Advertisement, Bid, Contract, and Specifications

Preservation Parks of Delaware County

McCammon Creek Park East Area
Parking Lot & Pedestrian Bridge Project

July 2025

BURGESS & NIPLE

PRESERVATION PARKS OF DELAWARE COUNTY

MCCAMMON CREEK PARK EAST AREA
PARKING LOT & PEDESTRIAN BRIDGE PROJECT

ADVERTISEMENT, BID, CONTRACT, AND SPECIFICATIONS

JULY 2025

BURGESS & NIPLE, INC.
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ADVERTISEMENT FOR BIDS

Preservation Parks of Delaware County
McCammon Creek Park East Area
Parking Lot & Pedestrian Bridge Project

Sealed Bids for the construction of McCammon Creek Park Parking Lot and Pedestrian Bridge Project will be received by Preservation Parks of Delaware County at the Park District Office building at 2656 Hogback Road, Sunbury, Ohio 43074 until **1:00 p.m. (local time), July 28, 2025**, and then at said office will be opened and read immediately thereafter.

The work covered by the Contract Documents includes the construction of a new asphalt entry drive and parking lot as well as a paved pedestrian trail, roadway crossing, and pedestrian bridge.

The estimated construction cost is $644,390.15 as of July 7, 2025.

Project completion of April 30, 2026.

The plans, specifications, and bid document may be obtained by: *Key Blue Prints, 195 East Livingston Avenue, Columbus, Ohio 43215 or elec.* All bidders must be on the plan holders list.

Prospective BIDDERS may address written inquiries to Mr. Brian Tornes of Burgess & Niple, Inc. by email at brian.tornes@burgessniple.com

A nonmandatory prebid conference will be held for prospective BIDDERS on Monday, July 14, 2025, at 10:00 a.m. at the job site located at the Bicentennial Barn located at 6840 Bale Kenyon Road, Lewis Center, Ohio 43035.

Successful Bidders shall be required to comply with all laws pertaining to prevailing wage and discrimination of persons. No successful bidder will be on the debarred list of the State of Ohio or the State Auditor's Finding for Recovery list.

Each bid must be accompanied by either a bid bond, certified check, or letter of credit, in an amount of 10% of the bid amount with a surety satisfactory to the *Preservation Parks of Delaware County (PPDC).* Bid Bonds shall be accompanied by Proof of Authority of the official or agent signing the bond. Bid Guaranty and Contract Bond in the form of Ohio Revised Code Section 153.571 is included in the bid package as an acceptable option.

Bids shall be sealed and marked as Bid for the *McCammon Creek Park East Area Parking Lot & Pedestrian Bridge Project.*

Attention of bidders is called to all of the requirements contained in this bid packet, particularly to prevailing wage standards, various insurance requirements, and the requirement for a payment bond and performance bond for 100% of the contract price.

Preservation Parks of Delaware County reserves the right to reject any and all Bids or to increase or decrease or omit any item or items and/or award to the lowest responsive and responsible BIDDER. Each proposal must contain the full name of every person or company interested in the same. Preservation Parks of Delaware County reserves the right to waive any informalities or irregularities in the Bidding.

Tyler Swartzlander
Administrative Manager

Adv.(Dates)	(Newspaper)
7/9, 7/14	Delaware Gazette

INSTRUCTIONS TO BIDDERS

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INSTRUCTIONS TO BIDDERS

1. QUALIFICATION OF BIDDERS

Each BIDDER must submit with their Bid, an experience record form (Section 00 45 13) with at least three projects listed that are similar to this project in size and scope.

1.1. To further demonstrate qualifications to perform the Work, each BIDDER must be prepared to submit within 5 days after an OWNER's request for detailed written evidence such as financial data, previous experience, present commitments, subcontractor capabilities or experience, and other such data.

1.2. Each Bid must contain evidence of BIDDER's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract.

1.3. The CONTRACTOR's state license number must be included where applicable.

1.4. Each BIDDER must be registered as a plan holder with the Issuing Office.

1.5. Drug-Free Workplace Program.

1.5.1. During the Contract Time, the Contractor and each Subcontractor shall be enrolled in and good standing in the Drug-Free Workplace (DFWP) Program or a similar program approved by the Ohio Bureau of Workers' Compensation.
1.5.2. Contractors must enroll in a certified program and provide verification within ten days of the bid opening or bid will be deemed nonresponsive.

2. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

2.1. It is the responsibility of each BIDDER before submitting a Bid:

2.1.1. To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including appendices);
2.1.2. To visit the site to become familiar with and satisfy BIDDER as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work;
2.1.3. To consider federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work;
2.1.4. To study and carefully correlate BIDDER's knowledge and observations with the Contract Documents and such other related data; and
2.1.5. To promptly notify ENGINEER/ARCHITECT of all conflicts, errors, ambiguities, or discrepancies which BIDDER has discovered in or between the Contract Documents and such other related documents and/or site conditions.

2.2. BIDDER may review, if available, those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by the ENGINEER/ARCHITECT in preparation of the Contract Documents.

Copies of such reports and drawings will be made available by the OWNER to any BIDDER on request.

2.3. Before submitting a Bid, each BIDDER will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto or which BIDDER deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

2.4. On request, OWNER will provide each BIDDER access to the site to conduct such examinations, investigations, explorations, tests, and studies as each BIDDER deems necessary for submission of a Bid. BIDDER shall notify all underground utilities and must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests, and studies. The BIDDER assumes all liability from damages resulting from such examination, investigation, exploration, tests, and studies. The schedule for such investigations shall be approved by the OWNER.

2.5. The submission of a Bid will constitute an incontrovertible representation by the BIDDER that the BIDDER has complied with every requirement of this Article, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, the prevailing hourly wage rates for the area in which the Project is located, that BIDDER has given ENGINEER/ARCHITECT prompt written notice of all conflicts, errors, ambiguities, and discrepancies that the BIDDER has discovered in the Contract Documents, and the written resolution thereof by ENGINEER/ARCHITECT is acceptable to BIDDER, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

3. INTERPRETATIONS AND ADDENDA

3.1. All questions about the meaning or intent of the Bidding and Contract Documents are to be directed to the ENGINEER/ARCHITECT in writing. Interpretations or clarifications considered necessary by the ENGINEER/ARCHITECT in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the ENGINEER/ARCHITECT as having received the Bidding Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

3.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by the OWNER or the ENGINEER/ARCHITECT.

4. BID SECURITY

4.1. Each Bid must be accompanied by a Bid security made payable to the Owner in the form of either:

4.1.1. A Bond for the full amount of the BIDDER's maximum Bid price with a corporate Surety approved by the Owner and meeting the requirements of Ohio Revised Code Section 153.571. Use Bond forms included herein.
4.1.2. A certified check for 10 percent of the Bid.
4.1.3. A cashier's check for 10 percent of the Bid.
4.1.4. An irrevocable letter of credit for 10 percent of the Bid.

4.2. As soon as the Bids have been compared, the Owner will return the Bid securities of all except the three lowest BIDDERS. When the Agreement is executed, or the period for holding the Bids has expired and no time extension has been mutually agreed upon, the Bid guaranties of the two remaining unsuccessful BIDDERS will be returned.

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

4.4. The party to whom the Contract is awarded will be required to execute the Agreement and obtain the Contract Bond, if applicable, within 10 calendar days from the date of the Notice of Award. The Notice of Award shall be accompanied by the necessary Agreement and Bond forms. In case of failure of the BIDDER to execute the Agreement, the Owner may, at their option, consider the BIDDER in default, in which case the BIDDER will be subject to the liability as set forth in the Bid Guaranty and Contract Bonds or Contract Bonds.

5. CONTRACT TIMES

The number of days within which the Work is to be completed and ready for final payment is set forth in the Agreement (or incorporated therein by reference to the attached Bid Form).

6. LIQUIDATED DAMAGES

Provisions for liquidated damages, if any, are set forth in the Agreement.

7. BID FORM

7.1. The Bid Form is included with the Bidding Documents and the Bid prices must be entered therein, in figure only. In all items, Bids must be made separately on labor and material and the total price for each unit shall be the "Total (Sum of Labor and Material)." In the event of math errors on the Bid Schedule, the "Labor" and "Material" columns will be assumed to be correct and the remaining math will be corrected accordingly. Bids will then be evaluated using the corrected figures.

7.2. All blanks on the Bid Form must be completed by printing or typing on the original forms from the Issuing Office.

7.3. Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

7.4. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

7.5. All names must be typed or printed below the signature.

7.6. The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

7.7. The address, telephone number, and email address for communications regarding the Bid must be shown.

7.8. Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided in accordance with paragraph 3, "Qualifications of BIDDERS." State CONTRACTOR license number, if any, must also be shown.

7.9. The BIDDER is required to execute and submit a Noncollusion Affidavit (Section 00 45 19) with the Bid.

7.10. The successful BIDDER will be further required to furnish the OWNER with a complete breakdown of the lump sum Bid items, to the satisfaction of the ENGINEER/ARCHITECT, before signing the Contract Documents. The lump sum breakdown shall be in sufficient detail to provide a check of claims for partial payment requests.

7.11. 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 a 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 and as they may be increased or decreased by duly authorized Change Order. Payments, except for lump sum Bids, and except for the lump sum items in unit price Bids, will be made to the CONTRACTOR for the actual quantities only of Work performed or materials furnished in accordance with the Contract Documents.

8. SUBMISSION OF BIDS

Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of BIDDER and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

The Bidding Forms are to be completed and submitted along with the Bid security.

9. MODIFICATION AND WITHDRAWAL OF BIDS

9.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

9.2. If within the time specified by law, any BIDDER files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of the OWNER that there was a material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid, and the Bid security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the Work to be provided under the Contract Documents.

10. OPENING OF BIDS

Bids will be opened (unless obviously nonresponsive) and read. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to BIDDERs after the opening of Bids.

11. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All Bids will remain subject to acceptance for 60 days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date. Should there be any reasons why the Contract cannot be awarded within the specified period, the time may be extended in writing by mutual agreement between the OWNER and the BIDDER. If the Contract is to be awarded, OWNER will give successful BIDDER a Notice of Award within 60 days after the date of the Bid unless the time is extended by mutual agreement between the OWNER and the BIDDER.

12. AWARD OF CONTRACT

12.1. OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids and to reject the Bid of any BIDDER if OWNER believes that it would not be in the best interest of the Project to make an award to that BIDDER, whether because the Bid is not responsive or the BIDDER is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful BIDDER. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

12.2. In evaluating Bids, OWNER will consider the qualifications of BIDDERS, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

12.3. OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. OWNER may also consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

12.4. OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of BIDDERS, proposed Subcontractors, Suppliers, and other persons and organizations to perform

and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

12.5. If the Contract is to be awarded, it will be awarded to lowest BIDDER whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.

13. CONTRACT SECURITY

Paragraphs 42 of the "General Provisions," sets forth OWNER's requirements as to performance and payment Bonds or contract Bond. When the Successful BIDDER delivers the executed Agreement to OWNER, it must be accompanied by the required performance and payment Bonds or Contract Bond.

14. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the Successful BIDDER, it will be accompanied by the required number of unsigned counterparts of the Agreement. Within 10 days thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement To OWNER with the required Bonds. Within 20 days thereafter OWNER shall deliver two fully signed counterparts to CONTRACTOR.

15. PREBID CONFERENCE

A prebid conference may be required by the OWNER. If so, the time, date, and place will be given to persons obtaining Contract Documents.

SCOPE OF BIDS

PRESERVATION PARKS OF DELAWARE COUNTY

MCCAMMON CREEK PARK
PARKING LOT AND PEDESTRIAN BRIDGE ADDITION

COMPLETE PROJECT

It is understood and agreed that the CONTRACTOR has, by careful examination, satisfied himself as to the nature and location of the work; the conformation of the ground; the character, quality, and quantity of the materials to be encountered; the character or equipment and facilities needed preliminary to and during the prosecution of the work; the general and local conditions; and all other matters which can, in any way, affect the work under this Contract.

All known structures, pipelines, and utilities have been indicated in their approximate locations on the plans, and any reasonable variation in size and location of structures and pipe shall not be cause for extra payment.

The CONTRACTOR shall verify the rating and horsepower of the equipment he proposes to furnish and shall provide for any necessary electrical changes to accommodate the equipment furnished at no change in Contract Price.

If construction procedures and equipment being utilized by the CONTRACTOR prove to be inadequate in the performance of the Contract, the procedures and equipment shall be modified or alternative equipment shall be furnished and used at no additional cost to the OWNER.

The CONTRACTOR will be responsible for obtaining and paying all costs associated with any telephone service he may require during the Contract period. The CONTRACTOR will be responsible for supplying, maintaining, and paying all costs associated with all temporary and permanent utility services as required for plant operation and construction of the Work; maintaining influent and effluent to the existing plant until the plant is operational. The CONTRACTOR shall pay the monthly costs associated with electrical service throughout the Contract Time including facility testing and start-up until the project reaches substantial completion.

The price Bid shall include the following:

1. All labor, materials, and equipment in accordance with Article 6 of the General Conditions.

2. All field staking necessary for construction from control points established by the ENGINEER/ARCHITECT.

3. All assistance required by the ENGINEER/ARCHITECT to verify compliance with the Contract Documents, including measuring for quantities.

4. ENGINEER's/ARCHITECT's field office as specified.

All BIDDERS must Bid Items 1 through 14 inclusive.

Item 1 – Treatment Plant Complete, Except Items 2 through 11. The lump sum Bid for this item shall include furnishing all materials, labor, tools, and equipment necessary to perform all general, civil/site, and electrical work (including furnish and installing spare conduits for future use as indicated) except Items 2 through 11 described below to complete the project, complete and ready for operation in accordance with the Contract Documents.

The price Bid shall include all costs for mobilization, sediment and erosion control, project management, meetings, demobilization and all else not covered by Items 2 through 11. The successful BIDDER will be required to furnish a breakdown of the lump sum Bid as required for estimating purposes.

Payment will be made at the lump sum price bid under the following schedule:

- 25% of bid price is payable upon site mobilization and establishment of the sediment and erosion controls
- 15% of bid price is payable each month after mobilization until a total of 85% of the item has been paid
- The final 15% is payable upon site demobilization and project completion.

Item 2 – Earthwork. This item shall include all labor, tools, equipment, and materials for the Earthwork complete as shown on the plans and specified. This item shall include all topsoil removal and stockpiling, excavation, backfill, embankment, topsoil respread, and compaction testing as required to complete the construction as shown on the plans. Note that costs for excavation and backfill for the bridge abutments should be included in the bid price for the pedestrian bridge.

Payment will be made at the lump sum price bid.

Item 3 – Aggregate Base. This item shall include all labor, tools, equipment, and materials for the Aggregate Base complete as shown on the plans and specified. The aggregate base material shall be in accordance with ODOT Item 304 as specified and to the limits shown on the drawings.

Payment will be made at the unit price bid per cubic yard for the quantities as determined from field measurements to the limits specified on the plans. Unauthorized aggregate base placement beyond the plan limits shall be at the contractor's expense.

Item 4 – Asphalt Pavement Intermediate Course. This item shall include all labor, tools, equipment, and materials for the Asphalt Pavement Intermediate Course complete as shown on the plans and specified.

Payment will be made at the unit price bid per cubic yard for the quantities as determined from field measurements. Unauthorized asphalt placement beyond the plan limits specified shall be at the contractor's expense.

Item 5 – Asphalt Pavement Surface Course. This item shall include all labor, tools, equipment, and materials for the Asphalt Pavement Surface Course complete as shown on the plans and specified.

Payment will be made at the unit price bid per cubic yard for the quantities as determined from field measurements. Unauthorized asphalt placement beyond the plan limits specified shall be at the contractor's expense.

Item 6 – Tack Coat. This item shall include all labor, tools, equipment, and materials for the Tack Coat complete as shown on the plans and specified.

Payment will be made at the unit price bid per square yard for the quantities as determined from the specified limits and field measurements.

Item 7 – Pedestrian Crossing. This item shall include all labor, tools, equipment, and materials for the Pedestrian Crossing of Bale Kenyon Road complete as shown on the plans and specified. This item shall include the cross-walk striping, crossing signs with solar panels and conduit, concrete curb cutting, concrete walk/approach to the crossing on each side of Bale Kenyon Road including the detectable ADA pads and the maintenance of traffic on Bale Kenyon Road for the installation of the crossing.

Payment will be made at the lump sum price bid.

Item 8 – Signs and Pavement Marking. This item shall include all labor, tools, equipment, and materials for the ADA parking and site traffic signs and the parking lot/entry drive pavement markings complete as shown on the plans and specified. Note that pavement markings for the cross walk at Bale Kenyon Road shall be bid under item 7, Pedestrian Crossing.

Payment will be made at the lump sum price bid.

Item 9 – Pedestrian Bridge. This item shall include all labor, tools, equipment, and materials for the Pedestrian Bridge complete as shown on the plans and specified. This item shall include, but is not limited to, the prefabricated bridge truss, bridge decking, bridge railing, concrete abutments, rock channel protection around/below the bridge, approach railing on either side of the bridge, excavation and backfill for the bridge and abutment construction,

Payment will be made at the lump sum price bid.

Item 10 – Stormwater Wetland. This item shall include all labor, tools, equipment, and materials for the Stormwater Wetland complete as shown on the plans and specified. This shall include the fine grading of the wetland, wetland seeding, and construction of the outlet weir from the wetland.

Payment will be made at the lump sum price bid.

Item 11 – Parking Blocks. This item shall include all labor, tools, equipment, and materials for the Parking Blocks complete as shown on the plans and specified.

Payment will be made at the unit price for each parking block furnished and installed to the quantities as specified.

Item 12 – Culverts. This item shall include all labor, tools, equipment, and materials for the 8-inch diameter concrete culverts complete as shown on the plans and specified.

Payment will be made at the unit price bid per linear foot of culvert pipe installed as determined from the measurements in the field up to the plan lengths.

Item 13 – Entry Gate. This item shall include all labor, tools, equipment, and materials for the Entry Gate and complete as shown on the plans and specified. This shall include the electrical service drop to the gate, wiring, the gates with solar panel, foundations, actuator with automated opener system, and all else for a complete and operational gate.

Payment will be made at the lump sum price bid.

Item 14 – Grading and Seeding. This item shall include all the necessary grading, topsoil, fertilizer, seed, and mulch to replace the existing disturbed or damaged area except for the wetland seeding which is included in Bid Item 10.

In case an area outside these limits is damaged and is in need of grading and seeding, it shall be done at the Contractor's expense.

Payment will be made at the lump sum price bid.

BID FORM

PROJECT IDENTIFICATION: Preservation Parks of Delaware County
McCammon Creek Park
Parking Lot and Pedestrian Bridge Addition

CONTRACT IDENTIFICATION AND NUMBER: (If Any)

THIS BID IS SUBMITTED TO: Preservation Parks of Delaware County
Park Board
Park District Office Building
2656 Hogback Road
Sunbury, OH 43074

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all work as specified or indicated in the Contract Documents for the amount Bid and within the time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER accepts all of the terms and conditions of Section 00 11 13, "Advertisement for Bids," and Section 00 21 13, "Instructions to Bidders."

3. This Bid will remain subject to acceptance for 60 days after the day of Bid opening.

4. BIDDER will sign and submit the Agreement with the other contract forms as listed on the table of contents within 10 days after the date of OWNER's Notice of Award.

5. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

   a. BIDDER has examined copies of all the Bidding Documents and of the following Addenda (receipt of all which is hereby acknowledged):

Date	Addendum Number(s)	Bidder Initials
_____	_____	_____
_____	_____	_____
_____	_____	_____

   b. This Bid is genuine and not made in the interest or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; BIDDER has not directly or

indirectly induced or solicited any other BIDDER to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm, or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.

6. BIDDER will complete the work for the following price(s):

BID SCHEDULE

PRESERVATION PARKS OF DELAWARE COUNTY
MCCAMMON CREEK PARK
PARKING LOT AND PEDESTRIAN BRIDGE ADDITION

BIDDER agrees to perform all the work described in the Contract Documents for the following unit prices:

				Unit Prices in Figures			
(1) Item	(2) Description	(3) Quantity	(4) Unit	(5) Labor	(6) Material	(7 = 5 + 6) Total (Sum of Labor and Material)	(8 = 3 x 7) Total Extended Informal Price in Figures
1.	Project Complete Except Item 2	1	l.s.				
2.	Earthwork	1	l.s.				
3.	Aggregate Base	505	c.y.				
4.	Asphalt Pavement Intermediate Course	208	c.y.				
5.	Asphalt Pavement Surface Course	135	c.y.				
6.	Tack Coat	3,233	s.y.				
7.	Pedestrian Crossing	1	l.s.				
8.	Signs and Pavement Marking	1	l.s.				
9.	Pedestrian Bridge	1	l.s.				
10.	Stormwater Wetland	1	l.s.				
11.	Parking Blocks	27	ea.				
12.	Culverts	76	l.f.				
13.	Entry Gate	1	l.s.				

				Unit Prices in Figures			
(1) Item	(2) Description	(3) Quantity	(4) Unit	(5) Labor	(6) Material	(7 = 5 + 6) Total (Sum of Labor and Material)	(8 = 3 x 7) Total Extended Informal Price in Figures
14.	Grading and Seeding	1	l.s.				

Informal Total of Bid Items 1 Through 14 $_____

Respectfully submitted:

_____

Name of Contractor Address

_____

Signature Date

_____

Title Phone Number

(Seal - if Bid is by a corporation)

Attest _____

7. Quantities are not guaranteed. Final payment will be based on actual quantities as provided in the Contract Documents.

8. BIDDER agrees that the work will be complete and ready for final payment in accordance with contract documents on or before the following dates:

   a. Substantial Completion (all work except for bridge and approach railing setting) – January 31, 2026

   b. Total Project Complete (including bridge) – April 30, 2026

9. BIDDER agrees to pay as liquidated damages (in the event of failure to complete the work ready for final payment within the times specified in the Agreement) the sum of $_____ for each consecutive calendar day as provided in the Agreement.

10. The following documents are attached to and made a condition of this Bid:

    a. Required Bid Security in the form of _____.

    b. All the procurement forms listed in Section 00 01 09, "Table of Contents."

11. Communications concerning this Bid shall be addressed to:

    The address of BIDDER indicated below.

    _____ Phone _____

    _____ Email _____

SUBMITTED on _____, 20___

If BIDDER is:

An Individual

By _____

(Individual's Signature and Typed Name)

doing business as _____

Business address: _____

_____

Phone No.: _____

A Partnership

By _____ (SEAL)

(Firm Name)

_____

(General Partner Signature and Typed Name)

Business address: _____

_____

Phone No.: _____

A Corporation

By _____ (CORPORATE SEAL)

(Corporation Name)

_____

(State of Incorporation)

By: _____

(Typed Name and Signature of Person Authorized to Sign)

_____

(Title)

(Corporate Seal)

Attest _____

(Signature of Secretary)

Business address: _____

_____

Phone No.: _____

Miscellaneous

Federal Taxpayer Identification Number _____

BID GUARANTY AND CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, as Principal, and _____ as Sureties, are hereby held and firmly bound unto _____ as OWNER and obligee in the penal sum of the dollar amount of the Bid submitted by the Principal to the OWNER 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 OWNER, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the OWNER, which are accepted by the OWNER. In no case shall the penal sum exceed the total amount of the Bid including any alternates which may be accepted. 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.

Signed this _____ day of _____, 20__. THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named Principal has submitted a Bid for the above referenced project. NOW, THEREFORE, if the OWNER accepts the Bid of the Principal and the Principal fails to enter into a proper Agreement in accordance with the Bid, Plans, details, Specifications, and bills of material, and in the event the Principal pays to the OWNER the difference not to exceed 10 percent of the penalty hereof between the amount specified in the Bid and such larger amount for which the OWNER may in good faith contract with the next lowest BIDDER to perform the work covered by the Bid; or in the event the OWNER does not award the Contract to the next lowest BIDDER and resubmits the Project for bidding, the Principal pays to the OWNER the difference not to exceed 10 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 shall be null and void, otherwise to remain in full force and effect; if the OWNER accepts the bid of the Principal and the Principal within 10 days after the awarding of the contract enters into a proper Agreement 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:

NOW ALSO, if the said Principal shall well and faithfully do and perform the things agreed to be done and performed according to the terms of said Agreement; and shall pay all lawful claims of Subcontractors, materials suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said Agreement; we agreeing and assenting that this undertaking shall be for the benefit of any material supplier or laborer having a just claim, as well as for the OWNER herein; then this obligation shall be void; otherwise the same shall remain in full force and effect for 1 full year after final completion, 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 the said Agreement or in or to the Plans or Specifications therefor shall in any wise affect the obligations of said Surety on its Bond.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal _____

Attest: By _____(SEAL)

Name _____

_____ Title _____

Witness as to Principal

Surety _____

Attest:

(SEAL)

_____ By _____(SEAL)

Witness as to Surety Attorney-in-Fact

(SURETY COMPANY ADDRESS) (SURETY AGENT'S ADDRESS)

_____ _____

Street Agency Name

_____ _____

City State Zip Street

_____ _____

Telephone City State Zip

_____

Telephone

IMPORTANT - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitation.
Surety companies and their agents or attorneys-in-fact must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization in the Bid.

EXPERIENCE RECORD

The BIDDER is required to state the character of previous work, give references, and such other detailed information as will enable the OWNER to determine responsibility, including experience, skill, and financial standing. Projects listed shall be for OWNERS other than this Project and ENGINEERS/ARCHITECTS other than Burgess & Niple, Inc. Use additional copies of this form as required.

PROJECT NAME: ______________________________

ENGINEER: ______________ OWNER: ______________

PERSON TO CONTACT: ______________________________

PHONE: (____) ______________ ADDRESS: ______________

CITY: __________ STATE: __________ ZIP: __________

CONTRACT VALUE: ______________________________

DATE STARTED/COMPLETED: ______________________________

DESCRIPTION: ______________________________

____

PROJECT NAME: ______________________________

ENGINEER: ______________ OWNER: ______________

PERSON TO CONTACT: ______________________________

PHONE: (____) ______________ ADDRESS: ______________

CITY: __________ STATE: __________ ZIP: __________

CONTRACT VALUE: ______________________________

DATE STARTED/COMPLETED: ______________________________

DESCRIPTION: ______________________________

____

PROJECT NAME: ______________________________

ENGINEER: ______________ OWNER: ______________

PERSON TO CONTACT: ______________________________

PHONE: (____) ______________ ADDRESS: ______________

CITY: __________ STATE: __________ ZIP: __________

CONTRACT VALUE: ______________________________

DATE STARTED/COMPLETED: ______________________________

DESCRIPTION: ______________________________

____

NONCOLLUSION AFFIDAVIT

The BIDDER is required to execute and submit with his Bid, the Noncollusion Affidavit.

State of _____
County of _____

Bid Identification _____
_____
CONTRACTOR _____ being first duly sworn, deposes and says that he is _____ (sole owner, a partner, president, secretary, etc.) of _____,
the party making the foregoing Bid; that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such Bid is genuine and not collusive or sham; that said BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any BIDDER or anyone else to put in a sham Bid, or that anyone shall refrain from bidding; that said BIDDER has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid price of said BIDDER or of any other BIDDER, or to fix any overhead, profit, or cost element of such Bid price, or of that of any other BIDDER, or to secure any advantage against the OWNER awarding the Contract or anyone interested in the proposed Contract; that all statements contained in such Bid are true; and, further, that said BIDDER has not, directly or indirectly, submitted his Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, Bid depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said BIDDER in his general business.

Signed:

_____

Subscribed and sworn to before me this

_____ day of _____, 20__.

Seal of Notary

_____
(Signature of Notary)

Preservation Parks of Delaware County
2656 Hogback Road
Sunbury, Ohio 43074
Phone: 740.524.8600
Fax: 740.524.8200
Website: www.preservationparks.com

CONSTRUCTION AGREEMENT

Project Title: **McCammon Creek Park Parking Lot and Pedestrian Bridge**

Owner: **Preservation Parks of Delaware County (PPDC)**

Contractor:

Effective Date:

Project Description:

Project Scope: Construction of the _____ at _____ Park shall substantially conform to the Project Manual Specifications and Construction Drawings prepared by _____, dated _____ and on file at the Preservation Parks of Delaware County and provided to Contractor, allowing only for such minor deviations as which may be occasioned by practicality, and as are common to the construction industry.

Time of Completion:
The work to be performed under this Agreement shall be commenced on ____, 20--__ and shall be substantially completed on or before the following Milestone dates:

- Substantial Completion (all work except for bridge and approach railing setting) – January 31, 2026
- Total Project Complete (including bridge) – April 30, 2026

These start and completion dates are subject to weather conditions.

Correction of Work:
The Contractor shall promptly correct work rejected by PPDC or failing to conform to the requirements of the Project Description. In addition, the Contractor shall warranty all work within the Project Description for a period of one year from receiving final payment.

Insurance and Indemnity:
Preservation Parks of Delaware County requires that your company provide a Certificate of Insurance ("COI") naming Preservation Parks of Delaware County as an additional insured under all liability insurance policies held by you. Contractor agrees that PPDC will not be liable under any agreements to which the Contractor is a party pertaining to the construction of the project. Contractor agrees to hold PPDC, its Board and employees harmless for all liabilities and claims arising out of, or related to, performance of work identified in this agreement.

Contracts $25,000 and greater

The Contractor shall at all times throughout the term of the contract maintain insurance in full force and effect with an insurance company or companies with an AM Best Rating of "A" or better as set forth in the most current issue of Best's Key Rating Insurance Guide relative to the contract in the following coverages and limits:

- Comprehensive General Liability Insurance with limits of not less than $1,000,000 per occurrence and $2,000,000 general aggregate for bodily injury, personal injury, and property damage, identifying Preservation Parks of Delaware County as an additional insured on the Certificate of Insurance.
- Comprehensive Automobile Liability Insurance including owned, non-owned and hired coverage in an amount not less than $1,000,000 combined single limit for bodily injury and property damage, identifying Preservation Parks of Delaware County as an additional insured on the Certificate of Insurance.
- Builders' Risk insurance to protect Contractor and Owner from loss incurred by fire, lightning, extended coverage hazards, vandalism, theft, explosion, and malicious mischief in the full amount of the contract and such insurance shall cover all labor and materials connected with work, including materials delivered to the site but not yet installed. Preservation Parks must be listed as an additional insured on the Certificate of Insurance. A copy of the Certificate of Insurance must be attached to the signed contract.
- Such other insurance required by law, ordinance, rule or regulation, identifying Preservation Parks of Delaware County as an additional insured on the Certificate of Insurance, if applicable.

Compensation; Time of Payment
For services to be performed hereunder, PPDC shall pay the Contractor **$XXXX.XX (XXXX dollars).**
The standard PPDC payment term is NET 30 days from the date of invoice.

General Provisions:
Any alterations or deviation from the above specifications, including but not limited to any such alterations of deviation involving additional material and/or labor costs, will be executed only upon written order for same, signed by PPDC and Contractor, and if there is any charge for such alteration or deviation, the additional charge will be added to the agreement price.

1. PPDC will provide periodic review during construction to ensure the work is satisfactory.
2. All work shall be completed in a workman-like manner.

