border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM (East of a line drawn from the northern border down through Miller City to where #696 meets the southern border), SANDUSKY, SENECA, WILLIAMS (East of a line drawn from Pioneer through Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	F	Rates	Fringes
IRONWORKER			
Fence	Erector\$	24.60	22.87

Flat Road Mesh\$	29.77	21.30
Tunnels & Caissons Under		
Pressure\$	29.77	21.30
All Other Work\$	31.25	26.90

IRON0147-002 06/01/2022

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER	.\$ 31.20	28.47

IRON0172-002 06/01/2022

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth),
COSHOCTON (West of a line beginning at the northwestern county
line going through Walhonding & Tunnel Hill to the southern
county line), CRAWFORD (South of Rte. #30), DELAWARE,
FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn
from Roundhead to Maysville), HIGHLAND (Eastern one-fifc)),
HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern
one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line
starting at Adams Mill going to Adamsville & going from
Adamsville through Blue Rock to the southern border), RERRY,
PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT
(South of Rte. #30) COUNTIES

IRON0207-004 06/01/2022

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter	\$ 32.92	26.26
Ornamental; Reinforcing;		
Structural	\$ 31.92	26.26
Ornamental; Reinforcing	\$ 28.92	25.61

IRON0290-002 06/01/2022

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line

drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER	\$ 31.59	23.85
IRON0549-003 12/01/2022		

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South HOLMES, HURON (S. of Old Rte. #224), MAHONING #224), MEDINA (S. of Old Rte. #224). PC #224), RICHLAND, STARK, SUMMIT ity limits of Barber

Ironworkers:Structural, Ornamental and Reinforcing.... 21.69 _____

IRON0769-004 06/01/2022

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

Rates Fringes IRONWORKER.....\$ 33.71 27.69 -----IRON0787-003 06/01/2022

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

Rates Fringes IRONWORKER.....\$ 31.50 23.75 -----

LAB00265-008 05/01/2022

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON,		
LORAIN, LUCAS, MAHONING,		
MEDINA, OTTAWA, PORTAGE,		
SANDUSKY, STARK, SUMMIT,		
TRUMBULL & WOOD COUNTIES		
GROUP 1	24 05	12.10
GROUP 2		12.10
•		12.10
GROUP 3\$		
GROUP 4\$	33.90	12.10
CUYAHOGA AND GEAUGA		
COUNTIES ONLY: SEWAGE		
PLANTS, WASTE PLANTS,		
WATER TREATMENT		
FACILITIES, PUMPING		
STATIONS, & ETHANOL PLANTS		
CONSTRUCTION\$	37.56	12.10
CUYAHOGA, GEAUGA & LAKE		0 0
COUNTIES		
GROUP 1\$		12 10
GROUP 2\$		12.10
GROUP 3\$		12.10 12.10 12.10 11.10 12.10 12.10 12.10 12.10
GROUP 4\$	37.13	12.10
REMAINING COUNTIES OF OHIO	3	
GROUP 1\$		12.10
GROUP 2\$	34.69	0.10
GROUP 3\$	35.02	12.10
GROUP 4\$	35.47	12.10
	10 X	

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Quardral and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer, Right of-way Laborer; Riprap Laborer & Grouter; Caffold Trector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4"" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0006-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)		
Rat	es	Fringes
PAINTER COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS GROUP 1	.30 .60 .16	Fringes 16.16 16.05 16.16 16.16 16.16 16.16 16.16 16.16
PAINTER CLASSIFICATIONS - COMMERCIA RENOVATIONS	L NEW WORK	REMODELING; &
GROUP 1 - Brush; & Roller	5	
GROUP 2 - Sandblasting & Buffing		
GROUP 3 - Spray Painting; Clored St & Open Structural Steel; Tanks - Wa Painters; Bridge Riggers; Containme	ter Towers;	
GROUP 4 - Bridge Blaster		
PAINTER CLASSIFICATIONS - COMMERCIAL	REPAINT	
GROUP 1 - Brush; & Roller		

GROUP 3 - Spray Painting

GROUP 2 - Sandblasting & Buffing

PAIN0007-002 07/01/2021

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach,

ī	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1\$	28.74	18.77
GROUP 2\$	28.74	18.77
GROUP 3\$	28.74	18.77
GROUP 4\$	28.74	18.77
GROUP 5\$	28.74	18.77
GROUP 6\$	28.74	18.77
GROUP 7\$	28.74	18.77
GROUP 8\$	28.74	18.77
GROUP 9\$	28.74	18.77

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Fpoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