3. To the extent required by law, all work shall be performed by individuals duly licensed and authorized by law to perform said work.
4. Contractor may at its discretion engage sub-contractors to perform work hereunder, provided Contractor shall fully pay said sub-contractor and in all instances remain responsible for the proper completion of this agreement.
5. All change orders shall be in writing and signed by both PPDC and Contractor, and shall be incorporated in, and become part of the agreement.
6. Contractor shall protect all existing features and facilities not specifically slated for removal within the work area. Any damage shall be repaired or replaced at the contractor's expense.
7. Contractor shall not be liable for any delay due to circumstances beyond its control including strikes, casualty, weather or general unavailability of materials.

Governing Law:
This Agreement shall be governed by and interpreted in accordance with the laws of the State of Ohio. Any and all legal disputes arising from this Agreement shall be filed in and heard before the courts of Delaware County, Ohio.

Signatures:
Any person executing this Agreement in a representative capacity hereby warrants that he/she has authority to sign this Agreement or has been duly authorized by his/her principal to execute this Agreement on such principal's behalf.

Signature of Preservation Parks representative:_____ Date:_____

Title of Preservation Parks representative: _____

Printed Name of Preservation Parks representative: _____

Signature of Contractor representative: _____Date: _____

Title of Contractor representative: _____

Printed Name of Contractor representative _____

(If over $25,000.00)
Auditor's Certification (RC 5705.41(D)):
The Delaware County Auditor hereby certifies that the funds required to meet the obligation set forth in this Agreement have been lawfully appropriated for such purpose and are in the county treasury or in the process of collection, free from any other encumbrances. The Delaware County Auditor also certifies that it has confirmed with the State of Ohio Auditor that _____ has no outstanding findings for recovery issued against it by the State Ohio.

_____
George Kaitsa, Delaware County Auditor

Contract #_____

Additional Documents to be provided/completed by Contractor:

1. Certificate of Insurance
2. Ohio Bureau of Worker's Compensation Certificates of Premium Payment

Additional Documents to be provided/completed by PPDC:

1. Certified search for unresolved findings for recovery.

GENERAL PROVISIONS

1. Definitions

If the words **"Preservation Parks of Delaware County",** or **"Preservation Parks"** are used or implied in the specifications, it shall refer to **the Owner as defined in the Agreement between Owner and Contractor**, or any agent, architect or engineer or authorized by the Owner.

Whenever the word **"Contractor"** is used or implied in these specifications, it shall refer to the Contractor, partnership, firm of contractors, or their subcontractor, undertaking a contract for these specifications, hereby referred to in the contract as the party of the second part.

2. Authority of Owner

The Owner shall have full authority to do any or all of the following things:

Interpret Plans, etc.-- to interpret the meaning of the plan and specifications when necessary and to decide all questions that may arise relative to the fulfillment of this Contract.

Judge of Quality.-- To be the sole judge of the quality and fitness of all material and workmanship; to supervise all tests; to inspect all work and material at the factory, on the grounds or after placing in the ground; and to reject any work or material which, in Owner' judgment does not fully conform to the plans and specifications.

Power to Reject.—Owner may so reject faulty work or material at any time prior to the final acceptance of the work, notwithstanding that it may have been previously overlooked or may have become damaged after previous inspection, even though it may have been estimated or paid for. Any rejected work shall be rejected material and shall be removed from the job by the Contractor and not returned to any part of the work.

Enforce Laws.--To enforce all laws, rules and regulations and requirements of the plans and specifications, including such detailed plans a prepared during construction.

Judge Foundation Material.--To judge the suitability of all foundations and to order unsuitable foundation material excavated to such depths as Owner considers necessary and the excavation refilled in such manner and with such material as Owner may deem proper.

Fix Time and Place of Work.--To fix the time and place where work shall be started and carried on, and to order the work carried on simultaneously at two or more points if Owner deems necessary.

Length of Trench.--To determine the length of trench which shall be kept open at any time.

Precaution Against Damage.--To require additional precautions against damage or accident of any and all kinds, whether to the work, the public, or any public or private property. This power shall not, however, relieve the Contractor of any responsibility for providing proper safeguards, or for any such damage or accident.

Extra Work.--To sign and give orders for extra work, when such work if necessary, under the provisions of this Contract.

Cleaning Up.--To order all dirt, rubbish and other material cleaned up immediately after backfilling and to have such cleaning done at the expense of the Contractor in case such order is not complied with within three days.

Discharge Employees.--To order the Contractor to discharge any employee who is disorderly or disrespectful or who persistently does careless or unsatisfactory work.

Stop Work.--To stop the work if any provision of the contract or specifications is being violated.

Assistants.--To deputize assistants and inspectors to act for Owner in any of its powers and duties and such assistants and inspectors shall exercise all powers of the Owner within the limits of the specific authority given by Owner to each.

Amount and Quality.--To determine the amount and quality of the several kinds of work which are to be paid for hereunder, including extra work.

Monthly Estimates.--To prepare and sign approximate monthly estimates.

Final Estimates.--To examine the work when notified of its completion and, if fully completed to Owner' satisfaction, make the necessary measurements and prepare and sign the final estimate.

Violation of Contract.--To notify the Contractor in writing of any violation of the Contract.

Extension of Time.--To determine the proper length of any extension of time provided for under this Contract.

3. Owner to Give Instructions

It is mutually agreed that wherever in this Contract the words "as directed", as required", "permitted", 'approval", "suitable", ordered, "proper", "satisfactory, or words of similar import are used, they shall be understood to refer to the instructions and judgment of the Owner as applied to each particular case.

4. Designated Representative

The Owner shall identify a representative authorized to act on the Owner's behalf with respect to the Project. Owner may change the representative upon written notice to the Contractor, and the Owner may modify the scope of authority of the representative in like manner. The Contractor acknowledges and agrees that the Owner is a political subdivision subject to the applicable laws of the State of Ohio, that the representative may act only to the extent of the authority granted by the Owner's legislative body, and that some decisions will require action by the Owner's legislative body

5. Plans and Specifications

The drawings are the graphic and pictorial portions of the Project showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams, and the Specifications are that portion of the contract documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services, as may be furnished by the Owner. Work shown on the plans and not mentioned in the specifications, or vice versa, shall be done as if shown on both, and should any actual or apparent conflicts, inconsistencies or errors be found the Contractor shall notify the Owner as soon as they are discovered and shall not proceed with any work affected thereby until the matter has been properly clarified or corrected by the Owner.

6. Work to be Complete

The intent of these specifications is to provide for the work herein outlined to be full and complete in every detail for the purpose designated, and the Contractor hereby agrees to furnish everything necessary and reasonably inferable for such construction, notwithstanding any omissions or errors in the Contract Documents.

7. Employ Only Competent Persons

The Contractor shall employ only competent and skillful persons to do the work and whenever the Owner shall inform him that any person on the work is, in Owner' opinion, incompetent, unfaithful, or disorderly, or is refusing to carry out the provision of the Contract, or who persistently does careless or unsatisfactory work, or uses disrespectful, threatening or abusive language to any official having supervision of the work or to the public, such person shall be discharged from the work, and shall not again be employed without the written consent of the Owner.

8. Responsibility of Contractor

A. The Contractor shall assume full responsibility for the work, shall bear all losses resulting to him on account of the amount or character of the work, or from any unforeseen delays, obstructions or difficulties which may be encountered, or because the nature of the ground, earth or rock in or on which the work is to be done, is different from what is assumed or was expected, or on account of the weather, floods or other causes.

B. The Contractor shall indemnify and hold harmless the Owner and the Owner's design professionals, and agents and employees of them from and against claims, damages, fines, penalties, punitive damages, losses and expenses, including but not limited to attorneys' and consultants' fees and the cost of their staff, arising out of or related to the Contractor's performance of the Work and its obligations under the Contract, including but not limited to claims for bodily injury, sickness, disease or death, or to injury to or destruction of or loss of use of real or personal property, claims due to delays in or acceleration of the work of separate contractors, claims for loss of productivity, claims for additional storage and handling charges, claims for escalation of the cost of labor and materials, claims for home office overhead, liens, attested accounts, and claims related to the removal, handling or use of hazardous materials. Without limiting any other remedy that may be available to it, the Owner may set off an amount equal to the sums for which it is entitled to be indemnified from the amounts otherwise due the Contractor under the Contract Documents. In claims against any person or entity indemnified under this Section by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

C. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract documents or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract documents, are encountered at the site, notify the Project Manager of the specific differing conditions before they are disturbed or the affected work is performed. Upon notification, the Project Manager will investigate the conditions and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, Owner will make an adjustment and modify the contract. The Project Manager will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.

9. Contractor's Construction Schedule

The Contractor is responsible for scheduling the Work and coordinating the subcontractors. The Contractor, prior to commencement of the Work, shall submit for the Owner's approval a construction schedule for the Work. The schedule shall not exceed time limits established under the Contract Documents, shall be related to the entire Project, shall allow the Owner reasonable time to review submittals, and shall provide for expeditious and practicable execution of the Work. The Owner reserves the right to withhold progress payments to Contractor without a schedule approved by the Owner. The Contractor shall provide periodic progress reports as requested to the Owner which shall include recommendations for adjusting the construction schedule to meet milestone completion, Substantial Completion and final completion dates. In the event that critical path activities, schedule milestone completion dates, Substantial Completion or final completion dates will not be met, Contractor shall devise an affirmative time recovery plan acceptable to the Owner to avoid or minimize any delay.

10. Unit Prices

The Contractor agrees that the Owner may increase, decrease or delete entirely the scheduled quantities of Work to be done and materials to be furnished after execution of the Contract. Payments based on a Unit Price will be made to the Contractor only for the actual quantities of Work performed or materials furnished in accordance with the Contract Documents. If the cost of an item for which a Unit Price is stated in the Contract changes substantially so that application of the Unit Price to the quantities of Work proposed will create an undue hardship on the Owner or the Contractor, the applicable Unit Price may be equitably adjusted by Change Order.

11. Changes in the Work

A. By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner and Contractor, or by written Construction Change Directive signed by the Owner and issued to the Contractor.

B. Adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner, by agreed upon unit prices and the Contractor's cost of labor, material, equipment (except that Contractor shall not include transportation costs exceeding 100 miles) and reasonable overhead and profit (not to exceed 15%), unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Owner will make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly application for payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Owner will prepare a Change Order. The Contractor shall proceed diligently with the performance of the changes in the Work following receipt of and as set forth in the Construction Change Directive pending Contractor's receipt of a fully executed Change Order.

C. The Owner will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not materially inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

D. Agreement on any Change Order shall constitute a final settlement of all Claims of the Contractor relating to the change in the Work that is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the construction schedule.

12. Owner's Right to Carry Out Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within a ten-day period after receipt of written notice from the Owner to correct such default or neglect, the Owner, without prejudice to any other remedy the Owner may have, may correct such deficiencies and may deduct the reasonable cost thereof, including Owner's expenses and compensation for the Owner's services made necessary thereby, from the payment then or thereafter due the Contractor.

13. Subcontractors

A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work and which may include the furnishing of supplies, materials, equipment or services. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

B. A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work and which may include the furnishing of supplies, materials, equipment or services. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor of any tier or an authorized representative of the Sub-subcontractor

C. Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner the names of the Subcontractors or suppliers for each of the principal portions of the Work, the portion of the Work to be performed by the Subcontractor or supplier, and the names, titles and contact information for the principal point of contact for each Subcontractor or supplier. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers and the Contractor shall engage the services of another subcontractor at no additional cost to Owner. Contractor shall be responsible for the performance of all Work required under this Agreement, regardless of whether it is self-performed by Contractor, a Subcontractor or any lower tier sub-subcontractor, and Contractor shall be responsible for the acts and omissions of its Subcontractors and lower tier sub-subcontractors in the performance of the Work

D. By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner. Each subcontract agreement shall provide that the Owner is a third party beneficiary of the subcontract agreement and shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting

thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors. Contractor shall promptly provide to Owner copies of any agreement between the Contractor and a Subcontractor along with copies of all bids or other proposals from Subcontractors. The subcontract form between the Contractor and a Subcontractor shall meet the applicable requirements of Ohio Administrative Code 153:1-3-01 and 153:1-3-02.

E. Contractor shall pay its Subcontractors on demand, at any time after the Certificate for Payment should otherwise have been issued, provided the Owner's failure to approve is not the fault of a particular Subcontractor and provided the Contractor is not in a bona fide dispute with that Subcontractor affecting payment. Nothing within this Section or in the Contract shall be construed as limiting the Contractor's obligations under Revised Code 4113.61.

14. Permits and Notices

Unless specifically assumed by the Owner, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses and inspections by government agencies necessary for proper execution and completion of the Work except when building codes or applicable laws or regulations prohibit the Owner from delegating those responsibilities to the Contractor. The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. If the Contractor performs Work contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

15. Tests and Inspections

Tests, inspections and approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after the date of this Agreement, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating the costs to the Contractor.

16. Night, Saturday, Sunday, or Holiday Work

No work shall be done during the night, or on Sundays, or Holidays, except in case of emergencies or when written permission or order is given. Saturday work must be approved by the Owner or Project Manager.

17. Sanitary Regulations

Sanitary regulations as may be prescribed shall be obeyed and followed by the Contractor without extra charge. Suitable sanitary conveniences and plenty of pure water shall be furnished by the Contractor for the use of employees. Offensive or unsanitary conditions in the trenches or excavations or about the work shall be removed by the Contractor at its own expense.

18. Payments

A. The Contractor shall submit a schedule of values to the Owner within five (5) days following the date of commencement of the Work, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Owner. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's Application for Payment. Any changes to the schedule of values, including changes to the Contract Sum and changes required by the Owner if the Owner subsequently determines the schedule of values to be in any way unreasonable or inaccurate, shall be promptly submitted to the Owner and supported by such data to substantiate its accuracy as the Owner may require, and unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's subsequent Application for Payment. The Contractor shall utilize AIA Document G-703 in submitting its schedule of values unless a different form is designated.

B. The Contractor may submit to the Owner monthly, a draft Application for Payment for the completion of work as of that time with details provided relative to the approved schedule of values included in the application. Upon Owner's approval of the draft Application, the Contractor shall submit a signed final copy of the application for payment. Payments for work completed shall be made to the Contractor within 30 days of receipt of approved application for payment. Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing. Contractor shall submit with EACH Application for Payment, including the final Application for Payment, (i) an Affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the previous Application for Payment was submitted have been paid or otherwise satisfied; (ii) a current list of the Subcontractors and suppliers showing their respective contract sums, amounts paid, amounts due; (iii) certified payroll reports of the Contractor and Subcontractors or suppliers as may be required by Ohio Revised Code Chapter 4115; (iv) partial or final releases or waivers of liens arising out of the Contract from the Contractor and from each Subcontractor, material supplier, and/or laborer of the Contractor as the Owner may require; (v) schedule of all materials and equipment stored on-site; (vi) documentation required for materials and equipment stored off-site; and (vii) such other supplemental information the Owner or Owner may require. The Owner shall review each such payment request and may make such exceptions as the Owner reasonably deems necessary or appropriate under the circumstances then existing. If the Owner does not include a payment request form in the Contract Documents, then the Contractor shall use AIA Documents G-702, Application and Certificate for Payment, and G-703, Continuation Sheet

C. The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests

19. Retainage

All payments shall be subject to the retainage requirements of Ohio Revised Code Sections 153.13, 153.14 and 153.63.

(a) Labor. Payments for labor incorporated into the Work under either a unit price or lump sum contract will be at the rate of 92 percent of the amount set forth in the Contractor's Application for Payment and approved by the Owner until the Work is 50 percent complete. When the Work is 50 percent complete, the payment for labor incorporated into the Work will be at the rate of 100 percent of the amount set forth in the Contractor's Application for Payment and approved by the Owner.

(b) Materials and Equipment. There shall be paid to the Contractor a sum at the rate of 92 percent of the invoice costs, not to exceed the scheduled value in a unit price or lump sum contract, of material delivered on the site of the Work, or suitably stored off site. The balance of the scheduled value will be payable when the materials and equipment are incorporated into the Project and accepted by Owner. The Contractor shall be paid at the rate of 100% of the scheduled value for materials incorporated into the Project. Incorporated into the Project means such materials and equipment are installed and conform to the requirements of the Project. Partial or full payment to the Contractor(s) for material, equipment, or Work in place shall not start any applicable warranty period.

20. Substantial Completion

A. The work shall commence as set forth in the notice to proceed to Contractor, and, subject to authorized adjustments, Substantial Completion, as defined herein, shall be achieved no later than the date specified in the Contract. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use; provided, however, that as a condition precedent to Substantial Completion, the Owner has received all certificates of occupancy and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction thereof necessary for the beneficial occupancy of the Project.

B. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner a comprehensive list of items to be completed or corrected prior to final payment (the "punch list"). Failure to include an item on such punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

C. Upon receipt of the Contractor's punch list, the Owner will make an inspection to determine whether the Work or designated portion thereof is substantially complete. When the Owner determines that the Work or designated portion thereof is substantially complete, the Owner will issue a Certificate of Substantial Completion which shall establish the date of Substantial Completion, establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate; if no time is fixed in the Certificate, then Contractor shall finish all items within seven (7) days following the issuance of the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Construction Manager's Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. Completion of the punch list is a function of the Contractor, and **NOT** the Owner. Unless a different form is designated, the Owner shall utilize the AIA Document G704 Certificate of Substantial Completion.

D. The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof except that Owner may continue to retain an amount equal to one hundred fifty percent (150%) of the cost to hire another contractor to complete the Work until said items are finally complete. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents

21. Final Completion and Final Payment

A. Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection and, when the Owner finds the Work acceptable under the Contract Documents and the Contract fully performed, the Owner will promptly issue a final Certificate for Payment subject to Contractor's compliance with Subpart B of this Article.

B. Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) as-built drawings marked with changes made during construction, (2) AIA Document G-706, Contractors Affidavit of Payment of Debts and Claims, (3) AIA Document G-706A, Contractors Affidavit of Release of Liens, (4) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (5) a written statement that the insurance will be renewable to cover the period required by the Contract Documents, (6) an indexed, loose leaf binder containing all inspection reports, permits, and certificates of occupancy and licenses necessary for the occupancy of the project, (7) an indexed, loose leaf binder containing complete installation, operation, and maintenance manuals, including all manufacturers' literature, of equipment and materials used in the Work, (8) documentation of any warranties, such as manufacturers' warranties or specific Subcontractor warranties, (9) a complete list of Subcontractors and principal vendors on the Project, including addresses and telephone numbers, (10) data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, (11) affidavits and certified payroll reports as may be required by Ohio Revised Code Chapter 4115; and (12) any other documents and items required to be submitted by Contractor in accordance with the Contract Documents.

C. The making of final payment shall constitute a waiver of claims by the Owner except those arising from:

1. liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
2. failure of the Work to comply with the requirements of the Contract Documents;

3. terms of special warranties required by the Contract Documents;
4. Contractor's indemnity obligations under this Agreement; or
5. Claims against the Owner by a Subcontractor or sub-subcontractor of any tier.

D. Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

22. Liquidated Damages

If the Contractor shall fail, neglect, and/or refuse to complete any portion of the Work within the provisions of the approved construction schedule, and it is further determined that these delays directly delay Substantial Completion, Contractor shall be subject to liquidated damages (not a penalty) at the rate set forth below per calendar day for the total number of days the portion of that Work or milestone requirement is delayed beyond the completion date:

LIQUIDATED DAMAGES $500 per day.

Such liquidated damages are hereby agreed to be a reasonable pre-estimate of damages the Owner will incur as a result of delayed completion of the Work and shall be in addition to any other remedies available to Owner. The Owner may deduct liquidated damages from any unpaid amounts then or thereafter due Contractor. Any liquidated damages not so deducted shall be payable by the Contractor to the Owner upon demand. Liquidated damages are not intended to compensate the Owner for any damages the Owner incurs on account of any claims attributable to the Contractor that are brought by others, including separate contractors. In the event that the Contractor fails to pay to the Owner liquidated damages, the Owner shall deduct and retain out of the payments that may be due or become due the Contractor, the amount of such liquidated damages. The Contractor agrees to furnish written notice to the Owner of delays promptly after the Contractor becomes aware of them.

23. Ohio Department Of Transportation Construction And Material Specifications (ODOT)

The current edition of the Ohio Department of Transportation Construction and Material Specifications (ODOT), and Supplemental Specifications thereto, are included as part of the specifications for this project and shall govern the construction of any portion of this project not clearly defined herein. In the event of a conflict between the Contract and the ODOT Material Specifications, the Contract shall prevail.

24. Permits, Laws and Regulations

The Contractor shall keep itself fully informed of all existing and future ordinances or resolutions of the Owner, and of all municipal, state, and national laws in any manner affecting the work herein specified and shall at all times comply with such resolutions or ordinances and laws. The Contractor shall take out all permits legally required at its own expense, and shall pay all fees and charges incident to the prosecution and completion of the work unless otherwise noted in the technical specifications. Contractor shall notify the Chief of the appropriate Fire Department and the Owner whenever a street or section of a street is about to be closed to traffic; also when it reopened.

All pertinent MSDS sheets for materials used shall be submitted before final payment.

25. Termination by the Owner for Cause

A. The Owner may terminate the Contract if the Contractor
- .1 refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or Suppliers;
- .3 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is in breach of a provision of the Contract Documents.

B. When any of the reasons described in Subpart A exist, the Owner may exercise the following non-exclusive remedies which will be cumulative and without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, and provided that the reason for the termination is not cured within the seven-day period:

.1 Exclude the Contractor from the site and, for the purpose of completing the Work or portion thereof, take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 Accept assignment of subcontracts; and

.3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a general accounting of the costs incurred by the Owner in finishing the Work.

C. When the Owner terminates the Contract for one of the reasons stated in Subpart A, the Contractor shall not be entitled to receive further payment until the Work is finished.

D. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, then Contractor shall be paid for Work that it satisfactorily performed prior to the date of termination but not to exceed such excess unpaid balance. If such costs and damages exceed the unpaid balance, the Contractor and the Contractor's surety shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

E. Should the Owner terminate this Agreement for cause under this Section, but that cause be subsequently found insufficient to support termination, the termination shall be deemed one of convenience.

26. Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract in whole or in part for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work actually and satisfactorily executed as of the date of termination. Upon receipt of written termination notice from the Owner for convenience, the Contractor shall with respect to the Work that is terminated: (i) cease operations as directed by the Owner in the notice; (ii) take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and (iii) except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders. Contractor shall continue to proceed with any Work not terminated.

27. City Income Tax to be Withheld

Said Contractor hereby further agrees to pay all City or County Income Taxes due or payable under the provisions of Municipal Codes. Contractor further agrees to withhold all City Income Taxes for wages, salaries and commissions paid to its employees and further agrees that any of its subcontractors shall be required to withhold any such City Income Taxes due for work performed under this contract.

28. Warranty

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements shall be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work that are not in accordance with the Contract Documents and/or manufacturer's requirements, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage. The Contractor agrees to assign to the Owner at the time of final completion of the Work any and all manufacturer's warranties relating to materials and labor used in the Work and further agrees to perform the Work in such manner so as to preserve any and all such manufacturer's warranties.

29. Correction of Work

A. The Contractor shall promptly correct Work rejected by the Owner for failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Owner's services and expenses made necessary thereby, shall be at the Contractor's expense.

B. If, within one year after the date the Contractor attains substantial completion of the work, any of the Contractor's Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it and charge the costs to the Contractor. Upon correction of any Work under or pursuant to this Article, the one (1) year correction period shall be renewed and recommence with respect to the corrected Work. The obligations under this Article shall be in addition to and not in limitation of any other warranties or guarantees required of the Contractor.

30. Taxes

The Contractor shall pay applicable sales, consumer, use and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. Owner will provide to Contractor, upon request, a completed State of Ohio Sales and Use Tax Construction Contract Exemption Certificate.

31. Debris and Damage To Property

All Contractors shall take precautionary measures as necessary to prevent debris from littering the project premises and to prevent damage to existing structures, vegetation to be saved, or any other adjacent feature and vegetation. Any damage shall be repaired by Contractor responsible at his own expense. In no event shall construction material or debris be placed beyond the job site without consent of the Project Manager.

32. Signs and Advertising

The Owner will erect any project signs it deems necessary for information to the public. No other sign, signs or advertising of any kind will be permitted except for job site address signs as approved by Owner.

33. Temporary Facilities

Contractor shall provide and maintain such temporary facilities as deemed necessary for progress and completion of all project work, and in compliance with governing rules, regulations, code, ordinances and laws of agencies and utility companies having jurisdiction over work involved in this project. Existing facilities adjacent to the work site may be available for use upon approval of the Owner. Contractor shall be responsible for all temporary work provided, and obtain any necessary permits and inspections for such work.

34. Job Conditions

A. Contractor shall not interfere with normal use of park roads in the vicinity of project site except as absolutely necessary to execute the required work, and then only after arrangements have been made with the Owner.

B. Contractor shall not interfere with operations by Owner outside contract limit lines for this project.

35. Vehicle Access

A. Contractor shall Maintain a temporary access into the contract work area as necessary for vehicles and equipment of all trades requiring such access. Repair any damage to existing pavement, vegetation, turf, and grade when damage results from operations under this contract.

36. Temporary Barricades And Enclosures

A. Contractor shall Provide temporary provisions as required to perform work, to provide safety of workers and to the public, and to provide protection of work installed.

37. Temporary Storage

Contractor shall provide suitable storage facilities for materials at the site and protect materials from weather and damage. Any temporary storage of materials at the site shall not interfere with or damage work of any contractor, work, and property of Owner. If necessary, or as directed by the Project Manager, stored materials shall be relocated or removed.

38. Rubbish Removal

A. Contractor shall provide means of removing rubbish from all areas of the contract as work progresses, and at frequent intervals to avoid large accumulations. Contractor shall not bury rubbish on the site.

39. Insurance

A. The Contractor shall, without interruption, maintain all forms of insurance required by law as well as insurance set forth in this Section for the duration of this Agreement. The Contractor shall not cancel or allow to expire a policy of insurance without first securing a replacement policy so as to ensure the continuation of coverage:

1. Workers' Compensation Insurance and employer's liability insurance covering the statutory requirements of the State of Ohio.

2. Commercial general liability coverage for bodily injury and property damage, including limited contractual liability coverage, in not less than the following amounts: (i) General Aggregate Limit: $2,000,000 each occurrence; (ii) Each Occurrence Limit: $1,000,000 each occurrence.

3. Comprehensive Automobile Liability Insurance, including bodily injury, accidental death and property damage with a combined single limit of not less than One Million Dollars ($1,000,000) each occurrence.

4. Excess and/or umbrella liability insurance in excess of the Commercial General Liability Insurance shall be obtained and maintained by the Contractor in the amount of Five Million Dollars ($5,000,000) per occurrence and in the aggregate annually.

5. If the Work includes environmentally sensitive, hazardous types of activities (such as demolition, exterior insulation finish systems, asbestos abatement, storage-tank removal, or similar activities), or involves hazardous materials, the Contractor shall maintain a contractor's pollution liability policy with (1) a per-claim limit of not less than $1,000,000 and (2) an annual-aggregate limit of not less than $1,000,000, covering the acts, errors and/or omissions of the Contractor for damages (including from mold) sustained by the Owner by reason of the Contractor's performance of the Work. The policy shall have an effective date, which is on or before the date on which the Contractor first started to perform any Project-related services. Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise the Owner in writing of any actual or alleged claims which may erode the policy's limits.

6. Builder's Risk Insurance.

B. The Contractor may use umbrella or excess liability insurance to achieve the required coverage for Commercial General Liability and Commercial Automobile Liability, provided that such umbrella or excess insurance results in the same type of coverage as required for the individual policies.

C. Promptly following execution of this Agreement, the Contractor shall provide the Owner with certificates of insurance evidencing the required coverages and amounts, including without limitation any certificates of renewal of insurance. Each policy of insurance required to be purchased and maintained by the Contractor shall name the Owner as a Certificate Holder, and, with the exception of worker's compensation and professional liability insurance, shall name the Owner as an additional insured.

D. When any required insurance, due to the attainment of a normal expiration date or renewal date, shall expire, the Contractor shall supply the Owner with Certificates of Insurance and amendatory riders or endorsements that clearly evidence the continuation of all coverage in the same manner, limits of protection, and scope of coverage as was provided by the previous policy. In the event any renewal or replacement policy, for whatever reason obtained or required, is written by a carrier other than that with whom the coverage was previously placed, or the subsequent policy differs in any way from the previous policy, the Contractor shall also furnish the Owner with a copy of the renewal or replacement policy unless the Owner provides the Contractor with prior written consent to submit only a Certificate of Insurance for any such policy. All renewal and replacement policies shall be in form and substance satisfactory to the Owner and written by carriers acceptable to the Owner.

E. Contractor shall immediately provide notice to Owner of the cancellation of a policy of insurance by the Contractor's insurer, and Contractor shall immediately thereafter use best efforts to procure a replacement policy so as to ensure the continuation of coverage.

All certificates must contain the provision that insurance coverages cannot be canceled unless at least a 30 day notice of such cancellation has been provided to the Owner.

40. Equal Employment Opportunity

Contractor agrees to the following:

A. That, in the hiring of employees for the performance of work under the contract or any subcontract, Contractor, by reason of race, color, religion, gender, age, disability or military status as defined in section 4112.01 of the Revised Code, national origin, ancestry, sexual orientation or gender identity shall not discriminate against any citizen of this state in the employment of a person qualified and available to perform the work to which the contract relates;

B. That Contractor or any subcontractor or person acting on behalf of Contractor or its subcontractors, in any manner, shall not discriminate against, intimidate, or retaliate against any employee hired for the performance of work under the contract on account of race, color, religion, gender, age, disability or military status as defined in section 4112.01 of the Revised Code, national origin, ancestry, sexual orientation or gender identity.

C. Any provision of a hiring hall contract or agreement which obligates the Contractor to hire, if available, only employees referred to the Contractor by a labor organization shall be void as against public policy and unenforceable with respect to employment under any public improvement contract unless at the date of execution of the hiring hall contract or agreement, or within thirty (30) days thereafter, the labor organization has procedures in effect for referring qualified employees for hire without regard to race, color, religion, gender, age, disability or military status as defined in section 4112.01 of the Revised Code, national origin, ancestry, sexual orientation or gender identity and unless the labor organization includes in its apprentice and journeyperson's membership, or otherwise has available for job referral without discrimination, qualified employees, both whites and non-whites (including African-Americans).

41. Claims and Disputes

A. Claims by the Contractor for additional compensation and/or an increase in the contract time arising out of or relating to this Contract, including those alleging an error or omission by the Owner, shall be submitted to the Owner within 21 days after occurrence of the event giving rise to such claim and shall be referred initially to the Owner for decision. Such matters shall, after initial decision by the Owner or 30 days after submission of the matter to the Owner, be subject to dispute resolution as set forth in subpart C. The Contractor shall set forth in detail the circumstances that form the basis for the Claim, along with such additional supporting documentation as the Owner may require. Pending final resolution of a claim, except as otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

B. The parties shall endeavor to resolve claims and disputes not resolved in accordance with Section 21.1 herein in an amicable manner before having recourse to a judicial forum. In addition, the Owner and Contractor may, by written agreement, submit any disputes to non-binding mediation upon such terms as shall be mutually agreeable and such mediation shall take place at an agreed-upon location in the county where the Project is located. This Section shall not prevent either party from proceeding directly to litigation or bringing a third party claim in pending litigation for indemnity and/or contribution.

C. For any claims and disputes not resolved in accordance with subpart B, litigation shall be the method of binding dispute resolution.

D. The Contract shall be governed by the laws of the State of Ohio. Any suit, which may be brought to enforce any provision of this Agreement or any remedy with respect hereto, shall be brought in the Common Pleas Court of Delaware County, Ohio except when the U.S. District Court for that County is determined to have exclusive jurisdiction.

42. Performance, Payment, and Other Bonds

Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Cement Mason Local 132 (Columbus)	LCN01-2025ib	Cement	06/04/2025	06/04/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Cement Mason	$35.12		$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$52.58	$70.14
Apprentice	**Percent**	**BHR**										
1st Year	70.000000	$24.58	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$42.04	$54.34
2nd Year	80.000000	$28.10	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$45.56	$59.60
3rd Year	90.000000	$31.61	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$49.07	$64.87

Special Calculation Note

Other: International Training Fund

Ratio

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Ashland, Coshocton, Crawford, Delaware, Fairfield, Fayette, Franklin, Guernsey, Hocking, Knox, Licking, Madison, Marion, Morrow, Muskingum, Perry, Pickaway, Richland, Ross, Union, Vinton, Wyandot

Special Jurisdictional Note

Details

Working on swing stage, slip scaffold, window jack scaffold, scissor lifts, and aerial lifts shall receive the following rates: $.50 above the regular rate for heights up to fifty (50) feet above grade level $1.00 above the regular rate for heights over fifty (50) feet above grade level

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Carpenter & Pile Driver Local 200	LCN01-2025ib	Carpenter	05/07/2025	05/07/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Carpenter	$35.94		$8.85	$10.78	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$59.69	$77.66
Pile Driver	$35.69		$8.85	$10.78	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$59.44	$77.29
Apprentice paid at % of their rate above	**Percent**	**BHR**										
1st 6 months	70.000000	$25.16	$8.85	$2.00	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$40.13	$52.71
2nd 6 months	70.000000	$25.16	$8.85	$2.00	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$40.13	$52.71
3rd 6 months	80.000000	$28.75	$8.85	$8.62	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$50.34	$64.72
4th 6 months	80.000000	$28.75	$8.85	$8.62	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$50.34	$64.72
5th 6 months	90.000000	$32.35	$8.85	$9.70	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$55.02	$71.19
6th 6 months	90.000000	$32.35	$8.85	$9.70	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$55.02	$71.19
7th 6 months	95.000000	$34.14	$8.85	$10.24	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$57.35	$74.42
8th 6 months	95.000000	$34.14	$8.85	$10.24	$0.70	$0.00	$3.26	$0.16	$0.00	$0.00	$57.35	$74.42

Special Calculation Note

Other is UBC National Fund.

Ratio

1 Journeyman to 1 Apprentice Thereafter 2 Journeyman to 1 Apprentice The first carpenter on the job shall be a journeyman. The second carpenter employed may be an apprentice carpenter. After one (1) journeyman and one (1) apprentice are employed, each employer shall employ a ratio of one (1) apprentice, when avilable, to two (2) journeyman.

Jurisdiction (* denotes special jurisdictional note)

Delaware, Fairfield, Franklin, Guernsey, Licking, Madison, Marion, Muskingum, Morgan, Noble, Perry, Pickaway, Union

Special Jurisdictional Note

Details

CARPENTERS duties shall include but not limited to the milling, fashioning, joining, assembling, erecting, fastening, or dismantling of scaffolding and of material of wood, plastic, metal, fiber, cork and composition, and all other substitute materials. The handling, cleaning, erecting, installing and dismantling of machinery, equipment and all materials used by carpenters. The building and setting of all concrete forms and decking, and dismantling the same; the setting of templates for anchor bolts for structural members and for machinery, and the placing, leveling and bracing of these bolts; the making of all forms for bulkheads, figures, post, balusters and ornaments. The erection and installation of cooling towers assembled onsite. The building of all barricades and handling of rough lumber and drywall. The installation of all required blocking and all toilet accessories, including but not limited to grab bars, napkin dispensers and receptacles, mirrors and soap dispensers. The installation of metal studs and the welding of studs and other fastenings to receive material being applied by carpenters. The installation of all material used in drywall construction such as plasterboard, transite and other composition boards. The installation of carpet, artificial turf, wood and Resilient floors shall consist of and include the laying of all special designs of wood, wood block, wood composition, cork, linoleum, asphalt, mastic, plastic and rubber tile, whether nailed or laid in, or with linoleum paste or glue compositions. The installation of garage and overhead doors. The installation of fixtures, cabinets, shelving, racks, louvers, etc. The assembling and setting of all seats in theaters, halls, churches, schools, auditoriums, grandstands and other buildings. Our claim of jurisdiction, therefore, extends over the following subdivisions of the trade. Carpenters and Joiners; Bridge, Dock and Wharf Carpenters, Divers, Underpinners, Timbermen and Core Drillers; Shipwrights, Boat Builders, Ship Carpenters, Joiners and Caulkers, Cabinet Makers, Bench Hands, Stair Builders; Millmen; Wood and Resilient Floor Layers and Finishers; Carpet Layers; Shinglers; Siders; Insulators; Acoustic and Drywall Applicators; Shorers and House Movers; Loggers; Lumber and Sawmill Workers; Furniture Workers; Reed and Rattan Workers; Shingle Weavers; Casket and Coffin Makers; Box Makers; Railroad Carpenters; and Car Builders, regardless of material used; and all those engaged in the operation of woodworking or other machinery required in the fashioning, milling or manufacturing of products used in the trade, or engaged as helpers to any of the above divisions or subdivisions, and the handling, erecting and installing of material on any of the above divisions or subdivisions; burning welding, rigging and the use of any instrument or tool for layout work incidental to the trade. When the term “Carpenter” and “Joiner” is used, it shall mean all the subdivisions of the trade. PILEDRIVER: Where piling is used in the construction and repair of all wharves, docks, piers, trestles, caissons, cofferdams, the erection of all sea walls and breakwaters. The placing of all walling, bumper guards of wood or metal. The framing, boring, drilling or burning of all holes in the same, all tie and hog rods in connection with Piledrivers work. The driving, bracing, plumbing, cutting-off and capping of all piling whether wood, steel sheeting, metal pipe piling, composite or concrete. The heading and splicing of wood piling and the making of woodsheet piling, The welding, cutting or burning of any metal and wood piling and shoring and underpinning in connection with Piledriver work. The loading and unloading of all piling and other material used in connection with Piledrivers work. The loading, unloading, erecting, framing, dismantling, moving and handling of all drivers, derrick, cranes and other piledriving equipment used in the work. Drilling in piling or drilled in caissons where a steel liner is used. All machinery used for handling spuds or anchors on floating equipment used in our work shall be operated by our members. Where swing lines or derricks are used, members shall be used as watchmen. All underwater and

marine work on all bulkheads, wharves, docks, shipyards, caissons, piers, bridges, pipeline work, viaducts, marine cable and trestles, as well as salvage and reclamation work where divers are employed. All clamming work that is done by floating derricks.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Carpenter Millwright Local 1090 Columbus	LCN01-2025ib	Carpenter	05/13/2025	05/13/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Carpenter Millwright	$35.59		$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$63.49	$81.29
Apprentice	**Percent**	**BHR**										
1st 6 months	70.000000	$24.91	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$52.81	$65.27
2nd 6 months	70.000000	$24.91	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$52.81	$65.27
3rd 6 months	80.000000	$28.47	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$56.37	$70.61
4th 6 months	80.000000	$28.47	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$56.37	$70.61
5th 6 months	90.000000	$32.03	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$59.93	$75.95
6th 6 months	90.000000	$32.03	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$59.93	$75.95
7th 6 months	95.000000	$33.81	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$61.71	$78.62
8th 6 months	95.000000	$33.81	$8.85	$10.99	$0.70	$0.00	$7.20	$0.16	$0.00	$0.00	$61.71	$78.62

Special Calculation Note

Other is for UBC National Fund.

Ratio

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Delaware, Fairfield, Franklin, Guernsey, Licking, Madison, Marion, Morgan, Muskingum, Noble, Perry, Pickaway, Union

Special Jurisdictional Note

Details

The term “Millwright and Machine Erectors”’ jurisdiction shall mean the unloading, hoisting, rigging, skidding, moving, dismantling, aligning, erecting, assembling, repairing, maintenance and adjusting of all structures, processing areas either under cover, underground or elsewhere, required to process material, handle, manufacture or service, be it powered or receiving power manually, by steam, gas, electricity, gasoline, diesel, nuclear, solar, water, air or chemically, and in industries such as and including, which are identified for the purpose of description, but not limited to, the following: woodworking plants; canning industries; steel mills; coffee roasting plants; paper and pulp; cellophane; stone crushing; gravel and sand washing and handling; refineries; grain storage and handling; asphalt plants; sewage disposal; water plants; laundries; bakeries; mixing plants; can, bottle and bag packing plants; textile mills; paint mills; breweries; milk processing plants; power plants; aluminum processing or manufacturing plants; and amusement and entertainment fields. The installation of mechanical equipment in atomic energy plants; installation of reactors in power plants; installation of control rods and equipment in reactors; and installation of mechanical equipment in rocket missile bases, launchers, launching gantry, floating bases, hydraulic escape doors and any and all component parts thereto, either assembled, semi-assembled or disassembled. The installation of, but not limited to, the following: setting-up of all engines, motors, generators, air compressors, fans, pumps, scales, hoppers, conveyors of all types, sizes and their supports; escalators; man lifts; moving sidewalks; hosts; dumb waiters; all types of feeding machinery; amusement devices; mechanical pin setters and spotters in bowling alleys; refrigeration equipment; and the installation of all types of equipment necessary and required to process material either in the manufacturing or servicing. The handling and installation of pulleys, gears, sheaves, fly wheels, air and vacuum drives, worm drives and gear drivers directly or indirectly coupled to motors, belts, chains, screws, legs, boots, guards, booth tanks, all bin valves, turn heads and indicators, shafting, bearings, cable sprockets cutting all key seats in new and old work, troughs, chippers, filters, calendars, rolls, winders, rewinders, slitters, cutters, wrapping machines, blowers, forging machines, rams, hydraulic or otherwise, planning, extruder, ball, dust collectors, equipment in meat packing plants, splicing or ropes and cables. The laying-out, fabrication and installation of protection equipment including machinery guards, making and setting of templates for machinery, fabrication of bolts, nuts, pans, dripping of holes for any equipment which the Millwrights install regardless of materials; all welding and burning regardless of type, fabrication of all lines, hose or tubing used in lubricating machinery installed by Millwrights; grinding, cleaning, servicing and any machine work necessary for any part of any equipment installed by the Millwrights; and the break-in and trail run of any equipment or machinery installed by the Millwrights. It is agreed the Millwrights shall use the layout tools and optic equipment necessary to perform their work.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Cement Mason Local 132 (Columbus)	LCN01-2025ib	Cement	06/04/2025	06/04/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Cement Mason	$35.12		$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$52.58	$70.14
Apprentice	**Percent**	**BHR**										
1st Year	70.000000	$24.58	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$42.04	$54.34
2nd Year	80.000000	$28.10	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$45.56	$59.60
3rd Year	90.000000	$31.61	$8.90	$4.65	$0.75	$0.00	$3.10	$0.06	$0.00	$0.00	$49.07	$64.87

Special Calculation Note

Other: International Training Fund

Ratio

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Ashland, Coshocton, Crawford, Delaware, Fairfield, Fayette, Franklin, Guernsey, Hocking, Knox, Licking, Madison, Marion, Morrow, Muskingum, Perry, Pickaway, Richland, Ross, Union, Vinton, Wyandot

Special Jurisdictional Note

Details

Working on swing stage, slip scaffold, window jack scaffold, scissor lifts, and aerial lifts shall receive the following rates: $.50 above the regular rate for heights up to fifty (50) feet above grade level $1.00 above the regular rate for heights over fifty (50) feet above grade level

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Cement Mason Local 132 Hev Hwy (Columbus)	LCN01-2025ib	Cement Mason	05/01/2025	04/30/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Cement Mason	$37.29		$9.00	$7.65	$0.75	$0.00	$2.40	$0.07	$0.00	$0.00	$57.16	$75.81
Apprentice	**Percent**	**BHR**										
1st Year	70.000000	$26.10	$9.00	$7.65	$0.75	$0.00	$2.40	$0.07	$0.00	$0.00	$45.97	$59.02
2nd Year	80.000000	$29.83	$9.00	$7.65	$0.75	$0.00	$2.40	$0.07	$0.00	$0.00	$49.70	$64.62
3rd Year	90.000000	$33.56	$9.00	$7.65	$0.75	$0.00	$2.40	$0.07	$0.00	$0.00	$53.43	$70.21

Special Calculation Note

Other: International Training Fund

Ratio

1 Journeyman to 1 Apprentice 2 Journeymen to 1 Apprentice thereafter

Jurisdiction (* denotes special jurisdictional note)

Ashland, Athens, Coshocton, Crawford, Delaware, Fairfield, Fayette, Franklin, Guernsey, Hocking, Knox, Licking, Madison, Marion, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Richland, Ross, Union, Vinton, Washington, Wyandot

Special Jurisdictional Note

Details

Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site, Heavy Construction, Airport Construction Or Railroad Construction Work, Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work, Pollution Control, Sewer Plant, Waste & Water Plant, Water Treatment Facilities Construction.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Labor HevHwy 3	LCN02-2025ib	Laborer Group 1	06/11/2025	06/11/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Laborer Group 1	$37.27		$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$53.37	$72.01
Group 2	$37.44		$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$53.54	$72.26
Group 3	$37.77		$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$53.87	$72.76
Group 4	$38.22		$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$54.32	$73.43
Watch Person	$32.00		$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$48.10	$64.10
Apprentice	**Percent**	**BHR**										
0-1000 hrs	80.000000	$29.82	$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$45.92	$60.82
1001-2000 hrs	85.000000	$31.68	$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$47.78	$63.62
2001-3000 hrs	90.000000	$33.54	$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$49.64	$66.41
3001-4000 hrs	95.000000	$35.41	$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$51.51	$69.21
More than 4000 hrs	100.000000	$37.27	$8.60	$4.45	$0.45	$0.00	$2.50	$0.00	$0.10	$0.00	$53.37	$72.01

Special Calculation Note

Watchmen have no Apprentices. Tunnel Laborer rate with air-pressurized add $1.00 to the above wage rate. Commercial Driver's License – Any Laborer required to utilize a valid Commercial Driver's License (CDL), are in compliance with necessary FMCSA regulations and approved by the Contractor to operate a Commercial Motor Vehicle (CMV), shall be paid one dollar ($1.00) per hour above the base rate for the entirety of their working shift.

Ratio

1 Journeymen to 1 Apprentice 3 Journeymen to 1 Apprentice thereafter

Jurisdiction (* denotes special jurisdictional note)

Adams, Allen, Ashland, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Darke, Defiance, Delaware, Fairfield, Fayette, Franklin, Fulton, Gallia, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Jackson, Jefferson, Knox, Lawrence, Licking, Logan, Madison, Marion, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Preble, Putnam, Richland, Ross, Scioto, Seneca, Shelby, Tuscarawas, Union, Van Wert, Vinton, Warren, Washington, Wayne, Williams, Wyandot

Special Jurisdictional Note

Hod Carriers and Common Laborers - Heavy, Highway, Sewer, Waterworks, Utility, Airport, Railroad, Industrial and Building Site, Sewer Plant, Waste Water Treatment Facilities Construction

Details

Group 1 Laborer (Construction); Plant Laborer or Yardman, Right-of-way Laborer, Landscape Laborer, Highway Lighting Worker, Signalization Worker, (Swimming) Pool Construction Laborer, Utility Man, *Bridge Man, Handyman, Joint Setter, Flagperson, Carpenter Helper, Waterproofing Laborer, Slurry Seal, Seal Coating, Surface Treatment or Road Mix Laborer, Riprap Laborer & Grouter, Asphalt Laborer, Dump Man (batch trucks), Guardrail & Fence Installer, Mesh Handler & Placer, Concrete Curing Applicator, Scaffold Erector, Sign Installer, Hazardous Waste (level D), Diver Helper, Zone Person and Traffic Control. *Bridge Man will perfomr work as per the October 31, 1949, memorandum on concrete forms, byand between the United Brotherhood of Caprpenters and Joiners of Americ and the Laborers' International Union of North America, which states in; "the moving, cleaning, oiling and carrying to the next point of erection, and the stripping of forms which are not to be re-used, and forms on all flat arch work shall be done by memebers of the Laborers' International Union of North America." Group 2 Asphalt Raker, Screwman or Paver, Concrete Puddler, Kettle Man (pipeline), All Machine-Driven Tools (Gas, Electric, Air), Mason Tender, Brick Paver, Mortar Mixer, Skid Steer, Sheeting & Shoring Person, Surface Grinder Person, Screedperson, Water Blast, Hand Held Wand, Power Buggy or Power Wheelbarrow, Paint Striper, Plastic fusing Machine Operator, Rodding Machine Operator, Pug Mill Operator, Operator of All Vacuum Devices Wet or Dry, Handling of all Pumps 4 inches and under (gas, air or electric), Diver, Form Setter, Bottom Person, Welder Helper (pipeline), Concrete Saw Person, Cutting with Burning Torch, Pipe Layer, Hand Spiker (railroad), Underground Person (working in sewer and waterline, cleaning, repairing and reconditioning). Tunnel Laborer (without air),Caisson, Cofferdam (below 25 feet deep), Air Track and Wagon Drill, Sandblaster Nozzle Person, Hazardous Waste (level B), ***Lead Abatement, Hazardous Waste (level C) ***Includes the erecting of structures for the removal, including the encapsulation and containment of Lead abatement process. Group 3 Blast and Powder Person, Muckers will be defined as shovel men working directly with the miners, Wrencher (mechanical joints & utility pipeline), Yarner, Top Lander, Hazardous Waste (level A), Concrete Specialist, Curb Setter and Cutter, Grade Checker, Concrete Crew in Tunnels. Utility pipeline Tappers, Waterline, Caulker, Signal Person will receive the rate equal to the rate paid the Laborer classification for which the Laborer is signaling. Group 4 Miner,Welder, Gunite Nozzle Person A.) The Watchperson shall be responsible to patrol and maintain a safe traffic zone including but not limited to barrels, cones, signs, arrow boards, message boards etc. The responsibility of a watchperson is to see that the equipment, job and office trailer etc. are secure.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Labor Local 574	LCN02-2025ib	Laborer Group 1	05/21/2025	05/21/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Laborer Group 1	$31.55		$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$46.10	$61.88
Group 2	$32.05		$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$46.60	$62.63
Apprentice	**Percent**	**BHR**										
1st Year	70.020000	$22.09	$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$36.64	$47.69
2nd Year	80.000000	$25.24	$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$39.79	$52.41
3rd Year	90.020000	$28.40	$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$42.95	$57.15
4th Year	95.000000	$29.97	$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$44.52	$59.51
5th Year	100.000000	$31.55	$8.60	$4.45	$0.40	$0.00	$1.00	$0.00	$0.10	$0.00	$46.10	$61.88

Special Calculation Note

No special calculations for this skilled craft wage rate are required at this time.

Ratio

1 Journeymen to 1 Apprentice 3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Delaware, Hancock, Hardin, Marion, Seneca, Wyandot

Special Jurisdictional Note

Classification Description Group 1: General Laborer including but not limited to: Signalman, Watchman, Flagman, Tool Cribman, Carpenter Tenders, Finisher Tenders, Concrete Handler, Utility Construction Laborer, Guard Rail Erectors, Fence Installer, Caulker, Water Truck, Landscaper and irrigation, Hazardous Waste (Level A of Exhibit A), Swimming Pools, Pool Decks, Parking Garage and Surrounding Sidewalks, Mucker, Caisson Worker, Creosote Workers, Form Setter, Pumps (3 inch or under), Off-road Trucks, Skid Steer, Tamp Person Group 2: Pipelayer (Bottom person), Powder Men and Dynamite Blasters, Laser Beam Set-Up Man, Grade Checker, Concrete Saws, Fork Lift, Concrete Specialist, Vibrator and Hazardous Waste (Level B, C & D of Exhibit A), Mason Tender (Brick/Hod Carrier, Cement/ Concrete, Stone), Scaffold Builder, Mortar Mixer, Plasterer Tender, Gunite Operator Hazardous Waste Removal and Lead Abatement: Level A Only in established "safe zones" may consist of, from normal work clothes to normal skin protection such as gloves, face shields goggles, coveralls and occasionally respiratory protection. Level B Protective equipment includes a protective suit and an air purifying respirator (APR) with the appropriate filter canisters. The ensemble is used when the contaminants are reliably known not to be hazardous to the skin and not IDLH (Immediately Dangerous to Life or Health) and correct filter protection is available. Level C Protective equipment includes a chemically resistant splash suit and a SCBA or Airline Fed Respirator. This ensemble is required when the situation is very hazardous, such as oxygen deficient atmospheres, IDLH atmospheres, or confined space entries. Level D Protective equipment is required when the area has been determined to contain extremely toxic contaminants or contaminants unknown but may be expected to be extremely toxic and/or immediately dangerous to life and health.

Details

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Operating Engineers - Building Local 18 - Zone III	LCN01-2025ib	Operating Engineer	05/01/2025	04/30/2025

Wage Rates

		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**										
Operator Group A	$45.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$62.74	$85.66
Operator Group B	$45.72	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$62.62	$85.48
Operator Group C	$44.68	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$61.58	$83.92
Operator Group D	$43.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$60.40	$82.15
Operator Group E	$38.04	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$54.94	$73.96
Master Mechanic	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16
Lift Director	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16
Cranes & Mobile Concrete Pumps 150'-180'	$46.34	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.24	$86.41
Cranes & Mobile Concrete Pumps 180'-249'	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Cranes & Mobile Concrete Pumps 249' and over	$47.09		$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.99	$87.54
Apprentice	**Percent**	**BHR**										
1st Year	50.000000	$22.92	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$39.82	$51.28
2nd Year	60.000000	$27.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$44.40	$58.16
3rd Year	70.000000	$32.09	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$48.99	$65.03
4th Year	80.000000	$36.67	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$53.57	$71.91
Field Mechanic Trainee												
1st Year	60.000000	$27.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$44.40	$58.16
2nd Year	70.000000	$32.09	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$48.99	$65.03
3rd Year	80.000000	$36.67	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$53.57	$71.91
4th Year	90.000000	$41.26	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$58.16	$78.78

Special Calculation Note

Other: Education & Safety Misc: National Training

Ratio

For every (3) Operating Engineer Journeymen employed by the company there may be employed (1) Registered Apprentice or trainee Engineer through the referral when they are available. An apprenice, while employed as part of a crew per Article VIII, paragraph 77, will not be subject to the apprenticeship ratios in this collective bargaining agreement

Jurisdiction (* denotes special jurisdictional note)

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, Jackson, Jefferson, Knox, Lawrence, Licking, Logan, 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, Wyandot

Special Jurisdictional Note

Details

Note: There will be a 10% increase for the apprentices on top of the percentages listed above provided they are operating mobile equipment. Group A- Barrier Moving Machines; Boiler Operators or Compressor Operators, when compressor or boiler is mounted on crane (Piggyback Operation); Boom Trucks (all types); Cableways Cherry Pickers; Combination - Concrete Mixers & Towers; All Concrete Pumps with Booms; Cranes (all types); Compact Cranes, track or rubber over 4,000 pounds capacity; Cranes self-erecting, stationary, track or truck (all configurations); Derricks (all types); Draglines; Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Forklift (rough terrain with winch/hoist); Gradalls; Helicopter Operators, hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types); Hoists (with two or more drums in use); Horizonal Directional Drill; Hydraulic Gantry (lift system); Laser Finishing Machines; Laser Screed and like equipment; Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Operator/Technician(Mechanic Operator/Technician and/or Welder); Mixers, paving (multiple drum); Mobile Concrete Pumps, with booms; Panelboards, (all types on site); Pile Drivers; Power Shovels; Prentice Loader; Rail Tamper (with automatic lifting and aligning device); Rotary Drills (all), used on caissons for foundations and sub-structure; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Trench Machines (over 24" wide); Tug Boats. Group B - Articulating/end dumps (minus $4.00/hour from Group B rate); Asphalt Pavers; Bobcat-type and/or skid steer loader with hoe attachment greater than 7000 lbs.; Bulldozers; CMI type Equipment; Concrete Saw, Vermeer-type; Endloaders; Hydro Milling Machine; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Pettibone-Rail Equipment; Power Graders; Power Scoops; Power Scrapers; Push Cats;, Rotomills (all), grinders and planers of all types. Group C - A-Frames; Air Compressors, Pressurizing Shafts or Tunnels; All Asphalt Rollers; Bobcat-type and/or Skid Steer Loader with or without attachments; Boilers (15 lbs. pressure and over); All Concrete Pumps (without booms with 5 inch system); Fork Lifts (except masonry); Highway Drills - all types (with integral power); Hoists (with one drum); House Elevators (except those automatic call button controlled), Buck Hoists, Transport Platforms, Construction Elevators; Hydro Vac/Excavator (when a second person is needed, the rate of pay will be "Class E"); Man Lifts; Material hoist/elevators; Mud Jacks; Pressure Grouting; Pump Operators (installing or operating Well Points or other types of Dewatering Systems); Pumps (4 inches and over discharge); Railroad Tie (Inserter/Remover); Rotovator (Lime-Soil Stabilizer); Submersible Pumps (4"and over discharge); Switch & Tie Tampers (without lifting and aligning device); Trench Machines (24" and under); Utility Operators. Group D - Backfillers and Tampers; Ballast Re-locator; Batch Plant Operators; Bar and Joint Installing Machines; Bull Floats; Burlap and Curing Machines; Clefplanes; Compressors, on building construction; Concrete Mixers, more than one bag capacity; Concrete Mixers, one bag capacity (side loaders); All Concrete Pumps (without boom with 4" or smaller system); Concrete Spreader; Conveyors, used for handling building materials; Crushers; Deckhands; Drum Fireman (in asphalt plants); Farm type tractors pulling attachments; Finishing Machines; Form Trenchers; Generators: Gunite Machines; Hydro-seeders; Pavement Breakers (hydraulic or cable); Post Drivers; Post Hole Diggers; Pressure Pumps (over 1/2") discharge); Road Widening Trenchers; Rollers (except asphalt); Self-propelled sub-graders; Shotcrete Machines; Tire Repairmen; Tractors, pulling sheepsfoot post roller or grader; VAC/ALLS; Vibratory Compactors, with integral power; Welders. Group E – Allen Screed Paver (concrete); Boilers (less than 15 lbs. pressure); Cranes-Compact, track or rubber (under 4,000 pounds capacity); Directional Drill "Locator"; Fueling and greasing +$3.00; Inboard/outboard Motor Boat Launches; Light Plant Operators; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalperson, Submersible Pumps (under 4" discharge). Master Mechanics - Master Mechanic Cranes 150' – 180' - Boom & Jib 150 - 180 feet Cranes 180' – 249' - Boom & Jib 180 - 249 feet Cranes 250' and over - Boom & Jib 250 feet or over

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Operating Engineers - HevHwy Zone II	LCN01-2025ib	Operating Engineer	05/01/2025	04/30/2025

Wage Rates

		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**										
Operator Class A	$45.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$62.74	$85.66
Operator Class B	$45.72	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$62.62	$85.48
Operator Class C	$44.68	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$61.58	$83.92
Operator Class D	$43.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$60.40	$82.15
Operator Class E	$38.04	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$54.94	$73.96
Master Mechanic	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16
Lift Director	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16
Crane and Mobile Concrete Pump 150' - 179'	$46.34	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.24	$86.41
Crane and Mobile Concrete Pump 180' - 249'	$46.84	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.74	$87.16
Crane and Mobile	$47.09	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$63.99	$87.54

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Concrete Pump 250' and Ove												
Apprentice	**Percent**	**BHR**										
1st Year	50.000000	$22.92	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$39.82	$51.28
2nd Year	60.000000	$27.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$44.40	$58.16
3rd Year	70.000000	$32.09	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$48.99	$65.03
4th Year	80.000000	$36.67	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$53.57	$71.91
Field Mech Trainee												
1st year	60.000000	$27.50	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$44.40	$58.16
2nd year	70.000000	$32.09	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$48.99	$65.03
3rd year	80.000000	$36.67	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$53.57	$71.91
4th year	90.000000	$41.26	$9.51	$6.25	$0.95	$0.00	$0.00	$0.09	$0.00	$0.10	$58.16	$78.78

Special Calculation Note

Other: Education & Safety Fund Misc: National Training

Ratio

For every (3) Operating Engineer Journeymen employed by the company, there may be employed (1) Registered Apprentice or Trainee Engineer through the referral when they are available. An Apprentice, while employed as part of a crew per Article VIII, paragraph 68 will not be subject to the apprenticeship ratios in this collective bargaining agreement

Jurisdiction (* denotes special jurisdictional note)

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, Wyandot

Special Jurisdictional Note

Details

**Apprentices wilt receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Class A - Air Compressors on Steel Erection; Asphalt Plant Engineers (Cleveland District Only); Barrier Moving Machine; Boiler Operators, Compressor Operators, or Generators, when mounted on a rig; Boom Trucks (all types); Cableways; Cherry Pickers; Combination- Concrete Mixers & Towers; Concrete Plants (over 4 yd capacity); Concrete Pumps; Cranes (all types); Compact Cranes track or rubber over 4,000 pounds capacity; Cranes self-erecting stationary, track or truck; Derricks (all types); Draglines; Dredges dipper, clam or suction; Elevating Graders or Euclid Loaders; Floating Equipment (all types); Gradalls; Helicopter Crew (Operator- hoist or winch); Hoes (all types); Hoisting Engines; Hoisting Engines, on shaft or tunnel work; Hydraulic Gantry (lifting system); Industrial-type Tractors; Jet Engine Dryer (D8 or D9) diesel Tractors; Locomotives (standard gauge); Maintenance Operators/Technicians (class A); Mixers, paving (single or double drum); Mucking Machines; Multiple Scrapers; Piledriving Machines (all types); Power Shovels, Prentice Loader; Quad 9 (double pusher); Rail Tamper (with automatic lifting and aligning device); Refrigerating Machines (freezer operation); Rotary Drills, on caisson work; Rough Terrain Fork Lift with winch/hoist; Side Booms; Slip Form Pavers; Survey Crew Party Chiefs; Tower Derricks; Tree Shredders; Trench Machines (over 24” wide); Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators. Class B - Asphalt Pavers; Automatic Subgrade Machines, self-propelled (CMI-type); Bobcat-type and /or Skid Steer Loader with hoe attachment greater than 7000 lbs.; Boring Machine Operators (more than 48 inches); Bulldozers; Concrete Saws, Vermeer type; Endloaders; Horizontal Directional Drill (50,000 ft. lbs. thrust and over); Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Maintenance Operators/Technicians, Class B; Material Transfer Equipment (shuttle buggy) Asphalt; Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Rotomills (all), Grinders and Planners of all types, Groovers (excluding walk-behinds); Trench Machines (24 inch wide and under). Class C - A-Frames; Air Compressors, on tunnel work (low Pressure); Articulating/straight bed end dumps if assigned (minus $4.00 per hour); Asphalt Plant Engineers (Portage and Summit Counties only); Bobcat-type and/or skid steer loader with or without attachments; Drones; Highway Drills (all types); HydroVac/Excavator (when a second person is needed, the rate of pay will be “Class E”); Locomotives (narrow gauge); Material Hoist/Elevators; Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Power Boilers (over 15 lbs. pressure); Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Inserter/Remover; Rollers, Asphalt; Rotovator (lime-soil Stabilizer); Switch & Tie Tampers (without lifting and aligning device); Utilities Operators, (small equipment); Welding Machines and Generators. Class D – Backfillers and Tampers; Ballast Re-locator; Bar and Joint Installing Machines; Batch Plant Operators; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yds. and under); Concrete Saws (multiple); Conveyors (highway); Crushers; Deckhands; Farm type tractors, with attachments (highway); Finishing Machines; Firemen, Floating Equipment (all types); Fork Lifts (highway), except masonry; Form Trenchers; Hydro Hammers; Hydro Seeders; Pavement Breakers (hydraulic or cable); Plant Mixers; Post Drivers; Post Hole Diggers; Power Brush Burners; Power Form Handling Equipment; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-Graders; Steam Firemen; Survey Instrument men; Tractors, pulling sheepsfoot rollers or graders; Vibratory Compactors, with integral power. Class E - Compressors (portable, Sewer, Heavy and Highway); Cranes-Compact, track or rubber under 4,000 pound capacity; Drum Firemen (asphalt plant); Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add $3.00/hr); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oil Heaters (asphalt plant); Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalperson; Survey Rodmen or Chairmen; Tire Repairmen; VAC/ALLS. Master Mechanic - Master Mechanic Cranes and Mobile Concrete Pumps 150' -179' - Boom & Jib 150 - 179 feet Cranes and Mobile Concrete Pumps 180' - 249' - Boom & Jib 180 - 249 feet Cranes and Mobile Concrete Pumps 250' and over - Boom & Jib 250 feet or over

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Truck Driver Locals 20,40,92,100,175,284,348,377,637,697,908,957 - Bldg & HevHwy Class 1	LCN01-2025ib	Truck Driver	05/28/2025	05/28/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Truck Driver CLASS 1	$34.26		$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$53.51	$70.64
Apprentice	**Percent**	**BHR**										
First 6 months	80.000000	$27.41	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$46.66	$60.36
7-12 months	85.000000	$29.12	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$48.37	$62.93
13-18 months	90.000000	$30.83	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$50.08	$65.50
19-24 months	95.000000	$32.55	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$51.80	$68.07
25-30 months	100.000000	$34.26	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$53.51	$70.64

Special Calculation Note

Ratio

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Adams, Allen, Ashland, Ashtabula, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Darke, Defiance, Delaware, Erie, Fairfield, Fayette, Franklin, Fulton, Gallia, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jackson, Jefferson, Knox, Lawrence, Licking, Logan, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Ottawa, Paulding, Perry, Pickaway, Pike, Portage, Preble, Putnam, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Summit, Trumbull, Tuscarawas, Union, Van Wert, Vinton, Warren, Washington, Wayne, Williams, Wood, Wyandot

Special Jurisdictional Note

Details

CLASS 1: Drivers on trucks, including but not limited to: 4-wheel service trucks; 4-wheel dump trucks; batch trucks; drivers on tandems; truck sweepers (not to include power sweepers and scrubbers) Drivers on tractor – trailer combinations including but not limited to the following: Semi-tractor trucks; pole trailers; ready-mix trucks; fuel trucks; all trucks five (5) axle and over; drivers on belly dumps; truck mechanics (when needed).