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PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1	\$ 21.95	10.20
GROUP 2	\$ 25.30	10.20
GROUP 3	\$ 25.80	10.20
GROUP 4	\$ 26.05	10.20
GROUP 5	\$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller GROUP 3: Spray GROUP 4: Sandblasting; & Waterblasting GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement PAIN0012-010 05/01/2019 BROWN, CLERMONT, CLINTON, HAMILTON & WARREN Rates Fringes **PAINTER HEAVY & HIGHWAY BRIDGES-GUARDRAILS-LIGHTPOLES-STRIPING** Bridge Equipment Tender and Containment Builder....\$ 21.95 Bridges when highest point of clearance is 60 feet or more; & Lead Abatement Projects.....\$ 26.30 Brush & Roller.....\$ 25.30 Sandblasting & Hopper Tender; Water Blasting....\$ 26.05 Spray.....\$ 25.80 -----PAIN0093-001 12/01/2022 ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and WASHINGTON COUNTIES

Rates Frie Fringes **PAINTER** Bridges; Locks; Dams; Tension Towers; & Energized Substations.... 22,47 Power Generating Facilities.\$ 31.66 22.47 PAIN0249-002 06/01/2020 CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE Rates Fringes **PAINTER** GROUP 1 - Brush & Roller....\$ 24.17 11.22 GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes.....\$ 24.17 11.22 GROUP 3 - Spray; Sandblast; Steamclean;

Lead Abatement.....\$ 24.92

11.22

GROUP 4 - Steeplejack Work\$	25.12	11.22
GROUP 5 - Coal Tar\$	25.67	11.22
GROUP 6 - Bridge Equipment		
Tender & or Containment		
Builder\$	32.88	11.22
GROUP 7 - Tanks, Stacks &		
Towers\$	27.81	11.22
GROUP 8 - Bridge Blaster,		
Rigger\$	35.88	11.22
PAIN0356-002 09/01/2009	·	
KNOX, LICKING, MUSKINGUM, and PERR	Y	

	Rates	Fringes	
PAINTER			
Bridge Equipment Tenders			
and Containment Builders Bridges; Blasters;	\$ 27.93	7.25	
andRiggers	¢ 21 60	7.25	
		· -	
Brush and Roller	\$ 20.93	7.25	
Sandblasting; Steam		\sim	0
Cleaning; Waterblasting;		· Q1	ر کام
and Hazardous Work	\$ 25.82	7, 25	
	•	70/5	
Spray	ρ 21.4 0	(A, 7,0, ()	•
Structural Steel and Swing			
Stage	\$ 25.42	7.25	
Tanks; Stacks; and Towers	\$ 28.63	7.25	
		<u> </u>	
PAIN0438-002 12/01/2021	a Vice	Let in	
	20		
BELMONT, HARRISON and JEFFERSON CO	OUNTIES	Ciles	
	Rates	Fringes	
	. ✓		

PAINTER

Bridges, Locks, Dams, Tension Towers & Energized Substations..... 18.19 Power Generating Facilities.\$ 18.19

PAIN0476-001 06/01/2021

COLUMBIANA, MAHONING, and TRUMBULL COUNITES

	Rate	es Fri	inges
PAINTER			
GROUP	1\$ 25.	.79	15.81
GROUP	2\$ 33.	. 10	15.81
GROUP	3\$ 26.	.00	15.81
GROUP	4\$ 27.	.12	15.81
GROUP	5\$ 27.	.79	15.81
GROUP	6\$ 26.	.69	15.81
GROUP	7\$ 27.	.79	15.81

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel GROUP 4: Spray, Except Bar Joist/Deck GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above 50 Feet; and Swingstages GROUP 6: Tanks; Sandblasting GROUP 7: Towers; Stacks PAIN0555-002 06/01/2021 ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO Rates Fringes **PAINTER** GROUP 1.....\$ 31.95 17.05 Only alable office et available office GROUP 2.....\$ 33.47 17.05 GROUP 3.....\$ 34.99 GROUP 4.....\$ 37.97 PAINTER CLASSIFICATIONS GROUP 1 - Containment Builder GROUP 2 - Brush; Roller; Power Tools, Under 40 test GROUP 3 - Sand Blasting; Spray; Steam Cleshing ressure
Washing: From & Two Company & T Washing; Epoxy & Two Component Materials; Lean Abatement Hazardous Waste; Toxic Materials; Bunk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks GROUP 4 - Stacks; Bridges PAIN0639-001 05/01/2011 Fringes Sign Painter & Erector..... 3.50+a+b+c FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years'

FOURNOTES: a. / Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day
b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation
c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

PAIN0788-002 06/01/2022

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA

(Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

ŀ	Rates	Fringes
PAINTER		
Brush & Roller\$	25.08	16.72
Structural Steel\$	26.68	16.72