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Truck Driver Locals 20,40,92,100,175,284,348,377,637,697,908,957 - Bldg & HevHwy Class 2	LCN01-2025ib	Truck Driver	05/28/2025	05/28/2025

Wage Rates

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**											
Truck Driver CLASS 2	$35.26		$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$54.51	$72.14
Apprentice	**Percent**	**BHR**										
First 6 months	80.000000	$28.21	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$47.46	$61.56
7-12 months	85.000000	$29.97	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$49.22	$64.21
13-18 months	90.000000	$31.73	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$50.98	$66.85
19-24 months	95.000000	$33.50	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$52.75	$69.50
25-30 months	100.000000	$35.26	$9.25	$9.60	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$54.51	$72.14

Special Calculation Note

Ratio

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note)

Adams, Allen, Ashland, Ashtabula, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Darke, Defiance, Delaware, Erie, Fairfield, Fayette, Franklin, Fulton, Gallia, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jackson, Jefferson, Knox, Lawrence, Licking, Logan, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Ottawa, Paulding, Perry, Pickaway, Pike, Portage, Preble, Putnam, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Summit, Trumbull, Tuscarawas, Union, Van Wert, Vinton, Warren, Washington, Wayne, Williams, Wood, Wyandot

Special Jurisdictional Note

Details

CLASS 2: Drivers on articulated dump trucks; rigid-frame rock trucks; distributor trucks; low boys/drag driver on the construction site only and heavy duty equipment (irrespective of load carried) when used exclusively for transportation on the construction site only.

Prevailing Wage Rates - Skilled Crafts

Details

Union	Change#	Craft	Effective Date	Posted Date
Electrical Local 683 Inside	LCR01-2025ib	Electrical	02/12/2025	02/12/2025

Wage Rates

		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification	**BHR**										
Electrician	$40.50	$11.55	$8.49	$1.16	$0.00	$4.00	$0.00	$0.00	$0.00	$65.70	$85.95
Welding	$41.50	$11.55	$8.52	$1.16	$0.00	$4.00	$0.00	$0.00	$0.00	$66.73	$87.48
Medium Voltage Splicing	$41.50	$11.55	$8.52	$1.16	$0.00	$4.00	$0.00	$0.00	$0.00	$66.73	$87.48
Over 100 feet	$60.75	$11.55	$9.09	$1.16	$0.00	$4.00	$0.00	$0.00	$0.00	$86.55	$116.93
Level 1 CW 0 to 2000 hours	$15.29	$6.83	$0.46	$0.92	$0.00	$0.46	$0.10	$0.00	$0.00	$24.06	$31.71
Level 2 CW 2001 to 4000 hours	$16.25	$6.83	$0.49	$0.92	$0.00	$0.49	$0.10	$0.00	$0.00	$25.08	$33.21
Level 3 CW 4001 to 6000 hours	$17.20	$6.83	$0.52	$0.92	$0.00	$0.52	$0.10	$0.00	$0.00	$26.09	$34.69
Level 4 CW 6001 to 8000 hours	$19.12	$6.83	$0.57	$0.92	$0.00	$0.57	$0.10	$0.00	$0.00	$28.11	$37.67
Level 1 CE 8001 to 10000 hours	$21.03	$6.83	$0.63	$0.92	$0.00	$0.63	$0.10	$0.00	$0.00	$30.14	$40.66
Level 2 CE 10,001 to 12,000 hours	$22.94	$6.83	$0.69	$0.92	$0.00	$0.69	$0.10	$0.00	$0.00	$32.17	$43.64
Level 3 CE 12,001 to14,000 hours	$28.67	$6.83	$0.86	$0.92	$0.00	$0.86	$0.10	$0.00	$0.00	$38.24	$52.58

			Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Apprentice	Percent	BHR										
0-1000 hrs 1st Period	50.000000	$20.25	$11.55	$4.25	$1.16	$0.00	$0.00	$0.00	$0.00	$0.00	$37.21	$47.34
1001-2000 hrs 2nd Period	55.000000	$22.28	$11.55	$4.67	$1.16	$0.00	$0.00	$0.00	$0.00	$0.00	$39.66	$50.79
2001-3500 hrs 3rd Period	60.000000	$24.30	$11.55	$5.09	$1.16	$0.00	$2.40	$0.00	$0.00	$0.00	$44.50	$56.65
3501-5000 hrs 4th Period	65.020000	$26.33	$11.55	$5.52	$1.16	$0.00	$2.60	$0.00	$0.00	$0.00	$47.16	$60.33
5001-6500 hrs 5th Period	70.000000	$28.35	$11.55	$5.94	$1.16	$0.00	$2.80	$0.00	$0.00	$0.00	$49.80	$63.98
6501-8000 hrs 6th Period	80.000000	$32.40	$11.55	$6.79	$1.16	$0.00	$3.20	$0.00	$0.00	$0.00	$55.10	$71.30

Special Calculation Note

Other for CW/CE: Education Fund

Ratio

1 to 3 Journeyman to 2 Apprentices 4 to 6 Journeyman to 4 Apprentices Ratio Construction Wireman and Construction Electrician 1 Journeyman to 2 Apprentices to 2 CW/CE With a MAXIMUM of 12 CW/CE an on any jobsite Construction Wireman and Construction Electricians may work on residential projects without working under the supervision of a Journeyman Wireman. On ALL other job sites, Construction Wireman and Construction Electricians CAN only be employed after an APPRENTICE IS EMPLOYED on the job site.

Jurisdiction (* denotes special jurisdictional note)

Champaign, Clark, Delaware, Fairfield, Franklin, Madison, Pickaway*, Union

Special Jurisdictional Note

In Pickaway County the following townships:
Circleville,Darby,Harrison,Jackson,Madison,Monroe,Muhlenberg,Scioto,Walnut,Washington.

Details

NOTICE TO PROCEED

To: _____ Date: _____

_____

_____

Project Description: _____

_____

You are hereby notified to commence work in accordance with the Agreement dated _____, 20__, on or before _____, 20__, and you are to complete the work within _____ calendar days thereafter. The date of completion of all work is therefore _____ _____, 20__.

You are required to return an acknowledged copy of this Notice to Proceed to the OWNER.

_____
OWNER

By _____

Name _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice to
Proceed is hereby acknowledged

By _____
CONTRACTOR

this the _____ day of

_____ 20__

By _____

Name _____

Title _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____

(Name of CONTRACTOR)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

_____

(Name of Surety)

hereinafter called Surety, are held and firmly bound unto _____

_____

(Name of OWNER)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars ($ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

The Condition of this Obligation is such that whereas, the Principal entered into a certain Agreement with the OWNER, dated the _____ day of _____, 20___, a copy of which is hereto attached and made a part hereof for the construction of:

_____

_____

Now, therefore, if the Principal shall well, truly, and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Agreement during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the 1 year correction period, and if he shall satisfy all claims and demands incurred under such Agreement, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

Provided, further, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Agreement or to the work or to the specifications.

Provided, further, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In Witness Whereof, this instrument is executed in _____ (number) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20___.

Principal_____

Attest: By_____

(SEAL) Name_____

_____ Title_____

Witness as to Principal

Surety_____

Attest:

(SEAL)

_____ By_____

Witness as to Surety Attorney-in-Fact

SURETY COMPANY ADDRESS: SURETY AGENT'S ADDRESS:

_____ _____

Street Agency Name

_____ _____

City State Zip Street

_____ _____

Telephone City State Zip

_____

Telephone

Note: Date of Bond must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitation.

Surety companies must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization with the Bid.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____

(Name of CONTRACTOR)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

_____

(Name of Surety)

hereinafter called Surety, are held and firmly bound unto _____

_____

(Name of OWNER)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars ($ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

The Condition of this Obligation is such that whereas, the Principal entered into a certain Agreement with the OWNER, dated the _____ day of _____, 20___, a copy of which is hereto attached and made a part hereof for the construction of:

_____

_____

Now, therefore, if the Principal shall promptly make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Agreement, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

Provided, further, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Agreement or to the work or to the specifications.

Provided, further, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In Witness Whereof, this instrument is executed in _____ (number) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20___.

Principal_____

Attest: By_____

(SEAL) Name_____

_____ Title_____

Witness as to Principal

Surety_____

Attest:

(SEAL)

_____ By_____

Witness as to Surety Attorney-in-Fact

SURETY COMPANY ADDRESS: SURETY AGENT'S ADDRESS:

_____ _____

Street Agency Name

_____ _____

City State Zip Street

_____ _____

Telephone City State Zip

_____

Telephone

Note: Date of Bond must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitation.

Surety companies must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization with the Bid.

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____

_____ as Principal and _____

_____ as Sureties, are hereby held and firmly bound unto

_____ in the penal sum of_____

_____ Dollars ($_____)

for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this _____ day of _____ 20__. THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named Principal did on the _____ day of 20__, enter into an Agreement with _____ which said Agreement is made a part of this Bond the same as though set forth herein;

Now, if the said Principal shall well and faithfully do and perform the things agreed by Them to be done and performed according to the terms of said Agreement; and shall pay all lawful claims of Subcontractors, material suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said Agreement; we agreeing and assenting that this undertaking shall be for the benefit of any material supplier or laborer having a just claim, as well as for the OWNER as obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect until 1 year beyond the date of final acceptance; 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 the said Agreement or in or to the drawings or specifications therefor shall in any wise affect the obligations of said Surety on its Bond.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ (number) counterparts, each one of which shall be deemed an original, this the _____ day of _____ 20__.

Principal_____

Attest: By_____

(SEAL) Name_____

_____ Title_____

Witness as to Principal

Surety_____

Attest:

(SEAL)

_____ By_____

Witness as to Surety Attorney-in-Fact

SURETY COMPANY ADDRESS: SURETY AGENT'S ADDRESS:

_____ _____

Street Agency Name

_____ _____

City State Zip Street

_____ _____

Telephone City State Zip

_____

Telephone

Note: Date of Bond must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitation.

Surety companies must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization with the Bid.

MINIMUM WAGE RATES

The wages to be paid for a legal day's work to laborers, workers, or mechanics engaged in work under this Agreement at the site of the Project in the trade or occupation listed shall be not less than the wage rate set opposite the same, as predetermined by the Bureau of Wage and Hour, Division of Labor and Worker Safety, Department of Commerce of the State of Ohio, in accordance with Section 4115.04 of the Ohio Revised Code.

A copy of the determination is included with the Contract Documents following this section and shall be considered a part thereof.

There shall be posted in a prominent and accessible place on the site of the work a legible statement of the schedule of wage rates specified in the Contract to the various classifications of laborers, workers, and mechanics employed, said statement to remain posted during the life of each Agreement.

Apprentices will be permitted to work only under a bona fide apprenticeship program if such program exists and if such program is registered with the Ohio apprenticeship council.

The CONTRACTOR or Subcontractor is required to file with the contracting public authority upon completion of the Project and prior to final payment therefor, an affidavit stating he has complied with Chapter 4115 of the Ohio Revised Code.

SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. **General.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1, and all related specification sections, apply to this section.

1.2 DESCRIPTION OF WORK

A. **Description of Work**. The project consists of the addition of an asphalt entry drive and parking lot, at grade pedestrian crossing of Bale Kenyon Road, section of paved pedestrian trail and a new pedestrian bridge over McCammon Creek within the McCammon Creek Park on the east side of Bale Kenyon Road, south of Interstate 71. Work shall be completed in accordance with design documents prepared by Burgess & Niple, Inc.

1.3 QUALITY ASSURANCE

A. **Codes and Standards**. Perform all work in compliance with all federal, state, and local codes.

1.4 SUBMITTALS

A. **Submittal Requirements**. See other Division 1 sections for required administrative submittals and for procedures necessary for transmittal of submittals.

1.5 JOB CONDITIONS

A. **Maintenance of Traffic**. Contractor is responsible for development of a maintenance of traffic plan and for obtaining all necessary approvals from Delaware County and Orange Township for maintaining traffic on Bale Kenyon Road throughout construction. A driveway permit and approval for installation of the pedestrian crossing have been obtained by the Owner.

B. **Soils and Concrete Testing**. The Contractor shall retain the services of a materials testing service to perform the soils and concrete testing specified herein or required by the reference specifications.

C. **Electric Service**. The Contractor shall coordinate with American Electric Power (AEP) for the site electric service. Meter and service fees charged by AEP will be paid by the Owner directly.

1.6 DELIVERY, STORAGE, AND HANDLING

Not used.

1.7 **SPECIAL WARRANTY**

Not used.

1.8 **PREORDERED PRODUCTS**

A. **General.** The Owner has coordinated with Orange Township for delivery of approximately 1,500 cubic yards (cy) of embankment/backfill soils to the site for placement by the Contractor. Delivery of the material is scheduled for August/September of 2025.

PART 2 - PRODUCTS

Not applicable.

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1 - GENERAL

1.1 **RELATED DOCUMENTS**. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1, and all related specification sections, apply to this section.

1.2 **DESCRIPTION OF WORK**

A. **Scope of Work**. Provide all labor and materials necessary to furnish the following submittals as required by each individual section of the specifications.

1. Shop drawings.
2. Product data.
3. Source quality control documents.
4. Material field test reports.
5. Product/material certifications.
6. Special warranties.
7. Project record documents.
8. Others (as specified in the individual technical specifications).

1.3 **QUALITY ASSURANCE** (Not used)

1.4 **SUBMITTALS**

A. **General**. Submit all submittals in accordance with the requirements within this specification section.

B. **Submittal Package No. 1 – Submittal Schedule**

1. Submit a submittal schedule as follows:

a. This schedule shall include all submittals (including all Contractors' submittals) that are required to be used on the project, and the date of submittal to the Engineer/Architect.

b. Submittals requiring multiple submissions shall include multiple listings on the documents.

c. The Engineer/Architect will review the list and make any necessary comments.

d. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.

e. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently.

f. Processing. Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals, depending upon the complexity of the submittal.

1) Allow 2 weeks for processing each submittal.
2) No extension of the Contract Time will be authorized because of failure to transmit submittals to the Engineer/Architect sufficiently in advance of the work to permit processing.

1.5 **JOB CONDITIONS** (Not used)

1.6 **DELIVERY, STORAGE, AND HANDLING**

A. **Maintain and make available** to the Engineer/Architect, at the job site, a complete file of all approved submittals as part of the project record documents.

1.7 **SPECIAL WARRANTY** (Not used)

PART 2 - PRODUCTS

2.1 **SUBMITTAL TRANSMITTAL**

A. **Transmit each submittal** from the Contractor to Engineer/Architect using a transmittal form. Include the following on the transmittal form.

1. Relevant information and requests for data.
2. Deviations from Contract Document requirements, including minor variations and limitations.
3. The specification section number.
4. Other pertinent information to identify the items being submitted.

2.2 **GENERAL REQUIREMENTS FOR SUBMITTALS**

A. **Complete Submittals**. Clearly describe the equipment to be furnished with complete and detailed submittal information.

B. **Identification**. Properly identify all submittal-related documents and arrange in a logical order to best present the information. Provide an index that includes the following on every submittal.

1. Manufacturer's name and address.
2. Submittal date and revision number, if applicable.
3. Contract identification and specification section.
4. Drawing scale and orientation.
5. Submittal page number or sequence of pages.
6. Drawing number.

C. **Verification**

1. Where existing conditions or structures exist, field-verify dimensions, elevations, clearances, etc.

2. The submittal shall not be accepted for review until such verified data is clearly indicated.

D. **Legends**

1. All submittal diagrams, drawings, schematics, etc., shall include complete keys, legends or similar explanation as to the graphics, and symbols and abbreviations used.
2. In general, all graphics, symbols, abbreviations, and equipment nomenclature used for a submittal shall duplicate those used on the Contract Drawings.

E. **One Section per Submittal**. Each submittal shall pertain to only one specification section.

F. **All submittal information shall be**:

1. Neatly arranged.
2. Legible.
3. Not distorted or faded.
4. English.
5. In United States standard units.
6. Typed.

G. **All letters, certifications, and similar documents** shall be submitted in their entirety. Single pages of multiple-page letters, or letters with deleted passages will not be acceptable for submittal purposes.

H. **"Generic" letters, test reports**, material certifications, or similar documents which do not specifically address the requirements of the Contract Documents for the actual materials being furnished will not be acceptable.

I. **Mark all submittals** to clearly indicate the full extent of the equipment to be furnished.

1. Indicate all options to be provided, materials of construction, dimensions, and other information pertinent to the submittal.
2. Options, materials, and dimensions which do not pertain to the materials or equipment to be furnished shall be neatly marked out so as to avoid confusion and doubt during review, delivery, and installation.

J. **Resubmittals must clearly identify** all changes and revisions.

1. The drawing shall be marked "revised" with the revision date indicated.
2. Each resubmittal shall reference the previous submittal by the Engineer/Architect's log number.

K. **"By Others"**

1. All submittals are reviewed as if prepared by the Prime Contractor.
2. The term "By Others" is appropriate to indicate supply by the Owner or another Contractor.

L. **Deviations from Contract**. Highlight, encircle, or otherwise indicate deviations from the Contract Documents in all submittals.

2.3 SPECIFIC SUBMITTAL-TYPE REQUIREMENTS

A. **Shop Drawings**. The following paragraphs detail the general requirements for shop drawings and specific requirements for specific types of shop drawings.

1. General Requirements.

a. A shop drawing is a detailed representation of the work to be performed to demonstrate compliance with the Contract Drawings including:

1) Material and equipment layout.
2) Fabrication drawings.
3) System and electrical schematic diagrams.
4) Equipment and material schedules.
5) Installation details.

b. Submit newly prepared information, drawn to accurate scale.

c. Standard information prepared without specific reference to the project is not considered shop drawings.

2. Equipment/Material Layout Drawings.

a. Include:

1) Plot plans.
2) Plant site maps.
3) Equipment location plans.
4) Equipment and material layout plans and sectional views.
5) Connection detail drawings.
6) Similar drawings showing the incorporation of materials and equipment into the work.
7) The physical layout to scale, including elevations, plant grid coordinates, dimensions to new/existing structures, and other items of the work.
8) Dimensions.
9) Labeling.
10) Notes.
11) Legends.
12) Bills of materials.
13) All other information required to graphically describe the proposed work.

B. **Product Data**. Product data is submittal information that fully describes the item to be incorporated into the work. Product data shall include when applicable:

1. Manufacturer name.

2. Catalog cut-sheets.
3. General descriptive bulletins/brochures/specifications.
4. Materials of construction data and parts list.
5. Finish/treatment data.
6. Equipment/material weight/loading data.
7. Power/utility requirements.
8. Engineering design data, calculations, and system analyses.
9. Digital system documentation.
10. Any deviations from the contract documents.
11. Material Certifications. These include signed certificates or declarations by the Contractor, supplier, manufacturer, testing laboratory, or recognized certification agency which document that materials and product composition or construction comply with specified requirements and stated reference standards.
12. Manufacturer's printed recommendations.
13. Compliance with recognized trade association and testing agency standards.
14. Application of testing agency labels and seals.
15. Notation of dimensions verified by field measurement.
16. Notation of coordination requirements.
17. Specific response to detailed specification requirements.
18. Maximum operating pressure and temperature ratings.
19. Other information specifically called for under the sections of Divisions 1 through 44 shall be included in this category.

C. **Source Quality Control Documents**

1. Inspection.

    a. Inspection data includes inspection procedures and results of factory inspections of products, equipment, or systems.
    b. Within this type of submittal information are factory witness test procedures, schedules and reports, and similar data.

2. Testing.

    a. Test data is the information leading to or resulting from tests performed on materials, equipment, or systems at the manufacturer's facilities or in testing laboratories.
    b. This also includes data on testing equipment.
    c. Examples of test data include all information, test arrangement, drawings, illustrations, diagrams, curve plots, graphs, and other data which substantiates or establishes a material or product characteristic, quality, or other trait as a result of test required by the Contract Documents.

D. **Material Field Test Reports**

1. Report Data. Written reports of each inspection, test, or similar service shall include, but not be limited to:

    a. Date of issue.

b. Project title and number.
c. Name, address, and telephone number of testing agency.
d. Dates and locations of samples and tests or inspections.
e. Names of individuals making the inspection or test.
f. Designation of the work and test method.
g. Identification of product and specification section.
h. Complete inspection or test data.
i. Test results and interpretations of test results.
j. Ambient conditions at the time of sample taking and testing.
k. Comments or professional opinion as to whether inspected or tested work complies with Contract Document requirements.
l. Name and signature of laboratory inspector.
m. Recommendations on testing.

2. Example reports covered by this paragraph include compaction tests and concrete, leakage, and disinfection tests.

E. **Special Warranties**

1. There are two general types of warranties covered by this specification.

a. Manufacturer's Express Warranties.

1) These are formal statements of certifications by manufacturers which warrant to the Owner that products and equipment are free from defects in material and workmanship.
2) These are standard warranties issued with products and equipment which supplement the Contractor's warranty and may also extend coverage past the expiration of the Contractor's warranty.
3) Include with the manufacturer's warranty data shall be a notification of the availability of an extension to the standard warranty including terms.

b. Special Express Warranties.

1) The form, format, and conditions of special warranties are described in the various specification sections of the Contract Documents.
2) These are formal warranties above and beyond the Contractor's warranty and manufacturer's standard warranties.
3) These warranties may be based on performance, power consumption, maintenance projects, or other operating parameters.
4) Extended warranties, service contracts, and performance bonds are also included under this category.

2. Term or Period. Unless otherwise established by individual sections in Divisions 2 through 44, all Contractor express warranties shall extend for 1 calendar year from the date of substantial completion of the project or

acceptance date of the product or portion of work thereof, whichever is the later date.

F. **Project Record Documents**

1. Project record documents are to be maintained by the Contractor in the form of a set of red line/marked-up plans documenting any discovered site utilities or differing conditions and any changes or variances from the design drawings that are completed.

2. Record Contract Drawings. Legibly mark contract drawings to record actual construction including:

   a. Depths of various elements of foundation in relation to data.
   b. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
   c. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
   d. Field changes of dimension and detail.
   e. Changes made by change order or field order.

G. **Extra Materials/Spare Parts**

1. Coat or package extra materials to prevent corrosion or deterioration during long-term indoor storage.

2. Clearly label all packaging with:

   a. Part name.
   b. Part number.
   c. Associated equipment name and number.
   d. Manufacturer's name and address.
   e. The required storage environment for the materials.

H. **Other**. These include special tools/repair parts list, photographs, videos, certificates, construction schedules, drawings, reports, meeting minutes, data, and information required by the Contract Documents which do not logically fall into the submittal types defined above.

PART 3 - EXECUTION

3.1 SUBMITTAL PREPARATION AND TRANSMITTAL

A. **Coordination**

1. Coordinate preparation and processing of submittals with performance of construction activities.
2. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay and in accordance with the submittal schedule.
3. The General Contractor is responsible for resolving any disputes between Prime Contractors over submittals.

B. **Verification**

1. Verify the correctness and completeness of all submittals prior to forwarding same for review.
2. All submittals shall comply with the Contract Documents.

C. **Package each submittal** appropriately for transmittal and handling including a transmittal form.

D. **The Prime General Contractor shall submit** the minimum number of submittals as listed in paragraph 3.3 of this specification.

E. **Submittals received from sources** other than the Prime General Contractor will be returned without action.

F. **Other Prime Contractors shall submit** all submittals through the Prime General Contractor.

3.2 **ENGINEER/ARCHITECT'S REVIEW AND ACTION**

A. **General**

1. Except for submittals for record, information, or similar purposes where action and return is not required or requested, the Engineer/Architect will review each submittal, mark to indicate action taken, and return promptly.
2. Cost to review any submittal more than twice will be deducted from Contractor's monthly estimates and final payments.
3. The Engineer/Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B. **Action Stamp**. The Engineer/Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate action taken.

1. Final Unrestricted Release. Where submittals are marked "Approved," that part of the work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.

2. Final-but-Restricted Release. When submittals are marked "Approved as Noted," that part of the work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.

3. Returned for Resubmittal.

a. When submittal is marked "Not Approved" and/or "Revise and Resubmit," do not proceed with that part of the work covered by the submittal, including purchasing, fabrication, delivery, or other activity.
b. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
c. Do not permit submittals marked "Not Approved" and/or "Revise and Resubmit" to be used at the project site or elsewhere where work is in progress.

3.3 SUBMITTALS AND DISTRIBUTION

A. **Submittals.** Submittals shall be completed electronically by email or an online file sharing site as agreed upon at the preconstruction meeting.

END OF SECTION

SECTION 01 50 00

TEMPORARY CONSTRUCTION SERVICES AND FACILITIES

PART 1 - GENERAL

1.1 **RELATED DOCUMENTS**. Drawings and general provisions of each Prime Contract, including General and Supplementary Conditions and other Division 1 specification sections, apply to this section.

1.2 **DESCRIPTION OF WORK**

A. **General**. Provide the labor, tools, equipment, and material necessary to furnish, install, and maintain the temporary construction services and facilities in accordance with these plans and specifications. Temporary construction services and facilities include the following.

1. Temporary utilities required include, but are not limited to:

   a. Water service and distribution.
   b. Temporary electric power and light.
   c. Telephone service.
   d. Storm and sanitary sewer.

2. Temporary construction and support facilities required include, but are not limited to:

   a. Field offices and storage sheds.
   b. Temporary roads and paving.
   c. Sanitary facilities, including drinking water.
   d. Temporary enclosures.
   e. Temporary project identification signs and bulletin boards.
   f. Waste disposal services.
   g. Construction aids and miscellaneous services and facilities.
   h. Dewatering facilities and drains.
   i. Rodent and pest control.

3. Security and protection facilities required include, but are not limited to:

   a. Temporary fire protection.
   b. Barricades, warning signs, lights.
   c. Environmental protection.

1.3 **QUALITY ASSURANCE**

A. **Regulations**. Comply with industry standards and with applicable laws and regulations of authorities having jurisdiction, including but not limited to:

1. Building code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, fire department, and rescue squad rules.
5. Environmental protection regulations.

B. **Standards**. Comply with National Fire Protection Association (NFPA) Code 241, "Building Construction and Demolition Operations"; American National Standards Institute (ANSI) A10 Series standards for "Safety Requirements for Construction and Demolition"; and National Electrical Contractors Association (NECA) Electrical Design Library "Temporary Electrical Facilities."

1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services" prepared jointly by Associate General Contractors of America (AGC) and Adhesive and Sealant Council, Inc. (ASC) for industry recommendations.
2. Electrical Service. Comply with National Electrical Manufacturers Association (NEMA), National Electrical Contractors Association (NECA), and Underwriters' Laboratories, Inc. (UL) standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NEC) (NFPA 70).

C. **Inspections**. Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits and keep on file for Owner review.

1.4 **SUBMITTALS** (Not used)

1.5 **JOB CONDITIONS**

A. **Conditions of Use**

1. Keep temporary services and facilities clean and neat in appearance.
2. Operate in a safe and efficient manner.
3. Take necessary fire-prevention measures.
4. Do not overload facilities.
5. Do not allow hazardous, nuisance, or unsanitary conditions to develop or persist on the site.
6. Do not permit facilities to interfere with progress.
7. The installer of each permanent service or facility shall assume responsibility for its operation, maintenance, and protection during its use as a construction service or facility prior to the Owner's acceptance, regardless of previously assigned responsibilities.
8. At the earliest feasible time, when acceptable to Owner, change over from use of the temporary service to use of the permanent service.

1.6 **DELIVERY, STORAGE, AND HANDLING** (Not used)

1.7 **SPECIAL WARRANTY** (Not used)

1.8 **USE CHARGES**

A. **General**. Cost or use charges for temporary facilities are not chargeable to the Owner or Engineer/Architect; Contractor's cost or use charges for temporary services or facilities will not be accepted as a basis of claim for an adjustment in the Contract Sum or Contract Time.

PART 2 - PRODUCTS

2.1 MATERIALS

A. **General**. Provide new or acceptable previously used materials. Provide materials suitable for the use intended.

B. **Open Mesh Fencing**. Provide 11-gauge, galvanized 2-inch, chain-link fabric fencing 6 feet high with galvanized barbed wire top strand and galvanized steel pipe posts, 1-1/2-inch inside diameter (I.D.) for line posts, and 2-1/2-inch I.D. for corner posts.

2.2 EQUIPMENT

A. **General**. Provide new or acceptable previously used equipment. Provide equipment suitable for the use intended.

B. **Fire Extinguishers**

1. Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces.
2. In other locations provide hand-carried, portable, class "ABC" dry-chemical extinguishers, or a combination of extinguishers of NFPA recommended types for the exposures.
3. Comply with NFPA 10 and 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 INSTALLATION

A. **Use qualified personnel** for installation of temporary facilities.

B. **Location**. Coordinate location with Owner and Engineer/Architect. Locate facilities where they serve the project adequately and result in minimum interference with performance of construction activities. Relocate facilities as required.

C. **Provide each facility ready for use** when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. **General**. Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.

1. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.

2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
3. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.

B. **Water Service**. Install water service and distribution piping of sizes and pressures adequate for Contractor's construction needs.

C. **Temporary Electric Power Service**

1. Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction.
2. Include meters, transformers, overload protected disconnects, automatic ground fault interrupters, and main distribution switch gear.
3. Power Distribution System. Install wiring overhead, and raise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125-Vac 20-ampere rating and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.

D. **Temporary Telephones**

1. Provide cellular telephone service for all personnel engaged in construction activities, throughout the construction period.

E. **Provide earthen embankments and similar barriers** in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

A. **Field Offices**

1. Provide an insulated, weathertight, heated, or air-conditioned temporary office of sufficient size to accommodate required office personnel at the project site. Only if required for Contractor's use/needs on the project.

B. **Storage and Fabrication Sheds**. Install storage and fabrication sheds, sized, furnished, and equipped to accommodate materials and equipment including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on the site.

C. **Sanitary facilities include** temporary toilets, wash facilities, and drinking water fixtures.

1. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities.
2. Install where facilities will best serve the project's needs.
3. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.

4. Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition.
5. Provide bottled-water-type drinking water units.
6. Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

D. **Project Identification and Temporary Signs**

1. Temporary Signs. Prepare signs to provide directional information to construction personnel and visitors.
2. Support on posts or framing of preservative-treated wood or steel.
3. Do not permit installation of unauthorized signs.

E. **Collection and Disposal of Waste**. Contractor shall be responsible for maintaining a clean work site and disposal of waste/debris off site.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. **Barricades, Warning Signs, and Lights**

1. Comply with standards and code requirements for erection of structurally adequate barricades.
2. Paint with appropriate colors, graphics, and warning signs to warn personnel and the public of the hazard.
3. Where needed, provide lighting including flashing lights.

B. **Environmental Protection**

1. Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted, or that other undesirable effects might result.
2. Avoid use of tools and equipment which produce harmful noise.
3. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION AND REMOVAL

A. **Supervision**. Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

B. **Maintenance**

1. Maintain facilities in good operating condition until removal.
2. Protect from damage by freezing temperatures and similar elements.

3. Maintain operation of temporary construction services and facilities on a 24-hour-day basis where required to achieve indicated results and to avoid possibility of damage.
4. Prevent water filled piping from freezing. Maintain markers for underground lines.
5. Protect from damage during excavation operations.

C. **Termination and Removal**

1. Unless requested that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion.

2. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility.

3. Repair damaged work, clean exposed surfaces, and replace work which cannot be satisfactorily repaired.

4. Materials and facilities that constitute temporary facilities are property of each Prime Contractor. The Owner reserves the right to take possession of project identification signs.

5. Temporary Pavement.

   a. Remove temporary paving that is not intended for or acceptable for integration into permanent paving.
   b. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area.
   c. Remove materials contaminated with road oil, asphalt and other petrochemical compounds and other substances which might impair growth of plant materials or lawns.
   d. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.

END OF SECTION

SECTION 01 57 13

SEDIMENT AND EROSION CONTROL

PART 1 - GENERAL

1.1 **RELATED DOCUMENTS**. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1, and all related specification sections, apply to work in this section.

1.2 **DESCRIPTION OF WORK**

A. **Scope of Work**. Provide all labor, tools, equipment, and materials necessary to furnish and maintain the soil erosion controls where shown, where shown on the Contractor's Storm Water Pollution Prevention Plan (SWP3), where directed, and as specified herein.

B. **SWP3 Preparation**. Prepare an SWP3 for this project, obtain necessary permits, provide dust control, and terminate coverage under the permits, if necessary, upon completion of the work.

1.3 **QUALITY ASSURANCE**

A. **Codes and Standards**. Perform all work required in the control of erosion during construction in compliance with the following standards as referenced herein:

1. ODOT – Ohio Department of Transportation. Construction and Material Specifications (most recent edition).

2. ODNR – Ohio Department of Natural Resources. "Rainwater and Land Development Ohio’s Standards for Stormwater Management Land Development and Urban Stream Protection" (Rainwater and Land Development) current edition.

3. Ohio EPA – Ohio Environmental Protection Agency.

a. National Pollutant Discharge Elimination System (NPDES) Permit No. OHC000004, “Authorization for Storm Water Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System” (General NPDES Permit).

B. **Conflicts**. In the event of a conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, regulations, or standards shall apply.

1.4 **SUBMITTALS**

A. **General**. Submit all submittals in accordance with the Division 1 Submittal Requirements and the requirements within this specification section.

B. **Submittal Package No. 1 – SWP3 and Co-Permittee Notice of Intent (NOI) Form**

1. Submit the Contractor's SWP3 including associated drawings and details of sediment and erosion control measures that will be employed during the project.
2. NOI for NPDES Permit Coverage. The Owner has obtained coverage for the project under the noted general NPDES Permit. The Contractor shall submit a Co-permittee NOI form. Provide the Engineer/Architect with a copy of the NOI forms submitted.

C. **Submittal Package No. 2 – Notice of Termination (NOT) Form**

1. NOT for NPDES Permit Coverage. Within 45 days of completing all required land-disturbing activities submit an NOT for termination of NPDES permit coverage to the appropriate Ohio EPA district office. Provide the Engineer/Architect with four copies of the signed NOT submitted.

1.5 **JOB CONDITIONS**

A. **Construction Sites Greater Than or Equal to 1 Acre**

1. SWP3.

a. General. Develop and implement an SWP3 for the control of sediment and erosion at this project site throughout construction. The SWP3 shall be in accordance with the requirements of the Ohio EPA's general NPDES Permit and these specifications.

b. Post-construction Storm Water Management. To protect the physical, chemical, and biological characteristics of the stream, lake, or river receiving storm water discharges from this site, the following post-construction features have been integrated into the design of the project. These features shall be included in the Contractor's SWP3 in accordance with the requirements of the general NPDES Permit.

1) Constructed wetland for quantity and quality control of runoff from the new parking lot and entry drive.

B. **Sediment and Erosion Control Shown on the Plans**. The sediment and erosion control measures shown on the plans, if any, are considered to be the minimum level of control required. Prepare the final SWP3 and use, if appropriate, alternate methods and locations of sediment and erosion control to meet the site requirements provided they are approved.

1.6 **DELIVERY, STORAGE, AND HANDLING**

A. **General**. Handle all sediment and erosion control materials in accordance with the manufacturer's recommendations.

B. **Storage**. Store all seeds for temporary seeding in a safe, dry location protected from weather conditions that may affect the seed viability.

1.7 **SPECIAL WARRANTY** (Not used)

PART 2 - PRODUCTS

2.1 **GENERAL**. The SWP3 shall incorporate some or all of the following equipment and materials for sediment and erosion control measures, as appropriate. Alternative materials and methods as presented in ODOT Item 832 or ODNR's Rainwater and Land Development manual may be considered.

A. **Sediment Barriers**. Sediment barriers are temporary measures using woven wire or other approved material attached to posts with filter cloth of burlap and plastic filter fabric to intercept, detain, and control sediment and erosion from leaving the construction site.

1. Filter Fabric/Silt Fence. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester, or ethylene yarn. Fabric shall be ODOT Item 712.09, Type C or equal.
2. Wire Fencing. Wire fence reinforcement for silt fences at storm drain inlets shall be a minimum of 42 inches in height and a minimum of 14 gauge, and shall have a maximum mesh spacing of 6 inches.
3. Silt Fence Posts. Posts for silt fences shall be either 2-inch-by-2-inch hardwood or equivalent steel with a minimum length of 32 inches. Steel posts shall have projections for fastening wire to them.
4. Storm Drain Inlet Protection Framing. Stakes and framing for yard, drainage ditch, or parking lot inlet protection shall be 2-inch-by-4-inch wood (preferred) or equivalent metal with a minimum length of 3 feet for the stakes/posts.

B. **Matting**. Matting shall be agricultural straw or coconut fiber within photodegradable netting, jute, excelsior, or approved equal synthetic material as specified in ODOT Items 671 and 712.11.

C. **Temporary Seeding and Mulching**. Temporary seeding and mulching are measures consisting of seeding, mulching, fertilizing, and matting used to reduce erosion. All cut-and-fill slopes including borrow pits shall be seeded and/or mulched where and when necessary to eliminate erosion.

1. Materials. Mulch.

a. Straw. Straw mulch shall be unrotted small-grain straw, free of sticks or other foreign material.
b. Wood Cellulose Fiber. Wood cellulose fiber mulch shall be dyed green and not inhibit seed germination.

2. Fertilizer. Fertilizer shall contain 12 percent total nitrogen, 12 percent available phosphoric acid, and 12 percent water-soluble potash. The name of plant nutrients, weight, and quarantined percentages shall be marked on the sealed containers.

D. **Sediment Structures**. Sediment basins, dams, and dikes are prepared storage areas to trap and store sediment from construction areas and to protect properties and stream channels below the construction areas from siltation.

E. **Rock Channel Protection**. Aggregate for the rock channel protection, dams, erosion control, or other uses indicated on the drawings, shall be provided in accordance with ODOT Item 601. Gradation/type shall be as noted on the drawings.

PART 3 - EXECUTION

3.1 GENERAL

A. **Examination**. Inspect the existing and proposed site drainage patterns in order that the most efficient methods of erosion control may be selected through the duration of construction.

B. **Fill material and equipment storage** is prohibited within 200 feet of the stream bank, in the floodplain, in wooded areas, or in other environmentally sensitive areas. Dispose of surplus excavated materials off-site.

C. **Maintenance**. Be responsible for ongoing inspection and maintenance of the sediment and control features. At a minimum, complete an inspection log at least every 7 calendar days and within 7 days of each rainfall event. Repair/replace damaged features.

D. **Dust Control**. Minimize dust generation, including wetting down unpaved areas during the construction activities.

3.2 PREPARATION

A. **General**

1. Limit the surface area of erodible earth material exposed by the clearing and grubbing, excavation, borrow, and fill operations and provide immediate permanent or temporary control measures to prevent contamination of adjacent streams or other water courses, lakes, ponds, or other areas of water impoundment.
2. Such work will involve the construction of temporary ditch checks, filters, benches, dikes, dams, sediment basins, and slope drains, and use of temporary mulches, mats, seeding, or other control devices or methods necessary to control erosion and sedimentation.
3. Prepare and submit an SWP3 in advance of the work.
4. Limit the area of excavation, borrow, and embankment operations in progress commensurate with capability.
5. Deliver sediment and erosion control materials at appropriate times so that the project is not delayed.
6. Do not commence with any earth-disturbing activity until the appropriate sediment and erosion control features are in place.

B. **Sediment and Erosion Control Devices**. Minimization of denuded areas and the length of time that any area is denuded is the primary method of sediment and erosion control at any site. Adequate scheduling and the use of permanent and temporary seeding or mulching as described in paragraph 3.3 can accomplish this.

Areas that are to be denuded shall have structural control measures in place prior to exposure of the soil and such measures shall remain until the area is established and permanent measures are in place. In the case of silt fencing, which may require the rough grading to be completed prior to installation, it shall be installed as soon as practical. Structural measures shall include at a minimum:

1. Sediment basins for all drainage areas greater than 5 acres.
2. Aggregate construction entrances at all points of construction traffic egress from the site onto pavement.
3. Silt fencing at all areas of sheet flow.
4. Inlet protection at all storm water inlets.
5. Matting at all slopes greater than 3:1 and drainage swales/ditches.
6. Sediment traps or basins at all drainage areas that can not be adequately protected with silt fencing as determined by the Contractor developing the SWP3.
7. Silt fencing around soil stockpiles or cover them with tarps.

3.3 EROSION CONTROL

A. Permanent Erosion Control

1. Incorporate all permanent erosion control features into the project at the earliest practicable time.
2. Perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available.
3. Establish final grades and application of fertilizer, seed, and mulch.
4. Maintain sediment barriers until grass has grown.

B. Temporary Erosion Control

1. Provide temporary seeding and mulching as delineated in the SWP3, as directed, as specified in the general NPDES permit, and for all denuded areas that are to remain dormant for more than 14 days.
2. Apply temporary erosion control within 7 days after final or temporary grade has been reached that will remain dormant for more than 14 days.
3. For areas within 50 feet of a stream, apply temporary erosion control within 2 days after the most recent disturbance of an area that will remain dormant for more than 14 days.
4. Install temporary erosion control measures including seeding and mulching immediately if seasonal limitations make permanent control measures unrealistic.

Temporary seed shall be of the type specified in ODNR's Rainwater and Land Development manual for the time of year that it is applied. Temporary seeding shall also include application of 12-12-12 fertilizer at the rate of 6 pounds per

1,000 square feet and mulching in accordance with ODNR's Rainwater and Land Development manual.

3.4 SEDIMENT BARRIERS

A. **Filter Barriers (FB)**. Construct the FBs using synthetic filter fabric. They are designed for sediment removal and erosion control of low or moderate channelized flows not exceeding 1 cubic foot per second (cfs).

1. The height of an FB shall be between 15 inches and 18 inches.
2. Purchase filter fabric in a continuous roll and avoid the use of joints by cutting to the length of the barrier.
3. Space the stakes a maximum of 3 feet apart at the barrier location and drive them securely into the ground (minimum of 8 inches).
4. Excavate a trench approximately 4 inches wide and 4 inches deep along the line of stakes and upslope from the barrier.
5. Staple the filter material to the wooden stakes, and extend 8 inches of the fabric into the trench. Use heavy-duty wire staples at least 1/2 inch long. Do not staple filter material to trees.
6. Backfill the trench and compact the soil over the filter material.
7. Install straw bales on the downstream side of all filter barriers. Install bales in a single row and securely anchor them with a minimum of two stakes per bale.
8. If an FB is to be constructed across a ditch line or swale, the barrier shall be of sufficient length to eliminate end flow, and the plan configuration shall resemble an arc or horseshoe with the ends oriented upslope.
9. Remove FB when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

B. **Silt Fence (SF)**. SF is designed for situations in which only sheet or overland flows are expected, and the following drainage area limits are applied.

Silt Fence Maximum Drainage Area (Based on Slope of Drainage Area)	
Slope	**Maximum Drainage Area (Acres) to 100 Linear Feet of Silt Fence**
0-2% (<50:1)	0.5
2%-20%	0.25
>20%	0.125

SF details are included on the plans or within ODNR's Rainwater and Land Development manual.

1. Locate the silt fence at the flattest area available and follow a level contour of the land so that flows are dissipated into uniform sheet flow.
2. The height of an SF shall not exceed 36 inches (higher fences may impound volumes of water sufficient to cause failure of the structure).
3. Purchase the filter fabric in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, splice filter

cloth together only at a support post, with a minimum 6-inch overlap, and securely seal.

4. Drive posts securely into the ground (minimum of 12 inches).
5. Excavate a trench approximately 4 inches wide and 6 inches deep along the line of posts and upslope from the barrier.
6. Staple or wire the filter fabric to the fence, and extend 8 inches of the fabric into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Do not staple filter fabric to trees.
7. Backfill the trench and compact the soil over the filter fabric.
8. Remove SF when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

C. **Maintenance**

1. Inspect SF and FB a minimum of every 7 days and immediately after each rainfall or at least daily during prolonged rainfall. Make any required repairs immediately.
2. Should the fabric on an SF or FB decompose or become ineffective prior to the end of the expected useable life and the barrier is still necessary, replace the fabric promptly.
3. Remove sediment deposits after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
4. Dress any sediment deposits remaining in place after the SF or FB is no longer required to conform with the existing grade, and prepare and seed them.

3.5 MATTING

A. **General**. Matting details are included in ODNR's Rainwater and Land Development manual. Provide matting:

1. On all final slopes 3:1 or greater.
2. Along the bottom of all drainage ditches until permanent seeding has grown and is established.
3. In areas where establishing vegetation is difficult.
4. Where mulch is difficult to hold in place due to wind or water.
5. Where water velocities exceed 3.5 feet per second.

B. **Securing**. Secure matting in accordance with the manufacturer's instructions or with No. 11 gauge, or heavier, sod staples that are a minimum of 6 inches in length.

C. **Erosion Stops**

1. Erosion stops are narrow trenches (6 to 12 inches deep) across the full channel section to prevent undermining and gullies from forming below the matting.
2. Provide them at a maximum spacing of 50 feet apart (more frequently if recommended by the matting supplier) in areas of high erosion potential and at the leading edge of a matting roll.
3. High erosion potential is in rocky areas that prevent soil-to-matting contact, erosive soils, and steep slopes.

4. Place the leading edge or piece of matting (for intermediate stops) within the narrow trench and secure it in place before backfilling the trench.

3.6 **STORM DRAIN INLET PROTECTION (IP)**

A. **Curb Inlet Protection**. Details are included in ODNR's Rainwater and Land Development manual.

1. Frame. Construct a wooden frame that is anchored to the soil located behind the curb.
2. Screen. Form a geotextile fabric screen with wire mesh backing to the concrete gutter and against the face of the curb. Extend the screen 2 feet beyond the inlet throat on either end and fasten to the frame.
3. Stone. Place 2-inch stone over the screen to prevent water from entering the inlet under or around the geotextile fabric.

3.7 **SEDIMENT TRAPS**. Provide temporary sediment traps for sediment control for drainage areas totaling less than 5 acres when SF would be inadequate or inappropriate. Traps have a simple outlet structure stabilized with geotextile and riprap. Sediment trap details are included in ODNR's Rainwater and Land Development manual.

A. **Design**

1. Volume. Sediment trap shall include a minimum water volume of 67 cubic yards (cy) per acre of contributing drainage area plus sediment storage of 1,000 cubic feet (cf) per disturbed area of contributing area. Provide a larger water volume if required by the general NPDES permit.
2. Side Slopes. Maximum side slopes of 3:1.
3. Depth. 1.5 feet above outlet crest. Utilize a maximum height of 5 feet.
4. Dimensions. Maximize sediment removal efficiencies by maximizing surface areas and providing a minimum length-to-width ratio of 2:1.
5. Outlet. Provide either a piped discharge with outlet riser or an overflow spillway that is properly sized to ensure safe release of all storm water. Locate outlets, as much as practical, on the opposite side of the storm water entrance in order to avoid short-circuiting and maximize the sediment removal efficiency.
6. Channel Protection. Protect outlet spillways from erosion through use of a filter fabric and rock channel protection (ODOT Type C or D).

B. **Maintenance**. Maintain sediment level below the minimum water volume.

3.8 **SEDIMENT BASINS AND DAMS**. Sediment basins are sediment traps required for drainage areas greater than 5 acres. Sediment basins are larger than sediment traps and include dams that are regulated by the ODNR, Division of Water. Sediment basin details are included in ODNR's Rainwater and Land Development manual.

A. **Permitting**. If the sediment basin is such that it qualifies as a dam regulated by ODNR, obtain the appropriate permits and approvals from ODNR prior to construction of the dam. Submit a copy of this permit/approval prior to commencement of construction.

B. **Maintenance**. Remove deposited sediment when 40 percent of the initial volume has been filled with silt.

3.9 **ROCK CHANNEL PROTECTION**. Provide rock channel protection at all storm outlets in accordance with ODOT Item 601.

3.10 **TOP SOIL STOCKPILE**. Provide temporary drainage diversion of runoff around the topsoil stockpile to control soil erosion. Provide silt fencing around stockpiles or cover stockpiles with tarps to prevent erosion for sediment control.

3.11 **STREAM BANK WORK**. Special attention must be given at stream bank work locations to prevent erosion into the stream. Provide SF or drainage ditches with sediment traps at such locations. Hold to a minimum the entire disturbed area around any stream bank work. Designate trees and vegetation to be removed; clearly mark and protect those to be preserved. Following construction, promptly vegetate all sites other than roadways.

3.12 **STREAM CROSSINGS AND WORK WITHIN THE STREAM**

A. **General**

1. Avoid stream crossings and work within a stream when possible.
2. However, for certain work it may be necessary to work within the stream channel or develop a temporary crossing.
3. Keep to a minimum the time that is required to perform this work or that any temporary crossing is maintained, and remove any crossing as soon as possible.
4. Construct the culverts, bridges, and other structures of nonerodible material and size appropriately.
5. Be responsible for obtaining all local, state, or U.S. Army of Corps of Engineers (USACE) approvals or permits necessary prior to commencement of constructing the stream-crossing measure.
6. To reduce erosion and siltation impacts, perform construction in water courses only during periods of dry weather and low-flow conditions.

3.13 **CONSTRUCTION ENTRANCES/EXITS**. Install a stabilized pad of aggregate over geotextile fabric at all locations where construction vehicles leave construction areas onto surfaces where runoff is not checked by sediment controls, and at all points of egress to paved roads.

A. **Design**

1. Bedding. Provide a geotextile fabric bedding at the base of the construction entrance.
2. Stone. Place 2-inch stone in a layer 6 inches thick over the fabric bedding.
3. Dimensions. Entrance/exit pad shall be a minimum of 14 feet wide by 50 feet long.

B. **Maintenance**. Apply additional stone as necessary to replenish the entrance/exit. Remove sediment from paved roads immediately through sweeping, scraping, or other appropriate measure.

3.14 **DEWATERING**

A. **General**

1. Give special attention to dewatering activities to minimize release of silt-laden water into the stream.
2. The discharges shall be free of sediment and released into only storm sewers, stream channels, or other stabilized drainage sources and not onto exposed soils or any other site where flows could cause further erosion.
3. If trench or ground water contains sediment, it shall pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by de-watering into a sump pit, filter bag or comparable practice. Ground water which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.

3.15 **ADDITIONAL MEASURES**. Select the sediment and erosion control measures utilized for a site based on the proposed construction activities, existing and proposed contours, site drainage system, and other site requirements or restrictions. Additional or alternative erosion and sediment control measures may be utilized with approval. Such measures include those specified in ODNR's Rainwater and Land Development manual.

END OF SECTION

Division of Surface Water

Co-Permittee Notice of Intent (NOI) for Coverage Under Ohio EPA Construction Storm Water General Permit

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized by Ohio's NPDES general permit for storm water associated with construction activity. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. NOTE: All necessary information must be provided on this form. Read the accompanying instructions carefully before completing the form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Applicant Information/Mailing Address		
Company (Applicant) Name:		
Mailing (Applicant) Address:		
City:	**State:**	**Zip Code:**
Contact Person:	**Phone:**	**Fax:**
Contact E-mail Address:		

II. Facility/Site Location Information		
Existing Ohio EPA Facility Permit Number:		
Initial Permittee Name:		
Facility/Site Name:		
City:	**State:** Ohio	**Zip Code:**
County(ies):	**Township:**	
Facility Contact Person:	**Phone:**	**Fax:**
Facility Contact E-mail Address:		

III. Certification	
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of the fine and imprisonment for knowing violations.	
Applicant Name *(printed or typed)*:	**Title:**
Signature:	**Date:**

Division of Surface Water - *Notice of Termination (NOT) of Coverage Under Ohio Environmental Protection Agency General NPDES Permit*

(Read accompanying instructions carefully before completing this form.)

Submission of this NOT constitutes notice that the party identified in Section II of this form is no longer authorized to discharge into state waters under the NPDES general permit program. NOTE: All necessary information must be provided on this form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Permit Information

NPDES General Permit Number: OH

Facility General Permit Number:

II. Owner/Applicant Information/Mailing Address:

Company (Applicant) Name:

Mailing (Applicant) Address:

City:	**State:**	**Zip Code:**
Contact Person:	**Phone:**	**Fax:**

Contact E-mail Address:

III. Facility/Site Location Information

Facility Name:

Facility Address/Location:

City:	**State:**	**Zip Code:**
County:	**Township:**	**Section:**
Facility Contact Person:	**Phone:**	**Fax:**

Contact E-mail Address:

IV. Reason for Termination

Transfer of Ownership ☐	**Cease to Discharge** ☐	**Facility Closed** ☐
Project Completed ☐	**Obtained Individual Permit** ☐	

V. Certifications

Standard Certification:

I certify under penalty of law that all discharges authorized by the NPDES general permit have been eliminated or that I am no longer the operator of the facility. I understand that by submitting this NOT, I am no longer authorized to discharge under this general permit and that discharging pollutants to waters of the state without an NPDES permit is unlawful under ORC 6111.

Name (typed):	**Title:**
Signature:	**Date:**

Industrial Storm Water and Coal Mining Activity Certification Only:

I certify under penalty of law that all discharges associated with the identified facility that are authorized by the above referenced NPDES general permit have been eliminated, that I am no longer the operator of the facility, or in the case of a coal mine that the SMCRA bond has been released by ODNR-Division of Reclamation. I understand that by submitting this NOT, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the state is unlawful under ORC 6111 where the discharge is not authorized by an NPDES permit.

Name (typed):	**Title:**
Signature:	**Date:**

Storm Water Construction Activity Certification Only:

I certify under penalty of law that all elements of the storm water pollution prevention plan have been completed, the disturbed soil at the identified facility have been stabilized and temporary erosion and sediment control measures have been removed at the appropriate time, or that all storm water discharges associated with construction activity from the identified facility that are authorized by the above referenced NPDES general permit have otherwise been eliminated. I understand that, by submitting this NOT, I am no longer authorized to discharge storm water associated with construction activity by the general permit, and that discharging pollutants in storm water associated with construction activity to waters of the state is unlawful under ORC 6111 where the discharge is not authorized by an NPDES permit.

Name (typed):	**Title:**
Signature:	**Date:**

SECTION 31 23 00

EXCAVATION, BACKFILL, AND EMBANKMENT

PART 1 - GENERAL

1.1 **RELATED DOCUMENTS**. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1, and all related specification sections, apply to this section.

1.2 **DESCRIPTION OF WORK**

A. **Scope of Work**. Complete the excavation, backfill, and embankment necessary to construct the work as shown and specified herein. This section includes the following where applicable: structures, underground utilities, and preparing subgrade for pavements, walks, or slabs.

B. **Other Work**. Final grading together with placement and preparation of topsoil for lawns and planting is specified in Section 32 90 02, "Grading and Seeding." Excavation and backfill for buried piping are covered in Division 33.

C. **Definitions**

1. Excavation. The removal of material to required subgrade elevations and disposal of excavated materials.
2. Backfill. Below grade placement and compaction of specified materials to required elevations.
3. Unauthorized Excavation. The removal of materials beyond required subgrade elevations or dimensions without specific direction.
4. Subgrade. The undisturbed earth or the compacted soil layer immediately below foundations, pipe trenches, mud mats, pavement, slabs, walks, base, compacted foundation, embankment, or as shown.
5. Embankment. An engineered fill constructed of compacted, suitable earthen materials used to raise grade to the required elevations.

1.3 **QUALITY ASSURANCE**. Conform all work and materials to the following standards.

A. **ASTM**. American Society for Testing and Materials.

B. **OSHA**. Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1926.650 to .652, Subpart P. Construction Standard for Excavations.

1.4 **SUBMITTALS.** Submit all submittals in accordance with the Division 1 Submittal Requirements and this specification section. Do not deliver or install any materials before Submittal Packages 1 and 2 are approved.

A. **Submittal Package No. 1 – Product Data and Test Laboratory Qualifications**

1. Submittal package shall include:

a. Product data noting each material source, location, sieve analysis, and other information which will show that the source and supplier are capable of furnishing materials meeting the requirements of these specifications. Submit name and location of all borrow pits.
b. Name and address of acceptable test laboratory including the name and experience of the Engineer assigned to the field testing.

B. **Submittal Package No. 2 – Samples**

1. Samples shall include:

a. Aggregate samples not less than 1/4 cubic foot each for the following:

1) Granular backfill.
2) Porous backfill.
3) Base.
4) Drainage Base.

b. Filter Fabric. One-foot-square section.

C. **Submittal Package No. 3 – Field Test Reports**

1. Submit test reports within 48 hours of completion, suspension, or termination of testing the material including a copy of each test report called for in this section.

1.5 **JOB CONDITIONS**

A. **Utilities**

1. Existing Utilities.

a. Notify utility companies and locate existing underground utilities in area of work.
b. Where utilities are to remain in place, provide adequate means of support and protection during construction operations.
c. Repair any Contractor-damaged utilities to the owner's satisfaction at the Contractor's expense.

2. Unforeseen Utility Location.

a. Should a utility which is encountered during excavation be unrecorded or recorded incorrectly, consult the utility immediately for directions.
b. Cooperate with the utility or Owner in keeping respective services or facilities in operation.
c. Repair damaged utilities to the satisfaction of the utility owner.

3. Interruption.

a. Do not disrupt existing utilities except when approved.
b. Provide acceptable temporary utility services unless approved otherwise.

4. Notification. Provide a minimum of 48 hours notice to utility companies and Owner or Engineer/Architect before excavating or interrupting utilities.

B. **Blasting**. Do not blast.

C. **Borrow.** Should the excavated material be insufficient to provide all of the fill required, supply satisfactory material from another source at no cost to the Owner.

1.6 **DELIVERY, STORAGE, AND HANDLING**

A. **Topsoil**

1. Remove, stockpile, and place in the areas to be seeded topsoil that is available as a part of the excavated materials.
2. Shape stockpile and grade to drain.

B. **Excavated Material**. Stockpile excavated material when suitable for use as backfill or embankments onsite as directed.

C. **Stockpiles**. Shape and grade stockpile. Handle the material so that the gradation remains uniform and foreign material is not incorporated into the mix.

1.7 **SPECIAL WARRANTY** (Not used)

PART 2 - PRODUCTS

2.1 **MATERIALS**

A. **General**. All materials shall be free of elastic soil materials, debris, waste, concrete, bricks, asphalt, frozen material, vegetation, organics, peats, or other deleterious material.

B. **Suitable Backfill and Embankment Material Types**

1. Soil.

a. Earth materials which have resulted from natural processes such as weathering, decay, and chemical action.
b. More than 35 percent weight of the grains or particles will pass a No. 200 sieve and have a plastic index of 4 or more.
c. Free of aggregate or rock larger than 2 inches in any dimension.