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

epoxy
anks, and
tes
Fringes For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

PAINTER

Base Rate..... Bridges, Locks, Dams & Tension Towers..... -----

PAIN0841-001 06/01/2018

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	F	Rates	Fringes
Painters:			
GROUP	1\$	25.75	14.35
GROUP	2\$	26.40	14.35
GROUP	3\$	26.50	14.35
GROUP	4\$	26.60	14.35
GROUP	5\$	27.00	14.35
GROUP	6\$	39.20	11.75
GROUP	7\$	27.00	14.35

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper, Drywall Finisher and Follow-up Man Using Automatic Tools

PAIN0841-002 06/01/2022

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes	01 0
PAINTER Bridges; Towers, Poles &		Hr.	aple office
Stacks; Sandblasting Steel; Structural Steel &		0, 0	116,25
Metalizing Brush & Roller Spray; Tank Interior &		15.45 15.45	S _O ,
Exterior	\$ 23.50	15.45	
PAIN1020-002 06/01/2022	10	S. C.	

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOCAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

Rates	Fringes
PAINTER	
Brush & Roller	15.00
Drywall Finishing & Taping 3 24.90 Lead Abatement\$ 27.95	15.00
Lead Abatement\$ 27.95	15.00
Spray, Sandblasting	
Pressure Cleaning, &	
Refinery\$ 26.95	15.00
Swing Stage, Chair,	
Spiders, & Cherry Pickers\$ 25.47	15.00
Wallcoverings\$ 23.80	15.00

All surfaces 40 ft. or over where material is applied to or labor performed on, above ground level (exterior), floor level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

PAIN1275-002 06/01/2020

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS

	Rates	Fringes
PAINTER		
Bridges Brush; Roller Sandblasting;		14.40 14.40
Steamcleaning; Waterblasting (3500 PSI or		
Over)& Hazardous Work		14.40
SprayStacks; Tanks; & Towers		14.40 14.40
Structural Steel & Swing Stage		14.40
	р 23.40 	14.40
PLAS0109-001 05/01/2018		
MEDINA, PORTAGE, STARK, and SUMMI	T COUNTIES	
	Rates	Fringes
PLASTERER	\$ 28.86	17.11
PLAS0109-003 05/01/2018		2/13/13/D. Offi
CARROLL, HOLMES, TUSCARAWAS, and I	WAYNE COUNTIES	"Or Ashris
	Rates	Fringes 17.11 Fringes Fringes
PLASTERER	\$ 28.21	X 17.10
PLAS0132-002 06/01/2022	~0\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
BROWN, BUTLER, CLERMONT, HAMILTO	N, HIGHLAND, WA	RREN COUNTIES
	Ratios	Fringes
PLASTERER	29.26	14.69
PLAS0404-002 05/01/2018	Vel.	
ASHTABULA, CUYAHOGA, GEAUGA, AND	LAKE COUNTIES	
	Rates	Fringes
PLASTERER		17.11
PLAS0404-003 05/01/2018		
LORAIN COUNTY		
	Rates	Fringes
PLASTERER	\$ 28.86	17.11
PLAS0526-022 05/01/2018		
COLUMBIANA, MAHONING, and TRUMBU	LL COUNTIES	
	Rates	Fringes

PLASTERER	\$ 28.86	17.11
PLAS0526-023 05/01/2018		
BELMONT, HARRISON, and JEFFER	RSON COUNTIES	
	Rates	Fringes
PLASTERER	\$ 28.21	17.11
PLAS0886-001 05/01/2018		
FULTON, HANCOCK, HENRY, LUCAS	S, PUTNAM, and W	NOOD COUNTIES
	Rates	Fringes
PLASTERER	\$ 29.63	17.11
PLAS0886-003 05/01/2018		
DEFIANCE, ERIE, HURON, OTTAWA COUNTIES	A, PAULDING, SAN	Fringes
	Rates	Fringes
PLASTERER	\$ 28.86	17.11
PLAS0886-004 05/01/2018		ie store
ALLEN, AUGLAIZE, HARDIN, LOGA	AN, MERCER, and	VAN WENT COUNTIES
	Rates	Fringes
PLASTERER	\$ 28.21	17.11
PLUM0042-002 07/01/2022	is c	O
ASHLAND, CRAWFORD, ERIE, HURC & WYANDOT	DN, KNOX, LOBAIN	N, MORROW, RICHLAND
	Rates	Fringes
Plumber, Pipefitter, Steamfitter		25.47
PLUM0050-002 07/04/2022		
DEFIANCE, FULTON, HANCOCK, HE PUTNAM, SANDUSKY, SENECA, WIL		ΓΑWA, PAULDING,
	Rates	Fringes
Plumber, Pipefitter, Steamfitter		28.51
PLUM0055-003 05/01/2022		
ASHTABULA, CUYAHOGA, GEAUGA,	LAKE, MEDINA (N	N. of Rte. #18 &