2. Aggregate Material.

a. Natural mineral aggregate such as gravel, crushed gravel, crushed rock, or sand.

b. At least 65 percent by weight of the grains or particles will be retained on a No. 200 sieve.
c. At least 90 percent by weight of the grains or particles shall pass the 3-inch sieve.
d. Remove rock pieces larger than 6 inches in any dimension.
e. When the major portion of the unsound material in a coarse aggregate acquires a mud-like condition when tested for soundness, ensure that the maximum loss for all uses is 5 percent.

3. Shale. Finely stratified, laminated material formed by consolidation in nature, mudstone, claystone, and siltstone bedrock. Break into predominantly fine particles which can be readily tested for compaction requirements as soil.

4. Rock. Sandstone, limestone, dolomite, and glacial boulders, which are crushed into pieces that can readily be incorporated into a specified lift thickness and compacted according to requirements for granular materials.

C. **Granular Backfill**

1. Granular backfill shall be crushed or uncrushed granular material meeting the following grading requirements:

Sieve	Total Percent Passing
2-1/2 inch	100
1 inch	70 – 100
No. 4 (3/16 inch)	25 – 100
No. 40	10 – 50
No. 200	5 – 15

2. The fraction passing a No. 40 sieve shall have a liquid limit not greater than 30 and a plasticity index not greater than 6.
3. Maximum loss during an AASHTO T104 5-cycle sulfate soundness test shall be 15 percent.
4. Maximum wear during an AASHTO T-96 Los Angeles abrasion test shall be 50 percent.

D. **Porous Backfill**

1. Porous backfill shall be granular material meeting the requirements of ASTM D 448, No. 57, 67, or 78 size.
2. Maximum loss during an AASHTO T104 5-cycle sulfate soundness test shall be 15 percent.
3. Maximum wear during an AASHTO T-96 Los Angeles abrasion test shall be 40 percent.

E. **Mud Mat**. Unless shown or directed otherwise, all mud mats shall be concrete.

1. Concrete. A concrete mud mat shall consist of a 3-inch layer of Class C concrete.
2. Granular Material. A granular mud mat shall consist of a 4-inch layer of No. 57 crushed aggregate meeting the requirements of drainage base.

F. **Base**

1. Base shall be crushed granular material meeting the following grading requirements:

Sieve	Total Percent Passing
2 inch	100
1 inch	70 – 100
3/4 inch	50 – 90
No. 4	30 – 60
No. 30	9 – 33
No. 200	0 – 15

2. Maximum loss during an AASHTO T104 5-cycle sulfate soundness test shall be 15 percent.
3. Maximum wear during an AASHTO T-96 Los Angeles abrasion test shall be 50 percent.

G. **Drainage Base**. Drainage base shall be crushed granular material meeting the requirements of ASTM D 448 No. 57, 67, or 78 size. Meet soundness and abrasion requirements in accordance with porous backfill.

H. **Filter Fabric**. Furnish Type D filter fabric unless shown otherwise. The fabric shall be composed of strong, rotproof, polymeric fibers formed into a woven or nonwoven fabric conforming to the following requirements.

Type A: Underdrains and Slope Drains		
Minimum Tensile Strength	ASTM D 4632	80 lb (335 N)
Minimum Puncture Strength	ASTM D 4833	25 lb (110 N)
Minimum Tear Strength	ASTM D 4533	25 lb (110 N)
Apparent Opening Size	ASTM D 4751	
Soil Type 1: Soils with 50% or less passing No. 200 (75µm) sieve		AOS $\leq$0.6 mm
Soil Type 2: Soils with 50 to 85% passing No. 200 (75 µm) sieve		AOS $\leq$0.3 mm
Minimum Permeability	ASTM D 4491	$1x10^{-2}$ cm/sec
Type B: Filter Blankets for Rock Channel Protection		
Minimum Tensile Strength	ASTM D 4632	200 lb (890 N)
Minimum Puncture Strength	ASTM D 4833	80 lb (355 N)
Minimum Tear Strength	ASTM D 4533	50 lb (220 N)
Minimum Elongation	ASTM D 4632	15%
Apparent Opening Size	ASTM D 4751	AOS $\leq$0.6 mm
Minimum Permeability	ASTM D 4491	$1x10^{-3}$ cm/sec
Type C: Sediment Fences		
Minimum Tensile Strength	ASTM D 4632	120 lb (535 N)

Maximum Elongation at 60 lb (265 N)	ASTM D 4632	50%
Minimum Puncture Strength	ASTM D 4833	50 lb (220 N)
Minimum Tear Strength	ASTM D 4533	40 lb (180 N)
Apparent Opening Size	ASTM D 4751	AOS $\leq$0.84 mm
Minimum Permittivity	ASTM D 4491	$1x10^{-2}$ sec^{-1}
Ultraviolet Exposure Strength Retention	ASTM D 4355	70%
Type D: Subgrade-Base Separation or Stabilization		
Minimum Tensile Strength	ASTM D 4632	180 lb (800 N)
Maximum Elongation at 170 lb (755 N)	ASTM D 4632	35%
Minimum Tear Strength	ASTM D 4533	70 lb (310 N)
Minimum Puncture Strength	ASTM D 4833	70 lb (310 N)
Apparent Opening Size	ASTM D 4751	Same as Type A
Permeability	ASTM D 4491	$1x10^{-3}$ cm/sec
Type E: Pavement Reinforcement Fabric		
AASHTO M 288, Section 9, Table 7		

All minimum strengths shown are average roll minimum values in the weakest principal direction.

Ensure that the fabric is free of any treatment that might significantly alter its physical properties. During shipment and storage, wrap the fabric in a heavy-duty protective covering to protect it from direct sunlight, dirt, dust, and other debris.

I. **Filter Fabric Securing Pins**

1. 3/16-inch minimum diameter.
2. Steel.
3. Pointed at one end.
4. Fabricated with a head to retain a steel washer having an outside diameter not less than 1-1/2 inches.
5. At least 18 inches long.

J. **Topsoil**. In accordance with Section 32 90 02, "Grading and Seeding."

PART 3 - EXECUTION

3.1 **EXAMINATION**. Verify actual field/site conditions and confirm grades, elevation, and other pertinent information before beginning excavation.

3.2 **PREPARATION**

A. **Notify all utilities** and adjacent owners of structures or pavements of the excavation.

B. **Notify owners** of adjoining properties or utilities in case of emergencies.

3.3 **EXCAVATION**

A. **Topsoil**. Remove topsoil and place in separate stockpile.

B. **Protection**

1. Excavations. Protect all excavations by bracing, sheeting, piling, slope benching, or other acceptable means in accordance with OSHA 29 CFR Part 1926.650 to .652, Subpart P. Be responsible for protection of the excavation at all times.
2. Existing Structures. Protect existing structures, utilities, sidewalks, pavements, and other facilities from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by construction operations including dewatering operations.
3. Barricade open excavations.

C. **Drainage**

1. Direct surface water away from excavations to prevent erosion and undermining of foundations.
2. Provide and maintain diversion ditches, dikes, and grading as necessary during construction.
3. Protect excavated slopes and backfill surfaces to prevent erosion and sloughing.
4. Perform excavation so that the site and the area immediately surrounding the site and affecting operations at the site shall be continually and effectively drained.

D. **Dewatering**

1. Control groundwater flowing toward or into excavations to prevent sloughing of excavation slopes and walls, boils, uplift, and heave in the excavation.
2. Do not use French drains, sumps, ditches, or trenches within 3 feet of the foundation of any structure unless authorized.
3. Take control measures by the time the excavation reaches the groundwater level in order to maintain the integrity of the in situ material.
4. While the excavation is open, maintain the water level a sufficient distance below the working level to provide a stable working surface.

E. **Rock Excavation**

1. Definition.

   a. Rock excavation is defined as the removal of:

      1) Unanticipated solid concrete (excluding pavements), unanticipated solid masonry, or boulders each of which has a volume greater than 1 cubic yard.
      2) Bedrock which requires for its removal drilling and blasting, wedging, sledging, barring, or breaking up with a power-operated tool.

   b. Rock excavation is not excavating:

      1) Existing concrete or masonry structures or pavements shown.

2) Material which can be excavated using an appropriately sized, heavy-duty, power-operated excavator, backhoe, or shovel, all of which are equipped with bucket-mounted ripping teeth.
3) Material that can be excavated with a hand pick and shovel.
4) Soft or disintegrated bedrock such as weathered shale, clay shale, claystone, or mudstone, or overconsolidated soils such as "hardpan."
5) Previously blasted materials or materials that are intermittently drilled and blasted to merely increase production.

2. Blasting. Do not blast unless approved.

3. Limits. Unless otherwise noted, excavate rock to the bottom of structures and to a minimum clear width of 6 inches around the outer limits of the structures.

F. **Disposal**. Dispose of all excavated material unless otherwise shown.

1. Excavated material which is satisfactory may be used for backfill and embankments.
2. Dispose of excavated material which is unsatisfactory or surplus off-site.

G. **Excavation for Structures**. Conform to required elevations and dimensions within a tolerance of 0.10 foot and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, other construction, and inspection.

1. Excavations for Footings and Foundations.

a. Do not disturb bottom of excavation.
b. Excavate by hand to final grade just before concrete reinforcement is placed.
c. Trim bottoms to required lines and grades to leave solid base to receive other work.

2. Excavations for Pile Foundations.

a. Stop excavations from 6 inches to 12 inches above bottom of pile cap before piles are placed.
b. After piles have been driven, remove loose and displaced material.
c. Excavate to final grade, leaving solid base to receive concrete pile caps.

H. **Excavation for Pavements**. Excavate under pavements to comply with required cross sections, elevations, and grades.

3.4 SUBGRADE

A. **Freeze Protection**. Protect the following from freezing:

1. Excavation bottoms or material on which foundations will be constructed.
2. Constructed foundations.
3. Subgrades.

B. **Disturbed Subgrade**. Using an approved method, remediate disturbed subgrade caused by inundation or inadequate dewatering procedures. Perform these remedial measures at no cost to the Owner.

C. **Mud Mat**. Provide a mud mat as shown or where site conditions require a mud mat to protect subgrade.

D. **Unauthorized Excavation**. Backfill unauthorized excavation below design elevations with Class C concrete or other approved material at no cost to the Owner.

E. **Unsuitable Bearing Materials**. Remove unsuitable bearing materials encountered at design elevations and replace with a suitable bearing material as directed.

F. **Shape the subgrade** at all foundations, slabs, and pavements so that the required thickness of the foundations, slabs, pavements, and granular material can be maintained.

G. **Pavement and Slab Subgrade**

1. Compact all pavement and slab subgrades to a depth of 12 inches. Adjust moisture condition of subgrade soils to achieve required compaction.
2. Replace subgrade soils with a maximum dry density of less than 100 pounds per cubic foot under pavement and slabs with suitable soil or granular material.
3. Compact soil subgrades with a maximum dry density of 100 to 105 pounds per cubic foot to at least 102 percent.
4. Compact all other soil subgrades to at least 100 percent.
5. The moisture content shall be between the optimum moisture content and 3 percent above the optimum moisture content.

H. **Proofrolling**

1. Unless directed otherwise, proofroll all subgrades for pavements, slabs, and embankments.
2. Remove debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to proofrolling and placement of fill for embankment.
3. The proofrolling equipment shall consist of an acceptable pneumatic-tired vehicle such as a loaded dump truck.
4. The gross load of the vehicle shall be at least 25 tons.
5. Roll the entire plan area of the subgrade with at least two passes of the vehicle or as directed.
6. Adjacent passes shall be offset no more than 6 inches to provide complete coverage of the area.

7. Remove and replace any soft, wet, or weak areas detected by the proofrolling with acceptable material or scarify, moisture-condition, and recompact.

I. **Filter Fabric**

1. Surfaces to receive fabric shall be relatively smooth and free of obstructions and debris.
2. Place the fabric loosely without wrinkles and creases.
3. Where joints are necessary, place strips to provide a 12-inch minimum overlap.
4. Place securing pins with washers at 2-foot intervals along joints and at 5-foot intervals elsewhere to prevent slippage of the fabric.

3.5 BACKFILL AND EMBANKMENTS

A. **General**

1. Place and compact backfill material as shown and specified in this section.

2. Adjacent to structures:

   a. Use backfill where it will support landscaping.
   b. Use granular backfill where it will support structures and slabs.

3. Backfill excavations as promptly as work permits, but not until completion of the following:

   a. Acceptance of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
   b. Inspection, testing, approval, and recording locations of underground utilities have been performed and recorded.
   c. Removal of concrete formwork.
   d. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities or leave in place if required.
   e. Removal of trash and debris from excavation.
   f. Permanent or temporary horizontal bracing is in place on horizontally supported walls.
   g. After the first floor slab has been poured and set on building walls, unless otherwise approved.
   h. Testing water-bearing walls for watertightness.

B. **Placement**

1. Backfill against other work shall be in a manner and at such time as not to endanger the stability or damage the work.

2. Do not place any lift on surfaces that are muddy or frozen or contain frost or ice.

3. Place backfill and fill materials evenly around structures, piping, or conduit to required elevations.

4. Place granular materials after the subgrades have been leveled.

5. Unless noted otherwise, all references to degree of compaction are expressed as a percentage of the maximum dry density in accordance with ASTM D 698 (standard Proctor).

6. Before compaction, moisten or aerate each lift as necessary to provide appropriate moisture content.

7. Place and compact materials in lifts as specified in the following paragraph.

    a. Backfill.

        1) Maximum 6-inch loose layers unless using hand tampers.
        2) Maximum 4-inch loose layers when hand-operated tampers are used.
        3) Compact each layer to at least 95 percent unless noted otherwise.
        4) Compact backfill for voids, depressions, or holes resulting from the demolition of existing structures to 100 percent.
        5) Moisture content between 1 percent below optimum and 3 percent above optimum.

    b. Granular Backfill.

        1) Maximum 6-inch loose layers unless using hand tampers.
        2) Maximum 4-inch loose layers when hand operated tampers are used.
        3) Compact each layer to at least 100 percent.
        4) Moisture content at or near optimum.

    c. Base.

        1) Maximum 6-inch compacted layers.
        2) When shown as more than 6 inches thick, place material in equal layers but no layer more than 6 inches compacted thickness.
        3) When supporting a structure or slab, compact each layer to at least 100 percent.
        4) In all other situations, compact each layer to at least 98 percent.
        5) Moisture content within 1 percent of the optimum.

d. Porous Backfill.

1) Maximum 6-inch compacted layers.
2) Compact each layer to at least 95 percent unless supporting a structure if supporting a structure, compact to 100 percent.

e. Granular Mud Mat. Compact to at least 100 percent.

f. Drainage Base.

1) Maximum 6-inch compacted layers.
2) When shown as more than 6 inches thick, place material in equal layers but no layer more than 6-inch compacted thickness.
3) Compact each layer to at least 100 percent.

8. Moisture Conditioning.

1) Where the subgrade or a lift of soil material must be moisture conditioned before compaction, uniformly apply water to surface.
2) Apply water sparingly to prevent free water from appearing on surface during or subsequent to compaction operations.

C. **Grading**

1. Smooth the finished surface within specified tolerances.

2. Grade and compact areas with uniform slopes between required elevations or between such points and existing grades.

3. Grade areas to drain away from structures and to prevent ponding.

4. Finish surfaces free from irregular surface changes and as follows:

a. Lawn or Unpaved Areas. Grade areas to receive topsoil to within not more than 0.10 foot above or below required subgrade elevations.
b. Pavements and Walks. Shape surface of areas under pavement to line, grade, and cross section, with surface not more than ½ inch above or below required subgrade elevation.

D. **Embankments**

1. Continuously bench sloped surfaces steeper than 1 vertical to 8 horizontal so that embankment material will bond with existing surface.

2. Maximum 6-inch loose layers.

3. Compact each layer to the minimum percent of maximum dry density specified herein.

Compaction Maximum Dry Density lbs/cf	Minimum Percent Maximum Dry Density
90-104.9	102
105-119.9	100
120 and more	98*

*100 if embankment supports a structure foundation.

4. Moisture Content.

   a. The moisture content shall be between the optimum moisture content and 3 percent above the optimum moisture content.
   b. For material which displays pronounced elasticity or deformation under action of compaction equipment, reduce the moisture content to optimum to secure stability.

3.6 FIELD QUALITY CONTROL

A. Field-Testing

1. Test Laboratory. Employ an acceptable soils testing laboratory to determine the following:

   a. Moisture density relationship of the materials to be compacted.
   b. Field moisture and density to verify the degree of compaction being obtained.
   c. The strength of subgrades supporting structures.

2. The soils testing laboratory personnel shall be on-site continuously during all placement and compaction activities including backfills and embankments to determine compliance with this specification section.

3. Tests will be located by the Engineer/Architect.

4. Allow testing services to inspect and approve subgrades, backfill, drainage fill, and embankment layers before further construction work is performed.

5. Perform field density tests as follows, in accordance with ASTM D 1556 or D 2922. Perform footing subgrade strength tests using acceptable calibrated instruments.

   a. Footing Subgrade. Conduct at least one test to verify required design bearing for each footing location. For a strip footing, conduct one test for every 50 linear feet of footing.
   b. Building Slab or Paved Areas. Make at least one field density subgrade test for every 2,000 square feet, but in no case less than three.

c. Backfill, Base, Drainage Base, and Embankment. Field density tests shall be made at least once for every 50 cubic yards, or fraction thereof, and at least one test per lift (compacted layer).

d. Wall Backfill. Take at least one field density test, per side, at locations directed for each lift (compacted layer).

6. If the subgrade, backfill, drainage fill, or embankment is below specified density, provide additional compaction and testing at no additional cost to the Owner.

B. **Settling**. Where settling is measurable or observable during the general project warranty period, remove the surface (pavement, lawn, or other finish), add backfill, compact, and replace surface at no cost to the Owner.

3.7 GRADING FOR SEEDING

A. Rough Grading

1. Trim and grade all areas to within 4 inches of the finished grades.
2. These areas are to be free from rock or other foreign material 3 inches or greater in any dimension.

B. **Finished Grading**. Spread topsoil to conform to the required finished grades.

END OF SECTION

SECTION 31 66 15

HELICAL PILE FOUNDATIONS
MCCAMMON CREEK

1. GENERAL

1.1 Purpose of Special Provision

The purpose of this Special Provision is to detail the furnishing of all designs, materials, tools, equipment, labor supervision, and installation techniques necessary to install helical piles as detailed on the drawings, including connection details. This shall include provisions for load testing that may be part of the scope of work.

1.2 Scope of Work

This work consists of furnishing all necessary engineering and design services, supervision, labor, tools, materials, and equipment to perform all work necessary to install the helical piles, at McCammon Creek Park for the Preservation Parks of Delaware County per the specifications described herein, and as shown on the drawings. The Contractor shall install a helical pile that will develop the load capacities as detailed on the drawings. This may also include provisions for load testing to verify Helical Pile capacity and deflection, if part of the scope of work.

1.3 Qualifications of the Helical Pile Contractor

The helical pile Contractor shall be experienced in performing design and construction of helical pile foundations and shall furnish all materials, labor, and supervision to perform the work. The Contractor shall provide names of on-site personnel materially involved with the work, including those who carry documented certification of helical pile training, to the Engineer for approval prior to performing design or construction work. At a minimum, these personnel shall include foreman, machine operator, and project engineer/manager.

The helical pile Contractor shall not sublet the whole or any part of the contract without the express written permission of the Owner.

1.4 Definitions

A partial list follows.

Allowable Stress Design: A structural and geotechnical design methodology that states that the summation of the actual estimated loads (nominal loads) must be less than or equal to the allowable design load (required strength). Allowable loads are obtained by dividing a nominal resistance (strength) by an appropriate factor of safety

Bearing Stratum: The soil layer (or layers) that provide the helical pile end-bearing capacity through load transfer from the helical plates.

Contractor: The person/firm responsible for performing the Helical Pile work.

Coupling: Central steel shaft connection means formed as integral part of the plain extension shaft material. For Type SS & RS Helical Piles, couplings are internal or external sleeves, or hot upset forged sockets.

Coupling Bolt(s): High strength, structural steel fasteners used to connect Helical Pile segments together. For Type SS segments, the coupling bolt transfers axial load. For Type RS segments, the coupling bolts transfer both axial and torsional forces.

Factor of Safety: The ratio of the ultimate pile capacity or nominal resistance (strength) to the nominal or service load used in the design of any helical pile component or interface (Allowable Stress Design).

Factored Load: The product of a nominal load and an applicable load factor (Load and Resistance Factor Design).

Factored Resistance: The product of a nominal resistance and an applicable resistance factor (Load and Resistance and Factor Design).

Geotechnical Capacity: The maximum load or the load at a specified limit state, that can be resisted through the piles interaction with the bearing soils (see also Ultimate Pile Capacity).

Helical Extension: Helical Pile foundation component installed immediately following the lead or starter section, if required. This component consists of one or more helical plates welded to a central steel shaft of finite length. Function is to increase bearing area.

Helix Plate: Generally round steel plate formed into a ramped spiral. The helical shape provides the means to install the helical pile, plus the plate transfers load to soil in end bearing. Helix plates are available in various diameters and thickness.

HELICAL PULLDOWN® Micropile: A small diameter, soil displacement, cast-in-place Helical Pile, in which most of the applied load is resisted by the central steel shaft and steel reinforcement, if installed. Load transfer to soil is both end bearing and friction.

Helical Pile: A bearing type foundation element consisting of a lead or starter section, helical extension (if so required by site conditions), plain extension section(s), and a pile cap. A.k.a. helical screw pile, screw pile, helical screw foundation.

Installation Torque(T): The resistance generated by a Helical Pile when installed into soil. The installation resistance is a function of the soil type, and size and shape of the various components of the Helical Pile.

Lead Section: The first Helical Pile foundation component installed into the soil, consisting of single or multiple helix plates welded to a central steel shaft. A.k.a. Starter Section.

Nominal Loads: The magnitude of the loads specified, which include dead, live, soil, wind, snow, rain, flood and earthquakes (also referred to as service loads or working loads).

Nominal Resistance: The pile capacity at a specified ultimate limit state (Load and Resistance Factor Design). See Ultimate Pile Capacity.

Nominal Strength: A term used in structural design which is defined as the structure or member capacity at a specified strength limit state. See Ultimate Pile Capacity.

Pile Cap: Connection means by which structural loads are transferred to the Helical Pile. The type of connection varies depending upon the requirements of the project and type of Helical Pile material used.

Plain Extension: Central steel shaft segment without helix plates. It is installed following the installation of the lead section or helical extension (if used). The segments are connected with integral couplings and bolts. Plain extensions are used to extend the helix plates beyond the specified minimum depth and into competent load bearing stratum.

Resistance Factor: A factor that accounts for the probability of deviation of the actual resistance (strength) from the predicted nominal resistance (strength) due to variability of material properties, workmanship, type of failure and uncertainties in the analysis (Load and Resistance Factor Design).

Round Shaft (RS): Round steel pipe central **S**haft elements ranging in diameter from 2-7/8" to 10". A.k.a. Hollow Shaft (Type HS), Type T/C, Type PIF.

Safety Factor: The ratio of the ultimate capacity to the working or design load used for the design of any structural element.

Square Shaft (SS): Solid steel, round-cornered-**S**quare central **S**haft elements ranging in size from 1-1/4" to 2-1/4". A.k.a. Type SQ.

Service Loads: See "Nominal Loads" above.

Torque Strength Rating: The maximum torque energy that can be applied to the helical pile foundation during installation in soil, a.k.a. allowable, or safe torque.

Ultimate Pile Capacity: The helical pile capacity based on the least capacity determined from applicable ultimate limit states for mechanical and geotechnical capacity.

1.5 Allowable Tolerances

1.5.1 Centerline of helical pile shall not be more than 3 inches from indicated plan location.

1.5.2 Helical pile plumbness shall be within 2° of design alignment.

1.5.3 Top elevation of helical pile shall be within +1 inch to –2 inches of the design vertical elevation.

1.6 Quality Assurance

1.6.1 The Contractor shall employ an adequate number of skilled workers who are experienced in the necessary crafts and who are familiar with the specified requirements and methods needed for proper performance of the work of this special provision.

1.6.2 All helical piles shall be installed in the presence of a designated representative of the Owner unless said representative informs the Contractor otherwise. The designated representative shall have the right to access any and all field installation records and test reports.

1.6.3 Helical pile components as specified therein shall be manufactured by a facility whose quality systems comply with ISO (International Organization of Standards) 9001 requirements. Certificates of Registration denoting ISO Standards Number shall be presented upon request to the Owner or their representative.

1.6.4 Design of Helical Piles shall be performed by an entity as required in accordance with existing local code requirements or established local practices. This design work shall be performed and sealed by a licensed professional engineer licensed in the state of Ohio.

1.7 Design Criteria

1.7.1 Helical Piles shall be designed to support the specified compressive load(s) as shown on the project Plans. The overall length, helix configuration and minimum torsional resistance of a helical pile shall be such that the required capacity is developed by the helix plate(s) in an appropriate bearing stratum.

1.7.2 All structural steel pile components shall be designed within the limits provided by the American Institute of Steel Construction (AISC) Specification for Structural Steel Buildings (AISC-360). Either Allowable Stress Design (ASD) or Load and Resistance Factor Design (LRFD) are acceptable methods of analysis.

1.8 Ground Conditions

The Geotechnical Report, including logs of soil borings as shown on the boring location plan, shall be considered to be representative of the in-situ subsurface conditions likely to be encountered on the project

site. Said Geotechnical Report shall be used as the basis for helical pile foundation design using generally accepted engineering judgment and methods.

2 REFERENCED CODES AND STANDARDS

Standards listed by reference, including revisions by issuing authority, form a part of this special provision section to the extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title, or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation. In case of conflict, the particular requirements of this special provision shall prevail. The latest publication as of the issue of this special provision shall govern, unless indicated otherwise.

2.1 American Society for Testing and Materials (ASTM):

2.1.1 ASTM A29/A29M Steel Bars, Carbon and Alloy, Hot-Wrought and Cold Finished.
2.1.2 ASTM A36/A36M Structural Steel.
2.1.3 ASTM A53 Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
2.1.4 ASTM A153 Zinc Coating (Hot Dip) on Iron and Steel Hardware.
2.1.5 ASTM A252 Welded and Seamless Steel Pipe Piles.
2.1.6 ASTM A775 Electrostatic Epoxy Coating
2.1.7 ASTM A193/A193M Alloy-Steel and Stainless Steel Bolting Materials for High Temperature Service.
2.1.8 ASTM A320/A320M Alloy-Steel Bolting Materials for Low Temperature Service.
2.1.9 ASTM A325 Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
2.1.10 ASTM A500 Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
2.1.11 ASTM A513 Standard Specification for Electric Resistance Welded Carbon and Alloy Steel Mechanical Tubing.
2.1.12 ASTM A536 Standard Specifications for Ductile Iron Castings
2.1.13 ASTM A572 HSLA Columbium-Vanadium Steels of Structural Quality.
2.1.14 ASTM A618 Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing.
2.1.15 ASTM A656 Hot-Rolled Structural Steel, High-Strength Low-Alloy Plate with Improved Formability.
2.1.16 ASTM A958 Standard Specification for Steel Castings, Carbon, and Alloy, with Tensile Requirements, Chemical Requirements Similar to Wrought Grades.
2.1.17 ASTM A1018 Steel, Sheet and Strip, Heavy Thickness Coils, Hot Rolled, Carbon, Structural, High-Strength Low-Alloy, Columbium or Vanadium, and High-Strength Low-Alloy with Improved Formability.
2.1.18 ASTM D1143 Method of Testing Piles Under Static Axial Compressive Load.
2.1.19 ASTM D3689 Method of Testing Individual Piles Under Static Axial Tensile Load.

2.2 American Welding Society (AWS):

2.2.1 AWS D1.1 Structural Welding Code – Steel.

2.2.2 AWS D1.2 Structural Welding Code – Reinforcing Steel.

2.3 American Society of Civil Engineers (ASCE):

2.3.1 ASCE 20-96 Standard Guidelines for the Design and Installation of Pile Foundations.

2.4 Deep Foundations Institute (DFI):

2.4.1 *Guide to Drafting a Specification for High Capacity Drilled and Grouted Micropiles for Structural Support*, 1st Edition, Copyright 2001 by the Deep Foundation Institute (DFI).

2.5 Post Tensioning Institute (PTI):

2.5.1 *Recommendations for Prestressed Rock and Soil Anchors*, Third Edition, Copyright 1996 By the Post-Tensioning Institute.

2.6 Society of Automotive Engineers (SAE):

2.6.1 SAE J429 Mechanical and Material Requirements for Externally Threaded Fasteners.

3 SUBMITTALS

3.1 Construction Submittals

3.1.1 The Contractor or Engineer shall prepare and submit to the Owner, for review and approval, working drawings and design calculations for the Helical Piles intended for use at least 28 calendar days prior to planned start of construction (but note also Paragraph 3.1.8). All submittals shall be signed and sealed by a Registered Professional Engineer currently licensed in the State/Province of Ohio

3.1.2 The Contractor shall submit a detailed description of the construction procedures proposed for use to the Owner for review. This shall include a list of major equipment to be used.

3.1.3 The Working Drawings shall include the following:

3.1.3.a Helical pile number, location and pattern by assigned identification number if not indicated on plans
3.1.3.b Load required of each helical pile
3.1.3.c Type and size of central steel shaft
3.1.3.d Helix configuration (number and diameter of helix plates proposed)
3.1.3.e Minimum effective installation torque
3.1.3.f Minimum depth
3.1.3.g Helical pile attachment to structure relative to grade beam, column pad, pile cap, etc.

3.1.4 The Contractor shall submit shop drawings for all helical pile components, including corrosion protection and pile top attachment to the Owner for review and approval. This includes helical pile lead and extension section identification (manufacturer's catalog numbers).

3.1.5 If required, the Contractor shall submit certified mill test reports for the central steel shaft, as the material is delivered, to the Owner for record purposes. The ultimate strength, yield strength, % elongation, and chemistry composition shall be provided.

3.1.6 The Contractor shall submit plans for pre-production (optional) and production testing for the Helical Piles to the Owner for review and acceptance prior to beginning load tests. The purpose of the test is to determine the load versus displacement response of the Helical Pile and provide an estimation of ultimate capacity.

3.1.7 The Contractor shall submit to the Owner copies of calibration reports for each torque indicator or torque motor, and all load test equipment to be used on the project. The calibration tests shall have been performed within forty-five (45) working days of the date submitted. Helical Pile installation and testing shall not proceed until the Owner has received the calibration reports. These calibration reports shall include, but are not limited to, the following information:

3.1.7.a Name of project and Contractor
3.1.7.b Name of testing agency
3.1.7.c Identification (serial number) of device calibrated
3.1.7.d Description of calibrated testing equipment
3.1.7.e Date of calibration
3.1.7.f Calibration data

3.1.8 Work shall not begin until all the submittals have been received and approved by the Owner. The Contractor shall allow the Owner a reasonable time to review, comment, and return the submittal package after a complete set has been received. All costs associated with incomplete or unacceptable submittals shall be the responsibility of the Contractor.

3.2 Installation Records

The Contractor shall provide the Owner copies of helical pile installation records within 24 hours after each installation is completed. Formal copies shall be submitted on a weekly basis. These installation records shall include, but are not limited to, the following information.

3.2.1 Name of project and Contractor
3.2.2 Name of Contractor's supervisor during installation
3.2.3 Date and time of installation
3.2.4 Name and model of installation equipment
3.2.5 Type of torque indicator used
3.2.6 Location of helical pile by assigned identification number
3.2.7 Actual central steel shaft type and configuration – including lead section (number and size of helix plates), number and type of extension sections
3.2.8 Helical pile installation duration and observations
3.2.9 Total length of installed helical pile
3.2.10 Cut-off elevation

3.2.11 Inclination of helical pile
3.2.12 Installation torque at one-foot intervals for the entire length
3.2.13 Comments pertaining to interruptions, obstructions, rate of advancement or other relevant information
3.2.14 Rated load capacities

3.3 Test Reports

The Contractor shall provide the Owner copies of field test reports within 24 hours after completion of the load tests. Records shall be prepared in accordance with the specified division of responsibilities as noted in Table-1. Formal copies shall be submitted within a reasonable amount of time following test completion. These test reports shall include, but are not limited to, the following information (note Section 6 – Helical Pile Load Tests).

3.3.1 Name of project and Contractor
3.3.2 Name of Contractor's supervisor during installation
3.3.3 Name of third party test agency, if required
3.3.4 Date, time, and duration of test
3.3.5 Location of Helical Pile by assigned identification number
3.3.6 Type of test (i.e. tension or compression)
3.3.7 Description of calibrated testing equipment and test set-up
3.3.8 Actual Helical Pile type and configuration – including lead section, number and type of extension sections (manufacturer's SKU numbers)
3.3.9 Steps and duration of each load increment
3.3.10 Cumulative pile-head movement at each load step
3.3.11 Comments pertaining to test procedure, equipment adjustments, or other relevant information
3.3.12 Signed by third party test agency rep., registered professional engineer, or as required by local jurisdiction

4 PRODUCTS AND MATERIALS

4.1 Central Steel Shaft:

The central steel shaft, consisting of lead sections, helical extensions, and plain extensions, shall be Solid Square Shaft or Pipe Shaft or a combination of the two Solid Square Shaft to Pipe Shaft Combo Pile) as manufactured by CHANCE Civil Construction, Ram Jack, Maclean-Dixie or approved equal.

4.1.1 *Solid Square Shaft Material (1.5"x1.5")*: Shall be hot rolled Round-Cornered-Square (RCS) solid steel bars meeting dimensional and workmanship requirements of ASTM A29. The bar shall be modified medium carbon steel grade (similar to AISI 1044) with improved strength due to fine grain size.

4.1.1.a Torsional strength rating = 5,500 ft-lb
4.1.1.b Minimum yield strength = 70 ksi

4.1.2 *Solid Square Shaft Material (1.5"x1.5")*: Shall be hot rolled Round-Cornered-Square (RCS) solid steel bars meeting the dimensional and workmanship requirements of ASTM A29. The bar shall be High Strength Low Alloy (HSLA), low to medium carbon steel grade with improved strength due to fine grain size.

4.1.2.a Torsional strength rating = 7,000 ft-lb
4.1.2.b Minimum yield strength = 90 ksi

4.1.3 *Solid Square Shaft Material (1.75"x1.75")*: Shall be hot rolled Round-Cornered-Square (RCS) solid steel bars meeting the dimensional and workmanship requirements of ASTM A29. The bar shall be High Strength Low Alloy (HSLA), low to medium carbon steel grade with improved strength due to fine grain size.

4.1.3.a Torsional strength rating: = 11,000 ft-lb
4.1.3.b Minimum yield strength = 90 ksi

4.1.4 *Solid Square Shaft Material (2.0"x2.0")*: Shall be hot rolled Round-Cornered-Square (RCS) solid steel bars meeting the dimensional and workmanship requirements of ASTM A29. The bar shall be High Strength Low Alloy (HSLA), low to medium carbon steel grade with improved strength due to fine grain size.

4.1.4.a Torsional strength rating: = 16,000 ft-lb
4.1.4.b Minimum yield strength = 90 ksi

4.1.5 *Solid Square Shaft Material (2.25"x2.25")*: Shall be hot rolled Round-Cornered-Square (RCS) solid steel bars meeting the dimensional and workmanship requirements of ASTM A29. The bar shall be High Strength Low Alloy (HSLA), low to medium carbon steel grade with improved strength due to fine grain size.

4.1.5.a Torsional strength rating: = 23,000 ft-lb
4.1.5.b Minimum yield strength = 90 ksi

4.1.6 *Pipe Shaft Material (2.875" O.D.)*: Shall be structural steel tube or pipe, seamless or straight-seam welded, per ASTM A500 Grade B or A513. Wall thickness is 0.203" (schedule 40).

4.1.6.a Torsional strength rating = 5,500 ft-lb
4.1.6.b Minimum yield strength = 50 ksi

4.1.7 *Pipe Shaft Material (2.875" O.D.)*: Shall be structural steel tube or pipe, seamless or straight-seam welded, per ASTM A500 Grade B or A513. Wall thickness is 0.262" (schedule 80).

4.1.7.a Torsional strength rating = 7,500 ft-lb
4.1.7.b Minimum yield strength = 50 ksi

4.1.8 *Pipe Shaft Material (3.5" O.D.)*: Shall be structural steel tube or pipe, seamless or straight-seam welded, ASTM A53, A252, A500, or A618. Wall thickness is 0.300" (schedule 80).

4.1.8.a Torsional strength rating = 13,000 ft-lb
4.1.8.b Minimum yield strength = 50 ksi

4.1.9 *Pipe Shaft Material (4.5" O.D.)*: Shall be structural steel tube or pipe, seamless or straight-seam welded, ASTM A500, or A513. Wall thickness is 0.337" (schedule 80).

4.1.9.a Torsional strength rating = 23,000 ft-lb
4.1.9.b Minimum yield strength = 50 ksi

4.1.10 *Solid Square Shaft to Pipe Shaft Combo Pile Material*: Shall be Solid Square Shaft and Pipe Shaft material as described above with a welded adapter for the transition from SS to RS.

4.2 Helix Bearing Plate:

Helix plates material shall be hot rolled carbon steel sheet, strip, or plate formed on matching metal dies to true helical shape and uniform pitch. Bearing plate material shall conform to the following ASTM specifications.

4.2.1 *Solid Square Shaft Material (Torque ≤ 5,500 ft-lb)*: Per ASTM A572, or A1018, or A656 with minimum yield strength of 50 ksi. Plate thickness is 3/8".
4.2.2 *Solid Square Shaft Material (Torque ≥ 5,500 ft-lb):* Hot rolled steel sheet, strip or plate per ASTM A656 or A936 with minimum yield strength of 80 ksi. Plate thickness is 3/8" or 1/2".
4.2.3 *Pipe Shaft Material (Torque ≤ 5,500 ft-lb.):* Hot Rolled carbon steel, strip, or plate per ASTM A568 with minimum yield strength of 50 ksi. Alternate materials are A-36 or ASTM A572 Grade 50. Plate thickness is 3/8".
4.2.4 *Pipe Shaft Material (Torque ≥ 5,500 ft-lb.):* Per ASTM A36, or A572, or A1018, or A656 depending on helix diameter, with minimum yield strength of 80 ksi. Plate thickness is 3/8" or 1/2".

4.3 Bolts:

The size and type of bolts used to connect the central steel shaft sections together shall conform to the following ASTM specifications.

4.3.1 *Solid Square Shaft Material (Torque ≤ 7,000 ft-lb)*: 3/4" diameter bolt per ASTM A320 Grade L7 or ASTM A325.
4.3.2 *Solid Square Shaft Material (Torque ≥ 7,000 ft-lb)*: 7/8" – 1-1/4" per ASTM A193 Grade B7.
4.3.3 *Pipe Shaft Material (Torque ≤ 13,000 ft-lb):* ¾" diameter bolts (# of bolts per coupling depends on torque) per SAEJ429 Grade 5.
- SAE J429 Grade 5: Sy (min) = 92 ksi, Su (min) = 120 ksi

4.4 Couplings:

Couplings shall be capable of transmitting both the maximum installation torque from the tool string to the helix plates, and the maximum axial load from the top of the pile to the helical bearing plates.

4.5 Plates, Shapes, or Pier Caps:

Depending on the application, the pile cap shall be a welded assembly consisting of structural steel plates and shapes designed to fit the pile and transfer the applied load. Structural steel plates and shapes for helical pile top attachments shall conform to ASTM A36 or ASTM A572 Grade 50.

4.6 Corrosion Protection

4.6.1 Galvanization: All helical pile material that is not encased in concrete shall be hot-dipped galvanized in accordance with ASTM A153 after fabrication.

5 EXECUTION

5.1 Site Conditions

5.1.1 Prior to commencing helical pile installation, the Contractor shall inspect the work of all other trades and verify that all said work is completed to the point where helical pile installation may commence without restriction.

5.1.2 The Contractor shall verify that all helical piles may be installed in accordance with all pertinent codes and regulations regarding such items as underground obstructions, right-of-way limitations, utilities, etc.

5.1.3 In the event of a discrepancy, the Contractor shall notify the Owner. The Contractor shall not proceed with helical pile installation in areas of discrepancies until said discrepancies have been resolved.

5.2 Installation Equipment

5.2.1 Shall be rotary type, hydraulic power-driven torque motor with clockwise and counter-clockwise rotation capabilities. The torque motor shall be capable of continuous adjustment to revolutions per minute (RPM's) during installation. Percussion drilling equipment shall not be permitted. The torque motor shall have torque capacity 15% greater than the torsional strength rating of the central steel shaft to be installed.

5.2.2 Equipment shall be capable of applying adequate down pressure (crowd) and torque simultaneously to suit project soil conditions and load requirements. The equipment shall be capable of continuous position adjustment and swing capacity at maximum installation torque to maintain proper helical

pile alignment during installation. The application of bending stress to the pile during installation will not be permitted.

5.3 Installation Tooling

5.3.1 Shall consist of a Kelly Bar Adapter (KBA) and drive tool as appropriate for the central shaft of the helical pile under maximum installation torque and used in accordance with the manufacturers written installation instructions.

5.3.2 Installation tooling should be maintained in good working order and safe to operate at all times. Flange bolts and nuts should be regularly inspected for proper tightening torque. Bolts, connecting pins, and retainers should be periodically inspected for wear and/or damage and replaced with identical items provided by the manufacturer. Heed all warning labels. Worn or damaged tooling should be replaced.

5.3.3 A torque indicator shall be used during helical pile installation. The torque indicator shall be a device that directly measures torque and that is mounted in-line with the installation tooling. Devices that infer torque from hydraulic pressure will not be permitted.

5.3.3.a Shall be capable of providing continuous measurement of applied torque throughout the installation.

5.3.3.b Shall be capable of torque measurements in increments of 200 ft-lb or less.

5.3.3.c Shall be calibrated prior to pre-production testing or start of work. Torque indicators which are an integral part of the installation equipment, shall be calibrated on-site. Torque indicators which are mounted in-line with the installation tooling, shall be calibrated either on-site or at an appropriately equipped test facility. Indicators that measure torque as a function of hydraulic pressure shall be calibrated at normal operating temperatures.

5.3.3.d Shall be re-calibrated, if in the opinion of the Owner and/or Contractor reasonable doubt exists as to the accuracy of the torque measurements.

5.4 Installation Procedures

5.4.1 The helical pile installation technique shall be such that it is consistent with the geotechnical, logistical, environmental, and load carrying conditions of the project.

5.4.2 The lead section shall be positioned at the location as shown on the working drawings. Battered helical piles can be positioned perpendicular to the ground to assist in initial advancement into the soil before the required batter angle shall be established. The helical pile sections shall be engaged and advanced into the soil in a smooth, continuous manner at a rate of rotation of 5 to 20 RPM's. The extension sections shall be provided to obtain the required minimum overall length and installation torque as shown on the working drawings. Connect sections together using coupling bolt(s) and nut torqued to 40 ft-lb.

5.4.3 Sufficient down pressure shall be applied to uniformly advance the helical pile sections approximately 3 inches per revolution. The rate of rotation and magnitude of down pressure shall be adjusted for different soil conditions and depths.

5.5 Termination Criteria

5.5.1 The torque as measured during the installation shall not exceed the torsional strength rating of the central steel shaft.

5.5.2 The minimum installation torque and minimum overall length criteria as shown on the technical submittal shall be satisfied prior to terminating the helical pile foundation installation.

5.5.3 If the torsional strength rating of the central steel shaft and has been reached prior to achieving the minimum overall length required, the Contractor shall have the following options:

5.5.3.a Terminate the installation at the depth obtained subject to the review and acceptance of the Owner, or:

5.5.3.b Remove the existing helical pile and install a new one with fewer and/or smaller diameter helix plates. The new helix configuration shall be subject to review and acceptance of the Owner.

5.5.4 If the minimum installation torque as shown on the working drawings is not achieved at the minimum overall length, and there is no maximum length constraint, the Contractor shall have the following options:

5.5.4.a Install the helical pile deeper using additional extension sections, or:

5.5.4.b Remove the existing helical pile and install a new one with additional and/or larger diameter helix plates.

5.5.4.c De-rate the load capacity of the helical pile and install additional helical screw foundation(s). The de-rated capacity and additional helical screw foundation location shall be subject to the review and acceptance of the Owner.

5.5.5 If the helical pile is refused or deflected by a subsurface obstruction, the installation shall be terminated and the pile removed. The obstruction shall be removed, if feasible, and the helical pile re-installed. If the obstruction can't be removed, the helical pile shall be installed at an adjacent location, subject to review and acceptance of the Owner.

5.5.6 If the torsional strength rating of the central steel shaft and has been reached prior to proper positioning of the last plain extension section relative to the final elevation, the Contractor may remove the last plain extension and replace it with a shorter length extension. If it is not feasible to remove the last plain extension, the Contractor may cut said extension shaft to the correct elevation. The Contractor shall not reverse (back-out) the helical pile to facilitate extension removal.

5.5.7 The average torque for the last three feet of penetration shall be used as the basis of comparison with the minimum installation torque as shown on the working drawings. The average torque shall be defined as the average of the last three readings recorded at one-foot intervals.

6 HELICAL PILE LOAD TESTS

6.1 Pre-Production Tests

Load tests shall be performed to verify the suitability and capacity of the proposed Helical Pile, and the proposed installation procedures prior to installation of production helical piles. ONE sacrificial test helical piles shall be constructed immediately prior to the start of work on the production piles. The Owner shall determine the number of pre-production tests, their location, acceptable load and movement criteria, and the type(s) of load direction (i.e., tension, compression, or both). Additional purpose of pre-production tests is to empirically verify the ultimate capacity to the average installing torque of the Helical Pile for the project site.

Pre-production Helical Pile installation methods, procedures, equipment, and overall length shall be identical to the production Helical Piles to the extent practical except where approved otherwise by the Owner.

The Contractor shall submit for review and acceptance the proposed Helical Pile load testing procedure. The pre-production test proposal shall be in general conformance with ASTM D1143 and/or D-3689, and shall provide the minimum following information:

- Type and accuracy of load equipment
- Type and accuracy of load measuring equipment
- Type and accuracy of pile-head deflection equipment
- General description of load reaction system, including description of reaction anchors
- Calibration report for complete load equipment, including hydraulic jack, pump, pressure gauge, hoses, and fittings.

If the pre-production test fails to meet the design requirements, the Contractor shall modify the Helical Pile design and/or installation methods and retest the modified anchor, as directed by the Owner.

6.2 Load Test Equipment

6.2.1 The load test equipment shall be capable of increasing or decreasing the applied load incrementally. The incremental control shall allow for small adjustments, which may be necessary to maintain the applied load for a sustained, hold period.

6.2.2 The reaction system shall be designed so as to have sufficient strength and capacity to distribute the test loads to the ground. It should also be designed to minimize its movement under load and to prevent applying an eccentric load to the pile head. Test loads are normally higher than the design loads on the structure. The direction of the applied load shall be collinear with the Helical Pile at all times.

6.2.3 Dial gauge(s) shall be used to measure Helical Pile movement. The dial gauge shall have an accuracy of at least +/-0.001-in. and a minimum travel sufficient to measure all Helical Pile movements without requiring resetting the gauge. The dial gauge shall be positioned so its stem is parallel with the axis of the Helical Pile. The stem may rest on a smooth plate located at the pile head. Said plate shall be positioned perpendicular to the axis of the Helical Pile. The dial gauge shall be supported by a reference apparatus to provide an independent fixed reference point. Said reference apparatus shall be independent of the reaction system and shall not be affected by any movement of the reaction system.

6.2.4 The load test equipment shall be re-calibrated, if in the opinion of the Owner and/or Contractor reasonable doubt exists as to the accuracy of the load or deflection measurements.

6.3 Testing Program

6.3.1 The hydraulic jack shall be positioned at the beginning of the test such that the unloading and repositioning of the jack during the test shall not be required. The jack shall also be positioned co-axial with respect to the pile-head so as to minimize eccentric loading. The hydraulic jack shall be capable of applying a load not less than two times the proposed design load (DL). The pressure gauge shall be graduated in 100 psi increments or less. The stroke of the jack shall not be less than the theoretical elastic shortening of the total Helical Pile length at the maximum test load.

6.3.2 An alignment load (AL) shall be applied to the Helical Pile prior to setting the deflection measuring equipment to zero or a reference position. The AL shall be no more than 10% of the design load (i.e., 0.1 DL). After AL is applied, the test set-up shall be inspected carefully to ensure it is safe to proceed.

6.3.3 Axial compression or tension load tests shall be conducted by loading the Helical Pile in step-wise fashion as shown in Table-3 to the extent practical. Pile-head deflection shall be recorded at the beginning of each step and after the end of the hold time. The beginning of the hold time shall be defined as the moment when the load equipment achieves the required load step.

6.3.4 Test loads shall be applied until continuous jacking is required to maintain the load step or until the test load increment equals 200% of the design load (DL) (i.e., 2.0 DL), whichever occurs first. The observation period for this last load increment shall be 10 minutes. Displacement readings shall be recorded at 1, 2, 3, 4, 5 and 10 minutes (load increment maxima only).

6.3.5 The applied test load shall be removed in four approximately equal decrements per the schedule in Table-3. The hold time for these load decrements shall be 1 minute, except for the last decrement, which shall be held for 5 minutes.

Table-3. Steps for Pre-Production Load Testing

LOAD STEP	HOLD TIME (MINUTES)
AL	1.0 Min.
0.20 DL	2.5 Min.
0.40 DL	2.5 Min.
0.60 DL	2.5 Min.
0.80 DL	2.5 Min.
1.0DL	2.5 Min.
0.75 DL	1.0 Min.
0.50 DL	1.0 Min.
0.25 DL	1.0 Min.
AL	1.0 Min.
0.5 DL	1.0 Min.
1.0 DL	1.0 Min.
1.2 DL	2.5 Min.
1.4 DL	2.5 Min.
1.6 DL	2.5 Min.
1.8 DL	2.5 Min.
2.0 DL	10.0 Min.
1.5 DL	1.0 Min.
1.0 DL	1.0 Min.
0.5 DL	1.0 Min.
AL	5.0 Min.

AL = Alignment Load; DL = Design Load

6.4 Acceptance Criteria for HELICAL PILE Verification Load Tests

Both of the following criteria must be met for approval:

1. The Helical Pile shall sustain the compression and tension design capacities (1.0 DL) with no more than 0.6 in. (mm) total vertical movement of the pile-head as measured relative to the top of the Helical Pile prior to the start of testing.
2. Failure does not occur at the 2.0 DL maximum compression and tension test loads. The failure load shall be defined by one of the following definitions – whichever results in the lesser load:
   - The point at which the movement of the Helical Pile tip exceeds the elastic compression/tension of the pile shaft by 0.08 B, where B is defined as the diameter of the largest helix.
   - The point at which the slope of the load versus deflection (at end of increment) curve exceeds 0.05 inches/kip.

The Contractor shall provide the Owner copies of field test reports confirming Helical Pile configuration and construction details within 24 hours after completion of the load tests. Formal copies shall be submitted as

per Section 3.3. This written documentation will either confirm the load capacity as required on the working drawings or propose changes based upon the results of the pre-production tests.

When a Helical Pile fails to meet the acceptance criteria, modifications shall be made to the design, the construction procedures, or both. These modifications include, but are not limited to, de-rating the Helical Pile load capacity, modifying the installation methods and equipment, increasing the minimum effective installation torque, changing the helix configuration, or changing the Helical Pile material (i.e., central steel shaft). Modifications that require changes to the structure shall have prior review and acceptance of the Owner. The cause for any modifications of design or construction procedures shall be decided in order to determine any additional cost implications.

6.5 Production Helical Pile Testing (This may be the only type of load test conducted, depending on project conditions.)

The Contractor shall perform proof tests on a minimum of 10% of the total production Helical Piles. The Helical Piles to be tested will be selected by the Owner. At the Contractor's suggestion, but with the Owner's permission, tension tests may be performed in lieu of compression tests up to 1.00 DL for Helical Piles with sufficient structural tension capacity. The test sequence shall be as shown in Table-4 to the extent practical.

Table-4. Steps for Production Load Testing

LOAD STEP	HOLD TIME (MINUTES)
AL	0 Min.
0.20 DL	2.5 Min.
0.40 DL	2.5 Min.
0.60 DL	2.5 Min.
0.80 DL	2.5 Min.
1.00 DL	5 Min.
0.60 DL	1 Min.
0.40 DL	1 Min.
0.20 DL	1 Min.
AL	5 Min.

AL = Alignment Load; DL = Design Load

The acceptance criteria for production Helical Piles shall be per Section 6.4 Item 1.

If a production Helical Pile that is tested fails to meet the acceptance criteria, the Contractor shall be directed to proof test another Helical Pile in the vicinity. For failed Helical Piles and further construction of other foundations, the Contractor shall modify the design, the construction procedure, or both. These modifications include, but are not limited to, installing replacement Helical Piles, modifying the installation methods and equipment, increasing the minimum effective installation torque, changing the helix configuration, or changing the Helical Pile material (i.e., central steel shaft). Modifications that require changes to the

structure shall have prior review and acceptance of the Owner. Any modifications of design or construction procedures shall be at the Contractor's expense.

END OF SECTION

APPENDIX A

SITE SOIL BORING INFORMATION

The enclosed information is the geotechnical soils report collected at the locations indicated for the proposed pedestrian bridge. This information is being provided for the Contractor's reference only. The Contractor is responsible for any interpretations or decisions based on the enclosed information. If additional information regarding the subsurface conditions is required, the Contractor/Bidder shall be responsible for such data collection.

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March 21, 2025

Matthew Simpson
Senior Park Planner
Preservation Parks of Delaware County
2656 Hogback Road
Sunbury, Ohio 43074

Email: msimpson@preservationparks.com

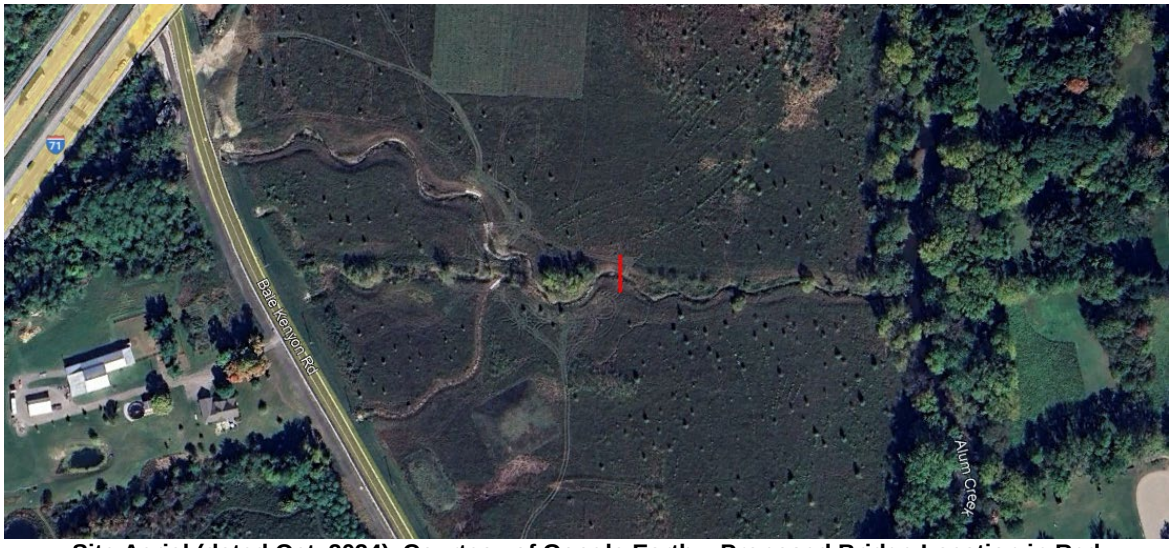
Reference: Subsurface Exploration and Geotechnical Engineering Report
McCammon Creek Park Pedestrian Bridge
Bale Kenyon Road – Lewis Center, Ohio
GCI Project No. 25-G-29919

Dear Mr. Simpson:

As you requested and authorized on behalf of Preservation Parks of Delaware County (Preservation Parks), Geotechnical Consultants, Inc. (GCI) performed a subsurface exploration and prepared this geotechnical engineering report for the referenced project. The purpose of our study was to assess subsurface conditions and provide foundation recommendations for the proposed pedestrian bridge over McCammon Creek. We completed our work in accordance with our proposal dated February 5, 2025. Prior to drilling, GCI was provided with a plan showing the proposed bridge location.

SITE AND PROJECT DESCRIPTION

The project site is within the Alum Creek Area of McCammon Creek Park in Lewis Center, Ohio. This area of the park is flat and covered with high grass and scattered trees. McCammon Creek meanders across this area of the park in a general west to east direction. An aerial photograph of the proposed bridge location is shown below.



Site Aerial (dated Oct. 2024), Courtesy of Google Earth – Proposed Bridge Location in Red

We understand a pedestrian bridge will be built over McCammon Creek. We have not been provided bridge plans. Based on our requested drill locations, we anticipate a bridge length on the order of 75 – 100 feet. Photos from the site near the time of drilling are shown below.

Taken from N Bank, Facing Upstream

Taken from N Bank, Facing Downstream

Taken from N Bank, Facing S Toward B-1

Taken from S Bank, Facing Upstream

SUBSURFACE CONDITIONS

GCI mobilized a track-mounted, rotary drill rig (CME-45B with automatic sampling hammer) to the site on March 5, 2025 and drilled two (2) standard penetration test borings. Boring locations were provided to GCI on a site plan. GCI field-located the borings using hand-held GPS equipment; boring locations shown on the attached plan should be considered approximate. The encountered subsurface conditions are presented below and in the boring logs in the appendix.

B-1 (south bank, EL ± 819'):

- 0' – 0.8': topsoil;
- 0.8' – 6': medium stiff to stiff brown lean clay with sand (CL), very moist;
- 6' – 10': very soft / loose dark gray silt with sand (ML), trace organics, very moist;
- 10' – 12': loose gray silty sand (SM), very moist;
- 12' – 22': loose to medium dense gravel silty, clayey sand with gravel (SC-SM), very moist;
- 22' – 28.5': medium dense gray poorly graded sand with silt and gravel (SP-SM), very moist;

- 28.5’ – 34’: stiff gray sandy lean clay (CL) glacial till, moist;
- 34’ – 38.7’: moderately weathered gray sandstone;
- groundwater seepage encountered at a depth of 10’ while drilling, rising to a 6’ depth upon drilling completion.

B-2 (north bank, EL ± 823’):

- 0’ – 0.5’: topsoil;
- 0.5’ – 8’: soft to medium stiff brown lean clay with sand (CL), moist to very moist;
- 8’ – 13’: soft to medium stiff brown sandy lean clay (CL), very moist to wet;
- 13’ – 15’: medium dense gray silty sand (SM), wet;
- 15’ – 23.5’: medium dense to very dense gray silty, clayey sand with gravel (SC-SM), wet;
- 23.5’ – 32’: hard gray silty clay with sand (CL-ML), damp;
- 32’ – 35’: hard gray sandy lean clay (CL) glacial till, moist;
- 35’ – 40’: very dense gray silty sand (SM), very moist;
- groundwater seepage encountered at a depth of 6’ while drilling, falling to a depth of 7’ upon drilling completion.

GCI noted the split-spoon soil samples obtained during the drilling process were generally very moist above seepage levels. Near seepage and in granular layers we noted the samples as very moist and wet. Deeper cohesive soils were noted as moist and damp. Note that soil moisture conditions and groundwater observations fluctuate due to precipitation events, seasonal climate changes, stabilization time, and other factors that may differ from the time of our measurements.

LABORATORY TESTING

We performed laboratory testing consisting of natural moisture content on each split-spoon soil sample. We also performed Atterberg Limits and sieve and hydrometer analyses on two samples. Our laboratory test results were used to help refine our visual classifications. Test results are displayed below:

Boring	Sample Depth	Moisture Content	Liquid Limit	Plasticity Index	% Fines (< # 200 sieve)	USCS Classification
B-1	14’ – 18’	15.9%	25%	5%	14.3	Silty, Clayey Sand with Gravel (SC-SM)
B-2	8’ – 10’	33.7%	36%	17%	68.6	Sandy Lean Clay (CL)

**Note that we combined our samples from the 14’ – 16’ and 16’ – 18’ depth ranges in boring B-1.*

Boring B-1	
Depth	Moisture Content
0’ – 2’	21.0%
2’ – 4’	21.0%
4’ – 6’	21.2%
6’ – 8’	37.8%
8’ – 10’	27.3%
10’ – 12’	25.9%
12’ – 14’	8.7%
14’ – 16’	8.7%
16’ – 18’	15.9%
18’ – 20’	8.6%
23.5’ – 25’	6.3%
28.5’ – 30’	11.0%
33.5’ – 35’	-
38.5’ – 40’	-

Boring B-2	
Depth	Moisture Content
0’ – 2’	24.6%
2’ – 4’	22.1%
4’ – 6’	26.4%
6’ – 8’	31.6%
8’ – 10’	33.7%
10’ – 12’	30.9%
12’ – 14’	20.2%
14’ – 16’	18.5%
16’ – 18’	15.0%
18’ – 20’	9.7%
23.5’ – 25’	11.4%
28.5’ – 30’	10.0%
33.5’ – 35’	11.4%
38.5’ – 40’	16.5%

GEOTECHNICAL CONCLUSIONS AND RECOMMENDATIONS

In our opinion, the very soft / loose dark gray silt with sand (ML) stratum in boring B-1 (south abutment) presents future settlement risks. (As such, we do not recommend a foundation bearing over this layer. Additionally, it is our opinion the upper level clay layers in boring B-2 (north abutment) present future settlement risks due to soft consistencies and high moisture contents. As such, we recommend the abutments use a deep foundation, such as helical piers. An approach of spread footings bearing over deep granular deposits (resulting in substantial undercuts) is also presented below.

> Note: The ‘WH’ noted on our boring logs means our sampler penetrated the sampling interval with only the weight of the hammer; in other words, no hammer drop was needed. This indicates very soft / loose soils.)

Foundation Approach 1: Helical Piers

This approach would consist of installing helical piers for foundation support. Helical piers will “bypass” the upper level soft / very moist soils and use the underlying soil layers for support. This approach would avoid the substantial excavations necessary for spread footings bearing on the deep granular deposits.