Smith Road) & SUMMIT (N. of Rte. #303, including the corporate limits of the city of Hudson)

	Rates	Fringes
PLUMBER	.\$ 40.00	28.43
PLUM0083-001 07/01/2017		
BELMONT & MONROE (North of Rte.	#78)	
	Rates	Fringes
Plumber and Steamfitter	.\$ 32.16	31.51
PLUM0094-002 05/01/2022		
CARROLL (Northen Half), STARK, a	nd WAYNE COUNT:	IES
	Rates	Fringes
PLUMBER/PIPEFITTER	.\$ 36.83	22.99
PLUM0120-002 05/02/2022		14 DIO EFICE
ASHTABULA, CUYAHOGA, GEAUGA, LAK House in Avon Lake), MEDINA (N. #303)		
PIPEFITTER	.\$ 44.67	8.34
PLUM0162-002 06/01/2022	KO'10	<i>id</i>
CHAMPAIGN, CLARK, CLINTON, DARKE MONTGOMERY & PREBLE	, FAYETTE GREET	NE, MIAMI,
O)	Races	Fringes
Plumber, Pipefitter, Steamfitter		26.80
PLUM0168-002 06/01/2022		
MEIGS, MONROE (South of Rte. #78 & WASHINGTON	s), MORGAN (South	n of Rte. #78)
	Rates	Fringes
PLUMBER/PIPEFITTER		34.09
PLUM0189-002 06/01/2022		
DELAWARE, FAIRFIELD, FRANKLIN, H MARION, PERRY, PICKAWAY, ROSS &		, MADISON,

Rates Fringes Plumber, Pipefitter, Steamfitter.....\$ 43.25 26.94 PLUM0219-002 06/01/2022 MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES Rates Fringes Plumber and Steamfitter..... \$ 41.22 PLUM0392-002 06/01/2022 Vallable office BROWN, BUTLER, CLERMONT, HAMILTON & WARREN Rates Fringes PLUMBER/PIPEFITTER.....\$ 36.71 PLUM0396-001 06/01/2022 COLUMBIANA (Excluding Washington & Yellow Cree Townships Liverpool Twp. - Secs. 35 & 36 - West of County Road 14 MAHONING and TRUMBULL COUNTIES PLUMBER/PIPEFITTER..... CARROLL (Rose, Monroe, Union Dee, Orange, Perry & Loudon Townships), COLUMBIANÁ (Washington Wellow Creek Townships & Liverpool Township, Secs. 35 & 36 West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, WOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES Rates Fringes Plumber, Pipefitter,

Plumber, Pipefitter,
Steamfitter......\$ 31.24 34.34
PLUM0577-002 06/01/2022

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

Rates Fringes

	\$ 37.56	25.73
PLUM0776-002 07/01/2022		
ALLEN, AUGLAIZE, HARDIN, LOGAN COUNTIES	N, MERCER, SHEL	BY and VAN WERT
	Rates	Fringes
Plumber, Pipefitter, Steamfitter	\$ 39.33	27.68
TEAM0377-003 05/01/2021		
STATEWIDE, EXCEPT CUYAHOGA, G	EAUGA & LAKE	
	Rates	Fringes
TRUCK DRIVER GROUP 1	-	15.70 15.70
TRUCK DRIVER CLASSIFICATIONS		14 3
GROUP 1 - Asphalt Distributo 4-Wheel Dump; Oil Distributo		heel Service;
GROUP 2 - Tractor-Trailer Co Ready Mix; Semi-Tractor; & A Operated From Cab; 5 Axles & Articulated Dump; Heavy Duty Mechanic	Asphalt Oil Spr & Over; Beliy b y Equipment, Lo	a bar Man When ump; End Dump; w Egy; & Truck
TEAM0436-002 05/01/2021). Bin	
CUYAHOGA, GEAUGA & LAKE	Ration	9 °
	Ratus	Fringes
TRUCK DRIVER GROUP 1	\$ 30.65 \$ 31.15	16.95 16.95
	raight Fuel	

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is Unlisted classifications needed for work not included within the scope of the classifications listed may be added affor award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination listed may be added afformation and wage rates that have 'ited type'. like family to the employee) who is a victim of, domestic

and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are disted in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union degotiated rate for local), a survey rate (weighted average Nie) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate

changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a eighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

> Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

> Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final. interested party's position and by any information (wage

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