Helical piers are installed by a specialty contractor who would coordinate their pier design with the project structural engineer. The piers typically consist of a ± 3-inch diameter steel shaft that is ‘screwed’ into the ground until the design capacity is achieved. Lead sections consist of a central shaft with a tapered end and one or more helical bearing plates affixed to the shaft. Steel extensions are added as needed. The pile capacity is determined using a torque indicator during installation.

Allowable capacities of 8 to 15 tons should be feasible for piles bearing in the underlying medium dense granular deposits or deeper clay and silt deposits shown in our borings. We recommend the helices of the piers extend at least into the medium dense granular soils noted at a depth of 16 feet in both borings.

We note that installation of piers to bedrock should be avoided. Helical piers can "spin out" upon reaching bedrock. This "spin out" will cause the helices to loosen the soils, resulting in substantially less capacity. The helical pier contractor should be aware of this potential and have contingencies.

Foundation Approach 2: Spread Footings over Granular Soils

South Abutment

Based upon the results of boring B-1, we recommend foundations bear within the loose to medium dense granular deposits shown on our boring log as silty sand (SM) or clayey, silty sand with gravel (SC-SM). In our opinion, suitable material should be encountered near a depth of 11 feet below existing grade. Foundations bearing directly over these materials can be designed for a maximum allowable bearing pressure of 4,000 psf, provided the encountered materials are firm and stable.

North Abutment

Based upon the results of boring B-2, we recommend foundations bear within the medium dense granular deposits shown on our boring log as silty sand (SM) or clayey, silty sand with gravel (SC-SM). In our opinion, suitable material should be encountered near a depth of 13 feet below grade. Foundations bearing directly over these materials can be designed for a maximum allowable bearing pressure of 4,000 psf, provided the encountered materials are firm and stable.

Excavations

In our opinion, excavations for spread footings will be challenging. We anticipate groundwater seepage within both excavations. Seepage would need to be controlled using pumps. Additionally, the excavation walls will be susceptible to collapse. Trench boxes will likely need to be used to avoid making very large excavations.

Additional Comments

After excavation to the recommended bearing materials at both abutments, the excavation can be filled to the bottom of footing level using controlled density fill (such as K-Krete®) or lean concrete. Due to the potential for the granular deposits to loosen after removal of the overburden soils, we recommend compacting the bearing soils with a large excavator bucket. This compaction procedure should be performed just prior to controlled density fill or lean concrete placement and in the absence of ponding water.

Additional Foundation Approaches

In our opinion, additional foundation approaches, such as driven piles or auger cast piles, are feasible from a geotechnical standpoint. However, large mobilization and material costs would likely make these approaches uneconomical. If the project team would like GCI to explore these approaches further, or if other approaches are presented by the project team after review of this report, please let GCI know.

Lateral Earth Pressures

Due to the varying soil layers at the location of future abutments, potential fill placement, and the deciding of a foundation approach, it is not feasible for GCI to present lateral earth pressure parameters at this time. Once the project team has prepared preliminary abutment and grading plans, we can review and issue an addendum with recommended lateral earth pressure parameters.

Scour
Scour should be a consideration for the bridge. A formal scour analysis is not part of our scope of services. As a minimum, we recommend scour protection measures be implemented to minimize the effects of scour during critical flood events. Typically, properly designed rip-rap (Type C placed to an engineered depth) is an effective scour protection measure. However, rip-rap it is not a permanent and absolute countermeasure against scour. A monitoring program should be instituted, including site visits after large precipitation / flood events.

Excavations
The site soils can be excavated with conventional track hoe equipment. Site excavations should comply with current OSHA requirements.

Groundwater Considerations
Groundwater seepage was encountered in boring B-1 at a depth of 10 feet, which rose to a depth of 6 feet upon drilling completion. Seepage was encountered in boring B-2 at a depth of 6 feet, which fell to a depth of 7 feet upon drilling completion. As discussed, we anticipate substantial seepage if spread footings bearing over the natural granular deposits is the chosen approach. While actual flows can be better assessed at the time of construction, the project team should anticipate the need to implement groundwater control measures.

FINAL
We recommend that GCI be given the opportunity to review the proposed design to ensure the recommendations provided in this report have been properly interpreted and implemented. In the event that any changes in the nature of the construction are planned, conclusions and recommendations contained in this letter report shall not be considered valid unless changes are reviewed, and conclusions of this letter are modified or verified in writing. The recommendations contained in this report are the opinion of Geotechnical Consultants, Inc. based on the subsurface conditions found in the borings and available development information.

It should be noted that the nature and extent of variations between borings might not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this letter.

This report has been prepared for the exclusive use of Preservation Parks of Delaware County and their consultants for specific application to the referenced project in Lewis Center, Ohio. This letter report was prepared in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

If you have any questions or need for any additional information, please contact our office. It has been a pleasure to be of service to you on this project, and we hope to continue our services through construction.

Respectfully submitted,
Geotechnical Consultants, Inc.

Jeffrey M. Holko, P.E.
Project Manager

Curtis L. Miller, P.E.
In-House Reviewer

Attachments: General Notes for Soil Sampling and Classifications
General Site Location and Boring Location Plan
Test Boring Logs - B-1 & B-2 (2 sheets)
Soils Laboratory Test Results (3 sheets)

Distribution: Mr. Matthew Simpson @ Preservation Parks - pdf via email
GCI File

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GENERAL NOTES FOR SOIL SAMPLING AND CLASSIFICATIONS

BORINGS, SAMPLING AND GROUNDWATER OBSERVATIONS:

Drilling and sampling were conducted in accordance with procedures generally recognized and accepted as standard methods of exploration of subsurface conditions. The borings were drilled using a truck-mounted drill rig using auger boring methods with standard penetration testing performed in each boring at intervals ranging from 1.5 to 5.0 feet. The stratification lines on the logs represent the approximate boundary between soil types at that specific location and the transition may be gradual.

Water levels were measured at drill locations under conditions stated on the logs. This data has been reviewed and interpretations made in the text of the report. Fluctuations in the level of the groundwater may occur due to other factors than those present at the time the measurements were made.

The Standard Penetration Test (ASTM-D-1586) is performed by driving a 2.0 inch O.D. split barrel sampler a distance of 18 inches utilizing a 140 pound hammer free falling 30 inches. The number of blows required to drive the sampler each 6 inches of penetration are recorded. The summation of the blows required to drive the sampler for the final 12 inches of penetration is termed the Standard Penetration Resistance (N). Soil density/consistency in terms of the N-value is as follows:

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-10	Loose	0-4	Soft
10-30	Medium Dense	4-8	Medium Stiff
30-50	Dense	8-15	Stiff
50 +	Very Dense	15-30	Very Stiff
		30 +	Hard

SOIL MOISTURE TERMS

Soil Samples obtained during the drilling process are visually characterized for moisture content as follows:

MOISTURE CONTENT	DESCRIPTION
Damp	Soil moisture is much drier than the Atterberg plastic limit (where soils are cohesive) and generally more than 3% below Standard Proctor “optimum” moisture conditions. Soils of this moisture generally require added moisture to achieve proper compaction.
Moist	Soil moisture is near the Atterberg plastic limit (cohesive soils) and generally within ±3% of the Standard Proctor “optimum” moisture content. Little to no moisture conditioning is anticipated to be required to achieve proper compaction and stable subgrades.
Very Moist	Soil moisture conditions are above the Atterberg plastic limit (cohesive soils) and generally greater than 3% above Standard Proctor “optimum” moisture conditions. Drying of the soils to near “optimum” conditions is anticipated to achieve proper compaction and stable subgrades.
Wet	Soils are saturated. Significant drying of soils is anticipated to achieve proper compaction and stable subgrades.

SOIL CLASSIFICATION PROCEDURE:

Soil samples obtained during the drilling process are preserved in plastic bags and visually classified in the laboratory. Select soil samples may be subjected to laboratory testing to determine natural moisture content, gradation, Atterberg limits and unit weight. Soil classifications on logs may be adjusted based on results of laboratory testing.

Soils are classified in accordance with the ASTM version of the Unified Soil Classification System. ASTM D-2487 “Classification of Soils for Engineering Purposes (Unified Soil Classification System) describes a system for classifying soils based on laboratory testing. ASTM D-2488 “Description and Identification of Soil (Visual-Manual Procedure) describes a system for classifying soils based on visual examination and manual tests.

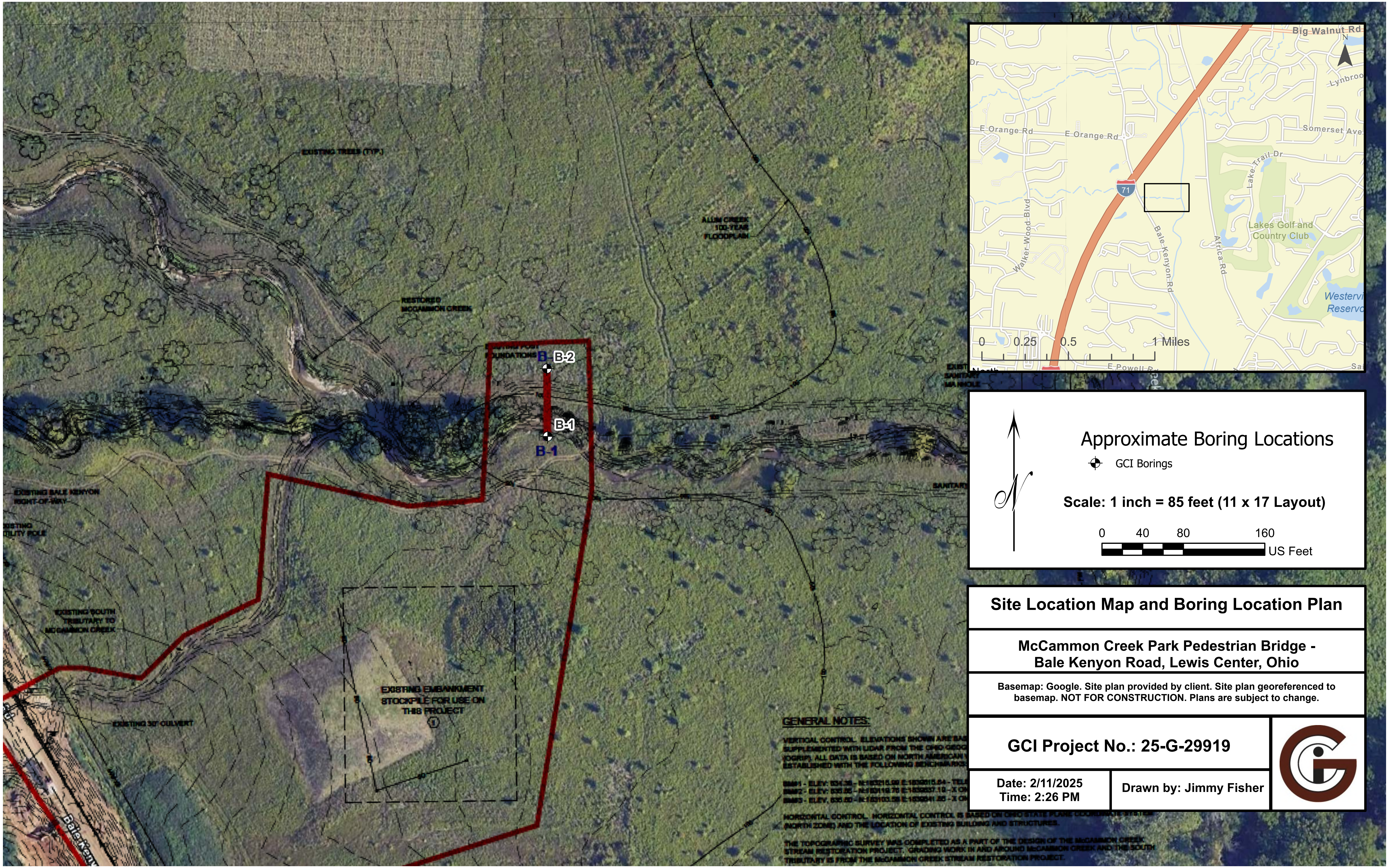
Soil classifications are based on the following tables (see reverse side):

GENERAL NOTES FOR SOIL SAMPLING AND CLASSIFICATIONS

PARTICLE SIZE DEFINITION		
Boulders:		>12"
Cobbles:		3" to 12"
Gravel:	Coarse:	3/4" to 3"
	Fine:	No. 4 (3/16") to 3/4"
Sand:	Coarse	No. 10 (2.0mm) to No. 4 (4.75mm)
	Medium	No. 40 (0.425mm) to No. 10 (2.0mm)
	Fine	No. 200 (0.074mm) to No. 40 (0.425mm)
Silt & Clay		<0.074mm; classification based on overall plasticity; in general clay particles <0.005mm.

CONSTITUENT MODIFIERS	
Trace	Less than 5%
Few	5-10%
Little	15-25%
Some	30-45%
Mostly	50-100%

ASTM/UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART		
COARSE-GRAINED SOILS (more than 50% of materials is larger than No. 200 sieve size)		
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	*Clean Gravel (less than 5% fines)*	
	GW	Well-graded gravel, gravel-sand mixtures, little or no fines
	GP	Poorly-graded gravels, gravel sand mixtures, little or no fines
	Gravels with fines (more than 12% fines)	
	GM	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-clay mixtures
SANDS More than 50% of coarse fraction smaller than No. 4 sieve size	*Clean Sands (Less than 5% fines)*	
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly-graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	
	SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures
Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent ……GW, GP, SW, SP Greater than 12 percent ……GM, GC, SM, SC 5 to 12 percent ……Borderline cases requiring dual symbols: SP-SM, GP-GM, etc.		
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size)		
SILTS AND CLAYS Liquid Limit less than 50%	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
	CL	Inorganic clays or low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	CL-ML	Inorganic silty clay of slight plasticity, P.I. between 4 and 7
	OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid Limit 50% or greater	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays or medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils



B-2
B-1
EXISTING TREES (TYP.)
RESTORED MCCAMMON CREEK
ALUM CREEK 100-YEAR FLOODPLAIN
EXISTING BALE KENYON RIGHT-OF-WAY
EXISTING SOUTH TRIBUTARY TO MCCAMMON CREEK
EXISTING 30" CULVERT
EXISTING EMBANKMENT STOCKPILE FOR USE ON THIS PROJECT
GENERAL NOTES:
Big Walnut Rd
E Orange Rd
E Orange Rd
Somerset Ave
Lake Trail Dr
Walker Wood Blvd
Bale-Kenyon Rd
Africa Rd
Lakes Golf and Country Club
71
0 0.25 0.5 1 Miles

Approximate Boring Locations

GCI Borings

Scale: 1 inch = 85 feet (11 x 17 Layout)

0 40 80 160 US Feet

Site Location Map and Boring Location Plan

McCammon Creek Park Pedestrian Bridge - Bale Kenyon Road, Lewis Center, Ohio

Basemap: Google. Site plan provided by client. Site plan georeferenced to basemap. NOT FOR CONSTRUCTION. Plans are subject to change.

GCI Project No.: 25-G-29919

Date: 2/11/2025
Time: 2:26 PM

Drawn by: Jimmy Fisher

TEST BORING LOG

PROJECT NAME **McCammon Creek Park Pedestrian Bridge - Lewis Center, OH** BORING NO. **B-1**

PROJ. SURF. ELEV. **819** ±

CLIENT **Preservation Parks of Delaware County** NO. **25-G-29919** DATE DRILLED **3/5/2025**

GROUND WATER OBSERVATION

6.0 FEET BELOW SURFACE AT COMPLETION

_____ FEET BELOW SURFACE AT 24 HOURS

_____ FEET BELOW SURFACE AT ____ HOURS

Proportions Used

Trace	Less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

140 lb Wt. x 30" fall on 2" O.D. Sampler

Cohesionless Density

0 - 10	Loose
10 - 30	Medium Dense
30 - 50	Dense
50 +	Very Dense

Cohesive Consistency

0 - 4	Soft
4 - 8	Medium Stiff
8 - 15	Stiff
15 - 30	Very Stiff
30 +	Hard

LOCATION OF BORING **See Boring Location Plan**

DEPTH	Pocket Penetrometer (tsf)	Sample Depths From To	Type of Sample	Blows per 6" on Sampler From To 0-6	6-12	12-18	Moisture Density or Consist.	Strata Change Depth*	SOIL IDENTIFICATION Remarks include color, type of soil, etc. Rock-color, type, condition, hardness
	3.0	0.0-2.0	SS	2	2	3	V Moist	0.8	Topsoil
				2					Brown Stained to Mottled Lean Clay with Sand (CL) - moderate plasticity, little f-c sand
	4.0	2.0-4.0	SS	4	5	4	V Moist		
				6					
5	3.25	4.0-6.0	SS	3	3	4	V Moist		
				5				6.0	
	<0.25	6.0-8.0	SS	WH	WH	2	V Moist		Dark Gray Silt with Sand (ML) - low plasticity to non-plastic, little f sand, trace organics
				WH					
	<0.25	8.0-10.0	SS	WH	WH	WH	V Moist		
				WH				10.0	
10		10.0-12.0	SS	1	1	3	V Moist		Gray Silty Sand (SM) - mostly f-m sand, little silt
				4				12.0	**Water seepage at 10'**
		12.0-14.0	SS	4	3	2	V Moist		Gray Silty, Clayey Sand with Gravel (SC-SM) - mostly f-c sand, some gravel, little silt
				2					
		14.0-16.0	SS	6	5	4	V Moist		
15				5					
		16.0-18.0	SS	7	10	11	V Moist		
				11					
		18.0-20.0	SS	12	12	13	V Moist		
				12					
20									
								22.0	
									Gray Poorly Graded Sand with Silt and Gravel (SP-SM) - mostly f-c sand, some gravel, few silt
		23.5-25.0	SS	11	10	12	Moist		
25									
								28.5	
		28.5-30.0	SS	4	5	6	Moist		Gray Sandy Lean Clay (CL) - glacial till - low plasticity, some f-c sand, few gravel
30									
		33.5-33.8	SS	50/4"			Moist	34.0	
									Gray Sandstone - moderately weathered
35									
		38.5-38.7	SS	50/2"			Moist	38.7	
									BOTTOM OF BORING: 38.7'

*** The stratification lines represent the approximate boundary between soil types and the transition may be gradual.**

720 Green Crest Drive • Westerville, Ohio 43081 • 614-895-1400

TEST BORING LOG

PROJECT NAME **McCammon Creek Park Pedestrian Bridge - Lewis Center, OH** BORING NO. **B-2**

PROJ. SURF. ELEV. **823** ±

CLIENT **Preservation Parks of Delaware County** NO. **25-G-29919** DATE DRILLED **3/5/2025**

GROUND WATER OBSERVATION

7.0 FEET BELOW SURFACE AT COMPLETION

_____ FEET BELOW SURFACE AT 24 HOURS

_____ FEET BELOW SURFACE AT ____ HOURS

Proportions Used

Trace	Less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

140 lb Wt. x 30" fall on 2" O.D. Sampler

Cohesionless Density

0 - 10	Loose
10 - 30	Medium Dense
30 - 50	Dense
50 +	Very Dense

Cohesive Consistency

0 - 4	Soft
4 - 8	Medium Stiff
8 - 15	Stiff
15 - 30	Very Stiff
30 +	Hard

LOCATION OF BORING **See Boring Location Plan**

DEPTH	Pocket Penetrometer (tsf)	Sample Depths From To	Type of Sample	Blows per 6" on Sampler From To 0-6	6-12	12-18	Moisture Density or Consist.	Strata Change Depth*	SOIL IDENTIFICATION Remarks include color, type of soil, etc. Rock-color, type, condition, hardness
	2.5	0.0-2.0	SS	2	2	3	V Moist	0.5	Topsoil
				4					Brown Stained to Mottled Lean Clay with Sand (CL) -
	4.25	2.0-4.0	SS	4	3	4	Moist		moderate plasticity, little f-c sand
				5					
5	1.0	4.0-6.0	SS	5	4	4	V Moist		
				5					
	0.5	6.0-8.0	SS	WH	2	2	V Moist		**Water seepage at 6'**
				2				8.0	sand layers noted from 8'-9'
	0.5	8.0-10.0	SS	2	2	2	V Moist		Brown Sandy Lean Clay (CL) - moderate plasticity, some f-m sand, few gravel
				3					
10	0.25	10.0-12.0	SS	3	3	2	V Moist		
				3					
		12.0-14.0	SS	5	4	4	Wet	13.0	
				6					Gray Silty Sand (SM) - mostly f-m sand, little silt
		14.0-16.0	SS	5	6	5	Wet	15.0	
15				6					Gray Silty, Clayey Sand with Gravel (SC-SM) - mostly f-c
		16.0-18.0	SS	8	8	12	Wet		sand, some gravel, little silt
				14					
		18.0-19.5	SS	8	25	50	Wet		
20									
	4.5	23.5-25.0	SS	15	18	25	Damp	23.5	
									Gray Silty Clay with Sand (CL-ML) - low plasticity, little f-c
25									sand, trace gravel
	4.5	28.5-30.0	SS	18	28	39	Damp		
30									
								32.0	
									Gray Sandy Lean Clay (CL) - glacial till - low plasticity, some
	4.0	33.5-35.0	SS	20	22	27	Moist		f-c sand, few gravel
35								35.0	
									Gray Silty Sand (SM) - mostly f sand, little silt
		38.5-40.0	SS	15	29	35	V Moist		
								40.0	BOTTOM OF BORING: 40'

*** The stratification lines represent the approximate boundary between soil types and the transition may be gradual.**

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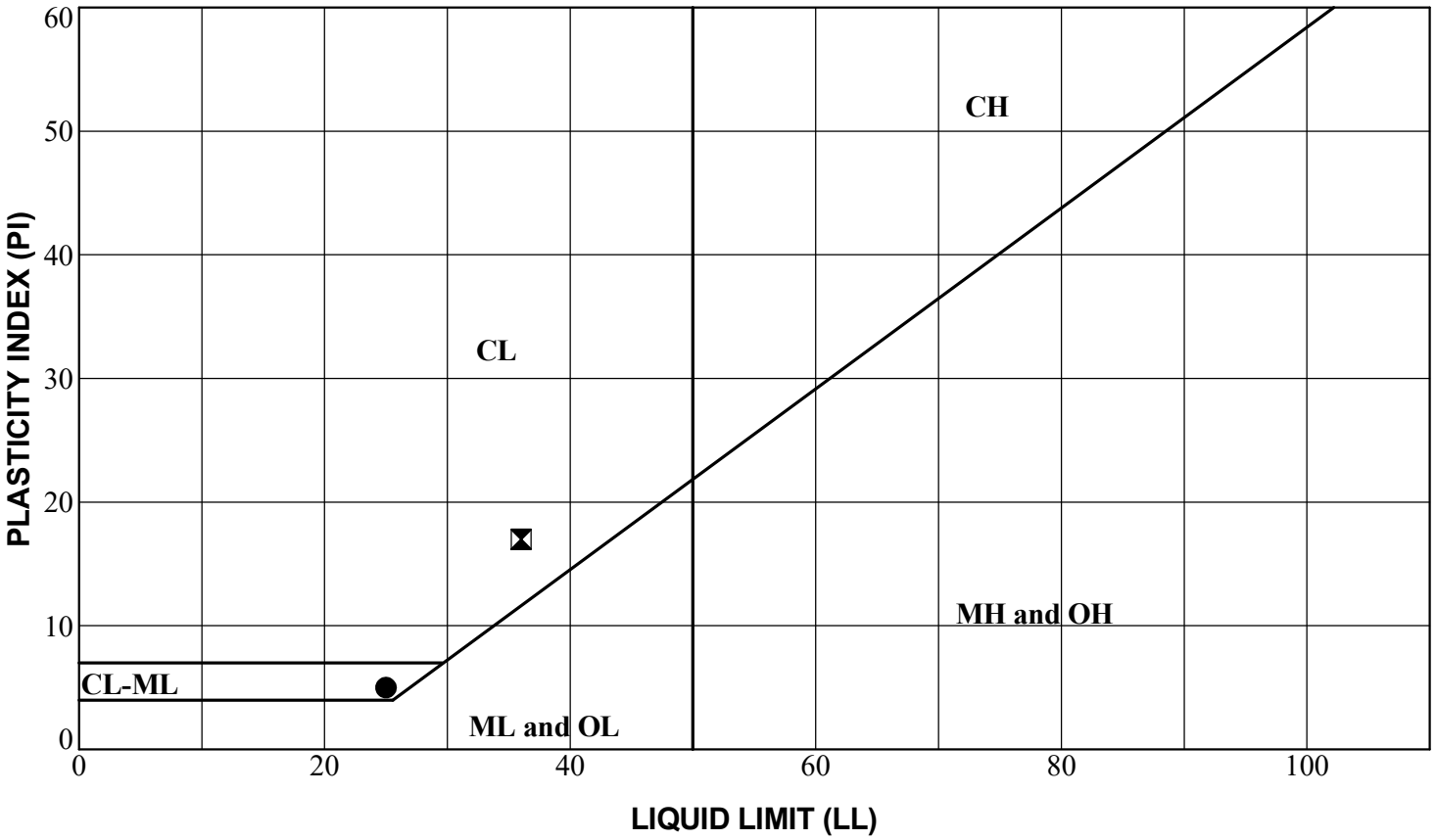
Summary of Laboratory Results

McCammon Creek Park Pedestrian Bridge
Lewis Center, OH
GCI Job Number: 25-G-29919

Test Hole	Depth	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	% Fines (< #200 Sieve)	% Clay (< 0.005 mm)	ASTM Class-ification	ASTM Description
B-1	0.0	21.0							
B-1	2.0	21.0							
B-1	4.0	21.2							
B-1	6.0	37.8							
B-1	8.0	27.3							
B-1	10.0	25.9							
B-1	14.0	8.7							
B-1	16.0	15.9	25	20	5	14.3	1	SC-SM	Silty, Clayey Sand With Gravel
B-1	18.0	8.6							
B-1	23.5	6.3							
B-1	28.5	11.0							
B-2	0.0	24.6							
B-2	2.0	22.1							
B-2	4.0	26.4							
B-2	6.0	31.6							
B-2	8.0	33.7	36	19	17	68.6	18	CL	Sandy Lean Clay
B-2	10.0	30.9							
B-2	12.0	20.2							
B-2	14.0	18.5							
B-2	16.0	15.0							
B-2	18.0	9.7							
B-2	23.5	11.4							
B-2	28.5	10.0							
B-2	33.5	11.4							
B-2	38.5	16.5							

March 2025



LEGEND:

	TEST HOLE	DEPTH	w_n	LL	PL	PI	ASTM CLASSIFICATION
●	B-1	16.0	15.9	25	20	5	SC-SM
⊠	B-2	8.0	33.7	36	19	17	CL

Job No: *25-G-29919*

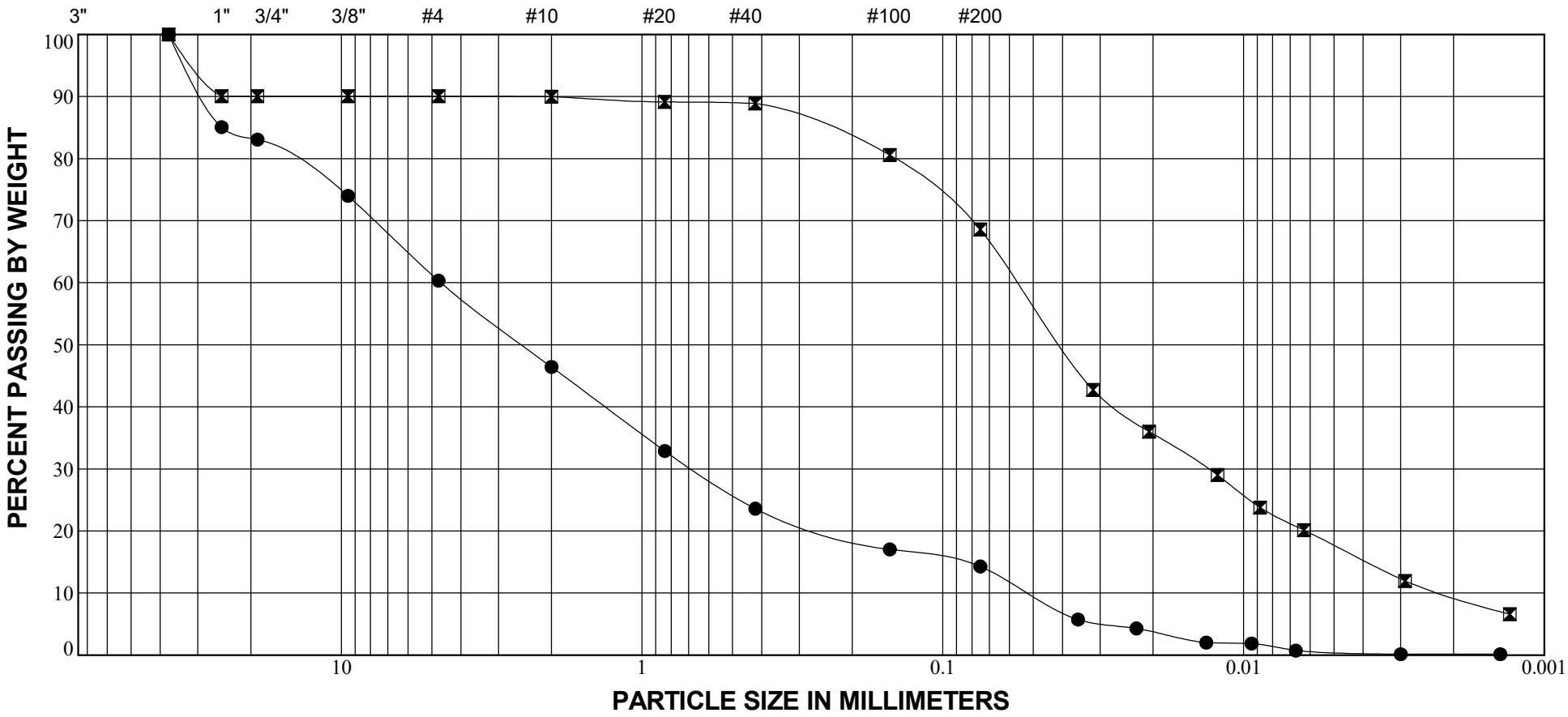
Method: *ASTM D4318*

Date: *March 2025*

ATTERBERG LIMITS TEST RESULTS

McCammon Creek Park Pedestrian Bridge
Lewis Center, OH

Geotechnical Consultants, Inc. - Westerville, Ohio 43081



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

LEGEND:

	TEST HOLE	DEPTH	LL	w_n	PL	ASTM CLASSIFI-CATION	ASTM SOIL DESCRIPTION
●	B-1	16.0	25	15.9	20	SC-SM	Silty, Clayey Sand With Gravel
⊠	B-2	8.0	36	33.7	19	CL	Sandy Lean Clay

Job No.: *25-G-29919*

Method: *ASTM D421 D422*

Date: *March 2025*

COMBINED PARTICLE SIZE DISTRIBUTION

McCammon Creek Park Pedestrian Bridge - Lewis Center, OH

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